

ANNUAL REPORT Working together for more & better waterway transport

INE people working with you



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About INE



Our mission & agenda

Europe's network of navigable rivers and canals links up ports, urban and industrial centres. With more and better waterway transport, we want to strengthen an effective alternative for congested and carbon intensive transport.

We strongly believe in a multimodal Europe with waterways as backbone to make transport & logistics more effective and less carbon-intensive at the service of European industry and society.

Our policy agenda covers

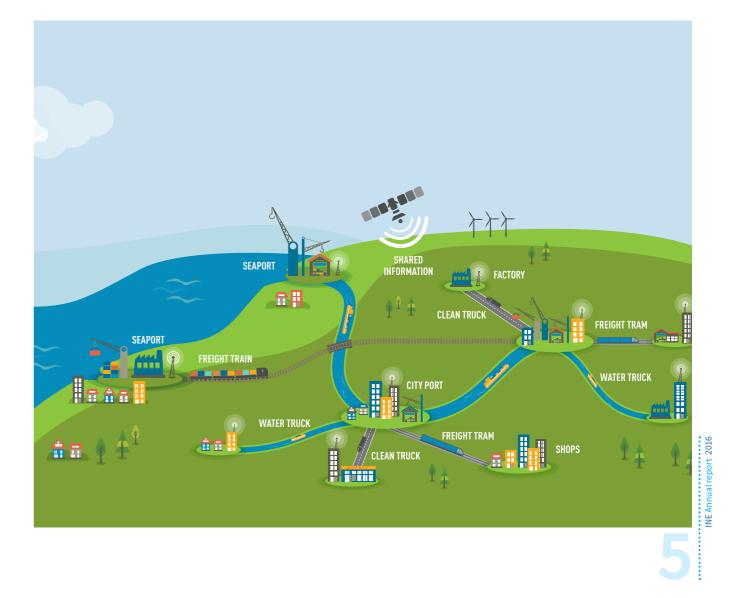
- a quality cross-border waterway infrastructure network with good multimodal access
- effective digital inland waterway services to facilitate seamless, sustainable and safe transport & logistics
- facilitation of a long-term innovation policy rewarding future-oriented innovators

Our achievements

- a specific EU policy supporting the development of waterway transport (Naiades 1 & 2)
- all dedicated EU international waterways designated as EU core infrastructure to ensure good infrastructure quality by 2030
- integration of good navigation status in TEN-T to ensure the quality of existing infrastructure
- EU co-financing up to 40% for waterway infrastructure works of EU interest
- a framework directive to harmonise the cross-border deployment of River Information Services (RIS)
- EU co-financing up to 50% to ensure RIS implementation
- introduction of low-sulphur fuel for waterway vessels
- extension of 'de minimis' rule to inland waterway transport to facilitate state aid

What we do

- exchange national & regional knowledge & best practice and mount common projects
- discuss EU policies and proactively advocate EU initiatives and measures which make waterways more attractive and easier to use
- provide access to an extensive network of EU and national contacts
- promote and demonstrate the economic and societal benefits of waterway transport
- listen to and consult users, clients & stakeholders of waterway transport in Europe on needs & concerns and cooperate around topics of common interest



Our plans

We team up with all European waterway authorities and stakeholders

- for reliable funding and financing to remove critical bottlenecks in the waterway network
- for a higher priority to maintenance to avoid parts of waterways become bottlenecks
- for digitalisation that makes waterways easier-to-use
- for a long-term view and strategy on innovation
- for a better visibility and understanding of inland waterways

The power of EU cooperation



Today's challenges are opportunities. INE members are committed to steer towards a low-carbon and circular economy powered by seamless and sustainable transport. Together with our partners in inland waterway transport and other transport modes, we work on inland waterway projects, greening transport, digitalisation and innovative infrastructure.

Green logistics



Vessels for sustainable mobility

Horizon2020 project PROMINENT: 2015-2018

17 partners from 5 EU countries collaborate to green inland shipping by supporting green propulsion and clean energy solutions that suit the majority of the fleet. The project also develops digital tools for future-oriented education and training as well as cost-efficient navigation.

From INE, members viadonau and ProDanube participate.

