Medium and long term perspectives of Inland Waterway Transport in the European Union

Brussels, 11 January 2012

Contents

I. Introduction

Objectives of the study

- investigate and analyse the current situation of the EU inland waterway transport sector in the aftermath of the economic crisis,
- to analyse the strengths and weaknesses of the sector,
- to explore the prospects and potential of inland waterway transport within the European transport system in the medium and long term taking also into account the likely impacts of the economic crisis and the challenges and issues to be tackled in the future,
- give concrete recommendations for policy measures with regard to inland waterway transport at EU level and comply with the priorities set out in the Transport White Paper
- make suggestions for the development of a medium and long term European strategy in support of inland waterway transport.

Structure of study

- WP 1: Setting the scene – description of current situation
- WP 2: Outlook on medium and long term
- WP 3: Specification of targets and indicators
- WP 4: Development and elaboration of IWT policy measures
- WP 5: Project management and meetings

Main activities

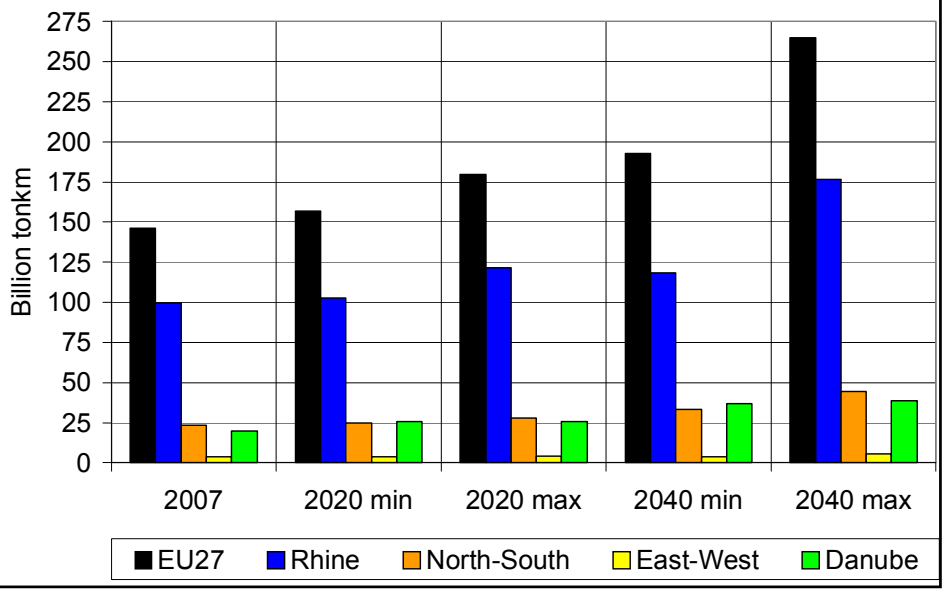
- Stakeholder analyses and development of a list of key indicators
- Desk research on available material
- Many interviews with industry stakeholders and customers of IWT from various supply chains in different countries regarding criteria, gaps, bottlenecks and market outlook for IWT
- Preparation of transport demand outlook for 2020 and 2040
- Development of detailed SWOT overviews
- Stakeholder consultations: July 5th, November 23rd
- Identification and recommendations on policy packages and measures

