

Activity Report 2021-2022

Working together for more & better transport by water



Inland Navigation Europe (INE) is the platform of national & regional waterway authorities and bodies promoting waterway transport.

We strongly believe in a multimodal Europe with waterways as backbone to make mobility and logistics more sustainable benefiting European industry, environment and society.

Our policy agenda covers

- A quality network of waterways which is reliable, climate responsive and well connected.
- Effective digital inland waterway services to facilitate seamless and safe mobility & logistics.
- Working towards a long-term policy that rewards innovation and the transition towards zero-emission.

Climate change

Vulnerability to climate change

Extreme floods and dry periods are nothing new in the history of climatology. What is new is the impact of human made global warming playing out on top of these dynamic climate patterns. Inland waterway transport is vulnerable to climate change because river navigation depends on precipitation for its operations and extreme events become more frequent, while progressive change manifests itself as well.

The increasing vessel size, the trend towards just-in-time logistics and the resulting reduction of buffers in the supply chain have resulted in ever lower tolerance levels for climate change-induced interruptions. Adaptation to climate requires a sound knowledge base and action at the level of the fleet, logistics and infrastructure

Closing the uncertainty gap

Further research is priority number one to translate the IPCC findings into detailed scenarios. This should be carried out for all river basins with navigable waterways to map out the impacts comprehensively and lay the basis for well informed decision making.

Water is a shared resource calling for a multi-disciplinary approach. For instance, events of water scarcity require a smart and cooperative water allocation approach, instead of a competitive one, so all water uses can continue to thrive by using water in an efficient way.

It is the experience of waterway authorities that a multi-disciplinary methodology including waterway transport also guarantees the creation of co-benefits.



The capacity to adapt

Infrastructure is designed to last for about 50–70 years, while climate responsiveness requires a flexible and cross-disciplinary approach. Building on advancing insights and permanent monitoring, no-regret and adaptive measures are the way forward, rather than blueprints and silo thinking. No river or even river stretch is the same.

Inland waterway transport has the capacity to adapt to changing weather situations as it has shown in the past. Waterway authorities develop nature based solutions or green infrastructure where possible and grey infrastructure when necessary.

Inland Navigation Europe is a supporter of the Navigating a Changing Climate Partnership, and as such is committed to:

- Reducing greenhouse gas emissions and moving to low carbon navigation infrastructure;
- Strengthening resilience and adapting to the effects of the changing climate;
- Promoting integrated solutions and sustainable solutions;
- Disseminating information about climate change issues relevant to navigation infrastructure.

Priorities for INE

The Commission adopted in 2021 the EU Climate Adaptation Strategy. This needs to be translated in effective tools that support implementation. The Connecting Europe Facility and the LIFE programme are useful instruments. However, stronger EU action is required to help increase climate preparedness and share knowledge, enhance cooperation between water users to create co-benefits, to coordinate instruments of different policies and matching funding to be successful across borders. Increasing requires the following actions:

- Step up research and development. The Horizon Europe programme should attach the same priority to climate adaptation of the waterway infrastructure as to climate mitigation of the waterborne fleet. More research and development is essential to develop effective nature based, including temporary, solutions for the different river basins with navigable waterways across the EU.
- INE advocates a level playing field between rail and waterway infrastructure with regard to the scope of eligible activities in the taxonomy climate delegated act.
- The taxonomy climate delegated act excludes dredging from the scope of eligible activities for water infrastructure. Dredging activities are nevertheless necessary to implement climate change adaptation activities and nature based solutions. INE recommends establishing criteria for sustainable and responsible dredging in order to include this activity.
- In 2021, the Commission adopted the climate proofing guidance for infrastructure. It consists of a pillar climate adaptation and a pillar climate mitigation. INE recommends using the climate mitigation criteria of the EU infrastructure proofing guidance as relevant technical screening criteria for inland waterway infrastructure in the taxonomy climate delegated act.

Combined Transport

The case for more inland waterway transport

Moving towards climate neutrality, going through a digital transformation and increasing resilience results in the transition of major industrial sectors. The European Green Deal is guiding the agricultural, energy, chemical, steel and construction sector through a sustainable and circular transformation. The big volumes involved are well suited for inland shipping.

