

Annual Report 2022



European Inland Waterway Transport Platform



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1. INTRODUCTION

1.1. Coordination of the Platform in 2022

In 2022, the EU-IWT-Platform continued to maintain a high level of productivity and activity, as was achieved in the previous year. The implementation of the NAIADES III Action Programme and its ramifications on the inland navigation industry contributed significantly to the workload.

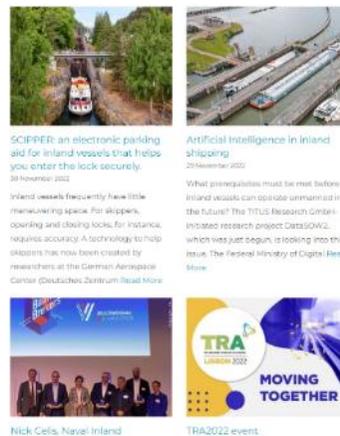
Additionally, in 2022, the EU IWT Platform saw an increase in workload due to its extended involvement in Horizon projects. The Kick Off of the ReNEW project, for which the Platform serves as Coordinator, and some critical tasks of the “Platina3” and “IW-Net” projects required a high degree of attention and effort from the Platform.

Internal Matters

To meet the increased workload caused by Horizon projects, the IWT Board made the strategic decision to hire additional staff. At the end of 2021, two full-time equivalents (FTEs) were employed and by mid-September 2022, the number increased to 3.5 FTEs. Right on time to start the work for ReNEW project which began on 1 September 2022.

The additional staff not only enabled the IWT Platform to handle the increased workload but also helped the Platform to enhance its communication efforts.

Newsletters were published every month. Some improvements were made to the website. These activities generated higher traffic to the [website](#), improving the awareness of the IWT Platform activities.



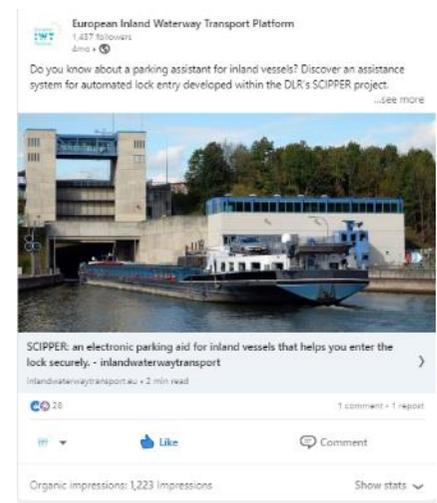
The EU IWT Platform Website performance 2022 vs 2021

Page views:	+16%
Number of Users:	+14%
Average time on the site:	+2%
Pages viewed per session:	+7%

Most importantly, the Platform focused on making better use of [LinkedIn](#), and the results were significant as evidenced by the following figures.

The EU IWT Platform LinkedIn 2022 activities: key figures

- 1 124 followers (+542 followers in 2022)
- 139 LinkedIn posts published
- 64 IWT Platform’s posts shared by others
- 1 315 generated post engagements



External Developments

It is important to highlight and repeat that climate change is a pressing issue that affects all sectors. It is at the heart of the conversation everywhere in Europe, not just for the Inland Navigation Community, and will keep its importance in the future. Inland waterway transport is indeed a vital part of the decarbonisation efforts. Along with rail, it is the most CO₂-efficient mode of transport. Also to be reminded, transport by inland waterways and short-sea shipping should increase by 25% by 2030 and by 50% by 2050.

The EU IWT Platform continued to monitor proactively the progress of European policy legislation affecting the inland navigation sector, including Smart and Sustainable Mobility, the Fit for 55 Package, Taxonomy, and the NAIADES III Action Plan, which are still work in progress.



1.2. The EU IWT Platform's scope

The EU IWT Platform covers all relevant topics concerning inland waterway transport, including Safety, Social Matters, Education, Nautical and Technical Aspects, Infrastructure-related topics and all topics related, from far and from close, to Modal Shift and Zero-Emission.

Regardless of the specific topic, the primary objective of the IWT Platform is to address the challenges the IWT sector faces and to turn potential threats into full-blown opportunities. How this is done and what has been achieved, is explained on the next pages, Committee by Committee.

Reaching Modal Shift targets as well as the one related to Zero-Emission, is not only a matter of policies and regulation, but equally important are activities related to Research and Innovation. Given the latter, the IWT Platform considers it vital to be part of projects funded by the European Commission. It is fair to say that the Platform is successful when it comes to becoming and being project partner. An overview of those projects can be found in the last chapter of this report.

Overall, the EU IWT Platform is focused on **setting and addressing both the innovation and policy agendas for inland waterway transport.**

Nik Delmeire
European IWT Platform's Coordinator



02. Innovation & Greening Committee



2. INNOVATION AND GREENING

2.1. Innovative Greening

The Innovation & Greening (I&G) Committee had a productive year in 2022, focusing on financing and regulation of the transition to zero-emission inland shipping by 2050. The European fleet of about 16,000 inland vessels currently only has about 60 green vessels, and the Committee identified three main obstacles to the transition: technology, financing, and regulation. This section of the Annual Report explores how the I&G Committee tackled these issues and made progress in promoting the greening of inland navigation.

BOTTLENECKS TO THE TRANSITION

The transition to zero-emission inland shipping faces the following bottlenecks:

Regulations: Incentivising emission reduction besides the obligation to install a STAGE V engine when (re)motorising a vessel.

Financing: Dealing with the lack of a business case.

Technology: Identifying which technologies are future-proof and available today.

The I&G Committee tackles these issues on several axes.

REGULATORY FOCUS

At the beginning of 2022, the Energy Taxation Directive proposal, which became topical as a result of the Fit for 55 package, planned a tax on fuels in inland navigation which is currently exempt from all taxes as a result of the Mannheim Treaty. The IWT sector warned that this might undermine

the objectives of the EU Green Deal, as further elaborated in the Sustainable and Smart Mobility Strategy and NAIADES III.

“The IWT sector warns that the ‘Fit for 55 package’ might undermine the objectives of the EU Green Deal as further elaborated in the Sustainable and Smart Mobility Strategy and in NAIADES III. Whereas these policies and action plan are focusing on a modal shift towards IWT and rail, the ‘Fit for 55 package’ is not linked to these objectives and through certain measures - in particular those laid down in the proposed revision of the Energy Taxation Directive - might lead to a reverse modal shift.”

Quote from [“IWT position on the ‘Fit for 55 Package’ and the ‘Energy Taxation Directive’ proposal”, 02/2022](#)

The Central Commission for the Navigation of the Rhine (CCNR) published its official roadmap in the spring of 2022. The roadmap aims to largely eliminate greenhouse gas emissions and air pollutants in the inland navigation sector by 2050, a long-term vision that is also shared by the European Union (EU)¹.

In addition to the roadmap, policy measures were also listed as a suggestion to speed up the transition, such as setting up a **uniform labelling system**. To provide insight into the extent to which a vessel has evolved towards zero-emission propulsion, the EU IWT Platform teamed up with several other partners to set up a labelling workshop “Does the sector need a labelling system and which label will be preferred?”² in March 2022.

TECHNICAL DEVELOPMENTS

The I&G Committee cooperated with the Nautical and Technical Committee on the requirements for hydrogen storage and methanol propulsion, which were written at CESNI. The final drafts were finished at the end of 2022,

¹ [“CCNR roadmap for reducing inland navigation emissions”](#), CCNR press release

² [“IWT Online workshop on Labelling System”](#), article

and the Committee looks forward to the next technical aspects of alternative fuels in the CESNI/PT/FC working group.

TRANSITION PERIOD

The official transition period for the Non-Road Mobile Machinery Regulation 2016/1628 ended on 1 October 2022. It is now obligatory for all vessels to install a STAGE V engine when building a new vessel or renewing an engine on an existing vessel³.

FINANCIAL SUPPORT FOR INLAND NAVIGATION: NATIONAL AND EUROPEAN SUBSIDIES

In 2022, the focus on funding was evident with the Energy Taxation Directive proposal and the numerous subsidy and funding calls. The sector's need for financial support for market-ready techniques that are not yet implemented due to a lack of a viable business case is enormous.

National subsidy schemes have the most significant impact on greening efforts in the industry. For instance, the [Dutch Subsidy Scheme for the Sustainability of Inland Shipping](#), with a budget of EUR 8 million per call, was sold out for the second time within a day, highlighting the industry's reliance on financial support.

On a **European level**, there are several subsidy projects that could benefit the industry, such as [LIFE](#), [Horizon Europe](#), [Connecting Europe Facility \(CEF\)](#), [Innovation Fund](#), and [Clean Hydrogen Partnership](#). The "[Find your EU funding program for the environment](#)" guide provides a detailed overview of the funding programs and instruments that could directly or indirectly contribute to the EU's environmental policies and objectives. Cooperation is key to accessing these subsidies, and the I&G Committee is available for questions and support.

However, the industry's green share is currently at 0.4% of the vessels, highlighting the need for a financial scheme that can help move the sector towards zero-emission. The CCNR consulted the IWT Sector to establish a dedicated IWT Greening Fund, which could be a significant catalyst for the industry. The I&G Committee is collecting and summarising input from the entire European sector to support EBU and ESO in addressing the CCNR's consultation.



³ ["Amending transitional provisions of the NRMM Regulation \(EU\) 2016/1628 for second time"](#), article



2.2. Innovative Digitalisation

The European IWT Platform plays an active role in various innovative digitalisation initiatives set up by the European Commission.

