THE FUTURE OF TRANSPORT – Just add water

Contribution to the white paper

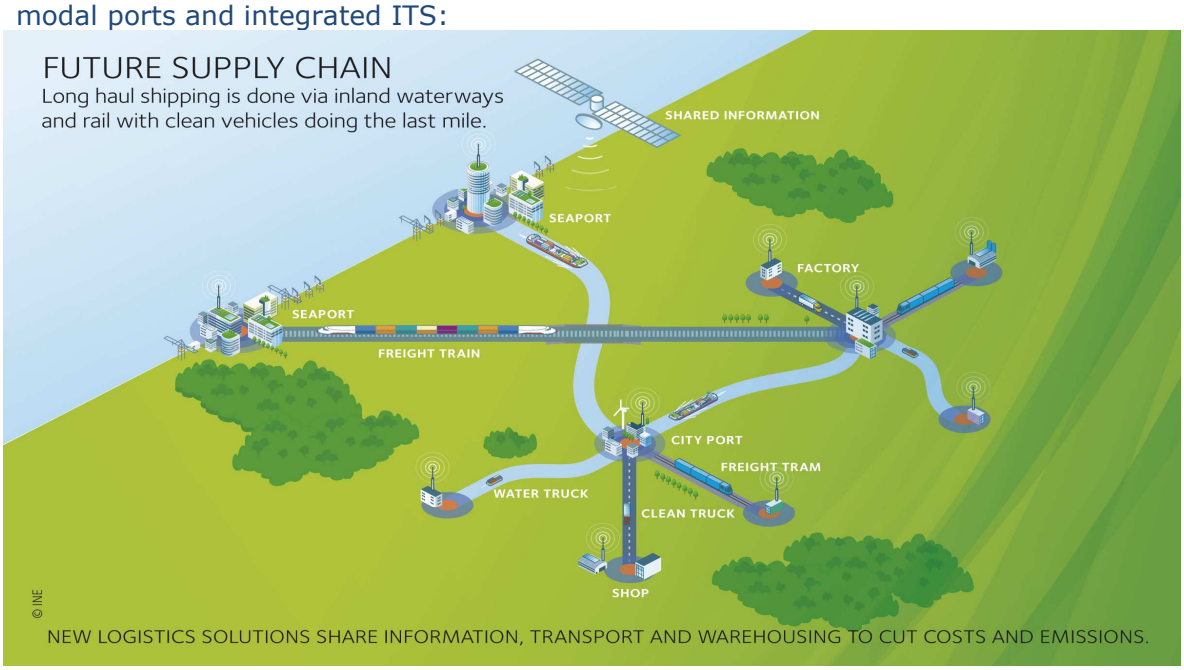
European Barge Union, Inland Navigation Europe and European Skippers' Organisation

Since the last white paper in 2001, the Union has been more active in inland navigation development policy with two priority projects in the trans-European transport network in 2004, the RIS directive in 2005 and the Naiades action plan in 2006. However, comparative to other modes of transport, the political effort has remained limited in relation to the potential inland navigation offers for decarbonising the transport system and reducing other significant negative externalities such as congestion, pollution, accidents, noise and land take. This limited effort is all the more surprising as more and more shippers are becoming interested in new sustainable transport solutions due to their significant cost savings potential.

Some energy and carbon facts

According to a 2007 study by Planco, inland waterway transport is currently the transport mode with the lowest carbon emissions. Between 1990 and today, the sector saved some 15% in fuel consumption. Through efficient energy use, a 30% further reduction can be achieved in the short term by ensuring good waterway maintenance, a better integration into the logistics chain and the full exploitation of the human factor in inland navigation. The first hybrid and non-conventional fuel vessels are entering the market which promise further reductions. The current situation in the Netherlands, where waterway transport holds a modal share of 31% but only represents 5% of the greenhouse gas emissions without any important clean technology improvement, clearly demonstrates that modal shift policy makes sense. And there is plenty of room, inland waterways are the only mode with free capacity and without traffic jams. Services may be slower but are very reliable, a major logistics service quality factor.