Improving navigation



Danube FAIRway

CEF project: 2015-2020

The waterway managers from Danube countries work on the implementation of the "Fairway Rehabilitation and Maintenance Master Plan of the Danube" to ensure navigability throughout the year. Coordinated national action plans for deployment are elaborated and the necessary equipment to carry out pilot activities for hydrological services is contracted. Danube ministers announced to allocate the necessary funds and to use EU co-financing opportunities for implementation. INE member viadonau coordinates the project.

75% of waterway transport is cross-border. Rivers and waterways cross European cities and borders sustainable trade and development.

Digitalisation facilitates waterway transport use



Making inland waterways easier to use CEF project RIS COMEX: 2016-2020

15 partners in 13 countries improve and link up existing digital river information services (RIS) on cross-border corridors. RIS COMEX ensures that RIS evolves from safety management to the facilitation of logistics services to make inland waterways easy-to-use and reliable in multi-modal supply chains. RIS COMEX is coordinated by INE member viadonau.

Investing in innovative waterway management



Good Navigation Status of EU inland waterways CEF project GNS: 2016-2017

Maintaining our waterways in good shape is crucial to offer seamless navigability to users across borders. Together with waterway managers and users, partners identify the scope of good navigation status for EU waterways and identify best practices on rehabilitation and innovative infrastructure management. Investing in what we already have is smart from an economic and a climate point of view.

INE, its members viadonau and MOW participate in the study.



Promoting innovation in logistics



NAIADES action programme (2014-2020)

Better EU policy must ensure that inland waterways are better used to relieve heavily congested transport corridors. NAIADES is the umbrella programme to encourage more companies to use waterway transport. Waterway transport is also supported through the funding and financing programmes Connecting Europe Facility, Horizon2020 and the Cohesion policy.

Rewarding innovation

New markets are an opportunity to develop new logistics concepts, to green the fleet and advance on automation. Inland waterway managers actively support sector innovation with dedicated measures and projects such as CLINSH (CLean INland SHipping) that enable the testing of innovative techniques, alternative fuel and shore power on 30 vessels. European **funding** and financing programmes remain a pre-requisite to reinforce cross-border cooperation. Together with the EU, we have to make sure that regulations are not a barrier but welcome innovation in order to enhance sustainable waterway transport in Europe.

EU NAIADES action plan halfway

2016 was a busy year with the adoption of new legislation such as the regulation for emission limits for new engines and the directive on technical requirements. CESNI has been set up to prepare uniform European standards significantly improving governance on technical navigation aspects. The adoption of the directive on the recognition of professional qualifications is expected in 2017. A sector platform for inland waterway trans**port** is in the make as a result of the amended regulation on fleet capacity policy which enables the sector organisations EBU and ESO to use parts of the reserve fund to bundle forces.

New emerging markets

Freight flows are changing. Inland waterway managers see great opportunities to boost continental markets and the emerging bio-based and circular economies, which will require more transport. To make the circular economy successful, it is an opportunity to involve **sustainable transport** modes such as inland waterways in its entire production and supply chain. Mapping of industrial settlements along inland waterways and analysing with all stakeholders potential industrial, logistics and urban development will be useful to develop strategies that maximise the use of port and waterways assets allowing smart multimodal planning

INE, together with EBU, EFIP and ESO, illustrates how the inland waterway and port sector paves the way for the circular economy. Inland ports become hubs of renewable energy and up-cycling of materials which are supplied by water, thus creating green jobs.

- 1 the continuation of a strong NAIADES policy effectively embedded in all multi-modal policies
- 2
- 3
- 4

50% of Europeans live close to the **COASt** and in **valleys** of major waterways

60-80% less fuel 60-80% less carbon **50-75% less noise** Inland shipping offers quality of life

Policy recommendations

Greening and innovation at work

Facilitating waterway logistics



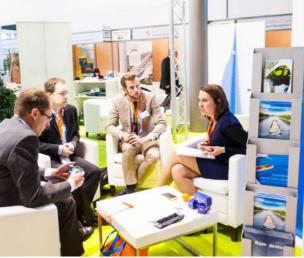
Since 1998 the Flemish Quaywall programme has brought over 100 companies to the waterways, avoiding almost 10 million truck movements.

