

# Inland waterway transport in the EU

## SUMMARY

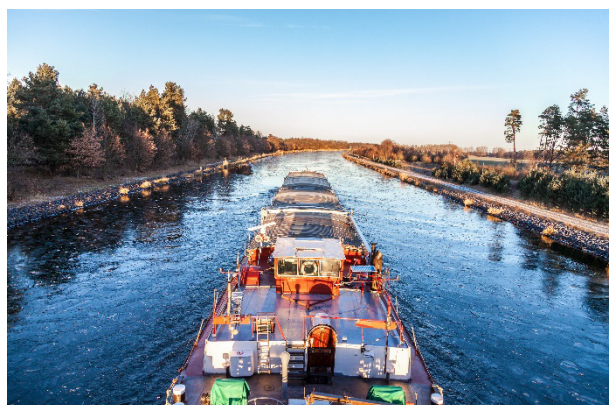
Inland waterway transport (IWT) is one of the most CO<sub>2</sub>-efficient transport modes per tonne of goods carried, using only 17 % of the energy needed by often-congested road transport and 50 % of rail transport. The sector already plays an important economic role in transporting both goods and passengers in Europe. However, it has an untapped potential for increasing its capacity, which warrants the renewed attention it has recently attracted, in the light of sustainable development.

Despite support from the side of the European Union and at national levels, the modal share of inland navigation in the overall EU transport sector has long remained more or less stable at 6 %. During the Covid-19 crisis, the sector lost a little of its share to the benefit of road transport.

To reduce CO<sub>2</sub> emissions from EU transport, the European Commission is seeking to increase the shift of freight transport to rail and inland shipping. Both recent Commission strategies – the European Green Deal and the Sustainable and Smart Mobility Strategy – reflect this intention, and outline the steps needed to achieve an increased use of IWT, as well as of short sea shipping.

To play its role to the full, the sector has to overcome important challenges and become digital, greener and resilient. Next to new or adapted rules, this will require substantial and additional investment into modern infrastructure, digital technologies and greener vessels, as well as a qualified workforce to ensure the sector's future development.

This briefing provides an insight into recent EU policy developments related to inland navigation and includes the views of the European Parliament and the main sectoral stakeholders. In addition, it looks at existing financial support from the EU, the new NAIADES III support programme, and offers a short outlook for future reform of and changes to the EU's IWT network.



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## Background

The EU network of inland waterways extends for around 41 000 kilometres and connects 25 EU Member States, hundreds of European cities, as well as important industrial regions. About 15 000 kilometres of inland waterways are included in the trans-European transport network ([TEN-T](#)) of key EU transport connections. In total, 13 EU countries share an interconnected waterway network, which is relatively dense in Germany, the Netherlands and France. As the largest seaports, Rotterdam and Antwerp are well connected to their hinterlands and their terminals and inland ports.

The transport [performance](#) of IWT in the EU amounted to [131.7 billion tonnes](#) per km in 2020. The sector relies on market segments such as steel, agriculture, food and chemicals. The sector's modal share in the EU transport market has remained more or less stable at the current 6 %, being highest in the Netherlands (43 %), followed by Bulgaria (31 %) and Romania (28 %). However, the Covid-19 crisis caused delays of up to three days in freight transport, as well as a loss in turnover of more than €2.2 billion, partly in road transport.

These same three countries also account for the highest number of companies and [employment](#) in inland waterway freight transport. Inland navigation employs about 48 000 persons in total, mostly in small and medium-sized enterprises (SMEs) and as self-employed workers. However, the sector lacks sufficient and qualified personnel and the number of employees has decreased since 2014. This is compounded by high migration of workers from east to west, due to differences in social conditions.

## EU policy developments

In line with the Paris Agreement, the EU aims at becoming a [climate neutral](#) economy by 2050, with a 2030 target of 55 % CO<sub>2</sub> emission reduction. To reach these goals, the 2019 European [Green Deal](#) affirmed that the EU transport sector has to reduce its emissions by 90 % by 2050. A substantial part of the 75 % of inland freight carried today by road should shift to inland shipping and rail. The [Green Deal](#) also calls for measures to increase the untapped capacity of inland navigation. With the [sustainable and smart mobility strategy](#) of December 2020, the European Commission outlined the planned transformation of the EU transport system, including an increase in IWT and short sea shipping by 25 % by 2030 and 50 % by 2050. For this, measures including improved inter-connections, and more modern navigation infrastructure, ensuring year-round navigability, are needed.