II. Main developments on medium and long term

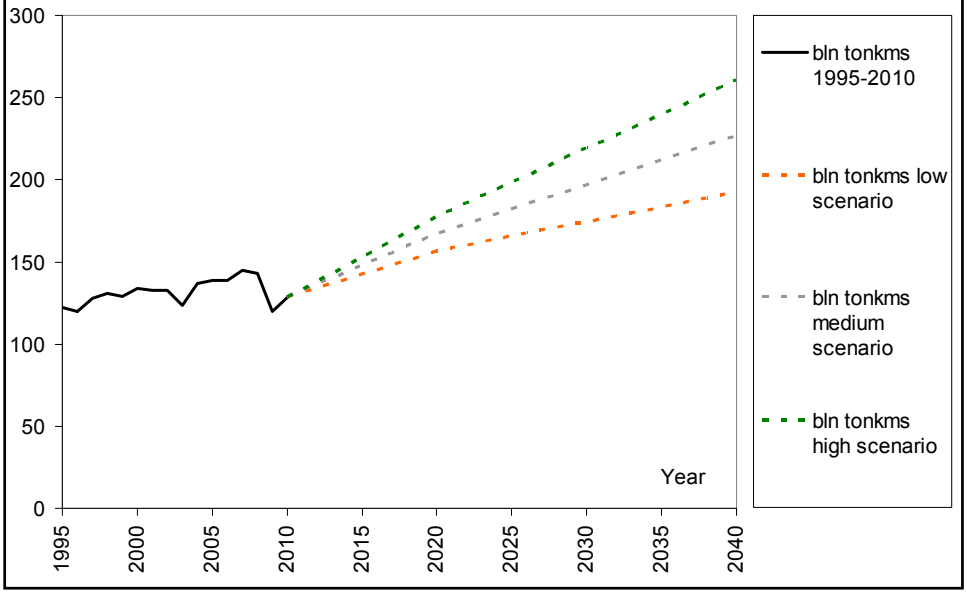
Forecast for key industries
Baseline scenario, EU27, index figures

Key business industry	2007	2020 (min)	2040 (min)	2020 (max)	2040 (max)
Containerised goods	100	142	262	175	442
Coal fired powerplants	100	117	137	138	166
Steel industry	100	99	114	120	156
Petroleum and chemical	100	101	104	115	156
Agribulk	100	104	123	113	146
Construction industry	100	100	109	105	122
TOTAL	*100*	*107*	*132*	*123*	*181*

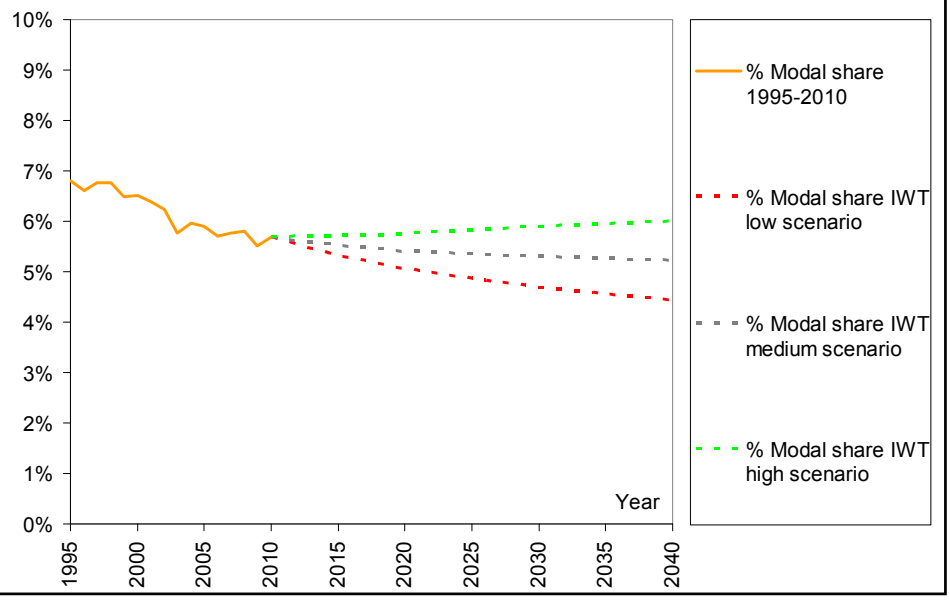
Forecast corridors
baseline scenario, billion tonkilometers by IWT