Using sediments as a resource



Alluvio, an initiative of Voies navigables de France, the Agencies for Water & Environment and Northern France sustainably manages sediments and facilitates its re-use in the building industry.

How to add waterways to your supply chain



700 shippers and service providers meet in November 2016 during **Riverdating** in Rouen, while in June **Danube Business Talks** gather 150 people in Linz.

Zero-emission container ship under construction



As of 2020, 2.5 million bottles of beer filling 52 trucks will go by water in a new hydrogen-powered vessel, the Gouwenaar, built for Nedcargo.

Eco-industrial park gives boost to circular economy



Waterside brownfield in Antwerp becomes **eco-industrial park** with cluster quay for in- and outbound inland goods flows, plus a zone for smart logistics and city-regional distribution.

Watertruck+ for small waterways



EU cooperation to bring back freight to small European waterways on small, clean, self-propelled standardised barges that can be coupled and uncoupled.

When robots



Amsterdam Institute for Advanced Metropolitan Solutions (AMS Institute) works with MIT on fully **automated urban boats** for goods and people.

European Inland Barging Innovation Platform



Part of the platform of regional innovation centres, Batelia in France assists shipowners with innovation projects and INDanube works with the Green Deal on the greening of the Danube fleet.

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Better infrastructure for better services



EU trans-European transport policy aims to remove the infrastructure bottlenecks that still hamper the seamless flow of people and goods across Member States. The Connecting Europe Facility co-finances projects with a total budget of €24.05 billion in 2014-2020. 6% of this budget covers projects improving waterway infrastructure. In 2007-2013, 10% of EU TEN-T funding was spent on waterway infrastructure projects

Waterway projects in the pipeline

Waterway managers have prepared a pipeline of mature waterway infrastructure projects to remove important bottlenecks in the period 2017-2020 for which the total investment amounts to over 4 billion EUR. Some 15 billion EUR of investment is planned in the period 2021-2027. This covers works in all TEN-T corridors with major waterways including the Seine-Scheldt connection. Through the Danube FAIRway project, coordinated national action plans are elaborated for the Danube countries to help implement the "Fairway Rehabilitation and Maintenance Master Plan".

But budget falls short

Since 2014, there has not been a new call for non-cohesion infrastructure under the EU Connecting Europe Facility for Transport (CEF) and the bad news is that 97% of the budget is spent. Only 1 billion EUR remains in grants, not taking into account the money which will flow back from transport infrastructure projects that did not deliver. As a consequence, the execution up to 2020 of planned waterway projects is in danger. Current nationally earmarked budgets for these waterway infrastructure works may be allocated elsewhere and permits may expire. Blending public and private money is only a partial solution, since only a couple of projects can be configured this way. Waterways are mainly of public interest and not bankable to draw in private funds.

Upbeat messages at TEN-T days 2016

In June 2016, the European Commission reiterated it wants inland navigation to play a much more prominent role than today. In their **Rotterdam declaration**, transport ministers stressed the importance of developing inland navigation and promoting its use by tackling key bottlenecks. **Danube ministers** also agreed to step up fairway rehabilitation and maintenance efforts. The necessary national budgets would be allocated, making full use of EU co-financing opportunities for the implementation.

Users' expectations

In their dialogue meetings with INE, users emphasise they must be able to rely on a cross-border network of well-developed waterways and the Danube as an emerging transport link. Multimodal quality infrastructure is vital for seaports to keep congestion at bay and to develop a sustainable circular and bio economy in inland ports. Cases in point are Antwerp and Rotterdam where container transport by barge is set to grow by 72% up to 2030, making it all the more urgent to remove the current hinterland capacity bottlenecks in time.

Investment in waterways creates a strong societal return by achieving the EU energy, climate and environmental goals. Waterways are of public interest and not bankable. Investing in waterways creates sustainable jobs and growth in the EU.

This requires:

- 1 Connecting Europe Facility up to 2020 and in 2021-2027 to privilege sustainable infrastructure projects with a dedicated grants budget
- 2 European Commission to quantify the societal benefits of investing in waterways with inland waterway managers
- 3 Predictable and reliable funding framework, so planning, budgeting and execution of projects can be guaranteed.