Construction materials constitute the largest cargo flow in cities, building and demolition represent one third of EU waste generation. To enable seamless and sustainable transport for new economies, multimodality has to become the default option.

Further integration of waterways with other modes should not only be pursued for international and inter-regional flows, but also in urban environments where most of the negative externalities are generated. Next to sustainable mobility of persons in cities, we need sustainable movement of freight and proactive urban planning. Inland ports are multimodal hubs and enablers of green logistics.

The Inland Navigation Market Observatory has made an assessment of new market opportunities for inland shipping and sheds light on new types of logistics, vessels and new areas of operation which will be required to capture those markets. Promising markets are: urban passenger and freight transport, new cargo flows generated by the circular economy and transport of renewable energies and components for their generation.



Revision of the combined transport directive

- In light of the European Green Deal, the Combined Transport Directive is under revision to support better the shift from road freight to lower emission transport modes such as inland waterways, maritime transport and rail. In order to implement the ‘polluter pays’ and ‘user pays’ principles, this initiative will review which transport operations should be supported further to its environmental performance and which support measures would be most effective in this regard.
- The revised Commission proposal is scheduled for the first quarter of 2023.

Priorities for INE

It is positive to see that the Commission in its preparatory works is extending the scope from combined transport (volumes transported in the same loading unit) to cover all multimodal transport (volumes shipped by different transport modes) that yields positive externalities. The Commission also plans to abandon the rather arbitrary distance parameter which is almost impossible to apply to inland waterway transport. In addition, INE would like to see the following in the revision:

- Externality calculation: INE advocates not to consider only CO2 savings, but also air pollution, noise, accidents, congestion, land take should be taken into account when calculating externalities. INE advises against a simple calculator which would distort real-life outcome. INE advocates a trustworthy tool built and managed by the Commission.
- Support measures: given the diversity between Member States, INE favours an open list of different support measures from which Member states can choose to compose a toolbox that is customised to specific needs in order to boost multimodal transport. INE would welcome that the proposed support measures are covered by the general block exemption regulation (GBER), so Member States can swiftly apply such state aid as an instrument.
- Terminals: the Commission should ensure in practice that terminals financed with public money do not compete with existing terminals with public and non-discriminatory access. INE also asks to take into account the fragmentation of flows and restricted space in urban areas which require smaller and time-sharing terminals.

Digitalisation

Future River Information Services

Digitalisation is not an aim in itself. It is a powerful tool to help achieve the Green Deal objectives. Since the adoption of the River Information Services (RIS) directive at the beginning of this century, much has changed. Safe waterway transport is still a prime concern and objective, but RIS COMEX, the EU funded cooperation project among inland waterway authorities has moved into new waters.

The project yielded 2 operational spin offs. With EuRIS, all RIS data and services available in one European data sharing platform. With CEERIS, electronic reporting focusing on ship, voyage and cargo, it also becomes fit to accept electronic freight transport information as required by the EU eFTI regulation. Together they allow public authorities to improve waterway management and logistics players to optimise transport operations. The European Commission is in the process of reviewing the RIS directive to ensure the updated legislation can help improve the efficiency of inland waterway transport across borders and establish stronger links with other modes of transport to achieve the EU Green Deal objectives of sustainable, smart and congestion-free transport and logistics.

New legislation to support multi-modality

The eFTI regulation of 2020 requires EU Member States to be able to accept electronic freight transport information (eFTI) in a EU harmonised machine-readable format by mid-2025. The economic operators can continue sending transport information on paper, but if they choose to share this information with authorities in an electronic format, they must use so-called certified eFTI platforms or certify their own transport management system (TMS). The secure and harmonised regulation and data sharing of cargo information enables logistics operators to enrich the transport information with vessel positioning, track and trace and a reliable estimated time of arrival to actor of the supply chain.

The European Commission is in the process of defining the details of the data structure, the business process, the IT technology architecture and eFTI certification process through two delegated and two implementing acts that should be published during 2023. INE is actively participating in the 4 eFTI expert panels of the Digital Transport and Logistics Forum (DTLF) that have been assisting the European Commission with the definition of the eFTI implementation. INE is also observer within the Member States' expert group that currently define the delegated act (DA) specifying a common data model.