Forecast for transport performance IWT
Baseline EU27, billion tonkilometres



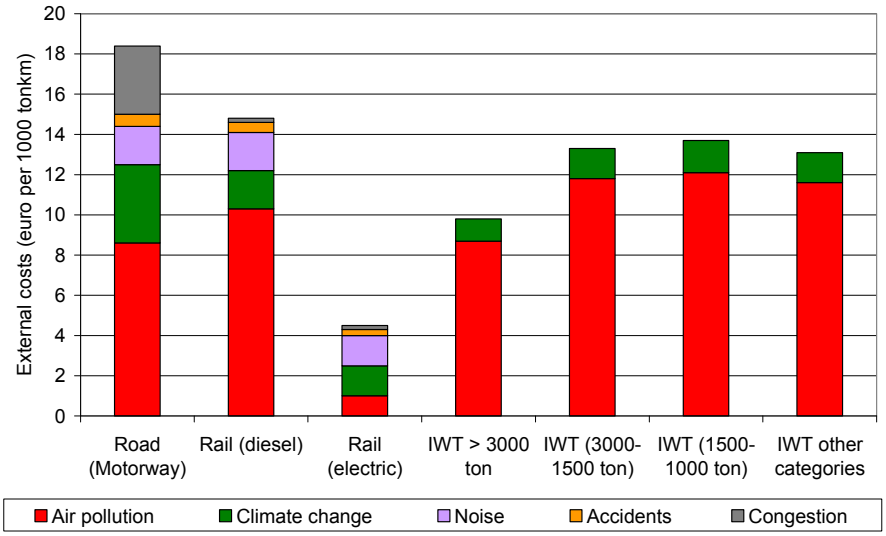
Modal share expectation
Baseline, EU27, compared to road and rail



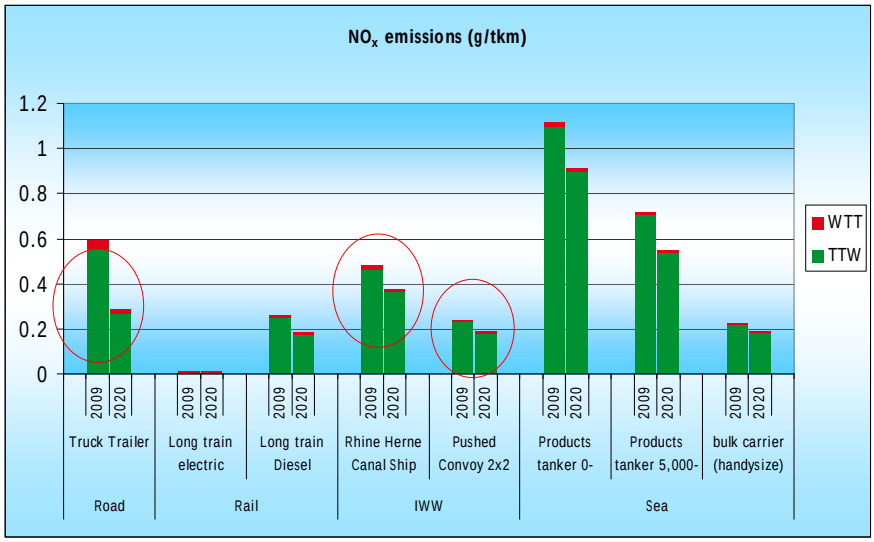
Modal share forecast – baseline scenarios

	Year 2007	Year 2020 (low, high)	Year 2040 (low, high)
Modal share IWT EU27	5.8%	5.1%, 5.7%	4.4%, 6.0%
Modal share IWT Rhine	14.3%	12.8%, 14.8%	14.1%, 16.4%
Modal share IWT North-South	9.7%	8.9%, 9.9%	10.6%, 11.9%
Modal share IWT Danube	7.2%	6.8%	6.0%
Modal share IWT East-West	1.2%	0.9%, 1.1%	0.8%, 0.9%

External costs comparison Road, Rail, IWT
Source: Marco Polo calculator (2011)