Road congestion costs the EU **€100 BEUR** every year

Imagine if we could invest this in sustainable transport infrastructure!

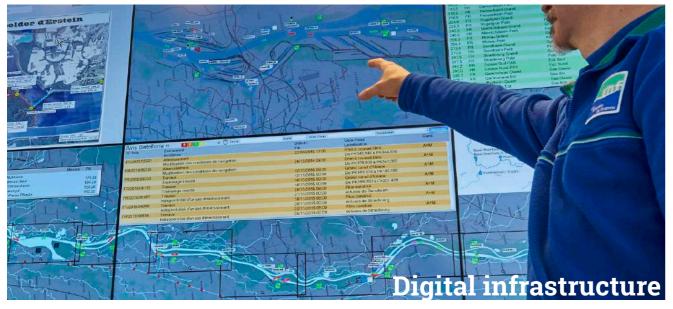
Policy recommendations

Infrastructure works



NE

Integrating the transport system



River Information Services (RIS)

RIS streamline the information exchange between public and private parties to improve the safety, sustainability and efficiency in inland waterway transport. RIS are the waterway transport equivalent of ITS, SESAR, VTS, ERMTS.

Ongoing work

Since 75% of inland waterway operations are cross-border, waterway managers are cooperating in EU projects on European wide availability and reliability of RIS including corridor-wide services with common data quality, equal service levels and unique access. The cross-border generation, collection and sharing of information helps to bring tailor made information to each stakeholder's needs. Waterway managers aim at

- 1. services enabling reliable route planning via static and dynamic fairway information;
- 2. services enabling reliable travel times for voyage planning and traffic management via actual dynamic traffic information and forecast traffic information;
- 3. services to support transport and logistics management: tracking of vessels/cargo, forecast of deviations (available based on role-based access control)
- 4. simplification of administrative procedures.

The European Commission took over the development of important RIS services such as the European Hull database, the European RIS Reference Data Management System, the Inland ENC register and digital parts of the Inland ENC standard to ensure a reliable continuity of cross-border services.

The EU RIS Directive

Since 2005, the EU RIS Directive provides a Europe-wide framework for the harmonised implementation of information services to support traffic and transport management in inland navigation, including interfaces to other modes of transport.

Status of RIS

The EU RIS directive lays down the basic infrastructure and service requirements and their compatibility to enable the deployment of River Information Services across borders. Today, the implementation is not complete, mainly due to the lack of a clear legal basis for the international exchange of RIS-related data. Meanwhile, we await the planned publication by the Commission of the implementing acts for the RIS specifications (ECDIS, Electronic Ship reporting, AIS and Notices to Skippers).

Inland waterway transport as a synchro-modal partner in logistics

The primary objectives of digitalisation in inland waterway transport are safety and making inland waterway transport easyto-use in multi-modal transport. This will also facilitate the automation processes among logistics service providers. This requires a review of the RIS Directive to enable broader data collection, secure data access and standardisation of information flows within inland waterway transport and with other modes.

INE advocates the review of the 2005 Directive on River Information Services (RIS) in 2018 as part of the EU Digital Transport package to make inland waterways easy-to-use and to enable digital integration with other modes of transport in logistics.