The inland navigation sector shares with the Commission **an ambitious vision** of an innovative, smart and sustainable transport system consisting of green corridors, multi-modal ports and integrated ITS:



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The inland navigation sector proposes concrete recommendations to tap the potential of waterway transport and help to realise the common objective in transport **"low cost = low carbon = high competitiveness"**

Measures to encourage shift to inland waterway transport

Infrastructure

To enable users to choose inland waterway transport, quality infrastructure must be guaranteed. Despite some modest catch up in the last year, this is still terribly neglected, and the benefits would be huge. In well-developed waterway regions, modal share is up to 30% and higher. In the ports of Antwerp and Rotterdam, inland waterway transport takes a share respectively of 32% and 57% of the port hinterland movements and still has enormous capacity. This example can be multiplied elsewhere in Europe, without a very high cost and without additional land take, because the base infrastructure already exists. **The main European waterways form an existing natural core network in the trans-European networks linking Europe's mainports to the centres of production and consumption.**

Goal

- Turning all waterways of this natural core network into a bottleneck-free and quality network by 2020
- Quality sea and inland ports effectively connecting the main waterways to other transport modalities by 2020, thus enhancing seamless multi-modal transport

Measures

- At least 20% of the TEN-T budget should be dedicated to waterway transport infrastructure
- Attention for appropriate and timely maintenance of the main waterways of the existing network as this has a positive influence on efficiency, cost-effectiveness and fuel savings
- The energy and carbon footprint should determine TEN-T investment priority for all modes of transport. 20% co-financing for investments which lead to a 20% carbon decrease of transport by 2020 in line with the EU20-20-20 strategy, 30% for investments scoring a 30% decrease or higher
- Such an approach implies multi-modal assessments of TEN-T projects instead of modal ones to avoid the parallel investments of the past

Result

This policy will automatically lead to the creation of green corridors, because public authorities will rethink their investment strategies and companies will change behaviour towards modal integration and bundling of freight flows.

Innovation

Where technological innovation is necessary to improve, we need systems innovation to shift. Inland shipping may be the oldest means of transport but with River Information Services (RIS) it has a very modern traffic information system supporting the safety, sustainability and cost-effectiveness of operations. RIS has the potential to become a multi-modal transport information system, but as long as the many different corporate and modal ITS systems do not talk to each other, modal transport will continue to function in vertical silos. It's time that not only goods but also information goes co-modal to create smart and sustainable supply chains.

Goal
- A neutral cross-modal information platform is fully operational by 2020

Measures
- Legal and implementation framework for eFreight

Result
Intelligent communication across transport modalities will help users and operators to plan better, to bundle flows for which inland shipping is ideal, to optimise load factors, to reduce empty hauls, to share transport and thus encourage co-modality.

Internal market
Inland waterway transport is often overlooked in general policy measures, whether those are infrastructure investments or regulation and stimulation measures. Currently inland navigation operates in a fully liberalised market while some other modes of transport are still supported by market protection mechanisms. Moreover, in a lot of ports where most of the waterway freight flows are generated, inland shipping is even at a disadvantage with higher tariffs and dues than the other land modes. An integrated and multi-modal transport system can only exist when fair competition between modes is guaranteed. With the huge energy, climate and competitiveness challenges ahead, the playing field needs to be levelled to make sure energy and climate targets are reached.

Goal
- By 2020 a level playing field between modes and nodes making the choice for integrated and sustainable multi-modal supply chains attractive
- A lean administrative environment that keeps the operation costs for users and operators low and does not imbalance the level playing field, since cost remains the determining factor in transport choices.

Measures
- Guarantee further market opening and fair competition between modes
- Inland waterway transport is considered in plans for ports policy, urban policy, freight logistics policy and ITS policy
- Subsidies and incentives are prioritised for effective and sustainable solutions which help to reach the energy and carbon targets beyond the 20-20-20 targets. Regulation sets 20-20-20 targets for all transport means by 2020
- The certification and field testing of carbon footprint calculators enables the demand side and public investors to make well-informed choices, which is not possible with the current wild growth of unverified calculators
- Regulation which has an averse effect on sustainable transport solutions is reviewed (e.g. waste transport regulation)

Result
A real level playing field will enhance both systems and technological innovation.