NOx emission development in transport per tonkm, 2020 compared to 2009

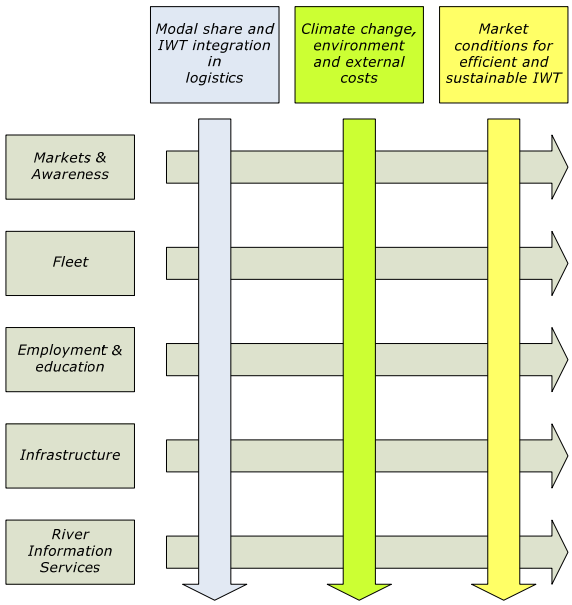


Source: CE Delft 2011

Main deviations from desired developments

- **Despite of a growing transport performance the modal share of IWT is under pressure**
- **IWT is losing the advantage on external costs, in particular to due to a strong reduction of air pollutant emissions in road haulage towards 2020**
- **General conditions should be improved with respect to:**
  - Markets & Awareness
  - Fleet
  - Employment & Education
  - Infrastructure
  - River Information Services

Analysis framework



III. Identified problems for each policy field

Markets & Awareness

A. Lack of visibility, information and knowledge regarding IWT as supply chain partner for potential clients

B. Lack of cooperation among owner-operators and integration with other modes

C. Lack of a general accepted framework for internalisation of external costs and user charges for IWT

D. Lacking market information

E. Difficulties to access capital

Fleet

A. Slow replacement rate of the existing engines

B. Poor focus on decarbonisation of IWT fleet

C. Unambitious engine emission standards for new engines

D. Fragmentation of available sources of information on innovations and lack of coordination and R&D and deployment plans

E. Lack of decision support tools preventing overcapacity in the market

F. Poor shipping waste arrangements to operating areas outside the Rhine

Employment & Education

A. Lack of qualified staff, in particular higher staff such as captains

B. Lack of standards for training, education and certification

C. Weak framework for social security and working conditions

D. Low internal safety, lack of safety culture

E. Lack of logistics know-how among IWT training and lack of attention to IWT in education programmes focusing on logistics

F. Language problems causing lack of efficiencies and safety risks

G. Lack of awareness and information on fuel consumption and carbon footprint

Infrastructure

A. Physical bottlenecks and missing links in the waterway network

B. Lack of maintenance and lack of reliable fairway conditions according to international standards

C. Inland Ports: pressure, poor quality and missing transshipment locations

D. Reduced reliability due to accidents and extreme weather conditions

E. Uncertainty about possible impact of climate change

River Information Services

A. Unfinished technical regulations

B. Unfinished implementation and co-ordination of RIS in Europe

C. Unused potential to use RIS for optimising logistics

IV. Recommended policy packages

Major policy objectives

1. Raise modal share of inland waterway transport, in particular through expanding the intermodal transport segment

2. Reduce accidents, air pollutants and climate change impact of inland waterway operations

and

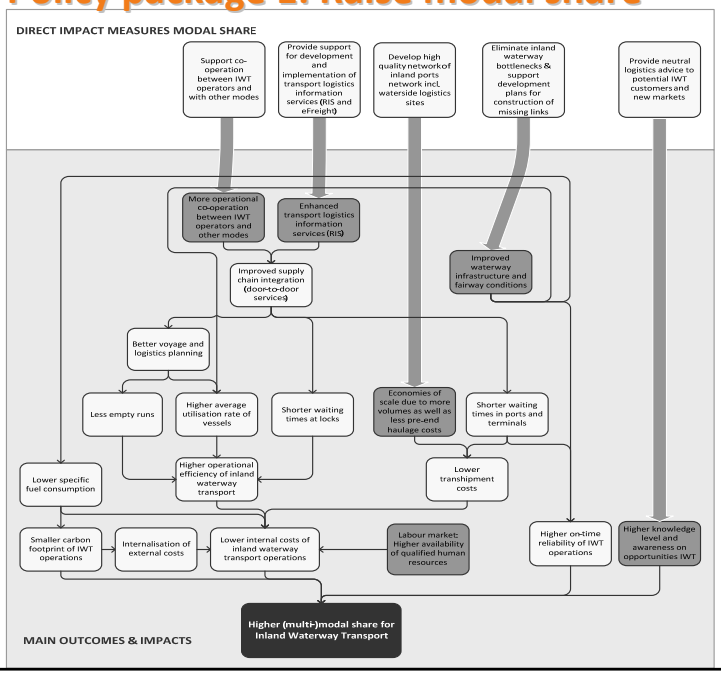
3. Improve market conditions for carriers, operators and users of IWT