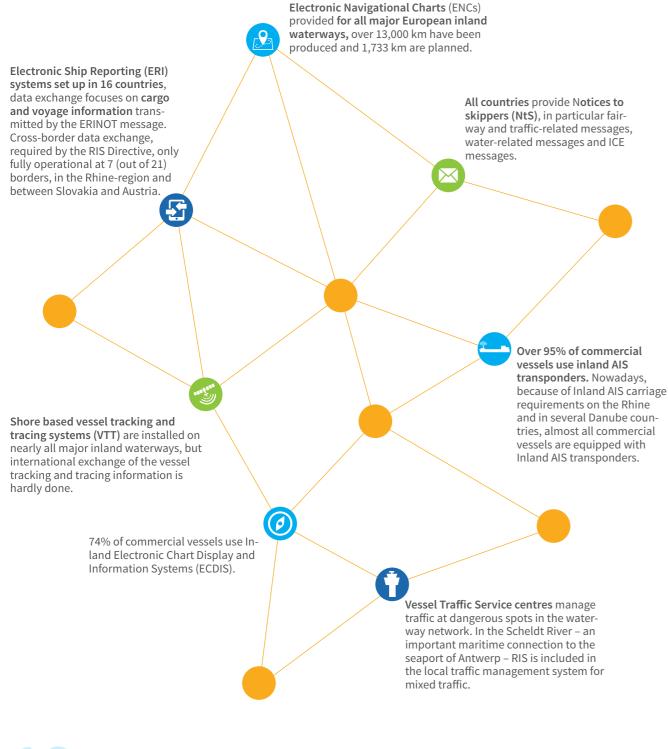
- **1** EU-wide legal basis for cross-border data exchange of fairway, voyage, cargo & traffic information
- 2 Proper management and maintenance of RIS systems and services
- 3 Close gaps of shore-based Inland AIS infrastructure
- 4 Introduction of carriage requirement for Inland AIS transponders on all main inland waterways
- **5** Seamless corridor management services
- 6 Links between RIS, eTools and other digital applications to ensure future compatibility
- 7 Education and training of all involved staff
- 8 EU support programmes to reserve adequate budgets for effective implementation and further development.

Waterway transport is the fastest grower after road transport: +23.5% in 1995-2014

Policy recommendations



Status of implementation



Within the RIS COMEX project, waterway managers aim to make River Information Services (RIS) available throughout transport corridors of the waterway network. The information services are provided to trusted parties and can finally be accessed and shared by waterway users and related logistics partners following harmonised access rules. RIS corridor services aim at single window support for route planning, voyage planning, traffic planning and reporting duties on a European scale, at present integrating the fragmented local systems and paving the way for full logistics integration.



Towards a European single window

Traffic planning



Optimisation of lock and bridge schedules in cross-border corridors to reduce waiting times, the overall duration of the voyage and to optimise energy use.

Route planning



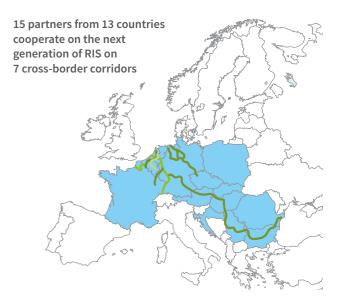
Provision of network information incl. its operation status to support route planning. Actual and forecast information on the fairway allowing for more efficient planning.

Voyage planning



Supporting voyage planners with real-time and predicted traffic information and interface to traffic planning services to ensure best-possible ETAs.

RIS goes logistics



Logistics planning



Single window access for the exchange of vessel and cargo position information among logistics users to make waterway transport visible in the digital supply chain.

Less red tape



Single window services limit multiple reporting. In addition, data are collected and analysed for a more efficient use of the waterway infrastructure.

Berth management



Berths are the waterway parking spaces. The tool provides online information about available berths & their facilities and allows booking of berth space.



Inland waterways transport in numbers



2015 trends - 2016 outlook

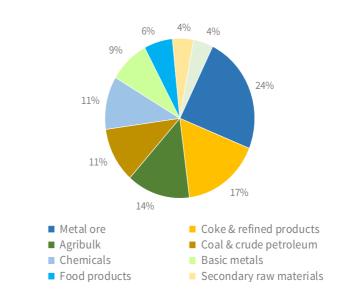
Inland waterways shipped in total almost 544 million tonnes in 2015. This is a 1.3% decrease in tonnage in comparison to 2014. The picture of decrease in tonne-km looks similar, but also points at shorter distances travelled. The year started well, but the second half took a dip mainly due to a prolonged low water period in fall. The dry period was particularly severe on the Upper Danube.