DTLF

[The Digital Transport and Logistics Forum \(DTLF\)](#) is the most relevant of these initiatives. Seemingly, discussions on [electronic Freight Transport Information \(eFTI\)](#) have become more technical and focused on Member States' requirements rather than on benefits of the economic operators. So, there is still room for improvement in terms of communication.

The subgroup working on Corridor Information Systems under DTLF is currently at a standstill, and there is no clear view on when the work will continue.

RISCOMEX

The RISCOMEX project held its closing meeting in September 2022, at which the European IWT Platform was represented by Nik Delmeire. The outcomes of the [EuRIS](#) and [CEERIS](#) portals, which resulted from the project, look very promising. However, they need to be marketed and sold better to the industry. Without proper communication and marketing, this is hardly possible. Hopefully, these kinds of actions will be taken up by a follow-up project that is already in the making. Furthermore, the review of the RIS Directive should be taken seriously by all parties involved; not in the least by the industry, since RIS is the foundation for a large number of future IT applications.

DINA

After a few years of silence, the Commission's expert group on digitalisation for IWT, DINA, is back in action. During the June meeting, the European IWT Platform was asked to present its views on the implementation of IWT's digitalisation strategy. If approved by DG-MOVE, the view could potentially lead to implementation. A decision is expected in Q4/2023.

MASTERPLAN DIGITALISATION OF INLAND WATERWAYS (DIWA)

The DIWA is a CEF-funded multi-beneficiary project aiming at developing a digitalisation strategy for IWT in the period 2022 to 2032. Although the project partners are five Fairway Authorities, the project's focus is not just on what authorities want, the industry's perspective will also be relevant in this plan. The DIWA Masterplan is expected to build on the DINA report and vice versa.

HORIZON PROGRAMME PROJECTS

The European IWT Platform is also involved in several projects funded by the Horizon programme, covering various aspects of digitalisation. In some of these digitalisation projects the Platform participates, while others are followed closely. These projects include such topics as ETAs, integration in Supply Chains, prediction of water levels, paperless operations, and autonomous sailing.

WORKING GROUPS

The European IWT Platform continued to contribute to CESNI/TI (Working Group on Information Technology) meetings and the European Technology Platform ALICE (Alliance for Logistics Innovation through Collaboration in Europe). The ALICE Platform assists and advises the European Commission on the implementation of EU programmes for research, with a focus on achieving a zero-emission integrated transport system. Digital solutions will play a crucial role in achieving this objective.





2.3. Innovative Modal Shift

Moving transport, whether freight goods or passenger traffic, away from heavier and less environmentally friendly modes such as roads and aviation towards greener modes such as railways and inland waterways, is a keystone of EU strategy. As mentioned in last year's report, transport by inland waterways and short-sea shipping should increase by 25% by 2030 and by 50% by 2050. By 2030, rail and waterborne-based intermodal transport should be able to compete on equal footing with road-only transport in the EU.

While the targets are clear, the path to achieving them requires bold and innovative approaches from the entire IWT sector, including ports, terminals, and cargo owners. Success will require a collective effort from everyone involved.

In the spring of 2021, the IWT Platform launched a study on Modal Shift to complement previous research on this topic. The outcome of this study is partly included in the ongoing PLATINA3 project, which highlights the topic of modal shift and ends in mid-2023. Conclusions and recommendations are being made available on [the PLATINA3 website](#).

Nik Delmeire,
Daisy Rycquart





03. Environment &
Safety Committee

3. ENVIRONMENT & SAFETY

3.1. CDNI Part

The year 2022 brought some developments in the field of Parts A, B and C of the [CDNI](#) Convention. For each of the CDNI parts, there are ongoing subjects that are dealt with in the CDNI bodies, including the CDNI/G working group, in which the sector representatives of EBU and ESO have a permanent role and actively participate in the further development of the financing and disposal system.

PART A: CDNI (OILY AND GREASY WASTE)

Increase of the disposal fee for Part A waste

Starting 1 January 2023, there will be an increase in the disposal fee for Part A waste, following the increase in 2021 (the first time since the CDNI came into force). Figures and analysis showed that the 2021 increase from €7.50 to €8.50/1000l of tax-free bunkered gas oil was just enough to cover costs. Unfortunately, a structural financial improvement of the system, which was the original intention, did not occur. Of course, the year 2021 was marked by the Corona pandemic and declining bunker volumes. The effects of the pandemic continued to be felt in 2022 to some extent. However, especially the start of a severe economic and financial crisis will lead to cost increases at all levels. The CDNI system is affected by this situation as well.

Initially, the proposed increase was towards €9.00, but it became clear that the figures used to calculate hypotheses for the next few years were already outdated, mainly driven by current inflation and the rise of costs on labour and fuel. The recalculation resulted in a new proposal to raise the fee to €10.00/1000L as of 1 January 2023.

In June 2022, the Committee was allowed to comment on this proposal in the Hearing of the sector. The Committee insisted on a comprehensive

explanatory document with a weighing of the reasons by the CDNI secretariat. It is important to reconsider the system from a longer-term perspective, considering the further decrease of revenues due to alternative fuels versus probably further raising costs. However, also a comparison based on the pre-COVID figures would give insight if the proposal for a new raise is mainly driven by the current circumstances or if it is more fundamental to the system itself. Such a report is still pending.

Data collection by national institutions

In connection with the disposal and financing system according to Part A, the IWT sector wants to have a solid database. It is one of the requirements from the Round Table Meeting on the future of Part A of the CDNI of 2021. During this Roundtable, the importance of more extensive data collection by the national institutions was recognised and agreed. This should provide a basis for further discussion/analysis and comparison in the future. In the 2022 Hearing, the national institutions agreed on the data to be collected. The coming period will be used to develop a harmonised structure to collect the data requested. The Committee hopes that in the coming year the national institutions, with which the sector representatives have an intensive exchange, will make the data available.



New payment system for disposal fees in the CDNI

The current payment system via data terminals and ECO cards will be replaced by a new, probably app-based system in the second half of 2023.

This change is aimed at simplifying procedures and streamlining operations. The new system will be based on smartphones, which have increasingly become a ubiquitous part of our daily lives, where paper is more and more replaced by electronics. Within the framework of the CDNI this will also be realised for the payment of disposal fees and subsequently with the recording of the quantities of waste handed in.

Maintaining the familiar structure, the new payment system will still use ECO accounts, and the procedures for filling up these accounts will remain the same. On the cut-off date of 1 August 2023 the balances from the old system will be transferred to the new system. National institutions will appoint contact persons to answer any questions about the new system.

There will also be changes to the bunkering station. The fuel supplier's smartphone will be used to record the bunkered quantity. The ship's smartphone will be used to identify the ship and confirm that the bunker quantity has been entered correctly. Instead of a paper printout from the terminals used so far, there will be an electronic receipt for the amount booked on the mobile phone.

Once the payment system has been modernised, the data will be recorded electronically when the waste is delivered to bilge de-oiling boats and other

collection points. This will also be the first step in the changeover from the current manually kept paper used-oil log to a digital used-oil log. Another step towards modernising/digitalising inland navigation.



PART B: CDNI (CARGO-RELATED WASTE)

Ratification of the new CDNI degassing regulations

In 2022, progress was also made in the ratification of the new CDNI degassing regulations. Germany, the Netherlands and Luxembourg had already deposited their documents of ratification in the preceding years. Belgium ratified in 2022, leaving France and Switzerland as the only two countries yet to ratify. France has announced that the procedure will be completed soon, while Switzerland will not ratify before the end of 2023. This means that the new degassing regulations are not likely to enter into force until mid-2024.

Challenges in setting up a degassing infrastructure

During the Hearing of the sector, the Committee representatives pointed out that the existing degassing infrastructure is not sufficient to meet the demand that is expected to exist when the new degassing regulations come into force in 2024. The following points were emphasised:

- It is necessary to establish a sufficient network of facilities covering the geographical needs to avoid empty voyages and unnecessary emissions.
- Capacities should align with the development of ship sizes.
- A fixed station is needed in the Upper Rhine area for regular traffic between refineries and discharge points.
- A fixed station is needed in the northern part of Germany.
- More options for mobile degassing should be created within the Member States.

Parties with plans to invest in facilities must consider questions related to the preferred locations and their capacity, the investments required, the technique to be used, and the process of planning and license to operate.

One of the current main issues is the length of the approval process. Both for fixed and mobile facilities the processes are very long procedures. Member States should support faster approval procedures and the identification of facility locations.

National task forces are on site in the Netherlands and Belgium to answer questions about e.g. locations, the products that can be degassed using what technique and their timestamps. In this respect, the Committee recommended establishing an international task force to cover the issues from a Convention wide perspective, as well as to raise the topic to a political level.

Attestation of unloading (tanker shipping)

The entry into force of the new CDNI degassing regulations will also result in the adaptation of the attestation of unloading for tanker shipping. The Dutch delegation took the initiative for a fundamental revision of the attestation and submitted an initial proposal to the CDNI/G working group. Since then, intensive work has been carried out on the subject. EBU/ESO/IWT have also participated in the work with various proposals.

The new attestation should better and more clearly regulate the responsibilities of the respective parties involved. Filling out the certificate should become easier and more comprehensible for everyone. The work has been largely completed, but the corresponding application provisions in the Convention itself must also be amended. There are still a few points for discussion in this context. The sector representatives will pay particular attention to ensuring that the interests and position of inland navigation are preserved.

The implementation of the new attestation will depend on when the new degassing regulations come into force. The attestation and the amendments to the applicable provisions must also be adopted by the Conference of Contracting Parties.