Policy package 1: Raise modal share

- **Most effective policy measures to raise (multi-)modal share of IWT**

  - Eliminate inland waterway bottlenecks and support development plans and construction of missing links in European waterway network
  - Develop high quality network of inland ports including waterside logistics sites: funding for ports and transhipment sites
  - Provide support for development and implementation transport logistics information services (RIS and its integration into eFreight; moving towards paperless transport and integration with eMaritime Single Window concept)
  - Provide neutral logistics advice to potential IWT customers to raise knowledge level and awareness on opportunities of IWT Support cooperation between IWT operators and cooperation of IWT operators with operators using other modes

Policy package 1: Raise modal share

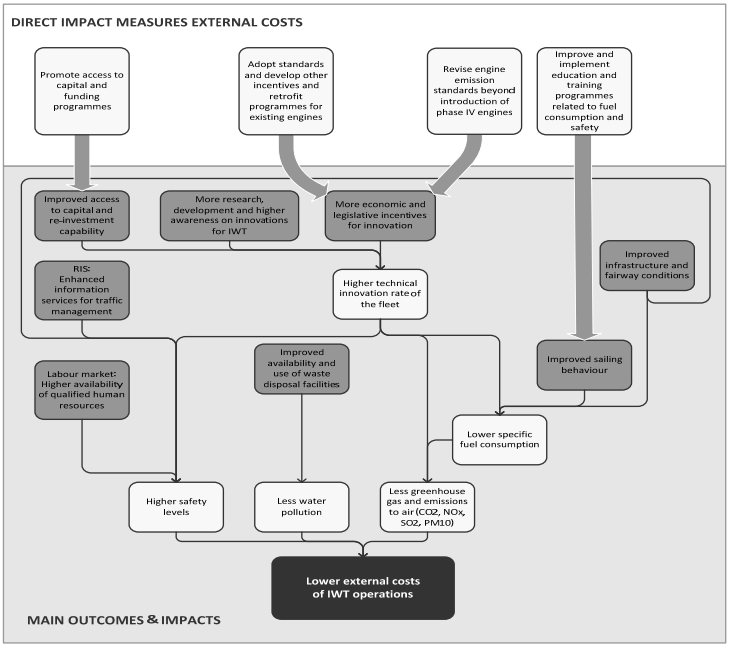


Policy package 2: External cost of IWT

- **Most effective policy measures to reduce external costs**

  - Adopt standards and develop other appropriate incentives and retrofit programmes to reduce pollutant emissions of existing engines
  - Revise engine emission standards beyond introduction of phase IV engines
  - Promote access to capital and funding programmes
  - Improve and implement education and training programmes related to fuel-saving sailing behaviour and safety

Policy package 2: External cost of IWT



Policy package 3: Market conditions

- **Most effective policy measures to improve market conditions for operators and users of IWT (Market, Fleet and Employment and Eduction related)**

MARKET:
a) Improve general knowledge and information on IWT and the opportunities
b) Support financial strength of the sector by preventing disruptions in the market due to overcapacity

FLEET:
a) Support research, innovation & technology transfer as well as roll out planning
b) Support the development and use of waste collection systems

EMPLOYMENT & EDUCATION:
a) Support solutions for lack of qualified staff
b) Improve and implement education and training programmes related to safety and logistics