Measures to **improve** inland waterway transport

Innovation
The small character of the majority of inland navigation operators and the high capital costs related to vessels have made it difficult for inland navigation entrepreneurs to take part in the one-size-fits-all programmes of the Union such as the Marco Polo programme, FP7 programmes and others. National programmes and incentives however show that inland navigation entrepreneurs are keen to invest in new and green technology. The first examples of cleaner engines, LNG, diesel-electric and hydrogen ships are entering the market. We want to see special attention to alternative fuels, design and propulsion for shipping in shallow waters in the new technology plan and the funding programmes. The

challenge will be to make cutting edge technologies cost-effective and to multiply innovative technology and logistics across the entire sector.

Goal
- Step-by-step, inland navigation becomes even greener through a generalisation of efficiency gains, alternative fuels and hybrid solutions.
- Logistically, inland navigation becomes even more attractive as operation and transhipment costs are reduced by new and improved technological and logistics concepts

Measures
- The Strategic Research Agenda and the upcoming Transport Technology Plan cover inland navigation and enhance both a cross-modal and an inland waterway specific agenda. Modes can build on each other's findings (e.g. nanotechnology), modes have to integrate better (e.g. cross-modal ITS) but there are specific demands which need a separate approach (e.g. inland navigation is the only mode to operate in shallow water).
- All reviewed and/or new innovation and research programmes are small enterprise friendly.
- All reviewed and/or new innovation and research programmes make sure innovation projects contain at least business plans for implementation and provide room for pre-competitive demonstration projects to ensure effective market transfer.
- A dedicated inland navigation development plan should follow the NAIADES action plan in 2013 containing strategic short term, mid term and long term innovation targets. An appropriate budget for implementation should be earmarked in the next financial perspectives to make sure successful concepts are supported and multiplied across Europe, guaranteeing a permanent inland waterway transport policy

Result

Innovation and improvement in the inland navigation community is bolstered and multiplied across the entire sector.

Internal market and the human factor

Despite the fact that inland shipping mainly operates cross-border, there is still no European internal market for education, training, qualifications, technical rules etc.

Goal
- A truly EU internal market for inland shipping operations

Measures
- Sound and intensified cooperation between the competent inland navigation institutions
- Harmonisation of qualifications, modernisation of education and examinations by means of e.g. simulators, e-Education, etc.

Result

Inland waterway transport becomes more attractive and transparent for users and workers throughout Europe

SUMMARY

The main European waterways form an existing natural core network linking Europe's main ports to the centres of production and consumption. Inland shipping helps to avoid an economic stand-still in densely populated areas, since it is the transport mode with the highest available free capacity. At the same time it is the mode with the lowest accident rates and the lowest share of fossil energy use and carbon.

To enable a better use of this mode, rich in potential for a low carbon, multi-modal and competitive transport system, future transport policy should pay particular attention to removing all waterway bottlenecks and fully integrating the main inland waterways in the trans-European core network via ports and ITS.
It should remove all administrative bottlenecks and support the sector's innovation efforts with a dedicated inland navigation development programme and an appropriate budget. It should create an internal market for inland navigation through an intensified and structured cooperation between the competent institutions.
To establish a level playing field which leads to better multi-modal cooperation and a low carbon transport system, inland shipping should be fully incorporated in EU plans for ports, urban mobility, freight logistics and ITS.
Last but not least, a goal of 20% carbon and energy reduction for all modes of transport should be set by 2020.

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* More information on inland shipping externalities can be found in
- Vlieger I., Cornelis E., Joul H. and Int Panis L. (2004), *Milieuprestaties van de binnenvaart in Vlaanderen*, VITO, Mol, March 2004.
- Planco und Bundesanstalt für Gewässerkunde (2007), *Verkehrswirtschaftlicher und ökologischer Vergleich der Verkehrsträger Straße, Schiene und Wasserstraße*, Magdeburg, November 2007.

European Barge Union (EBU) represents the interests of the commercial vessel companies in Europe.
European Skippers' Organisation (ESO) stands for the interests of the European private inland shipping entrepreneurs
Inland Navigation Europe (INE) is the European platform of national & regional waterway managers and promotion bureaux.