PART C: CDNI (OTHER WASTE)

EBU/ESO position on the systems introduced in the Netherlands and Belgium for Part C waste

In the Hearing Meeting 2022 the Committee expressed its position on the systems introduced in the Netherlands and Belgium for the disposal of Part C waste. The content of Articles 5 and 7 were taken as a basis. While Article 5 defines the financing principle, Article 7 concerns financing the reception and disposal of other waste generated from vessel operation. In this article, there is a specific rule when it comes to domestic refuse. Also, Articles 8.01, 8.02, and 9.03 of the Implementing Regulation play a role in this discussion.

Currently the disposal of domestic refuse is free of charge in Germany, France, Luxembourg, and Switzerland. However, the Netherlands has had a "voluntary" subscription structure for years. It can be used to open the fixed containers and to use the bilge-boats to dispose of the waste for a fixed fee. In case the quantity in the subscription is exceeded, an extra fee will be charged. In Belgium (Flanders), there has been a volume-based system for payment introduced for the disposal of residual waste, bulky waste, paints, and solvents since 1 January 2021.



Based on the texts of Articles 5 and 7, the Committee can conclude that the developments in these Member States are no longer fully aligned with the principles of the Convention. Especially direct financing (in at least one part of the Convention area) increases the risk of illegal waste disposal or tourism and undermines the purpose of the Convention, which aims to protect water and the environment.

The Committee recommends implementing uniform regulations, as outlined in Article 7, for the disposal of domestic waste. Concerning coordinated regulations for the other categories of Part C waste, it would be wise to further investigate the need for this. Overall, the establishment of more collection points for other hazardous waste would be necessary, as well as a better overview of the locations where disposal of the waste without paying a special fee is possible.

The Committee also noted the introduction of definitions that are not CDNI terms, such as "residual-waste," "bulky waste," "other household waste," and "waste-parks." The use of these non-CDNI terms would only increase uncertainties, which should be avoided.

3.2. Safety/ADN Part

In 2022, the Safety section of the IWT Environment and Safety Committee remained focused on issues related to the transport of dangerous goods on European inland waterways. Active participation in the [UNECE ADN Safety Committee](#) in Geneva was a major priority for the Committee. EBU/ESO took a position on the highly technical issues, discussed, and regularly submitted proposals for amendments in the interest of the inland navigation sector.

The expertise of the IWT Committee is crucial to provide the necessary input/information to the secretaries/representatives and to support the preparation for the ADN Safety Committee meetings, held twice a year. The cooperation at the international level allows EBU/ESO to represent the interests of the sector in Geneva with a strong and sovereign voice.

The following topics from 2022 deserve special attention:

Degassing of inland waterway tank vessels at a reception facility — spring-loaded low-pressure valve

A few years ago, the Safety Committee discussed proposed amendments to improve the regulations on the degassing of tanker ships at degassing facilities. On the proposals for an additional (spring-loaded) valve in the opening for the supply of ambient air into a cargo tank to be degassed, the Safety Committee requested an additional document for decision-making. The sector was consulted on this issue. In the August session, it was explained that the requirement for a spring-loaded low-pressure valve should not be mandatory because it was not practicable for a spring-loaded low-pressure valve to prevent the vacuum valve from opening under normal operating conditions. The Safety Committee agreed with the argumentation of the proposal and decided to amend the degassing regulations of the ADN accordingly.



Fumigated cargo in dry cargo ships

The correspondence group on "Fumigated cargo in dry cargo ships", chaired by Germany, was set up in 2022 to discuss the need for regulations on the carriage of fumigated bulk cargoes in the holds of dry cargo ships.

A report on the preliminary results was submitted to the 40th session by Germany, with a request to the Committee to decide in which direction the group's work should continue. EBU/ESO primarily insisted on keeping the transport of fumigated cargo completely out of the ADN. After thorough discussions and deliberations, EBU/ESO agreed on regulating specific transport conditions within the ADN to ensure safety for the crew as an exception to the ADN. This should be set in a similar way, such as the exception like special provision for UN 2217, Seed Cake (exempted from most ADN regulations as long as there is a declaration available). The sector is definitely opposed to the transport of fumigated cargo above defined national limits. Transport by inland waterway vessels should only take place after measurement and clearance. In particular, it is important that the skipper is informed if the cargo has been fumigated at an earlier stage before loading onto the inland vessel. Also, personal protective equipment should be worn by the onboard crew and an emergency plan should be in place so that it is known what to do in the event of an alarm.

After the August meeting, another intensive exchange took place in the correspondence group. A wording proposal for the ADN is planned and will probably be presented for the August 2023 meeting.

Opening of openings

Germany submitted a proposal formulating amendments for ADN 2025 concerning the regulations for the safe opening of cargo tank openings. For this purpose, the requirements of practice and the legal possibilities for the safe opening of openings on inland tankers had to be examined.

The German Federal Ministry of Digital Affairs and Transport was supported in this by a sub-working group set up for this topic in which

representatives of the inland navigation sector also participated intensively.

The proposal was initiated due to the realisation that the requirements for opening openings laid down in the current version of the ADN no longer correspond to today's technical requirements, cargo care, transshipment and quality control requirements.

The ADN in its current version provides that according to 7.2.4.22.2, the opening of sampling openings is only permitted for taking samples and for checking or cleaning empty cargo tanks. In practice, however, measures such as visual inspection, sampling, gas measurement and, in exceptional cases, level measurement and the later addition of stabilisers during the voyage, require opening. The conditions under which these measures may be taken were specified in the proposal.

Furthermore, the definition of a sampling opening (defined in 1.2.1 ADN) is extended in the sense of practical use to the effect that other equivalent openings may be opened for the above-mentioned purposes, provided that they meet the same safety requirements.

In an initial discussion, the Safety Committee welcomed the proposal in view of the need for clear regulations in the ADN concerning the safe opening of openings. EBU/ESO also welcomed the proposal, however, suggested to include further necessary measures such as tank cleaning to cover all operations during loading, navigation, and unloading that require the opening of the cargo tanks in chapter 7.2.4.22.2.

Due to the complexity and scope of the proposal, delegations were invited to submit their detailed comments in writing, based on which a revised proposal was submitted to the Safety Committee again in January 2023 for discussion.



Alternative propulsion systems/fuels in inland navigation: identifying necessary adjustments in the ADN

EBU/ESO drew the Safety Committee's attention to the issue of the increasing use of alternative propulsion systems/fuels in inland navigation and called for an examination in the near future of which amendments might be necessary in the ADN so that vessels carrying dangerous goods are also allowed to use such innovative, environmentally friendly technologies.

The Safety Committee supported the proposal in principle. It is important that the entire IWT sector contributes to the climate and sustainability objectives of the European Union and the United Nations. Although paragraph 1.5.3.2 authorises the competent authority under certain conditions to give a certificate of approval for experimental purposes if a vessel is equipped with technical innovations that deviate from the provisions of the ADN. This can only be regarded as a transitional option. The investing sector must be assured that the innovative technologies will be approved on a permanent basis.

EBU/ESO prepared a follow-up document for January 2023, in which a reference to the ES-TRIN must be adapted so that other alternative fuels with a low flash point, besides LNG, are also covered in the future.

Transport of Carbon Dioxide (CO₂), refrigerated, liquid

At the 39th session of the ADN Safety Committee, EBU/ESO had asked for consideration whether it would be possible to harmonise the conditions of carriage for CO₂, ethylene, and LNG by including remark 42 in column (20) of Table C.

According to this remark, the loading of refrigerated liquified gases shall be carried out in such a manner to ensure that unsatisfactory gradients do not occur in any cargo tank, piping, or other ancillary equipment. When determining the holding time (as described in ADN 7.2.4.16.17) it shall be assured that the degree of filling does not exceed 98 % to prevent the

safety valves from opening when the tank is in liquid full condition. When refrigerated liquified gases are carried using a system according to 9.3.1.24.1 (b) or 9.3.1.24.1 (c), a refrigeration system is not required.

EBU/ESO had noted that when remark 42 was introduced, it was added to column (20) of Table C for ethylene and methane. This means that these substances can be transported without a refrigeration system because of the comparable heat conductivity and holding time requirements. For CO₂, on the other hand, this does not apply, although the ships (type G 1.1) meet the same design and intrinsic insulation requirements in terms of holding time. If there is no refrigeration system, the safe carriage of carbon dioxide is possible in accordance with the provisions of ADN 7.2.4.16.17 (calculation of the holding time taking into account the anticipated duration of carriage) under the same requirements as for methane and ethylene.

The Safety Committee had decided to mandate the informal working group on substances to examine the application. At the 40th meeting of the Safety Committee, this working group now supported EBU/ESO's proposal with the suggestion that it should be included in the conditions of carriage that there must be sufficient distance from the triple point. Information must be provided on special characteristics of the substance in connection with carriage. Additional entries could be necessary in the transport document.

EBU/ESO submitted a working document for the January 2023 meeting with a proposal to amend the entry in Table C.

Unmeasurable substances for which a toximeter is required

[CEFIC](#) and EBU/ESO raised the issue of dangerous substances that could not be measured with a toximeter, which is a problem that has existed for a long time.

Dangerous goods for which a toximeter is required in ADN 3.2.1 Table A column 9 and 3.2.3 Table C ADN column 18, but which cannot be measured



with a toximeter because no suitable tubes are available for the substance, are currently not allowed to be transported by inland waterway vessel. As a consequence, there is a "reverse modal shift" towards road/rail transport, where, notably, no toximeters are required.

