

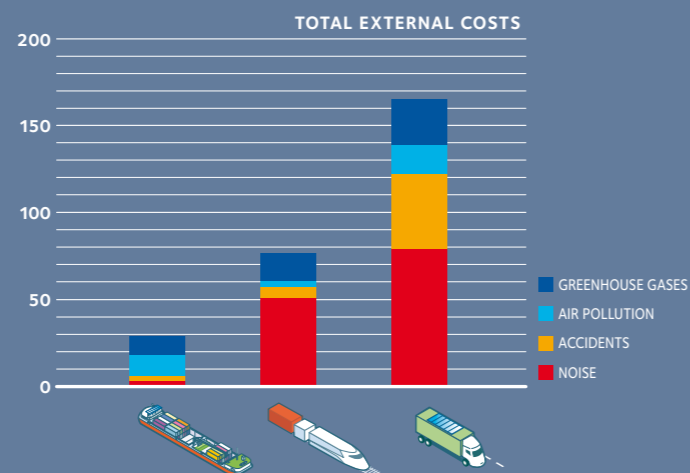
JUST ADD WATER





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Inland Navigation Europe (INE) is the European platform of national & regional waterway managers and promotion bureaux, established in 2000 with the support of the European Commission. INE sees major opportunities to contribute to long-term strategies for sustainable transportation by moving more goods by water in EU regions with accessible and navigable rivers and canals. INE is a neutral platform without commercial interests.



Inland waterway transport is the quietest, safest and least polluting form of transport. Shipping more goods on water will help to reduce greenhouse gases and traffic congestion. SOURCE: PLANCO 2007

CONTENTS

- 3 THE WATER WAY
- 4 QUICK FACTS AND FIGURES
- 6 NEW TRENDS AND DRIVERS IN THE SUPPLY CHAIN
- 8 JUST ADD WATER
- 14 INVESTING IN TRANSPORT BY WATER IS INVESTING IN A SUSTAINABLE FUTURE

THE WATER WAY

This brochure highlights how adding waterways to transport logistics will help to realize Europe's green economy. It provides guidance on how to multiply the first successful best practices over Europe's water regions.

Europe's vision of green transport and logistics servicing a sustainable economy will only materialise tomorrow if we build a solid policy strategy and equip our people with effective implementation tools today. Just adding water means preparing for the future:

- Developing a long-term waterway infrastructure policy that creates reliable planning conditions for all players and slashes the traditional frontiers between transport and other policies to create as many win-win situations as possible
- Designing rules and incentives that encourage innovative waterway green transport products and services matching the green ambitions of Europe
- Fostering green waterway jobs that enhance entrepreneurship, skills and safety

SHIFTING TRANSPORT PATTERNS

A world without transport is a world without trade and thus without goods. The cell phones we use, the bricks and mortar of the houses we live in, the clothes we wear and even the food we eat - these things are all transported to us. And a world without transport and goods is impossible to imagine. But climate change, dwindling natural resources and traffic gridlocks all mean making the choice to use more sustainable transport if we want to maintain our competitiveness and welfare. As goods transportation is unlikely to decrease, how we transport goods must change radically.

GREEN CORRIDORS THROUGH CITIES AND LANDSCAPES

Rivers and canals can play a large role in new sustainable transport patterns, making sure that profitability and sustainability go hand in hand.

- Knowing we can move 50 truckloads on one single vessel, thereby avoiding congestion and saving fuel, we have to consider the practicalities of adding water transport as a reliable alternative to supply chains.
- This is made even more viable when we realise that 50% of Europeans live close to the coast and in the river valleys of the 15 largest rivers. That is no surprise as rivers have been arteries for development for thousands of years, and human activities are unthinkable without water. And transport, too, should be unthinkable without water.

Low in carbon usage and running through the heart of European cities, waterways are underutilized and underappreciated assets for sustainable distribution, regional development and living landscapes.



QUICK FACTS AND FIGURES

NO FORM OF TRANSPORT IS SAFER THAN INLAND SHIPPING. BARGES LEAD THE WAY IN SAFE TRANSPORT, ESPECIALLY FOR DANGEROUS CARGOES, WITH EXTREMELY HIGH STANDARDS OF INSPECTION, TRAINING AND LICENSING.