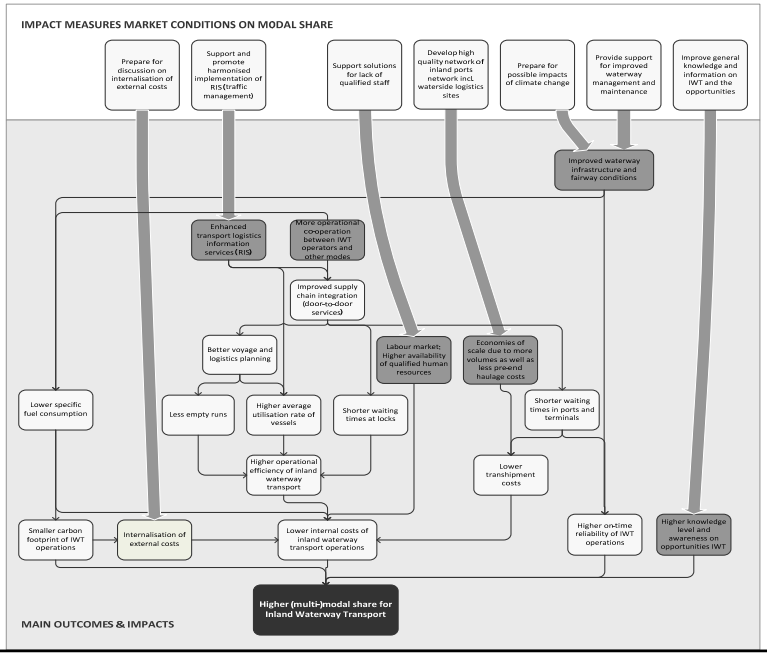
Policy package 3: Market conditions

- **Most effective policy measures to improve market conditions for operators and users of IWT (Employment &Education, Infrastructure, RIS)**

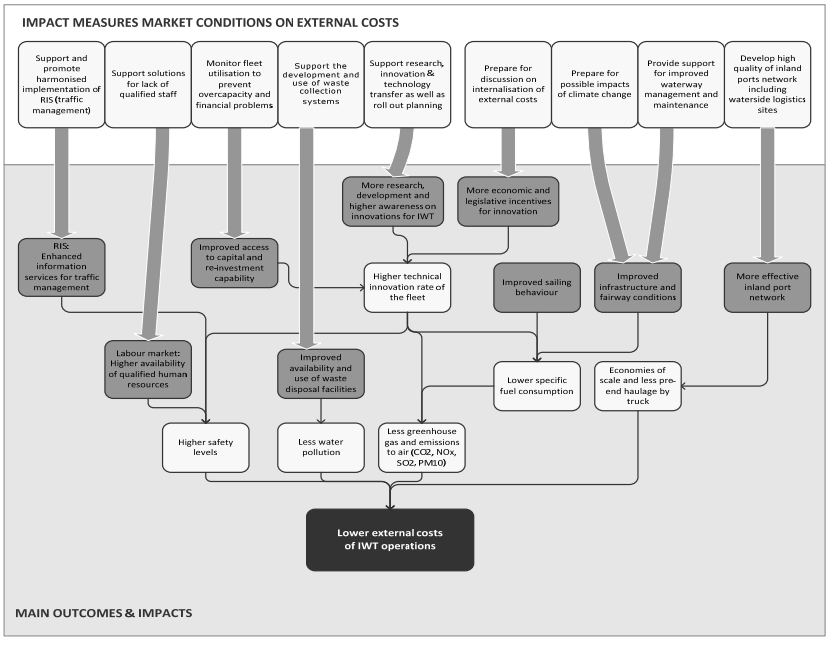
INFRASTRUCTURE:
a) Develop a high quality inland ports network including waterside logistics sites
b) Provide support for improved waterway management and maintenance
c) Prepare for possible impacts of climate change
d) Prepare for discussion on internalisation of external costs

RIS:
Support and promote harmonised implementation of RIS

Policy package 3: Market conditions –> modal share



Policy package 3: Market conditions –> ext. costs



Thank you for your attention

Contact information

Martin Quispel, Hans Visser
NEA
Bredewater 26
P.O. Box 276
NL 2700 AG Zoetermeer

☎ +31 (0)79 322 2356
+31 (0)79 322 2349

mqu@nea.nl
jvi@nea.nl

www.nea.nl