A practical example is the transport of titanium tetrachloride (TiCl₄), which was transported in tank containers on inland waterway vessels, which is now, unfortunately, being transported by road again (approx. 8000 tonnes/year).

CEFIC and EBU/ESO pointed out that this problem could be solved by extending the regulations of the ADN so that a substance does not only have to be measured directly but that determination through secondary products would also be allowed with the help of measuring instruments approved for the secondary products. Since titanium tetrachloride hydrolyses in the presence of water (atmospheric humidity) and forms hydrogen chloride in the process, it is possible to detect titanium tetrachloride indirectly through the hydrogen chloride formed by using a measuring device that detects HCl.

The Safety Committee had asked the informal working group on substances to look into the problem and consider the approach proposed by CEFIC and EBU/ESO. The working group supports the approach and proposes a four-step procedure.

According to this, the definition of a toximeter should first be extended. Other devices that are fit for purpose should also fall under the definition. It can then be checked which substances can be directly detected with the devices that fall under the new definition. If this is not possible, the question arises as to the indirect measurement method, in which the reaction product is measured. Finally, it must be examined how to proceed with substances that can be measured neither directly nor indirectly. In the area of dry cargo shipping, stowage on deck could possibly be considered.

The Safety Committee was able to follow the solution approach and welcomed the proposal from the informal working group on substances to

deal with the question of how the solution approach described could be implemented in the text of the ADN regulations.

In 2023, the following topics, among others, will keep us engaged:

- Opening of openings: Inclusion of regulations for tank cleaning?
- Amendment of standards and citation in the ADN regarding gas detection devices with a major impact on the industry
- High velocity valves in connection with higher temperatures
- Revision of the ADN checklist
- Expiry of M019 UN 3082 - Heavy heating oil - Necessity of a gas return line

*Elena Siebrecht,
Frank Reijerse,
Maurits van der Linde*





04. Social & Education Committee



4. SOCIAL & EDUCATION

The Social and Education (S&E) Committee's work in 2022 focused on the continued development of draft standards for European Manning Regulations and the implementation of the Professional Qualifications Directive across the Member States. In addition to these ongoing topics, the S&E Committee also added a new item to its agenda: the development of a recruitment campaign aimed at addressing the shortage of personnel in inland navigation.

Over the course of the year, the S&E Committee held four meetings, including one with guests from member organisations. The Committee members also participated in a number of expert groups and meetings, including the Social Dialogue meetings, the Commission Expert Group on Social Issues, and CESNI/QP, CESNI/QP/QM, and CESNI/QP/Crew. Within CESNI/QP/Crew, the S&E Committee was involved in both the Drafting Group and an ad-hoc group consisting of social partners and the CESNI/QP Secretariat, which held numerous additional meetings throughout the year.

The S&E Committee worked closely with its partners at the European Transport Workers' Federation (ETF) on a number of issues and also met in several social-partner sub-working groups. Finally, following the departure

of former Committee Secretary Ingrid Blom, Henriëtte Schreuders joined the team as the third secretary in August 2022.

Overall, the S&E Committee remained committed to addressing important issues in inland navigation and working collaboratively with stakeholders across the industry.



4.1. Professional Qualifications

Professional Qualifications Directive

One of the focal points this year was the implementation of the Professional Qualifications Directive. It was supposed to be implemented in all Member States by 17 January 2022. However, most Member States were not ready at that time. Moreover, the Regulations for Rhine Navigation Personnel (RPN) was still in force in its old version and did not yet comply with the regulations of the Professional Qualifications Directive. This led to problems in the sector with the issuing and recognition of documents, the acquisition of qualifications and the organisation of training.

To address these issues, the S&E Committee held multiple discussions on the challenges and difficulties and brought them to the attention of CESNI/QP. This led to great efforts in establishing provisional documents, certificates, and understandings among the Member States. The implementation progressed over the year and several Member States have completed the process.

Entrepreneur Competence Standards

Another important topic of the year was the competence standards for entrepreneurs in inland navigation. Based on “Council Directive 87/540/EEC of 9 November 1987, on access to the occupation of carrier of goods by waterway in national and international transport...” this is a critical element of the Fitness Check. The [CESNI](#) work programme includes the development of competence standards for operators in inland navigation, which also includes green and digital competencies.

The S&E Committee agreed on the need to revise this Directive and ensure a harmonised application of the standards. The Committee members contributed to the discussion in CESNI/QP, believing this would facilitate a more robust and harmonised industry.

Establishing a Common Database

Another important project the Member States have undertaken is the establishment of a common database for multiple-choice questions for the boatmaster's exam. The CITO study has assessed this challenging task. The Committee was actively involved in evaluating the results for further work. The EU IWT Platform promised support in identifying funding possibilities and, if necessary, its own financial contribution. The Committee considers this project to be of high importance for promoting training and examination at a comparable level, if possible, in all Member States.

4.2. Standards for European manning regulations

In 2022, CESNI/QP/Crew faced the major challenge of drafting standards for European manning regulations. Great progress has been made, and the first draft is expected to be completed in the coming months. The work on these standards is an ongoing task, so adaptations and additions will follow.

The flexibility of future European manning regulations is crucial, and the fact that the standards are designed as CESNI standards allows for continuous revisions to accommodate new developments.

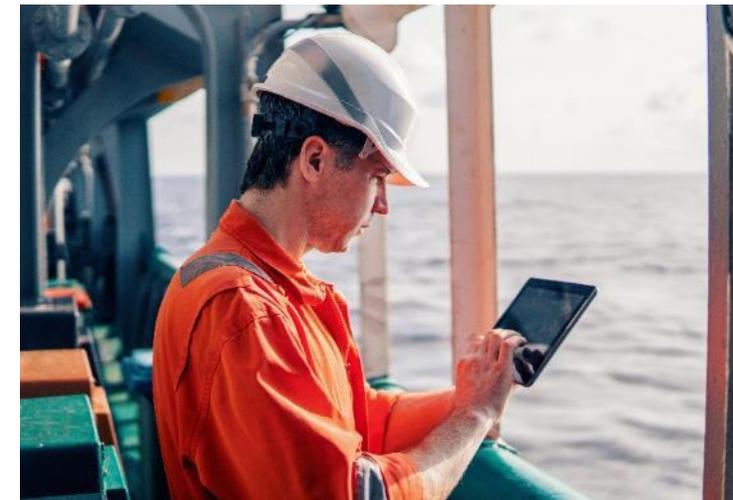
On 14 December 2022 the social partners conducted a second sector consultation with the support of the chair and the secretariat. The consultation covered several essential issues on which the sector's expertise was required. An ad-hoc-working group had had several online meetings since August and had prepared the questions and keynotes. EBU/ESO was responsible for additional alternatives to operating modes, minimum crew during loading/unloading and similar operations, technical standards, and classification of groups according to vessel length. ETF had prepared topics on the one single crew member operation, mandatory resting time, mandatory resting days for the entrepreneur, and questions on the entry level. The consultation and discussion were informative and resulted in suggestions that will be taken into account in further work.

CESNI/QP/Crew also tackled several other issues, including definitions and scope, national derogations, safety personnel, and aggravating and alleviating factors.

In CESNI/QP/Crew, there was intensive exchange and discussion on all the different issues taking into account the existing provisions of the RPN and other legal texts, studies, and communications from the national delegations, as well as the advice of experts and the sector. To support the work of CESNI/QP/Crew, a drafting group was established to prepare proposals for discussion. EBU/ESO provided written input on most of the topics in discussion papers and statements and took a position in the meetings.

4.3. Regulation of Digital Tools

The EU Commission is developing a legal framework for e-tools to ensure control and enforcement. In various meetings and workshops, including a CCNR workshop in November, it became clear that the EU Commission intends to control working time through digital tools. However, the S&E Committee stated clearly that the control of manning rules should not be the basis for the control of working time. Moreover, the Committee submitted to the EU Commission a discussion paper advocating voluntary action and a choice for the employer regarding the form of recording and the digital technology. The Committee rejects automatic digital recording of working times and possible remote control.



4.4. Fitness Check on Market Access

DG MOVE launched the open public consultation on the Fitness Check on market access in inland waterway transport with a deadline on 11 March 2022. A report on this is pending publication. However, the competence standards for the entrepreneur included in Council Directive 87/540/EEC of 9 November 1987 is one of the subjects of the Fitness Check that have already been discussed in CESNI/QP and a new draft for the competencies has been prepared.

Two elements for which the Fitness Check is still pending are:

- the Derogation Agreement on determination of legislation applicable to Rhine boatmen concluded on the basis of Article 16(1) of Regulation (EC) 883/2004 on the coordination of the social security systems;
- the application of the Posting of Workers Directive (96/71/EC) and Directive (2014/67/EU) on its enforcement.

In 2022, the EU Commission announced the launch of this Fitness Check for 2023. The S&E Committee had already dealt intensively with both topics and developed positions.

The Committee advocates that the derogation for the Rhine must be maintained as the adequate solution for the Rhine riparian states which are on the same level. However, extending this regulation to the entire EU would still fail due to the differences in social security systems. With regard to the Posting of Workers Directive, the Committee seeks to adequately protect workers' rights and fair competition while avoiding imposing administrative burdens on enterprises.

4.5. Study on Human Factors in Inland Navigation Accidents

In 2021, the S&E Committee made a study of the root causes of accidents in inland navigation, focusing on phases 1 and 2. In 2022, the Committee moved its attention to communicating and distributing the findings.