Automation

Ships sailing while 100% on remote control from shore are already a reality in inland shipping. Authorities are automating bridge and lock operations. Physical objects are being mirrored by digital twins by capture data from different digital ecosystems by means of artificial intelligence clearing the way for progressive automation. Further roll out requires regulatory changes and standardisation.

Automation should be fully part of a EU holistic vision for smart shipping, including physical and digital infrastructure, which underpins ongoing initiatives and is embedded in a multimodal strategy accompanied by a clear implementation strategy and roadmap with concrete objectives, actions and measurable performance indicators.

Digitalisation pathway

- 2015-2020: Inland Navigation Corridor Management & Inland Port Information Systems
- 2020-2030: Synchro-modal Transport Management
- 2030-2040: Physical Internet
- 2040-2050: Zero-emission Synchro-modal Transport

Priorities for INE

Today, a wealth of data is collected by decentralized players with new digital tools such as apps, sensors and (aquatic) drones which can help support safer and better operations, preventive maintenance and better capacity management across borders, with the aim to make inland waterway transport easier-to-use.

EU policy should pursue the following:

- A convergence between transport and digital initiative and a seamless alignment of mode specific digital initiatives such as RISCOTEX which can become one of the cornerstones of the EU Data Mobility Space providing interoperability between different data sharing eco systems;
- EU digital initiatives and solutions should reflect the needs of public and private stakeholders so they effectively apply and use these to avoid stranded assets;
- The assistance of Member State administrations at the regulatory, process and IT technology level for the implementation of digital initiatives and enhance cooperation;
- The support of ongoing digitalisation and automation initiatives with a EU holistic vision and adequate research and development activities in particular in the area of smart infrastructure and regulation.

Digitalisation

Future River Information Services

Digitalisation is not an aim in itself. It is a powerful tool to help achieve the Green Deal objectives. Since the adoption of the River Information Services (RIS) directive at the beginning of this century, much has changed. Safe waterway transport is still a prime concern and objective, but RIS COMEX, the EU funded cooperation project among inland waterway authorities has moved into new waters.

The project yielded 2 operational spin offs. With EuRIS, all RIS data and services available in one European data sharing platform. With CEERIS, electronic reporting focusing on ship, voyage and cargo, it also becomes fit to accept electronic freight transport information as required by the EU eFTI regulation. Together they allow public authorities to improve waterway management and logistics players to optimise transport operations. The European Commission is in the process of reviewing the RIS directive to ensure the updated legislation can help improve the efficiency of inland waterway transport across borders and establish stronger links with other modes of transport to achieve the EU Green Deal objectives of sustainable, smart and congestion-free transport and logistics.

New legislation to support multi-modality

The eFTI regulation of 2020 requires EU Member States to be able to accept electronic freight transport information (eFTI) in a EU harmonised machine-readable format by mid-2025. The economic operators can continue sending transport information on paper, but if they choose to share this information with authorities in an electronic format, they must use so-called certified eFTI platforms or certify their own transport management system (TMS). The secure and harmonised regulation and data sharing of cargo information enables logistics operators to enrich the transport information with vessel positioning, track and trace and a reliable estimated time of arrival to actor of the supply chain.

The European Commission is in the process of defining the details of the data structure, the business process, the IT technology architecture and eFTI certification process through two delegated and two implementing acts that should be published during 2023. INE is actively participating in the 4 eFTI expert panels of the Digital Transport and Logistics Forum (DTLF) that have been assisting the European Commission with the definition of the eFTI implementation. INE is also observer within the Member States' expert group that currently define the delegated act (DA) specifying a common data model.



Automation

Ships sailing while 100% on remote control from shore are already a reality in inland shipping. Authorities are automating bridge and lock operations. Physical objects are being mirrored by digital twins by capture data from different digital ecosystems by means of artificial intelligence clearing the way for progressive automation. Further roll out requires regulatory changes and standardisation.