KEY TO THE MAP

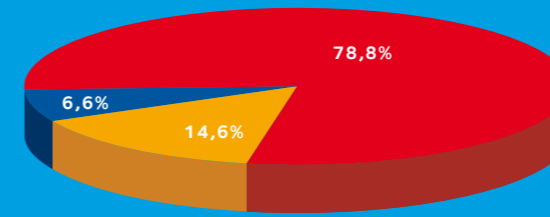
- WATERWAYS
- MISSING LINKS
- PRIORITY PROJECT 18
- PRIORITY PROJECT 30
- CAPITALS
- ECONOMIC AREAS



KEY TO GRAPHS

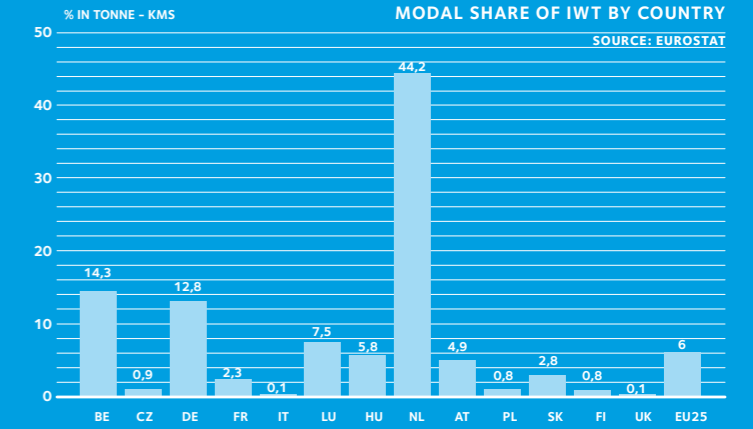


MARKET SHARE OF TRANSPORT MODES IN EU
SOURCE: EUROSTAT

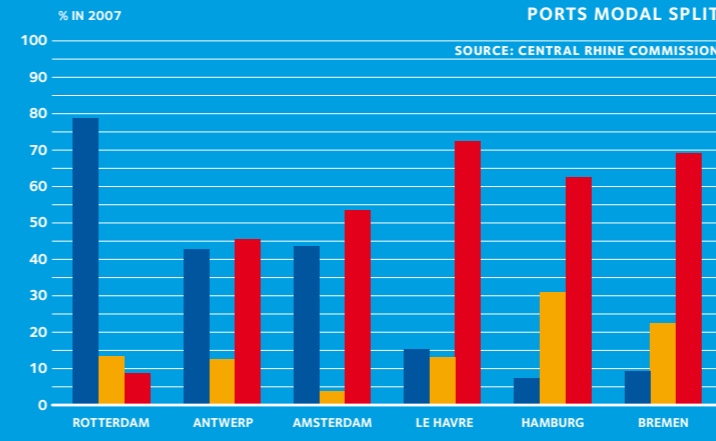


Inland waterway transport has a 6.6% share of freight volumes over the EU27, but this is considerably increased in countries with good waterway infrastructure such as the Netherlands, Belgium and Germany. The Union has some 38,000 km of navigable waterways with half of the network accessible to ships over 1,000 tonnes. The EU railway network is over 210,000 km and the road network covers some 4,800,000 km.

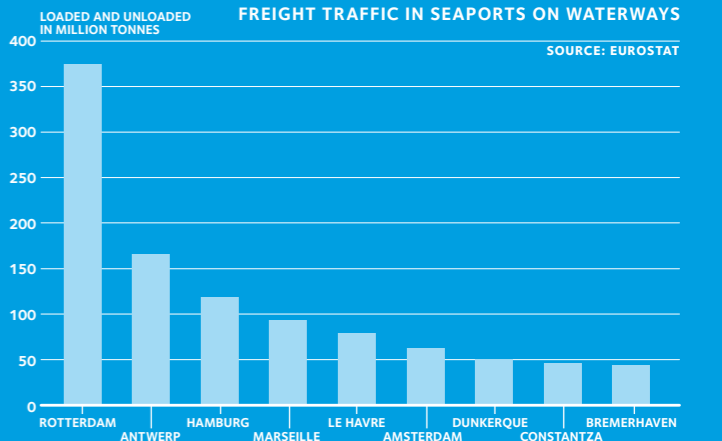
MODAL SHARE OF IWT BY COUNTRY
SOURCE: EUROSTAT