The Netherlands and Germany remain the largest inland shipping nations in the EU, followed by Belgium and France. Together, almost 84% of the volumes by barge is shipped on their territory and they account for 77% of the overall transport performance. By modal share, the Netherlands , Romania and Bulgaria have most goods carried by inland shipping. The Czech Republic and Croatia both registered an upswing in transport performance by more than 20% in 2015. Metal ores, coke and refined petroleum and agribulk still represent half of the transport performance while coal and fuel markets are stagnating. The agribulk business and the building industry are expected to continue an upward trend. The container business continues to increase and is a growing market on the Rhine, the Seine and elsewhere, with the exception of the Upper Danube, Elbe and Odra.

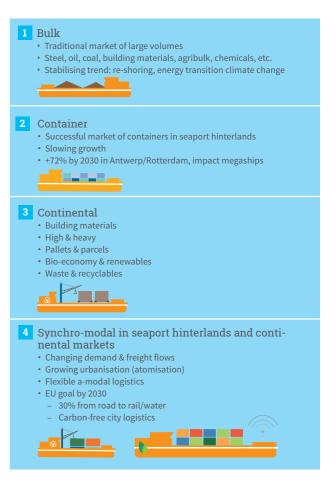
2016 started with an upward trend, but the last two quarters followed economic activity and suffered from a new dry water period, albeit not as severely as in 2015.

Behind the volatile figures of the past years, profound changes are taking place. The well-known image of barges transporting coal, ores and petroleum is slowly overtaken by increasing high value shipments of containers and chemical products. This points at two lasting trends. The transition towards an energy-efficient and low-carbon economy on the one hand and the increasing integration of inland waterway transport in the supply chain on the other.

Type of goods transported by waterway in 2015



The year in figures



	Thousands of tonnes		Milli	Millions of tonne-km		
EU28	557,884	549,978	-1.4	150,877	147,389	-2.4
Austria	10,122	8,599	-17.7	2,177	1,806	-20.5
Belgium	190,903	188,158	-1.1	10,451	10,426	-0.2
Bulgaria	16,922	17,201	+1.6	5,074	5,595	+9.3
Croatia	5,377	6,642	+19.1	716	879	+18.5
Czech Republic	802	850	+5.7	27	33	18.2
France	65,488	63,094	-3.8	8,803	8,516	-3.4
Germany	228,489	221,369	-3.2	59,093	55,315	-6.8
Hungary	7,825	8,163	+4.1	1,811	1,824	0.7
Italy	481	379	-26.9	64	62	-3.2
Luxembourg	8,390	7,106	-18.1	285	235	-21.3
Netherlands	366,627	359,898	-1.9	49,295	48,535	-1.6
Poland	5,899	5,036	-17.1	110	88	-25.0
Romania	27,834	30,020	+7.3	11,760	13,168	10.7
Slovakia	7,010	5,721	-22.5	905	741	-22.1
United Kingdor	n 5,689	5,594	-1.7	169	166	-1.8
Source Eurostat & countries						

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INE membership

Full Members

Agenzia Interregionale per il fiume Po Via Garibaldi 75, IT - 43121 Parma +39 0521 7971 - www.agenziapo.it

AIPo is a public body providing engineering and environmental services across the full spectrum of operations in support of interests of the Italian regions crossed by the Po river : Piemonte, Lombardia, Emilia – Romagna and Veneto, home to Italy's major industries, crucial for the Italian economy.

Service Public de Wallonie Direction de la Promotion des Voies navigables et de l'Intermodalité (DPVNI) Rue Forgeur 2, B - 4000 Liège +32 4 220 87 50 - www.voies-hydrauliques.wallonie.be



DPVNI manages, exploits, maintains and develops the Walloon inland waterways network. The inland waterways and intermodality promotion service enhances the economic and recreational use of inland waterways in Wallonia, by information distribution, promotion activities, policy measures and contacts with sector stakeholders.

De Vlaamse Waterweg nv/ Waterwegen en Zeekanaal NV Havenstraat 44, B - 3500 Hasselt



+32 11 23 06 06 - www.devlaamsewaterweg.be

The 2 waterway managers of the Flemish government are responsible for the maintenance, operation, management and commercial management of the waterways in their territory. Together they manage about 1000 km of inland waterways. Since February 2017 nv De Scheepvaart is known as "De Vlaamse Waterweg nv". During 2017 Waterwegen en Zeekanaal will gradually join the new organisation, final by 1 January 2018.