Automation should be fully part of a EU holistic vision for smart shipping, including physical and digital infrastructure, which underpins ongoing initiatives and is embedded in a multimodal strategy accompanied by a clear implementation strategy and roadmap with concrete objectives, actions and measurable performance indicators.

Digitalisation pathway

- 2015-2020: Inland Navigation Corridor Management & Inland Port Information Systems
- 2020-2030: Synchromodal Transport Management
- 2030-2040: Physical Internet
- 2040-2050: Zero-emission Synchro-modal Transport

Priorities for INE

Today, a wealth of data is collected by decentralized players with new digital tools such as apps, sensors and (aquatic) drones which can help support safer and better operations, preventive maintenance and better capacity management across borders, with the aim to make inland waterway transport easier-to-use.

EU policy should pursue the following:

- A convergence between transport and digital initiative and a seamless alignment of mode specific digital initiatives such as RISCOTEX which can become one of the cornerstones of the EU Data Mobility Space providing interoperability between different data sharing eco systems;
- EU digital initiatives and solutions should reflect the needs of public and private stakeholders so they effectively apply and use these to avoid stranded assets;
- The assistance of Member State administrations at the regulatory, process and IT technology level for the implementation of digital initiatives and enhance cooperation;
- The support of ongoing digitalisation and automation initiatives with a EU holistic vision and adequate research and development activities in particular in the area of smart infrastructure and regulation.

Green energy

Developing energy corridors

The European Green Deal aims at cutting emissions by at least 55% by 2030. By 2050, Europe aims to become the world's first climate-neutral continent. This goal is enshrined into law with the EU Climate Law. In the meantime, new options for clean propulsion of ships emerge and are being tested. A supportive policy framework for clean propulsion and progressive no-regret measures are helpful to keep investment risk under control.

Rebooting the energy use by transport requires synergies with the EU energy policy and TEN-E. Integrating waterway transport from the start in the developing value chains for renewables from production to end user presents a double advantage. The best way forward for upscaling is to create combined transport-energy corridors linking up ports as energy hubs. A relatively small sector such as inland waterway transport will definitely benefit from the scale effects and cooperation to accelerate its transition. In addition, its potential as large volume carrier for renewables can be harnessed.

EU Legislation in revision

The European Commission issued in 2021 a new legislative proposal for an Alternative Fuels Infrastructure Regulation (AFIR) as part of the Fit for 55 Package. Mandatory targets are proposed for shore-side electricity supply in sea and inland ports. All TEN-T core inland should install by 2025 at least one shore-side electricity facility, all TEN-T comprehensive inland ports should follow by 2030.

The Commission acknowledges that fleet conversion should take place gradually due to the long lifetime of the ships. Nevertheless, it expects hydrogen and electricity to enter the market more quickly because of smaller vessels and shorter distances in inland waterways and the emergence of zero-emission powertrain technologies. To promote alternative fuels and develop alternative refueling infrastructure, the Commission proposes that Member States prepare by 2024 national policy frameworks including a detailed strategy for the decarbonisation of inland waterway transport along the TEN-T network in close cooperation with other Member States.

Finally, the Commission proposes to align the AFIR proposal and the TEN-T proposal to ensure a coherent and effective implementation.



Green energy transport value chain



Priorities for INE

- On-shore power supply facilities are important to help decarbonise inland vessels at berth. Continued EU co-financing through the Connecting Europe Facility and other funding programmes are essential to install these expensive assets. Two other important factors to be addressed are grid access at berth and sufficient grid capacity.
- The national frameworks are welcomed but battery, hydrogen and other sustainable fuels infrastructure should definitely be deployed along a corridor approach. Installing alternative refueling infrastructure in each inland port is economically unviable and in practice unnecessary. It could lead to oversupply in one region and undersupply in another, inland ports are not evenly distributed along waterways.
- The European corridors should be used to plan and coordinate the deployment of all alternative fuels infrastructure along their corridors to ensure an adequate supply of those alternative fuels that meet the needs of waterway users, industry and match the geographic realities.
- At the same time interoperability between corridors should be safeguarded and fragmentation prevented. This will also enable cross-sector cooperation accelerating the transition by creating economies of scale and improve the business case. European coordinators are well placed to help integrate industrial, transport and energy policy across sectors, regions and borders to shape smart multi-modal transport and energy corridors.