In January, the Committee published a handout detailing the results which were distributed through various media channels. In February, the findings were presented and discussed at the CESNI/QP meeting. In May, the Committee members participated in the SSDC meeting to further present and discuss the results.

Although the study was not originally included in the CESNI/QP work plan, the discovered results will be considered in the CESNI/QP's future work.

4.6. Social Dialogue

In early 2022, the European Barge Union (EBU) / European Skippers' Organisation (ESO) and European Transport Workers' Federation (ETF) adopted a jointly developed work programme for the European Sectoral Social Dialogue Committee (SSDC) covering the period 2022-2023. It includes a range of topics such as NAIADES III and Green Deal and their impact on the social dimension in IWT; PLATINA3, following up on the implementation of the Professional Qualifications Directive, the impact of automation and digitalisation, contribution to the development of a European manning regulation and the development of digital tools. In the framework of the Fitness Check social partners will continue the joint



efforts on the social security legislation and the Posted Workers Directive. Further topics include fair employment in river cruise, quality workplace or the Working Time Directive.

Throughout the year, the SSDC and its sub-working groups tackled a range of challenging issues. Among these, the Working Time Directive and the Posting of Workers Directive for inland navigation were particularly prominent topics of discussion. The implications of these Directives for the Fitness Check were thoroughly examined and debated.

4.7. Recruitment campaign

The recruitment of personnel has become a challenging issue for the inland waterway transport sector. Despite the demand for positions, filling vacancies has proven to be difficult. Therefore, the S&E Committee is looking for ways to promote the sector to those who are unfamiliar with it, both within the European Union and in countries outside of it.

To achieve this, the Committee members are investigating different possibilities such as promotion via the EU IWT Platform's website, social media, pictures, films, and testimonials from the sector. The sector partners are also lending their assistance in this regard.

The target audience includes students, young people as well as individuals seeking a new or second career. The Committee's Secretariat has already conducted a small inventory to identify short-term and long-term recruitment strategies. The Committee will present the ideas in the first half of 2023 and look forward to discussing further steps together, preferably with input from the Committee's members.

4.8. Outlook for 2023

One of the main focuses in 2023 will be on the recruitment and branding campaign. The IWT Platform plans to develop a comprehensive campaign to promote the sector and increase interest in it.

Regarding professional qualifications, efforts will continue to improve training and work conditions in the sector. While competence standards for operators in the transport of goods have been concluded, further discussion is needed on the standards for operators in passenger transport.

Drafting the European manning regulations is another area that will require a significant amount of effort and commitment in 2023. Completing the first draft within the given time frame is a priority.

In regards to the Fitness Check of the Derogation Agreement in Art. 16 of Regulation 883/2004 and the Posting of Workers Directive, the Committee will resume work in the sub-working groups of the SSDC along with the ETF and share its positions.

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Gerit Fietze,
Henriëtte Schreuders*





05. Nautical & Technical Committee

5. NAUTICAL & TECHNICAL

In 2022, the Nautical & Technical Committee (NTC) dedicated its efforts towards working on technical regulations for inland vessels. The NTC's focus was on regulations that support innovation and sustainability, as well as those that could potentially impact the existing fleet of vessels. The NTC also prioritised navigation (police) regulations to ensure a higher level of safety. The mission of NTC is to proactively participate in the nautical and technical regulation of inland navigation.

5.1. Technical Part

The work plan for 2022 of the NTC aligned with the European Working Group on Technical Regulations (CESNI/PT) for the period of 2022-2024. Significant progress was made in 2022, and the NTC is pleased to highlight the most important achievements here below.

Regulation should facilitate innovation and transition

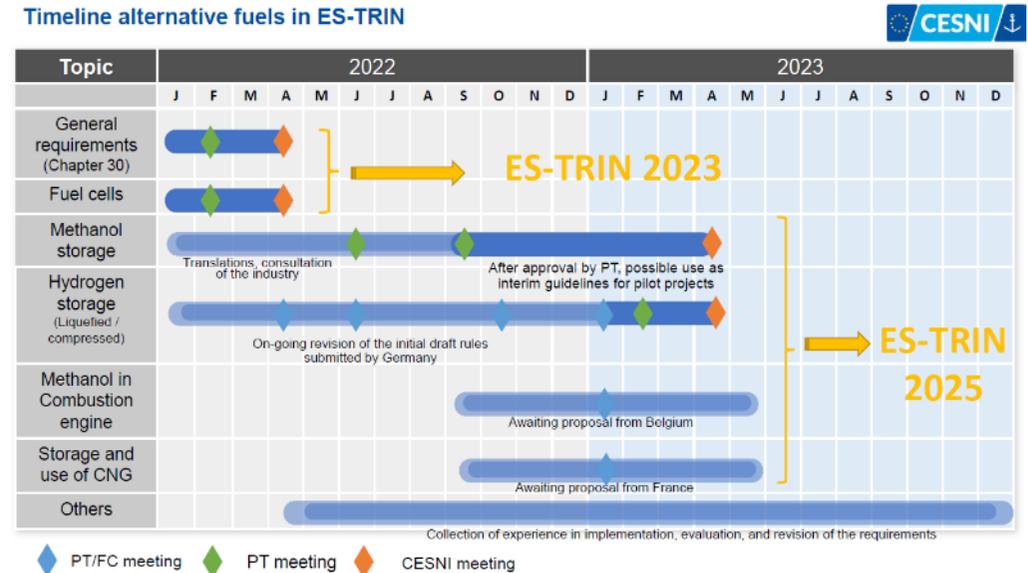
Inland navigation is at the beginning of a major transition towards sustainable vessel propulsion. The industry is facing an increasing need for clarity and regulation that facilitate innovation and the necessary transition. At the same time, the regulations must allow sufficient room for development. Inland navigation entrepreneurs willing to invest in new technologies and sustainability should be facilitated.

The IWT Platform was involved in the development of crucial regulations for inland navigation. A temporary working group CESNI/PT/FC carried out and continues significant preparatory work: for example, amendments of the structure of Chapter 30 [ES-TRIN](#) (Special provisions applicable to craft equipped with propulsion or auxiliary systems operating on fuels with a flashpoint equal to or lower than 55°C) and Annex 8 which contains additional provisions. Special attention was given to specific requirements for fuel cells and methanol storage.

The IWT Platform has always recommended being as flexible as possible with regulations, evaluating more often, and using experiences gained in practice to adjust and improve regulations. After all, regulations should facilitate innovations. Currently, practical knowledge is gained from all kinds of pilot projects. Based on the gained experience, the IWT Platform is looking to adjust and improve the draft regulations before they become final.

The figure below presents the intended schedule for developing regulations on alternative fuels.

Timeline alternative fuels in ES-TRIN



CESNI committee adopts ES-TRIN 2023/1

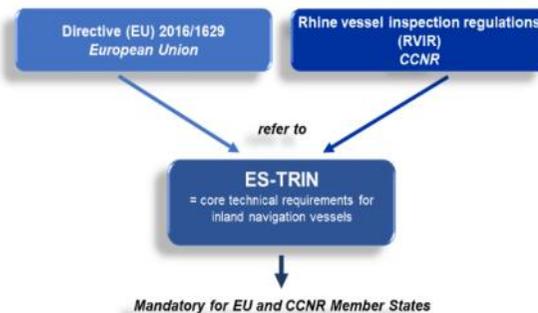
The European committee for drawing up standards in the field of inland navigation ([CESNI](#)) was established seven years ago with the aim of drafting and adopting standards for inland navigation in various areas. These include standards related to vessels, crews, and information technologies. At its autumn meeting, the CESNI committee adopted a new version of the

European Standard laying down Technical Requirements for Inland Navigation vessels (ES-TRIN). This new ES-TRIN 2023/1 will replace the currently valid ES-TRIN 2021⁴ from 1 January 2024.

The IWT Platform is internationally involved in the creation of these technical regulations, with a focus on making regulations useful, clear, not hampering innovation, and facilitating the necessary transition to low-emission or even emission-free inland navigation.

ES-TRIN: Harmonising Technical Regulations at the European Level

ES-TRIN contains provisions for the construction, fittings, and equipment of inland waterway vessels and specific provisions for certain categories of vessels. Since 2015 CESNI has regularly updated and published ES-TRIN to keep up with technological developments and lessons learned from the application of the standard.



References to ES-TRIN are now included in the legal frameworks of the EU and the CCNR (respectively Directive (EU) 2016/1629 and Rhine vessel inspection regulations). The Danube Commission also decided in 2017 to recommend the standard in its international instruments. In 2023, all the riparian states of the Danube should have implemented the ES-TRIN in their national law. Moreover, the International Sava River Basin Commission intends to create a reference to the standard in its legal framework.

⁴ The ES-TRIN 2023/1 is available in four languages following these links: [Dutch](#), [German](#), [English](#), and [French](#).

ES-TRIN was established, with great effort, as the centrepiece and baseline for the technical requirements for inland navigation vessels in Europe and has contributed to the reinforcement of governance and harmonisation at the European level.

Changes in ES-TRIN 2023 compared to version 2021

Apart from editorial corrections, ES-TRIN 2023 includes the following changes compared to version 2021:

- low flashpoint fuels and fuel cells;
- life jackets;
- exhaust gas after-treatment systems;
- waste water collection;
- permanently installed fire-fighting systems for protecting objects;
- passenger vessels;
- recreational craft;
- electric propulsion engines aft of the afterpeak bulkhead;
- repair of engines in service;
- retractable wheelhouses;
- radar navigation installations and rate-of-turn indicators;
- special anchors with reduced mass;
- updating of references to the ES-RIS 2023/1.