In June 2021, the European Commission put forward a support programme to boost future-proof European IWT, called [NAIADES III](#). Compared to its predecessor ([NAIADES II](#)), the action plan for part III (2021-2027) focuses on the transformation of EU transport systems towards zero-emissions, and on modal shift. This is to be achieved by digitalisation of freight transport and logistics, the development of IWT infrastructure for better navigability, including inland ports as multimodal hubs and providers of alternative fuels.

In July 2021, the European Commission published a set of legislative proposals (the ['Fit for 55' package](#)), to align existing EU rules with the climate targets. Among these, those that will most impact on inland shipping are the changes proposed in the areas of alternative fuels, renewable energy and taxation. The [Alternative Fuels Infrastructure Directive](#), which the European Commission now proposes to repeal and replace with a [regulation](#), aims at installing onshore electricity installations for fuelling inland vessels at berth and alternative fuels infrastructure at inland ports along the TEN-T network, by the end of 2030. The proposed [revision](#) of the Renewable Energy Directive would raise the minimum of energy from renewable sources to 40 % and require that renewable and recycled fuels have at least 13 % lower greenhouse gas emissions by 2030. The proposed [revision](#) of the Energy Taxation Directive would, for example, set a minimum tax rate on fuels for inland shipping, which are currently exempted from taxation.

In the December 2021 [review](#) of the [TEN-T Regulation](#), the European Commission proposed several changes relevant to IWT, namely to include rail freight corridors in TEN-T (important for inland ports), to expand the section related to multimodal freight terminals and to add focus on climate resilience regarding good navigation. It is estimated that it will cost about €27 billion to complete the core network for IWT. These proposals will be subject to negotiations between the European Parliament and the Council.

## The European Parliament's views

The Parliament strongly supports decarbonising transport through modal shift, and the EU IWT sector can play an important role. In [2018](#), the Parliament called upon the European Commission to support decarbonisation of the shipping sector and the use of shore-side electricity in inland ports.

In its 2019 [resolution](#) on the NAIADES II programme, the Parliament asked the Commission to establish dedicated funding streams to increase the sector's environmental and digital performance as well as privilege grant funding. In early 2020, in a [resolution](#) on the Green Deal, the Parliament urged the European Commission to develop a European framework of inland waterway rules to support inter-modality, and improve connections among national waterways.

In its September 2021 [resolution](#) on a future-proof IWT in Europe, the European Parliament focused on strengthening the modal shift in freight transport from road to inland waterways. The resolution aims at supporting further greening of the sector, digitalisation, developing future-proof inland ports as energy hubs, improving working conditions for IWT personnel, and stimulating urban transport. The Parliament insisted that sufficient funding be allocated for greening and digitalisation of the sector, as well as making it more resilient.

## Stakeholder positions

All stakeholders support the NAIADES III plan and the European Parliament's recent resolution, and have called for more and dedicated EU funding for the sector, to maximise its decarbonising impact.

In their [2021 study](#), the Central Commission for the Navigation on the Rhine ([CCNR](#)), which supports full decarbonisation of IWT by 2050, finds that an additional €10 billion is needed to finance the European sector's energy transition. Funding accessibility is a further key point. The European Commission's proposed fuel taxation would require a revision of the [Mannheim Convention](#), which regulates vehicle traffic on the Rhine. The CCNR is of the opinion that possible tax revenues should be reinvested into the sustainable development of the sector itself.

The European Barge Union ([EBU](#)) [welcomed](#) the findings of the CCNR study, and called for support actions for IWT. The EBU promotes an increase of modal share and new cargo flows. In their view, dedicated funding is required for the deployment of green fleet technologies, better infrastructure and labour market conditions; as well as alternative fuels and digitalisation. The EBU has also expressed concerns over a possible fuel taxation. Inland Navigation Europe ([INE](#)), which promotes a sustainable and navigable waterway infrastructure within TEN-T, wants stronger EU action to increase knowledge, promote policy integration and improve access to EU funding. In their view, the modal shift requires a different approach to digitalisation, inland ports need to become sustainable mobility hubs, and energy infrastructure improvement is a priority.

