

Measure 36: Eliminating bottlenecks in inland waterway transport

First page:

Policy package:

4B: Sea and inland waterway Investment and technologies

Measure 36:

Improving the situation of inland waterway transport through eliminating bottlenecks, establishing links to rivers and installing transshipment equipment

What is the problem being addressed ?

Europe has over 30000 km of canals and rivers that link together hundreds of key towns and industrial areas. The core network of around 10000 km connects the Netherlands, Belgium, Luxembourg, France, Germany and Austria. Although the backbone of this network is constituted by major rivers such as the Rhine and the Danube, many branches in the forms of tributaries and canals connect a variety of smaller towns and industrial centres. Despite the availability of this network, inland waterways still have a huge capacity that is not fully exploited. The share of IWT in total EU-15 surface transport has declined steadily from 12% in 1970 to 7% in 2000, although its traffic volume has increased in that period of 30 years from 102 bn to 125 bn tonne-kilometres (+ 18%). In the EU accession countries, a total of 8,5 billion tonne-kilometres were transported in 1999, in particular on the Danube. The overall modal share of IWT in the Accession Countries (Danube countries) is similar to the ones in some EU-15 Member States. Whilst in Romania and Slovakia IWT totals 9%, it accounts for 6% in Hungary, 3% in Bulgaria and 2% in the Czech Republic.

In order to realise the great potential of inland navigation as an alternative transport mode for freight transport, some important bottlenecks on the IWT network must be eliminated. These have been identified in particular as TEN priority projects in Decision N° 884/2004 amending Decision N° 1692/96 on Community guidelines for the development of the trans-European transport network. The final outcome of the revised guidelines with respect to inland waterways transport is more ambitious than the initial Commission proposal of 2001:

- European Commission proposal 2001: includes upgrade for Straubing-Vilshofen stretch on the Danube river in Germany as a project of the TEN-T priority list
- European Parliament in 2002 on EC proposal 2001: adds river information services (RIS) as full part of the trans-European network of inland waterways and ports
- Van Miert group in 2003: adds the entire Rhine/Meuse-Main-Danube corridor to the TEN-T priority list in addition of Straubing-Vilshofen
- European Commission revised proposal 2003: adopts the addition of the Van Miert group regarding the Rhine/Meuse-Main-Danube corridor to the TEN-T priority list and concept of Motorways of the Sea
- Council of ministers in 2003: adds the Seine-Scheldt connection to the TEN-T priority list.
- European Parliament in 2004: adds waterways and canals, which link two motorways of the sea to those motorways.

However, there might be also other bottlenecks on important waterways corridors such as the East-West connection between the Rhine basin and the Polish network or the River Elbe from the Czech Republic to Hamburg, etc., which are not included in the above mentioned TEN priority projects.

The White Paper “European Transport Policy for 2010: time to decide” is not only interested in boosting the use of inland waterway transport as an alternative transport mode, but in making it a key mode in the European intermodal transport system. As part of this concept, the Commission proposes to link inland waterways into rail and short sea transport systems, providing an accessible, economical, safe and environmentally friendly alternative to the unsustainable and congested road network. By improving the efficiency of inland waterway transport and reducing time spent idling through the elimination of bottlenecks, the measure answer also to requirements of the 6th Community Environment Action Programme (identifying and undertaking specific actions to promote a switch to more efficient and cleaner