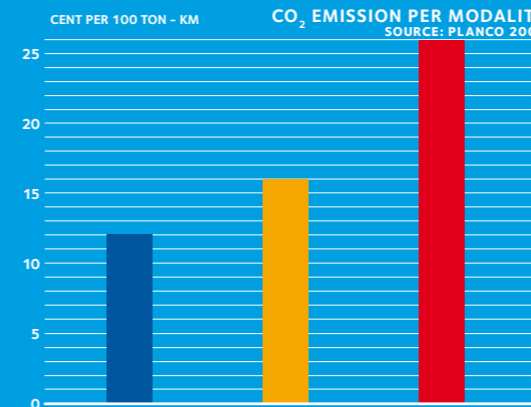
PORTS MODAL SPLIT
SOURCE: CENTRAL RHINE COMMISSION



FREIGHT TRAFFIC IN SEAPORTS ON WATERWAYS
SOURCE: EUROSTAT



CO₂ EMISSION PER MODALITY
SOURCE: PLANCO 2007



Air pollution from inland water transport will fall by 85% as clean fuel becomes more widely used. According to the European Commission, bottlenecks on Europe's roads lead to annual costs of EUR 120 billion. This equals one per cent of the EU's GDP.

The EU NAIADES action programme:

In January 2006, the European Commission issued the first comprehensive development programme for inland waterway transport designed to promote better use of rivers and canals for freight transport across Europe. It focuses on five strategic areas to make inland navigation more attractive:

- [1] Creating a sound business climate and attracting new markets
- [2] Stimulating fleet modernisation and innovation
- [3] Attracting new workforce and increasing investment in human capital
- [4] Promoting inland waterway transport
- [5] Providing an adequate inland waterway infrastructure

The programme consists of support, policy and legislative measures. The time frame is the period 2006 – 2013. INE calls upon all policy makers to ensure the full implementation of the EU NAIADES action programme.

NEW TRENDS AND DRIVERS IN THE SUPPLY CHAIN

Demand signals and regulations shape the supply chain. And fortunately for green ambition, sustainability aspects are becoming increasingly important. According to the Global Commerce Initiative, the key to a more sustainable supply chain is sharing. Companies looking for opportunities to cut costs need to share warehouses, transportation, and, most importantly, information. This co-operation will increase transport efficiency and help to reduce carbon footprints and increase air quality.

In B2B (business-to-business) relations, there is a trends switch going on from a multiplication of small truck trips to a better consolidation of freight flows between plants in order to enable businesses to avoid traffic jams, to cut costs and greenhouse gas emissions.

In B2C (business-to-customer), there is a clear sustainability argument for home delivery. Currently, the majority of shoppers take their (nearly empty) cars to go shopping. Efficient mechanisms for neighbourhood delivery via pick-up points or at home will result in much lower carbon emissions as well as enable collaborative transport and warehousing.

ADDING WATER

Inland waterway transport almost always works in combination with other means of transport. When choosing the most efficient freight solution, the location of the transport operator and the user plays a major role, since having a good location has a decisive influence on transport costs. The availability of locations for industries and transshipment centres directly located on rivers and canals is vital for viable waterway transport. Such favourable transport relations reduce expensive transshipments and pre and post haulage and make it possible to ship any goods you can imagine.

HOW TO PLAN SUSTAINABLE TRANSPORT

The importance of business locations is a signal to policy makers that rather than giving up waterside transshipment space to residential property development, a shared use of the in-demand waterfront makes more sense. This can be achieved, thanks to innovative and cross-disciplinary architecture. Inland ports can be catalysts for job creation and sustainable distribution by taking trucks off the road and developing industrial activities.

FUTURE SUPPLY CHAIN

Long haul shipping is done via inland waterways and rail with clean vehicles doing the last mile.
New logistics solutions share information, transport and warehousing to cut costs and emissions.