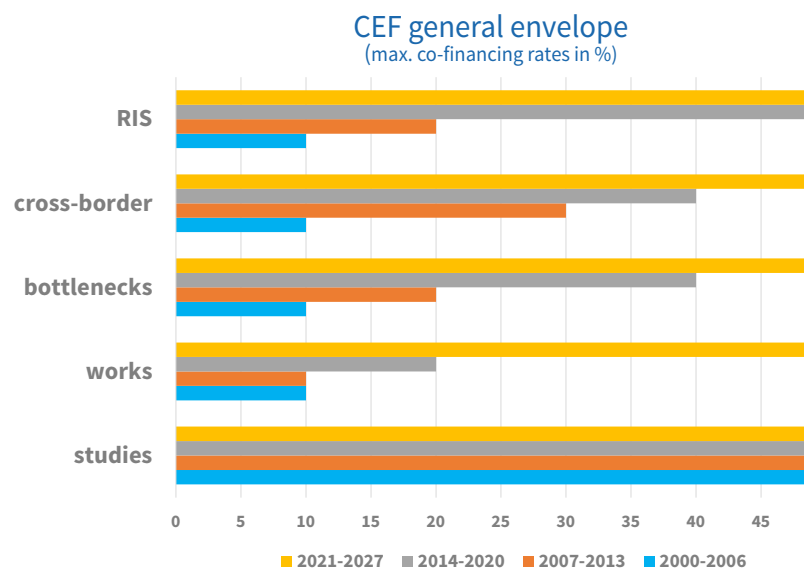
Financing

Waterway transport is supported through the funding and financing programmes Connecting Europe Facility, Horizon Europe, LIFE, the Innovation Fund, the Recovery and Resilience Facility and the EU Structural and Investment Funds.

Connecting Europe Facility

The EU institutions approved in 2021 the new EU budget for 2021-2027. Under the new Connecting Europe Facility, the co-financing rate for inland waterway studies and works will increase to up to 50%, and the maximum rate in cohesion countries will remain at 85%. This underlines the political importance of investing in inland waterway infrastructure in the coming years.

The Connecting Europe Facility has co-financed and continues to co-finance numbers of inland waterway infrastructure projects.





Horizon Europe programme

The EU research and development programmes have co-financed and the current Horizon Europe continues to co-finance numbers of inland waterway projects to support policy coordination, to research alternative fuels and new vessels concepts, to prepare digitalization and automation.

The current programme also co-finances research into climate adaptation and resilience. advocates increased attention and investment in this topic. Climate resilient waterways are the backbone to achieve the European Green Deal objective of modal shift. More research and development is essential to develop effective nature based, including temporary, solutions for the different river basins with navigable waterways across the EU.

Taxonomy as incentive for sustainable transition

It is absolutely fundamental to direct public and private investments towards sustainable projects to achieve the EU climate goals. By classifying environmentally sustainable economic activities and providing criteria to what they should comply with, the EU taxonomy can enable the scale-up of sustainable investments. In the field of inland waterways, it is an opportunity to combine climate mitigation and adaptation, modal shift and environmental sustainability.

INE advocates two changes to the taxonomy climate change delegated act:

- Create a level playing field between rail and waterway infrastructure with regard to the scope of eligible activities in the taxonomy climate delegated act.
- The taxonomy climate delegated act currently excludes dredging from the scope of eligible activities for climate adaptation activities in water infrastructure. Dredging activities are nevertheless necessary to implement climate change adaptation activities and nature based solutions. INE recommends establishing criteria for sustainable and responsible dredging in order to include this activity.



Transport by water

Naiades 3 (2021-2027)

The Naiades action programme for the period 2021-2027, released in June 2021, builds upon the European Smart and Sustainable Mobility Strategy and the ‘Strategic Inland Waterway Transport agenda for Europe’ recommendations of the Naiades expert implementation group, initiated by INE and the European Green Deal. It sets out the lines for more freight transport to inland waterways, towards zero-emission and smart shipping as well as an attractive social and professional working environment.