Informing inland navigation entrepreneurs - applicability of regulations

The IWT Platform places great importance on informing inland navigation entrepreneurs about the applicability of certain regulations. One example is the regulations for repairing engines in service.



In 2023, an ES-TRIN amendment to the regulations for repairing engines already in use (Articles 9.01 and 9.10 ES-TRIN) will take effect. This amendment will align with the [information on the CESNI website](#) about Chapter 9, particularly Article 9.01 “Repair to an existing motor or to a replacement or exchange engine”.

It is important to understand the application range of the new Article 9.10 ES-TRIN. Particular attention has been paid to the transitional provisions to restrict the application of Article 9.10 to engines installed after 2003 when they are repaired from 2024 onwards. Article 9.10 does not apply for engines which are already installed onboard and (a) non-type-approved or (b) for which no installation test had to be carried out. In practice, this means that Article 9.10 will only apply for repairs to CCNR I, CCNR II / IIIa, or stage V approved engines for which a minimum guaranteed documentation exists.

The Committee emphasised the importance of a clear explanation in the explanatory memorandum to ES-TRIN 2023, particularly in the form of a schematic overview to make the information more accessible to business. The CESNI Secretariat has prepared a schematic explanation that provides a clear explanation of the regulations for repairing engines in service.

Date of installation of the engine	Before 2003	Between 2003 and 2007	Between 2007 and 2019	After 2019
Emision standard at the installation	None	RVIR (CCNR I) for the vessels with Rhine vessel inspection certificate.	RVIR (CCNR II) or EU Directive 97/68 (IIIa) for the vessels with Rhine vessel inspection certificate or Union certificate	EU Regulation 2016/1628 (NRMM, Stage V) as well as transition engines for the vessels with Rhine vessel inspection certificate or Union certificate
Technical requirements of Chapter 9 of ES-TRIN at the renewal of the vessel certificate	Only Article 9.02 of ES-TRIN (identification numbers of all internal combustion engines mentioned in the vessel certificate)	Chapter 9 of ES-TRIN, except Article 9.01(2) (if the engine still complies with the provisions on type approval and installation in force on the installation date)		Chapter 9 of ES-TRIN
Repairs	Article 9.10 does not apply	Article 9.10 applies only for repairs performed after 1 January 2024		

It is important to note that no report on repairs carried out before 1 January 2024 is required. Article 9.10 does not therefore apply retroactively to repairs prior to this date.

Other activities

An important task of the IWT Platform is to inform and consult inland navigation entrepreneurs. IWT Platform's Nautical and Technical Committee was again frequently consulted on many and various topics in 2022:

- Low flashpoint fuels and fuel cells (Chapter 30 and Annex 8)
- Low flashpoint fuels – storage of methanol
- Results from the in-depth study on organisational human factors aspects in relation to accidents in inland navigation
- Engines from previous phases that have already been put onto the market (Articles 9.01 and 9.10 ES-TRIN)
- Retractable wheelhouses (Article 7.14 ES-TRIN)
- Application of Article 7.12 to elevating wheelhouses
- Passenger vessels (Chapter 19 ES-TRIN)
- Explanation in graphical form for the repair of engines in service
- Marinisation of NRE engines
- Installations located ahead of the plane of the collision bulkhead or aft of the afterpeak bulkhead
- Electronic equipment and systems (Chapter 12 ES-TRIN)
- Electric propulsion systems (Chapter 11 ES-TRIN)
- Follow-up Correctly connected bunkering
- Follow-up studies Human factors root causes of accidents in inland navigation
- Workplan NTC IWT Platform 2023



5.2 Nautical Part

In 2022, the IWT Platform's Nautical and Technical Committee continued its work on topics that have been ongoing for several years. This is due to the fact that the issues at hand require extensive time and effort. As such, the work plan for the nautical part remained almost identical to that of previous years, encompassing both the IEN and RP working groups.

WORKING GROUP RP

Discussions in the RP Working group included:

Board- and clearance lights

No progress was made on the issue of the ship's side and top lights. The topic will be discussed again next year due to its complexity and difficulty in finding a solution.

Push barges on the starboard side (SB)

There is reasonable agreement within the CCNR to allow the transport of containers on SB and they are working on drafting a regulation text, which will be further discussed in the autumn of 2023.

Cybersecurity

Cybersecurity has become an increasingly crucial issue for inland navigation, with a pressing need to address its growing risks. The Working group RP tries to anchor cybersecurity measures in the RPR. However, the Committee has expressed its doubts to the Dutch delegation on whether cybersecurity belongs in the RPR, as the sailing regulations should not become a catch-all repository. The Dutch delegation has agreed with the Committee's stance.

Autonomous sailing

The CCNR wants to experiment with autonomous sailing and also make this possible in the RPR. Exemptions from regulations under specific conditions will be possible. The RN Working group will review individual applications.

TSA

Advancements were made in the regulations for the track pilot in 2022. During the last meeting, the working group analysed the differences among the delegations and engaged in detailed discussions on visualisation systems. As more equipment, such as engines and navigation devices, is integrated with TSA, regulations are being adjusted accordingly to ensure fairness. However, it is important to explain the usefulness and necessity of these regulations to the sector. Any points on which there is no agreement are handed over to the working groups for further discussion.

WORKING GROUP IEN

IEN Working group deals with topics that sometimes take a long time before they reach a conclusion. The Nautical Technical Committee reviews these matters in the interim, as it does with the RP working group.

Here are some of the topics that were worked on in the IEN Working group:

Determination of the needed number of mooring places

The Committee continued to work on the possible realisation of additional moorings along the Rhine, which is a complex and time-consuming process that involves several steps:

1. Identifying the current situation with respect to available locations for mooring places.
2. Investigating the facilities offered at these locations, such as shore power.
3. Setting up regular monitoring.

The last point was approached with extreme caution, particularly with regards to its long-term implications. Therefore, further exploration will take place within the Working group before any long-term steps are approved by the Committee. Nonetheless, the first three points of the proposal have been approved and are expected to result in positive developments.



Construction and maintenance of mooring places in the Grand Canal d'Alsace

The study was completed, and a final report was submitted with potential locations. Markolsheim and Ottmarsheim are currently being considered as the preferred locations. Specifications were drawn up, and additional facilities are being reviewed.

Repairs on existing mooring places were completed, and tentative progress was made in improving the quality of the infrastructure.

Workshop on shore power

On 3 February 2022 the Committee gave a presentation at the workshop on shore power, organised by the CCNR in cooperation with Via Donau. The workshop was well attended, with 188 participants from various European countries.

As a follow-up the Committee proposed updating the 2016 paper for the CCNR, which reflects the practical experiences of shore power. The updated paper is currently being finalised.

Maximum speed for downstream navigation between Bingen and St. Goar upstream of flood Marke I

This topic dealt with the proposal of EBU and ESO to increase the maximum speed in the descent above Marke I from 20 to 24 km.

The proposal was honoured and was ratified at the RPG in December 2022 marking a significant win for the European interest representation. It will be incorporated into the RPR by the end of 2023.

*Lijdia Pater-de Groot,
Leny van Toorenburg*





06. Infrastructure
Committee



6. INFRASTRUCTURE

The year 2022 was characterised by the dramatic war in Ukraine, which had a significant impact on the supply chain. Inland Waterway Transport played an important role within the Solidarity Lanes as an answer from the European Union to support Ukraine by putting forward an action plan to unlock the potential and scale up the transport of the export of agricultural products of Ukraine.

IWT plays an important role in the EU policy goals to reduce emissions. According to the Sustainable and Smart Mobility Strategy, IWT is expected to substantially increase its share by 2035 and 2050. Inland waterways offer a huge potential to absorb much higher volumes on the European waterways. However, critical low water levels on major European rivers during the summer period threatened to disrupt the supply of major industries and society in Europe. While future-proofing infrastructure is high on the political agenda, these situations cannot be attributed entirely to climate change, but rather are also a consequence of the long-neglected maintenance of the major European waterways.

On the Danube River this even culminated in a blockade of numerous vessels amidst the rerouting of transports of grain and commodities from Ukraine to the European Union and vice versa.

Climate change will bring new challenges for inland navigation, notably in relation to (regular and enough) water quantity. Therefore it is important for the IWT sector to be properly represented in future discussions on climate change-related policies, strategies and measures, including water quantity management.

In December 2021 the European Commission released the proposed revision of the TEN-T guidelines which currently is being negotiated by the European Council and Parliament. The revision is expected to address the

shortcomings in the implementation of the current TEN-T guidelines and takes on board climate resilience of inland waterway infrastructure.

All the above objectives are governed by the overall EU and international policy towards climate neutrality in 2050. In light of these developments, the Infrastructure Committee aimed to contribute to the various discussions and to be in dialogue with the responsible actors.

6.1. Modal shift & urgent need for infrastructure investments

Infrastructure & [TEN-T](#) revision

IWT within the Sustainable and Smart Mobility Strategy is supposed to substantially increase its share by 2035 and 2050. Inland waterways have the potential to absorb much higher volumes in the future. However, to realise this potential, IWT requires a well-maintained, reliable, safe, cost-effective, and climate-resilient infrastructure network. Societies and major industries in Europe depend on a seamless supply of goods via waterways, while passenger transport on waterways is a major pillar of European tourism.