DEFINITIONS

Multi-modal transport

Use of more than one mode of transport in a supply chain

Intermodal transport

Use of more than one mode of transport to ship one loading unit without third party loading or unloading in a supply chain

Co-modal transport

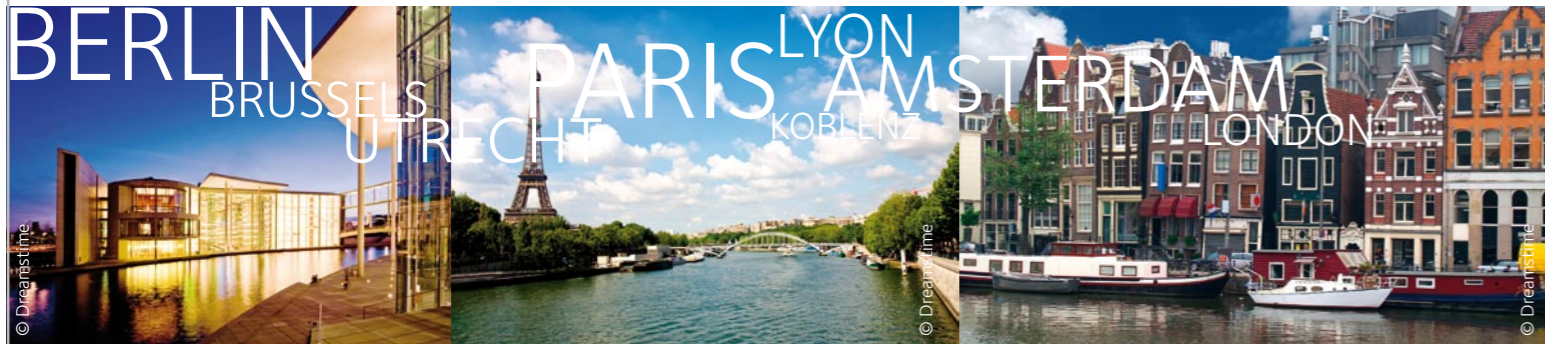
Most efficient use of each mode of transport in a multi-modal supply chain using the most optimal and sustainable combination



JUST ADD WATER

We all share a desire to create efficient and sustainable logistics chains, ensuring that the end user and consumers are satisfied. Inland navigation creates win-win solutions for logistics. Incorporating inland navigation more fully into the logistics supply chain will help to make Europe more competitive both environmentally and economically, as inland navigation is a safe, affordable, efficient and sustainable transportation method. It goes further than transport - rivers are the life arteries for countries and regions. Investing in rivers and canals provides opportunities to improve quality of life and to create a more pleasing environment. In this brochure we outline some of the policies that can assist in attaining these European Union goals.

Waterway transport investment is investment in integrated development projects that provide good value for money for entire communities.



BEER BY BARGE

Sustainable transport is of course more than saving energy and reducing emissions. Waterway transport management takes an integrated approach. This includes increasing traffic safety, reducing noise, relieving congestion, smart land use and halting habitat fragmentation. The final aim is to cut all harmful effects for environment and society by achieving a positive overall impact on water and air quality, on energy and land use. And this is what has motivated Heineken beer to announce that it will transport all of its beer via inland waterways from the end of 2009. This will reduce the number of trucks Heineken puts on the road by around 100,000 per year. Roads being more and more congested around Dutch and Belgium ports, Heineken needed to find a new solution in order to reduce its reliance on road transport. It will then ship around 50,000 40-foot containers annually from the new inland port of Alphen aan den Rijn.

"Traffic jams were hindering our logistics process and making it difficult to plan. Using inland waterways offers more certainty and security. On the longer term we're confident that it will be more cost efficient."

HARRY WERKMAN, LOGISTICS MANAGER HEINEKEN



[1] HOW TO PLAN SMART INFRASTRUCTURE

The EU plans to overhaul its transport infrastructure plans. The key questions are:

- **PRIORITY PROJECTS OR GREEN CORRIDORS?**
- **MORE FUNDING OR FEWER PROJECTS?**

Adding water to the plans will help to realize competitive and sustainable supply chains if transportation links and interfaces are effectively connected and developed. True, waterways are not everywhere, but they do link most of the cities where Europe's businesses and consumers are concentrated.