The action plan counts 35 actions covering specific inland waterway transport measures and general transport measures such as TEN-T, combined transport, alternative refueling and state aid, that underpin the goal of shifting more freight to inland shipping, while working towards a zero emission and digital transport mode. Within the Naiades implementation expert group, the Commission, Member States, River Commissions and sector monitor and assist with the implementation of the action plan, with the support of the Platina 3 project. INE is member of the Commission expert group and partner in the Platina 3 project.

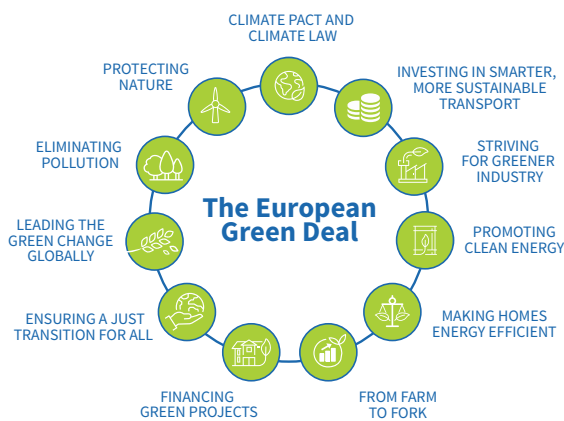
The Platina 3 project

The EU-funded PLATINA3 project provides coordination and support activities to prepare policies. Its main objective is to provide the knowledge base on the following topics:

- Integration & digitalization of inland waterway transport in view of modal shift and synchromodality;
- Zero-emission, automated and climate resilient fleet;
- Skilled workforce anticipating to zero-emission and automation;
- Smart and climate resilient waterway and port infrastructure with clean energy hubs.

This happens in close cooperation with all public and private stakeholders. The project organises regularly stage events in which work is presented and exchange is facilitated providing input for further work.

Started in January 2021, the project will run until 30 June 2023. The work is expected to be continued with a successor project co-financed by the Horizon Europe Programme.



EU targets

2022

- Revision of Urban Mobility Package with better use of inland waterways into cities
- Proposal for e-Documents for inland crew & vessels

2023

- Revision of RIS directive
- Revision of the combined transport directive

2030

- Automated mobility will be deployed at large scale
- Zero-emission vessels will become ready for market
- Transport by inland waterways & shortsea up by 25%

2050

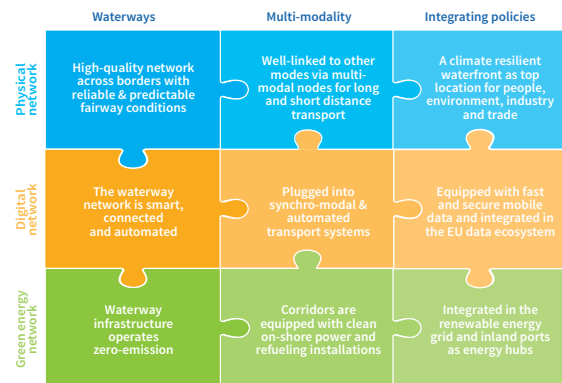
- Transport by inland waterways & shortsea up by 50%

Priorities for INE

The priorities for INE are the actions and tools that assist waterway authorities with carrying out their mission, such as:

- instruments for modal shift such as the revision of the Combined Transport Directive and State aid Guidelines (and the inclusion of inland waterway transport in the revision of the railway state aid guidelines), as well as measures that support the transition towards zero-emission operations;
- a European roadmap for the digital transformation of inland waterway transport and the interoperability with other modes;
- a policy that contributes to make waterway infrastructure reliable and climate resilient for waterway transport in harmony with other waterway functions.

Waterway infrastructure



Fit-for-future waterways

Without reliable waterway infrastructure, there is no future for transport over water. Waterway authorities work towards optimising the waterway network across borders into a seamless, safe and sustainable link in an all-in-one multimodal network, so customers can choose an optimal mobility and logistics mix. The focus goes beyond waterways and requires good connections to other modes for physical, digital and green energy infrastructure. But it doesn't stop there. Waterway authorities provide space to entrepreneurship and jobs on and along the water.