The European Federation of Inland Ports ([EFIP](#)) emphasised the importance of year-round navigability and the upgrade of IWT infrastructure in line with modal shift objectives. It [advocates](#) further digitalisation, the greening of inland ports and a better integration of IWT in urban mobility. The EFIP seeks zero emission obligation from ships at berth by 2030.

Finally, the River Cruise Europe sector ([RCE](#)), seriously affected by the pandemic, has struggled to resume activity at former levels and to cope with workforce challenges associated with the recovery. They consider smaller-scale passenger travel and sustainability as major trends.

## EU financial framework for IWT reform

European Union funding for IWT projects is available under the current multiannual financial framework (MFF 2021-2027). The most important source of financial support for TEN-T infrastructure projects is the [Connecting Europe Facility 2021-2027](#), managed by the European Climate, Infrastructure and Environment Executive Agency (CINEA). It allocates grants on a competitive basis to project applications reacting to specific calls for proposals, which can target alternative fuel facilities, multimodal terminals, locks, bridges, digitalisation and inland port infrastructures. The current 2021 transport [call](#) is open to proposals for infrastructure projects for inland waterways and inland ports, as well as for river information systems on the core and comprehensive [TEN-T network](#).

The CINEA also manages the [Horizon Europe](#) programme, which provides funding for research projects in climate neutral, clean, smart and competitive [transport](#). A 2021 [call](#) was dedicated to climate resilient and environmentally sustainable inland waterways.

Through its sustainable infrastructure [policy](#) window, [Invest EU](#) can benefit smaller businesses, which are common in the IWT sector, in particular.

The [European Investment Bank](#) has been providing loans for [maritime projects](#), but affirms<sup>1</sup> its readiness to also support IWT projects, through loans and investments in infrastructure, fleet acquisition, retrofitting, innovation, research and development.

EU countries' plans for economic recovery following the Covid-19 pandemic can access short-term funding via the Recovery and Resilience Facility (RRF). [Croatia, Belgium and Romania](#) intend to use part of this funding to modernise inland navigation and ports.

Funding possibilities are also available through [LIFE](#), for air and water quality related IWT projects, as well as from the [Innovation Fund](#), for research and innovation related waterborne projects.

To conclude, the new EU classification system for sustainable economic activities ([EU taxonomy](#)), which is being further developed, recognises the substantial contribution of inland navigation to climate change mitigation and sets technical [screening criteria](#) in this light. These will guide market participants in their investment decisions. The taxonomy also underlines the importance of inland shipping with regard to modal shift.

## Outlook for reform and change

To play its full role, the IWT sector needs to become digital, greener and more resilient in the coming years. The move towards zero emissions by 2050 will be reached gradually, where the sector can take up higher volumes. This requires full commitment from European and national authorities, for the necessary reform of the IWT sector, including providing adequate funding.

The EU rules in force on [electronic freight](#) transport information should advance the sector's digitalisation from 2024. Similarly, the 2017 rules on recognition of [professional qualifications](#) in inland navigation will apply from January 2022, improving workers' mobility. These rules have been complemented with transitional measures for the recognition of [third-country certificates](#), to address the existing deficit of qualified workers in the sector.

Furthermore, the European Commission has already put forward proposals for several legislative changes. The outcome of the proposals in the 'Fit for 55' Package', in particular with regard to alternative fuels, as well as the review of the TEN-T regulation, will further determine EU inland navigation. Other changes ahead include new rules for combined transport, which could improve the possibilities of combining inland navigation with other types of transport. The 2022 [review](#) of the [directive on river information services](#) should improve safety and security of inland navigation. The current trio of EU Council presidencies, starting with France in the first half of 2022, faces a dynamic period in European inland waterway transport developments.

## MAIN REFERENCES

[NAIADES III programme](#), European Commission, COM (2021)324, June 2021.

European Parliament [resolution](#) towards future-proof inland waterway transport in Europe (2021/2015(INI)), September 2021.

[Study on financing the energy transition for a zero emission EU inland navigation sector](#), CCNR, June 2021.

[Market Observation](#), CCNR, September 2021.

## ENDNOTE

- <sup>1</sup> EIB presentation given on 19 October 2021 at Platina 3 event, Strasbourg sessions, available in a downloadable [zip file with all presentations](#)

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[eprs@ep.europa.eu](mailto:eprs@ep.europa.eu) (Contact)

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