Update existing infrastructure: In the past, there has been significant underinvestment in rivers, canals, locks, and bridges. Between 1995 and 2005, the EU invested some EUR 800 billion in transport infrastructure but only 1% of this was invested in waterways. Despite this low amount, inland shipping has managed to grow by 14.5%, more than any other transport modality. This growth cannot continue, as a connection is only as strong as its bottlenecks. Investment in waterway infrastructure is proven to provide significant return on investment, so it's time to catch up.

Connect businesses: Green corridors should take consolidated freight flows to well-run port hubs before last-mile deliveries by clean trucks. Waterways are particularly suited to this methodology as they have plenty of free capacity, are congestion-free and safe. But they need well-functioning sea and inland ports as an essential link to take trucks off the road, reduce tonnes of CO₂, optimise logistics costs and create jobs.

Connect information systems: There are many intelligent transport systems around, but currently they do not talk to each other, which means that there is no intelligent communication across the transport modalities. Inland waterway transport has River Information Services (RIS), recognised as state-of-the-art technology. It is time that not only goods but also information go co-modal in order to create a competitive and sustainable supply chain.

Connect communities: Rivers and canals do much more than transport goods and people:

- They are catalysts for regional and nature development
- They are actors in water supply and flood defence
- They foster leisure and tourism

"We have to find integrated solutions based on mutual trust and built on consensus for the global development of regions and of the intermodal transport opportunities funded on environmentally sound measures."



KARLA PEIJS, EUROPEAN INLAND WATERWAY COORDINATOR

[2] TOOLS TO MATCH INNOVATION & GROWTH

The EU has staked very high ambitions on transforming its economy into a green one, and rightly so because our competitiveness and welfare depend on it. But a vision can only be realised when you add the right tools. 80% of all EU inland-shipping companies are micro size or small businesses, which requires a tailor-made approach:

No red tape: Without lowering protection and safety levels, legislation and regulation should be kept flexible enough at all administrative levels to provide opportunities for business innovation. Administrative hurdles are avoidable, and reducing them will reduce costs for both transportation users and operators. The EU and Member States must make a strong commitment to the principle that red tape screening leads to better lawmaking and that one-stop-shops become the norm.

Innovation stimuli: Regulation can speed up sustainable innovation. A good mix of high standards and sustainability-based innovation incentives encourage companies to “go green” and allow smart energy vehicles to boom, achieving a “negative carbon footprint” in the long term. Clean propulsion is an important area. As waterway operators often get drowned in big community funds, ensuring that the needs of inland shipping research and innovation are taken into account, as mentioned in the Naiades action plan, would be excellent measures.

Remove all distortions: State aid and EU incentives play an important role, even more so in times of economic difficulties, but they should in no way discriminate against competitors, certainly not small players who have more difficulty in mobilising capital. The ever-postponed publication of EU state aid guidelines would provide authorities and operators with a clear and predictable framework for financial starters’ and innovation incentives.



FLOWING WINE

Retail Giant Tesco has become the first retailer to transport wine by canal in the UK, in a bid to reduce carbon emissions. Using Britain’s Manchester Ship Canal, opened in 1894, the supermarket has started shipping New World wine deliveries by barge from Liverpool to Manchester. Tesco has calculated that this will eliminate the need for 50 lorries per week - which travel 1.1m kilometres per year - cutting the associated carbon emissions by up to 80%. Waterways are the only transport channels that are multi-purpose, ensuring that investment in waterways benefit nature, recreation, water supply and regional development. This goes hand in hand with the creation of logistics platforms and effective connections that will integrate safe and congestion-free navigation with other modes of transport.



“Other businesses have merely discussed switching over to transporting their cargo by waterway one day but we’re actually doing it.”