In view of the challenges ahead and towards the background of the global and Union policies, the Infrastructure Committee welcomed the Commission's proposal to revise the TEN-T regulation. However, the Committee signalled a number of shortcomings that need to be addressed to realise the fit-for-future infrastructure and the modal shift ambition of the Union.

An increased ambition for standards and requirements

IWT is expected to increase its share by 25 % by 2030 and by 50 % by 2050. Previously, EU strategies identified the elimination of infrastructure bottlenecks as a key requisite for the development of inland navigation in Europe. Unfortunately, due to under-investment and lack of political



attention, this could not be realised in the past years. Together with the subsequent low water periods in the past years, the modal share of IWT did not increase and moreover might lead to a reverse modal shift.

In this context, the Infrastructure Committee considers the proposed minimum parameters⁵ as very unambitious and thus as an absolute minimum. The Committee advocated lifting these minimum standards within the corridor approach to more ambitious parameters enabling the sector to materialise the modal shift goal. As an example of a huge modal shift potential, we refer to the increasing share of hinterland container transports which are supposed to substantially grow in the coming years. Where the current minimum bridge height is set at 5.25 m, allowing only 2 layers of containers in vessels, a fit for future infrastructure needs to meet at least 3 and preferably a 4-layer infrastructure, meaning 7.00 m and 9.10 m respectively. The 4-layer infrastructure should certainly be the standard for new infrastructure.

Maintenance

Maintenance is one of the missing cornerstones in the current TEN-T regulation. Due to a lack of maintenance, the navigability on the major European waterways in the past years deteriorated on various stretches leading to disruptive bottlenecks in the European waterway network.

The Infrastructure Committee urges to prioritise the protection and non-deterioration of the current status of the waterway network, which may be higher than the minimum requirements and levels of services proposed in the legislation. Overdue maintenance poses a significant impediment to modal shift and must be addressed urgently to ensure the continued growth of IWT.

⁵ Minimum parameters are as follows: for the bridges of at least 5.25 m and for the navigable channel depth for rivers and canals of 2.50 m at defined reference

6.2. Serious low water situation on European waterways undermines reliability of the sector

In summer 2022 Europe suffered from a heat wave leading to dramatically low water levels on European waterways. Despite these challenging circumstances, the IWT sector remained committed to continuing its services to serve European society and industry.

The essential role of IWT became even more evident during the low water period. However, the lack of investments in infrastructure more and more undermines the reliability of IWT, while it is expected to substantially increase its modal share in the future. In light of the severe drought, the Infrastructure Committee continued to call for proper maintenance of the waterway infrastructure and removal of bottlenecks to avoid similar situations in the future.

In 2015, the European Court of Auditors published a report that found the modal share of inland waterway transport had not significantly increased since 2001 within the EU, despite the objective of shifting traffic from roads to environmentally friendly transport modes.

Therefore, the Court considered that the European IWT strategies had not been effectively implemented as the policy objective of shifting goods from roads to inland waterways was not achieved, and overall navigability conditions had not improved.

The Court also noted that developing IWT requires considerable coordination among Member States and that, as for other larger infrastructure projects, political and environmental considerations may affect the implementation of inland waterways projects. The Court found that the EU strategies lacked some relevant analyses, such as identification of the overall benefits of inland navigation in different corridors and assessment of the IWT contribution level to the policy objective of shifting traffic from roads to environmentally friendly transport modes.

water levels, which are exceeded at a defined number of days per year on a statistical average.

6.3. Danube Ministerial conclusions signed

In 2022, the Danube Ministers again signed conclusions on effective waterway infrastructure rehabilitation and maintenance on the Danube and its navigable tributaries. By signing these conclusions, they reaffirmed their strong commitment to ensuring safe and efficient transport links by stepping up shipping on the Danube, given the blockade of ports of Ukraine in the Black Sea and the Sea of Azov as a result of Russian aggression. They recalled the importance of the "Fairway Rehabilitation and Maintenance Master Plan of the Danube and its navigable tributaries", prepared within the framework of the EU Strategy for the Danube Region by Priority Area 1a on Inland Waterways in November 2014 and updated in spring 2022.

However, the Ministers also noted that the navigation status had still not improved in all Danube riparian states compared to 2014, as reflected in the "Master Plan implementation progress summary report". Therefore, they called upon all involved Member States to fulfil the legally binding obligation to preserve "Good Navigation Status" (GNS) of the Danube River and its navigable tributaries that are part of the TEN-T network, as far as this is possible with maintenance and rehabilitation measures. They also called for fulfilling the legally binding obligation of reaching a "Good Ecological Status/Potential" (GES) and a "Favourable Conservation Status" (FCS) required by the Water Framework Directive and by the Birds and Habitats Directives.

The waterway management authorities governing the Danube and its navigable tributaries estimated annual operational costs of about EUR 36.3 million to bridge the gap between the current status quo in fairway maintenance and management and the different target Levels of Service. Additional investments are needed for dredging equipment, riverbed surveying, and fairway marking equipment. In terms of regional distribution, the majority of investments will be needed in the Lower Danube (particularly Romania and Bulgaria).

The IWT Platform applauded the signing of these conclusions for the Danube navigation. However, despite this important official act, the fairway situation in the common Bulgarian-Romanian section has since deteriorated dramatically.

This situation prompted the Infrastructure Committee and its related stakeholders to call upon the Commission President Ursula von der Leyen for support in addressing this issue at the political level. While the cost for maintenance dredging on the critical spot might accumulate to approx. EUR 400K-500K, the costs incurred in the last week and the following days of the total blockage run into millions of Euro for barge operators.

6.4. International Commissions for the protection of the Danube and Rhine Rivers

In 2022, the International Commissions for the Protection of the Danube and Rhine Rivers paid particular attention to the recent droughts and their effect on the river basins. To address this issue, the International Commission for the Protection of the Danube River elaborated amongst others a Joint Statement for Inland Navigation and Environmental Sustainability.

Drought is expected to become a major topic for water management in the near future. Climate change will bring new challenges to the inland navigation sector. The Commissions are in the process of analysing the current situation in view of possible future strategies.

The Infrastructure Committee encourages this initiative which should take into consideration newly adopted EU policies such as the Smart and Sustainable Mobility Strategy and the major challenges to coping with the impact of climate change.

The Infrastructure Committee, holding an observer status in the above Commissions, participated at their annual meetings and aims to be closely involved in their future works. It looks forward to continued engagement and further intensified exchanges with the relevant authorities and stakeholders



to ensure that water resource management supports sustainable water uses such as navigation while at the same time protecting and enhancing the water environment. The Infrastructure Committee stresses the importance of its full engagement in the development and delivery of appropriate measures in the elaboration and implementation of the new River Basin Management plans in all involved countries.

[Water Framework Directive and participation in the Water Framework Directive \(WFD\) Navigation Task Group](#)

The IWT Platform, via its cooperation with the WFD Navigation Task Group (WFD NAVI TG), attended the Strategic Coordination Group meetings in 2022 and several meetings of different WFD Common Implementation Strategy Working Groups and Ad Hoc Task Groups (ATG).

At these meetings, the need to identify practical, compliant solutions to address water scarcity and drought-related issues in the context of the Green Deal ambitions for IWT was a recurring theme. The IWT Platform via WFD NAVI TG is engaging in the following:

- [Water scarcity and drought](#). Several activities in the recently agreed 2022-2024 Work Programme for ATG Water Scarcity and Droughts (WS&D) are vital for the IWT sector. Contributions have therefore been made by WFD NAVI TG to the following:
 - Exchange on **transboundary cooperation** on WS&D within the EU: River Rhine Case Study with CCNR
 - WS&D **river basin management planning and risk reduction** will include the issue of water security in the climate change context; an exchange on measures for sustainable and climate-resilient water management, including NBS; and the evolving role of drought management plans. Relationships with sectoral policies will be covered. WFD NAVI TG sits on the core group for this activity
 - Review and updating of **CIS Guidance 24 on climate change adaptation**: NAVI TG is providing input and examples on behalf of the

waterborne sector, including emphasising the need to include hydromorphology/physico-chemical issues and associated measures within the scope of the activity, alongside those for floods and droughts. WFD NAVI TG sits on the core group for this activity

- Regarding ATG WS&D, WFD NAVI TG asked to invite DG MOVE to participate in the activity on **good practice water allocation mechanisms** (an activity to be supported by a contract on water quantity management and in collaboration with WG Economics). WFD NAVI TG will also seek an opportunity to provide input directly
- The ECOSTAT activity on **e-flows** will similarly continue to be followed closely insofar as this also links to water scarcity issues.
- [WG Economics](#). WFD NAVI TG attended workshops run jointly with OECD on topics including Water Investment Planning & Financing, the Polluter Pays Principle, and Cost Recovery. The Work Programme for this new WG (previously an ATG) is still to be finalised. WFD NAVI TG is following this WG closely, given the importance to the sector of issues such as polluter pays and cost recovery, as well as the need to ensure hydromorphological modifications (e.g. Articles 4(3) and 4(7)) are adequately accommodated in the WG activities and outputs.

Other points:

- WFD NAVI TG contributed to the CIS Technical Document on [Sediment Management](#) in the WFD context. It was published in mid-2022.
- WFD NAVI TG presented a statement at the second meeting of the [Zero Pollution Stakeholder Platform](#), stressing the importance of sediments and their potential role in the downstream (transboundary) transport of contaminants.
- WFD NAVI TG highlighted the importance of including climate change considerations in the [ECOSTAT](#) activity on developing boundary values for physico-chemical parameters, including temperature, salinity, transparency, etc.