Waterways play an important role for water management, natural habitats, energy generation, water supply and recreation. Working towards fit-for-future infrastructure requires integrated management of our waterways with strong links to EU policies for biodiversity, climate change adaptation, industrial and circular economy, energy and digitalisation. Cross-sectoral waterway investment achieving co-benefits demands more flexibility of EU programmes. The advantage is that we contribute to multiple goals of the EU Green Deal and increase the EU added value, providing a better return on investment for our economy, environment and society.

Quality, performance and resilience for more reliability

It is waterway authorities' aim to improve capacity where necessary, but above all quality, performance and resilience to guarantee reliability and predictability of the network. Quality requires a life cycle approach to avoid disruptions, extend the life of existing infrastructure by renovation and innovation and reduce the need for radical and expensive interventions. Digital support tools and automation are increasingly important to inform users and optimize the management of the network.

The aim is to create a flexible network of physical, digital and renewable energy refueling infrastructure of high quality.



A new proposal for TEN-T

The Commission has launched a new legislative proposal for TEN-T to align the development of the TEN-T network to the European Green Deal objectives and the climate targets of the EU Climate Law in order to achieve climate-neutrality by 2050. It should provide the tools to:

- make all transport modes more sustainable by setting firm incentives and requirements for transport infrastructure development and by better integrating the different modes in a multimodal transport system;
- ensure that new infrastructure projects on the network are climate-proof and consistent with environmental objectives;
- deliver the infrastructure basis for alternative fuel deployment;
- deploy innovative technologies like 5G to further advance the digitalisation of transport infrastructure.

The TEN-T revision should also reinforce the governance and monitoring instruments to guarantee on-time network completion and exploit synergies between infrastructure planning and transport operations. This includes binding work plans to help lift further obstacles for implementation and financing.

Priorities for INE

INE welcomes important changes in the proposal in comparison to the current TEN-T guidelines. It takes better account of the needs of waterway authorities to help create a reliable and resilient network, by focusing on infrastructure instead of vessel parameters. The Commission also takes account of the hydro-morphology of rivers and introduces a life cycle approach to avoid a lack of maintenance leads to new bottlenecks.

Further finetuning will however be necessary:

- The proposal defines good navigation status. INE however advocates to not only protect the minimum requirements against deterioration but also the current status of the waterway network which exceeds the minimum requirements.
- There should be also an explicit deadline to achieve the core network for inland waterways and it should be set no later than 31 December 2030.
- Finally we advocate a corridor approach for the detailing the infrastructure requirements in the implementing acts, with every navigable waterway assigned to a European Transport Corridor.

Our mission

Inland waterway authorities within INE manage and develop navigable waterways into a strong network to contribute to the welfare and wellbeing of Europe.



More and better transport by water

With annual congestion costs exceeding 100 billion euro and carbon emissions in transport growing, making transport by water clean and easy-to-use for goods and people is a top priority. We actively work towards optimising the waterway network into a seamless link in an all-in-one multi-modal network, so customers can make the optimal mobility and logistics choice. By investing in innovation, we provide space to entrepreneurship on and along the water, be it for new transport concepts, circular economy, smart technology or clean energy.



Going beyond transport

Waterways determine and give character to our landscapes. Waterway authorities are fully committed to the multi-functionality of our waterways. We invest in flood protection & drought management, and also offer solutions for shipping and water supply in the event of water shortages. We produce energy from hydropower at locks, offer space for recreation and tourism and constantly focus on increasing the quality of the environment.

Our vision



Climate change ready waterways

Expansion of existing land infrastructure is challenging and expensive to meet increasing demand for public transport and city logistics. For centuries, rivers and canals have been arteries for trade and commerce, connecting ports with inland centres of industry, agriculture and consumption. Clean and smart inland shipping decreases costly congestion in and around cities. At the same time waterways are much more than transport corridors. The waterfront is a shared and climate responsive space where it is good to live, work, enjoy and trade and where burst of activities co-exist.