**LAURIE MCILWEE,
TESCO DISTRIBUTION DIRECTOR**

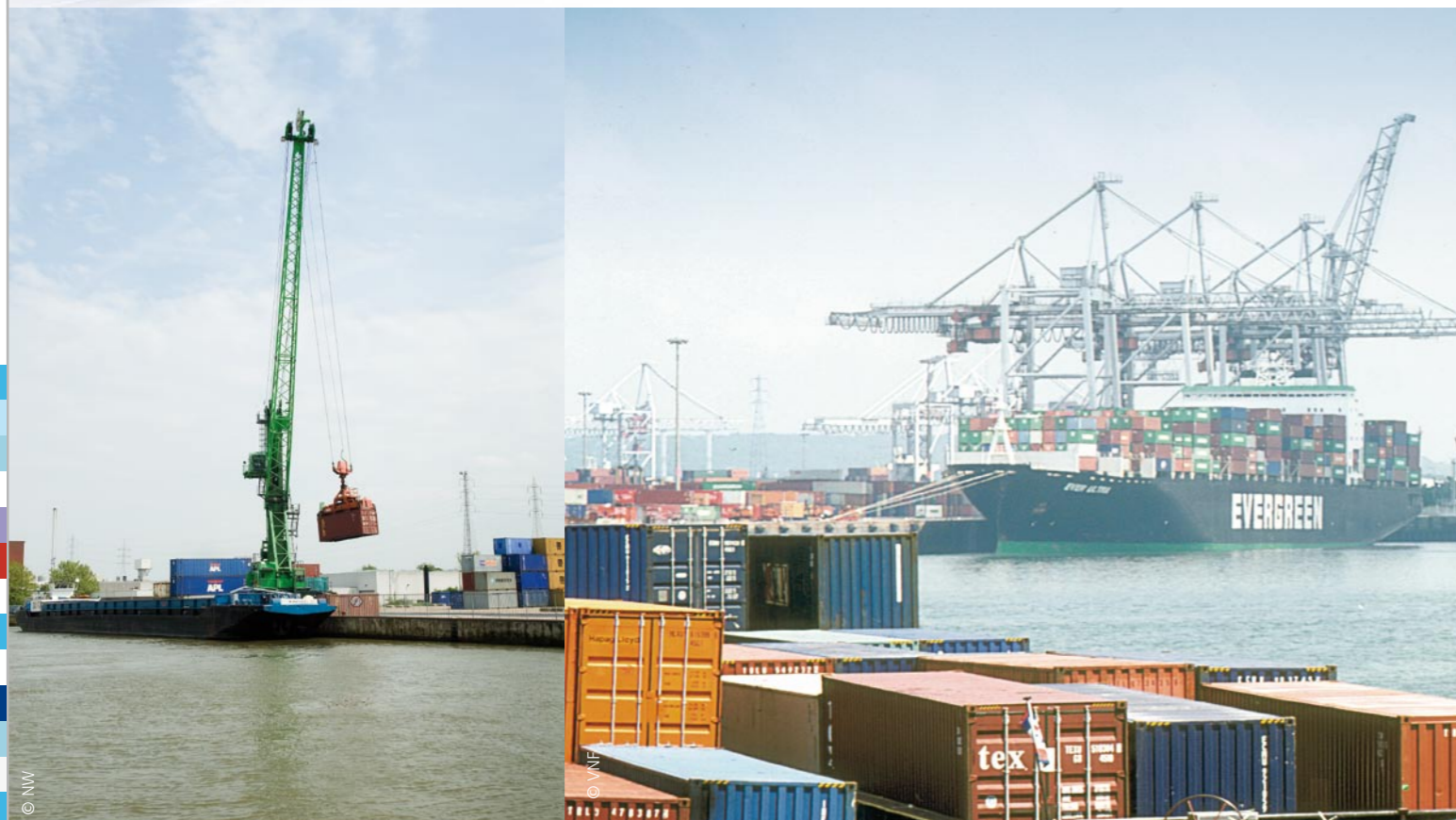
GOVERNMENT SPENDING SPEEDS UP INNOVATION