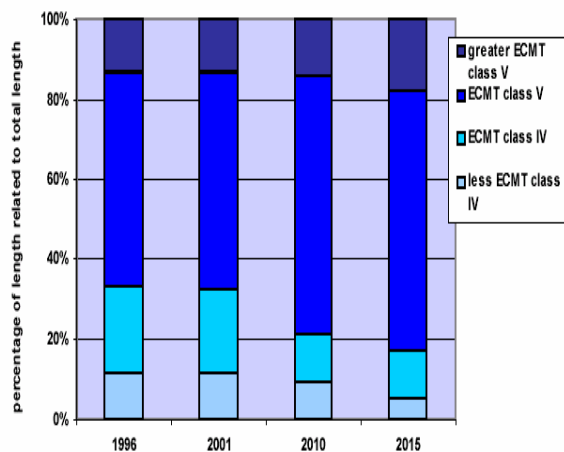
forms of transport including better organisation and logistics).
<p><i>Measure's costs and/or benefits:</i></p> <p>Costs for the projects in TEN with respect to the upgrading of inland waterways sum up to 4,403 MEURO with major expenditures in the years 2013 (426M), 2014 (569M) and 2016 (533M). The Seine-Schelde connection is the biggest project (2,600 MEURO).</p>
<p><i>Legislative implementation at the EU level:</i></p> <p>Adopted at EU-level by DECISION No 884/2004/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 amending Decision No 1692/96/EC on Community guidelines for the development of the trans-European transport network. The defined priority projects due start before 2010 in the TEN regarding inland waterways, specifically are the following:</p> <p>Rhine/Meuse-Main-Danube inland waterway axis</p> <ul style="list-style-type: none"> • Rhine-Meuse (2019) with the lock of Lanaye as cross-border section; • Vilshofen-Straubing (2013); • Wien-Bratislava (2015) cross-border section; • Palkovicovo-Mohács (2014); • Bottlenecks in Romania and Bulgaria (2011). <p>Inland waterway Seine-Scheldt.</p> <ul style="list-style-type: none"> • Navigability improvements Deulemont-Gent (2012-2014-2016); • Compiègne-Cambrai (2012-2014-2016).
<p><i>What are the objectives ?</i></p> <p>The investments in inland waterway infrastructure and transshipment equipment are, presently, planned mainly for the coming years with a big effort to be done for Seine-Schelde connection after 2010. Most of the expected benefits of the investments is an increasing access to the IWT network especially for larger vessels, and improving speed (bringing to cost reductions and service quality improvement in this way). These are fairly “operational” direct benefits, that will be realised as soon as the capacity extensions will be implemented in practice. So these direct benefits can be achieved with a high level of certainty and will in short time materialise, after implementation. Also the indirect benefits (e.g. modal shift because of the directly achieved cost reductions and quality improvements of the service) is likely to occur. In particular IWT has been successful in the Rhine-Scheldt Delta in providing a challenging alternative for intermodal transport.</p>
<p><i>Interactions with other WP measures:</i></p> <p>There are positive interactions with measure Measure 42 (Marco Polo programme), Measure 43 (Intermodal Loading Units), Measure 72 (TEN infrastructure in candidate countries)</p>

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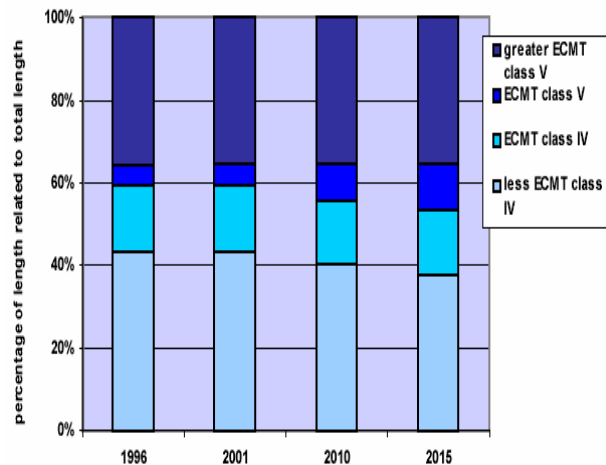
<p><i>Output indicators:</i></p> <p>Presently most projects proposed are still in the planning phase. Member states have to provide most of the funding for the inland waterway projects and have to allocate funds to be able to invest in elimination of bottlenecks and installation of transshipment equipment. Therefore the indicator to be used for ‘de facto implementation’ is:</p> <ul style="list-style-type: none"> • the number of projects and funds actually supported and allocated by Member States • changes in the physical characteristics (like, length, width, draught of network trajectories), and the maximum allowable vessel size (e.g. in tons, TEU) are important direct impact indicators (these are of course well known indicators) that are necessary to determine transport cost impacts and impacts on sailing times. <p>A useful source of data is the database developed under the DGTREN-PLANCO Study on TEN-T infrastructure, which include for each TEN inland waterway link the following information: length, type of</p>

waterway (regulated river, channel, perennial river), the number of single and double locks and the maximum draught, the maximum height for containers. The development of the inland waterway types (ECMT classes) in the TEN-T network is presented in the following figure taken from the mentioned study:

Figure 3-3: Quality development in the TEN-T inland waterway network
Development of TEN-T network in Member States according to ECMT classes for inland waterways



Development of TEN-T network in Candidat Countries according to ECMT classes for inland waterways



Outcome indicators: intermediate impacts on transport markets

Market indicators to be used are:

- the reduction of costs of inland navigation (in Euro per tonne, or TEU)
- changes in sailing times for certain links with current bottlenecks that are to be eliminated or are coping with a lack of transshipment capacity

These indicators are not provided by regular statistical sources, but may be collected from the market.

Outcome indicators: final impacts on transport and non transport users

Indicators for the outcome are the positive environmental and safety consequences of the growth of inland navigation within Europe and volumes transhipped in the inland and sea ports, and the relative reduction of road transport in these corridors (these are indicators that are as such available in national statistics. However availability may not be assured depending on the level of detail: possibly some estimation will be necessary if it is necessary to look at particular waterways). By this way, reduction are expected of:

- Transport emissions
- Noise
- Accidents

With regard to transport emissions, the overall effect of the resulting modal shift and efficiency improvements on air emissions of CO₂, NO₂, and SO₂ shall be assessed.