6.5. Connecting Europe (CE) Days, Lyon, 28-30 June 2022

IWT Platform representatives attended this event to discuss transport infrastructure topics. The event gathered more than a thousand representatives of the EU and international institutions as well as transport and related stakeholders.

During the official parts, IWT Board member Philippe Grulois participated in a panel discussion in the **Rhine Alpine Corridor forum meeting** and voiced the sector's needs regarding the waterway infrastructure on this important IWT corridor.



In the framework of the CE days, EFIP and INE, with their national members, hosted a **meeting of Director Generals**. Theresia Hacksteiner, Secretary General EBU and Executive Director of the IWT Platform, and her colleagues from EFIP and INE were invited to a panel discussing decarbonisation and energy transition of inland waterways and ports. In addressing the

questions of how inland and shoreside shipping participates to sustainable transport, she took the possibility to call upon the Director Generals attending the meeting to provide sufficient funding for the necessary IWT infrastructure, including for alternative fuels in ports.



6.6. Day-to-Day Operations and Challenges

The Infrastructure Committee is deeply involved in policy topics that aim to address infrastructure needs and prepare for the future. Its work also involves addressing various incidents related to locks, bridges, sudden shoals, etc. Below is an overview of some challenges the Committee has faced recently.

The blockage schedule of the Upper Rhine locks is one of the Committee's major concerns. It aims to strike the right balance between proper maintenance and the least possible delay for inland navigation. To achieve this balance, the Committee strives to facilitate the needs of inland navigation such as creating more car dropping locations and berths along the Rhine to address the ongoing shortage.

The Committee is closely involved in the repair and renovation of the **Gabcikovo locks on the Danube**. The aim is to stick to a tight schedule for the realisation of the works. The two locks are expected to be fully operational again in autumn 2023.

Greening inland navigation is one of the major Committee's goals. **Shore power facilities** are vital and should be provided at all berths to achieve this goal. The Committee supports the Alternative Fuels Infrastructure Directive (AFIR), which sets out mandatory national targets for the deployment of sufficient alternative fuels infrastructure in the EU. The Committee believes that the inland shipping sector must be able to count on unambiguous alternative infrastructure and connections. It also considers future developments and opportunities, such as electric or semi-electric shipping and other smart collaborations.

Theresia Hacksteiner,
Gerard Kester,
Leny van Toorenburg



07. EU Funded Projects

7. EU FUNDED PROJECTS

In order to reach its objectives and defend the interests of the IWT sector in the Research and Innovation field, the EU IWT Platform takes initiatives to become a part of EU-funded projects. Currently, the IWT Platform is participating in six projects that will significantly impact the entire inland navigation sector. For one of them, the ReNEW project, it plays the role of the Coordinator.

7.1. PLATINA3

Inland navigation is an essential part of the European transport system, providing a cost-effective and environmentally sustainable alternative to road transport. In this context, the EU-funded PLATINA3 project aims to provide a knowledge base for the implementation of the EU Green Deal and the European Commission's IWT action programme (NAIADES) towards 2030 by boosting innovation and collaboration between all relevant inland waterway transport partners.



The project began in 2021, and it has made good progress since then. The initiative is structured around four areas: Market, Fleet, Jobs & Skills, and Infrastructure. These areas are critical to ensuring the competitiveness, environmental and social sustainability, and innovative development of IWT.

PLATINA3 addresses priority topics for the success of IWT:

- Integration & digitalisation of IWT in view of modal shift & synchro modality
- Zero- emission, automated & climate resilient fleet
- Skilled workforce anticipating zero-emission & automation
- Smart & climate-resilient waterway and port infrastructure with clean energy hubs.

In 2022, three Stage Events were organised within the PLATINA3 project:

- Stage 3 – the Brussels sessions on 10-11 February 2022
- Stage 4 – the Strasbourg Revisited sessions on 7-8 June 2022
- Stage 5 – the Budapest 2022 sessions on 19-20 October 2022

More information on the PLATINA3 project is available on the website: <https://platina3.eu>

7.2. IW-NET project

The *Innovation driven Collaborative European Inland Waterways Transport Network* is underway.



The IW-NET project is set to optimise the EU transport system by delivering a multimodal optimisation process and increasing the modal share of IWT. By supporting the EC's ambitions to reduce transport greenhouse gas emissions, the project addresses infrastructure bottlenecks, insufficient IT integration along the chain, and adoption of technologies, such as new vessel types, alternative fuels, automation, IoT, and machine learning.

The IW-NET project's three key pillars are digitalisation, sustainable infrastructure and intelligent traffic management, and innovative vessels. By applying user-centred application scenarios in important TEN-T corridors, the IW-NET project has capacities to demonstrate and evaluate the impacts of simulations and tests covering technological, organisational, legal, economical, ecological, and safety/security issues.

More information on the IW-NET project is available on the website: <https://www.iw-net.eu/>



7.3. ENTRANCE project

The European Union's efforts to reduce greenhouse gas emissions have led to many exciting projects, including ENTRANCE, an EU-funded H2020 project that seeks to find and de-risk innovative, sustainable transport solutions for all forms of transportation.



The goal of ENTRANCE is to connect problem solvers, investors, and buyers using a matchmaking platform that is founded on the "supply-demand-finance" triangle. The platform provides complementary advisory, brokerage, and training services to help transport and mobility sector players find the most suitable partners and financiers for their innovative solutions.

The mission of ENTRANCE is to contribute to the reduction of CO₂ emissions and pollutants caused by the transport and mobility sector in Europe by providing first-of-a-kind sustainable solutions. With the matchmaking platform and complementary services provided by ENTRANCE, the project aims to drive innovation and enable the implementation of new, sustainable transport solutions that will help build a better future for all.

More information on the ENTRANCE project is available on the website: [Entrance \(entrance-platform.eu\)](https://entrance-platform.eu)

7.4. PIONEERS project

Portable Innovation Open Network for Efficiency and Emissions Reduction Solutions. This new project was granted and launched by the end of 2021. It addresses the challenges faced by European ports to reduce their environmental impact while remaining competitive in a sector characterised by continuous growth. The work is led by the Port of Antwerp, which operates the biggest port area in the world while the Ports



of Barcelona, Constanta and Venlo represent the ideal mix of size, location, operation models and area of influence to test a number of demonstrations during the project lifecycle.

A set of five objectives were defined:

1. Reduce the port's total environmental footprints by introducing Clean Energy production, storage and supply
2. Deploy sustainable port infrastructure beyond energy supply and demand
3. Introduce eco-friendly improvements relying on digitalisation and new methods of operations
4. Co-define and transfer PIONEERS demonstrations to fellow ports during the project lifecycle
5. Deliver and disseminate a Port Master Plan for the transition towards GHG-neutral shipping and wider multimodal mobility by 2050.

A short video explanation of the PIONEERS project [is available here](#).

More information on the PIONEERS project is available on the website: <https://pioneers-ports.eu/>

7.5. DT4GS project

Digitalisation of the Transport sector has been a continual focus of the European Commission and is seen as a primary enabler of smart solutions for sustainable transport that can deliver economic and societal benefits. Digital Twins are realistic digital representations of physical artefacts, enabling improved insights for enhanced decision-making, particularly in complex systems where DTs are employed for predicting outcomes and assessing "what-if" scenarios. This leads to real-time optimisation of processes and operations and, ultimately, to unlocking value which is otherwise difficult to grasp through conventional means. DT4GS will provide an industry-wide



decarbonisation decision-support system for shipyards, equipment manufacturers, port authorities and operators, river commissions, classification societies, energy companies and transport/corridor infrastructure companies. The project will enable stakeholders in shipping to actively embrace the full spectrum of Digital Twins innovations to support smart green shipping in both the upgrade of existing ships, as well as the building of new vessels.

More information on the DT4GS project is available on the website: <https://dt4gs.eu/>

7.6. ReNEW project

The IWT sector is facing significant challenges due to climate change, and the need for a sustainable and climate-resilient transport sector is becoming more urgent. To address these challenges, ReNEW, a 3-year project funded by Horizon Europe, has been established to support the transition of IWT to a smart, green, sustainable, and climate-resilient sector. The EU IWT Platform acts as a Coordinator for this project.



The project aims to create and test new solutions for climate-neutral and climate-resilient IWT, capitalising on cooperation opportunities with ongoing projects and initiatives. It will build on previous results, will capitalise on cooperation opportunities with ongoing projects and initiatives and will deliver:

- An interdisciplinary IWT Resilience and Sustainability decision-support framework incorporating innovative models for IWT infrastructure networking interdependencies linking to probabilistic risk and safety analyses and resilience quantification (Resilience Index), supporting the identification of short- and long-term measures that enhance resilience utilising SOA building blocks from Reference Projects;

- Targeted innovative infrastructure resilience and sustainability solutions building on autonomy developments and maturing green energy options;
- A Green Resilient IWT Dataspace and generic Digital Twin providing primarily data sharing between infrastructure monitoring, RIS and traffic management and emergency systems and climate solutions;
- Four Living Labs designed to provide exemplars from a) LLs focusing on integrated IW and hinterland infrastructure [Gent-urban, Douro-corridor, Netherlands – EU network perspectives] and a LL addressing specifically inland waterway resilience;
- ReNEW Outreach and Upscale activities designed to maximise impact pathways.

More information on the ReNEW project is available on the website: <https://renew-waterways.eu/>





Thank you!

For questions, suggestions or to plan
a meeting, feel free to contact us!

Visit our website and social media channels
www.inlandwaterwaytransport.eu