In the Netherlands a fund created to encourage innovation in shipping has contributed substantially to the speeding up of measures to introduce Dual-Fuel™ technology into inland navigation. Dual-Fuel™ technology enables a heavy-duty diesel engine to operate on a high proportion of natural gas. Firstly, a Dual-Fuel™ engine is a diesel engine, unchanged in its basic thermodynamic operation. However, diesel combustion is used only to ignite a metered charge of natural gas and air. A small injection of diesel is made to ignite the gas and air. Once ignited, the gas and air charge burns rapidly and cleanly. The Dual-Fuel™ engine keeps all of the attributes of a diesel engine and achieves similar efficiency while operating with much lower emissions of NO_x and diesel particulates with lower emissions of CO₂. The latest generation diesel engines can save up to 30% energy. Due to the high level of engine efficiency, a Dual-Fuel™ engine can save over 20% CO₂ from the base diesel engine. If bio-methane is used, the carbon-footprint is even further dramatically reduced.



“Creating the capacity to use Dual-Fuel™ technology in inland ships will enable us to reach our ultimate goal of zero emission transportation.”

**ROBERT TIEMAN,
ENVIRONMENTAL COORDINATOR, EUROPEAN BARGE UNION (EBU)**



[3] A GUARANTEE OF JOB SECURITY AND QUALITY OF LEARNING

Globalisation and economic changes are leading to increasing job uncertainty. Job security is one of the people's top concerns and the inland waterway transport business has jobs on offer. The situation of ageing operators and crewmembers, combined with an expanding business, is a powerful incentive to attract people from outside. This initiative also seeks to encourage entrepreneurs and development with 0% loans, which facilitates the granting of any bank loans necessary for the success of entrepreneurial activities.

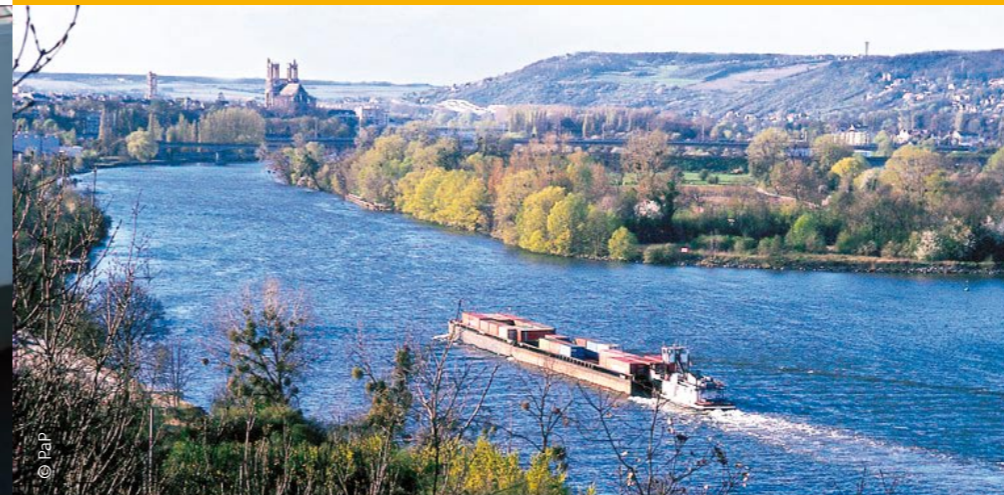
PAVING THE WAY FOR STARTING ENTREPRENEURS

Inland shipping is an exciting business with plenty of potential, but starting off is difficult. Buying a vessel is a different story to purchasing a truck in terms of scale, especially for a newcomer without a family background in the sector. Starting entrepreneurs or innovators can have a brilliant business plan but without big money in their hands, no banker will come on board. Existing measures do not break this particular barrier to the renewal of the sector. Some Member States are experimenting with new concepts and funds, but an in-depth reflection at European level on how to lift newcomers over the seed and start-up phase is more than ever necessary. Also the hampering effect of certain regulations will have to be considered.



“Inland navigation strongly needs professional crew. They are no softies. They need to show ambition, they have to know how to set about their work, and they must be able to team up with colleagues. Yes, there is a lot of sailing, but there is also maintenance work: reparations, painting, maintenance of the engine, polishing and scrubbing, small repair works. And you need to have brains to do business with shippers and logistics suppliers.”