Ministère du Développement durable et des Infrastructures

Bâtiment Alcide de Gasperi, L - 2938 Luxembourg +352 247 84957 - www.mt.public.lu

The department for inland navigation and logistics prepares legislation and regulations for passenger & freight transport in inland waterways, manages the fleet sailing under its country's flag, provides legislative follow-up and participation in international bodies such as the Mosel and Central Rhine Commissions, UNECE and the EU, interconnects with the Port of Mertert, and establishes technical documents for inland waterway vessels

Royal BLN-Schuttevaer Scheepmakerij 320, NL - 3331 MC Zwijndrecht +31 78 7820565 - www.bln.nl



Royal BLN-Koninklijke Schuttevaer is a Dutch industry organisation dedicated to inland waterways transport, committed to entrepreneurs and the sector, representing barge and ship owners, shippers and operators.

viadonau viadonau Österreichische Wasserstraßen-Gesellschaft mbH Donau-City-Straße 1, A - 1220 Wien +43 50 4321 1000 - www.viadonau.org

viadonau is the Austrian waterway management company which provides competitive transportation infrastructure on the Danube and works with the inland navigation sector on innovative logistics solutions for the Danube. It also plans, awards and monitors work on the river, collects and administers fundamental data for water management and carries out development projects.

Vlaamse overheid

Departement Mobiliteit en Openbare Werken Koning Albert II laan 20, B - 1000 Brussel +32 2 553 6251 - www.mow.vlaanderen.be

The Department of Mobility and Public Works supports the policy of the Flemish minister responsible for mobility and public works and supports investments, management and exploitation of the Flemish transport and port infrastructure. It plays a co-ordinating role in the follow-up of the European transport policy, including inland navigation policy.

Voies Navigables de France (VNF) Rue Ludovic Boutleux 175, F - 62408 Béthune +33 3 21 63 24 50 - www.vnf.fr



State of the Art Flanders

As a public administrative institution of the Environment, Energy and Sea Ministry, VNF is responsible for operating, maintaining, modernising and developing 6,700km of navigable rivers and canals. For over 20 years now. VNF has watched over the inland waterways network by taking action on a daily basis, and at the same time preparing the development of the Canal Seine Nord Europe network in France and Europe.

Two new members joined our association in 2016

ProDanube International

Pro Danube International is a network of private businesses to promote better infrastructure and services which result in a more intensive use of the environmentally friendly inland waterway, and represents the "Danube-minded business" in the political debate on transport policy, transport technology and regional development. It initiates and executes strategic projects in EU-funded programmes and supports members' initiatives, while directly interacting with EU institutions and other international stakeholders.

www.prodanube.eu office@prodanube.be



Project news

PLATINA2 (2013-2016) - essentials in 4 flyers



Corresponding Members

- Agencija za vodne putove
- CRUP Inland Navigation Development Centre Ltd.
- Haven Brussel Port Bruxelles Kammerunion Elbe/Oder
- Pro Danube International
- RSOE National Association of Radio Distress-Signalling and Infocommunications



Agencija za vodne putove (AVP)

The Croatian Agency for Inland Waterways is a public non-profit institution responsible for the management of inland waterways on the basis of the Act on inland navigation and inland ports. It drafts national mid-term plans related to inland waterways, sees to the construction, technical improvement and traffic-technological modernisation and maintenance of inland waterways, repairs river training structures, provides River Information Services, and monitors and supervises inland waterway conditions

www.vodniputovi.hr vodniputovi@vodniputovi.hr









80% of EU citizens will live in urban areas

Waterside cities and conurbations will be able to exploit the uncongested waterways on their doorsteps. Goods will be shipped in and out on smart, clean and modular barges. Multi-modal networks at strategic points of the network will bundle freight flows via single windows.

Sea and inland ports will have become hubs for the circular and renewable economy, where next to wind and solar energy, power-to-gas for hydrogen and shore-side electricity, green energy will be generated from the recycling of waste, turning ports into key facilities for alternative fuels and thus creating a stronger link between clean energy and transport system.

Waterways supply - congestion and pollution free important urban and industrial centres across our continent.