JEAN NEL, APPRENTICE SAILOR



DOING IT FOR THEMSELVES

An exciting initiative in France has taken notice of the fact that river transport has much to offer and has many assets. Over the last ten years, emerging from a quiet period of being “out of sight and out of mind” the sector has recorded a growth of 30%. This means that employment opportunities are guaranteed and growing. This rapid growth has also resulted in a lack of sufficiently trained crew, and a need for renewal and replacement of existing crews, as well as modernisation of the fleet and upgrading of equipment on existing ships. Also, in order for the sector to continue to grow, research and the development must be constant. To stimulate the sector, “Entreprendre pour le Fluvial” has gathered together more than 25 public and private partners to support the creation of new river haulage companies, support training, create financial devices and tools, ensure the promotion of the sector and support innovation. The initiative also seeks to encourage entrepreneurs and development within the sector. The initiative has also created a fund called “Fluvial Initiative” which grants 0% loans for amounts from EUR 10,000 to EUR 90,000 depending of the size of the project. This capital, considered as personal input, greatly facilitates the granting of any bank loans necessary for the success of entrepreneurial initiatives.

“To achieve all these commendable objectives, I wish “Entreprendre pour le Fluvial” cheer and good wind.”

MICHEL ROCARD, MEP AND FORMER FRENCH PRIME MINISTER

FRANCHISES FOR SHIPS

The M-Factor” project proposes modernizing the traditional system of ship ownership by creating a fleet of small barges, which will be available as franchise opportunities for outsiders. The scheme will help to reduce the capital barriers hampering the entrance of new blood into the sector. The scheme will also cover training. The scheme will be run by Mercurius in the position of franchise granter, and training will be provided. Robert-Jan Zimmerman, co-owner of Mercurius, has stressed the importance of practical training that allows trainees to discover the pleasure of inland navigation as well as the practicalities. An additional benefit of the project is that it focuses attention away from the building of bigger ships and maintains the necessary fleet flexibility that allows inland navigation to be competitive and capable of meeting many different transport needs.

“Franchising has acquired a durable position as an effective model over the last few decades.”

ROBERT-JAN ZIMMERMAN, MERCURIUS GROUP



INVESTING IN TRANSPORT BY WATER IS INVESTING IN A SUSTAINABLE FUTURE



[1] HOW TO PLAN SMART INFRASTRUCTURE

1. EFFECTIVE & SUSTAINABLE DISTRIBUTION SOLUTIONS

Remove the bottlenecks on the congestion-free waterways and upgrade connections to ports and information systems so citizens and businesses can better benefit from inland waterway transport. All this can be done with relatively limited financial resources as inland navigation has already proven it has grown more than the other modalities on less investment in the past.

2. MUCH MORE THAN TRANSPORT

The promotion of inland waterways is a win-win solution for all concerned, reducing congestion and emissions in transport and logistics whilst more return on investment is generated with integrated landscape solutions encompassing environmental protection, regional development, leisure, tourism and flood control.

[2] TOOLS TO MATCH INNOVATION & GROWTH

3. HIGH ENVIRONMENTAL STANDARDS

An ambitious strategy on green competitiveness requires policy makers to create reliable planning conditions for all economic players, by striking the right balance between rules and incentives that spark off a shift of investments into sustainable products and services.

4. REMOVAL OF RED TAPE AND DISTORTIONS

To start multi-modal transport services, businesses have to find their way through a time-consuming, complex and costly labyrinth of administrative and planning regulations. Without decreasing protection and safety levels, streamlined regulation and funding guidance should make multi-modal transport as easy as single modal transport.

[3] A GUARANTEE OF JOB SECURITY AND QUALITY OF LEARNING

5. A FUTURE-ORIENTED PROFESSION

New logistics developments create jobs and challenging careers. Support for a campaign on the recruitment and training of navigation personnel would attract new talent in the sector, while life-long learning ensures excellence throughout the life cycle and empowers people to meet the challenges ahead.

6. SOUND INVESTMENT CLIMATE

Barge owners are dynamic and flexible small businesses but investments in modern ships are much more capital-intensive than any transport means. Creating an attractive investment climate would substantially lower the current threshold for forward thinking operators and starters to renew the fleet and expand the market for innovative freight concepts.



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