



IWT Digitalisation

European Commission's initiatives

Inland Navigation Week

DIWA – Masterplan Digitalisation of Inland Waterways

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Topics

- Context of IWT digitalisation
- Revision of Directive 2005/44/EC on harmonised river information services
- Development of an IWT Digitalisation vision
- Study with pilots on EU Space Data for automated vessels on European inland waterways

Context



European Green Deal:

-> called for decisive action to shift a substantial part of the freight transported by road to inland navigation and rail -> measures to increase the capacity of inland waterways

Sustainable and Smart Mobility Strategy:

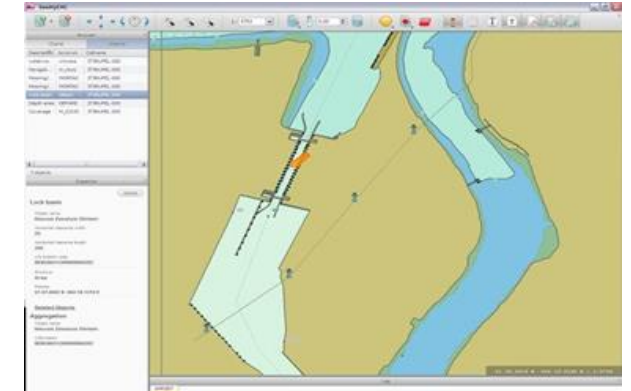
-> inland waterway transport and short-sea shipping to increase by 25% by 2030 and by 50% by 2050

NAIADES III Action Plan 2021-2027

- The NAIADES III Action Plan aims to meet objectives of the Green Deal and the Sustainable and Smart Mobility Strategy and will focus on
 - (A) shifting more freight transport to inland waterways
 - (B) an irreversible path towards zero emission inland vessels
- Both underpinned by a paradigm shift towards further **digitalisation**, as well as accompanying measures to support the current and future workforce.

Smart Inland Waterway Transport

- Make IWT smarter, by further advancing the digitalisation of the sector
- Digitalisation is key
 - for improving the efficiency and reliability of navigation and traffic management
 - better integrating inland waterway transport in logistics processes and multimodal chains
 - reducing the administrative burden and costs of regulatory compliance.



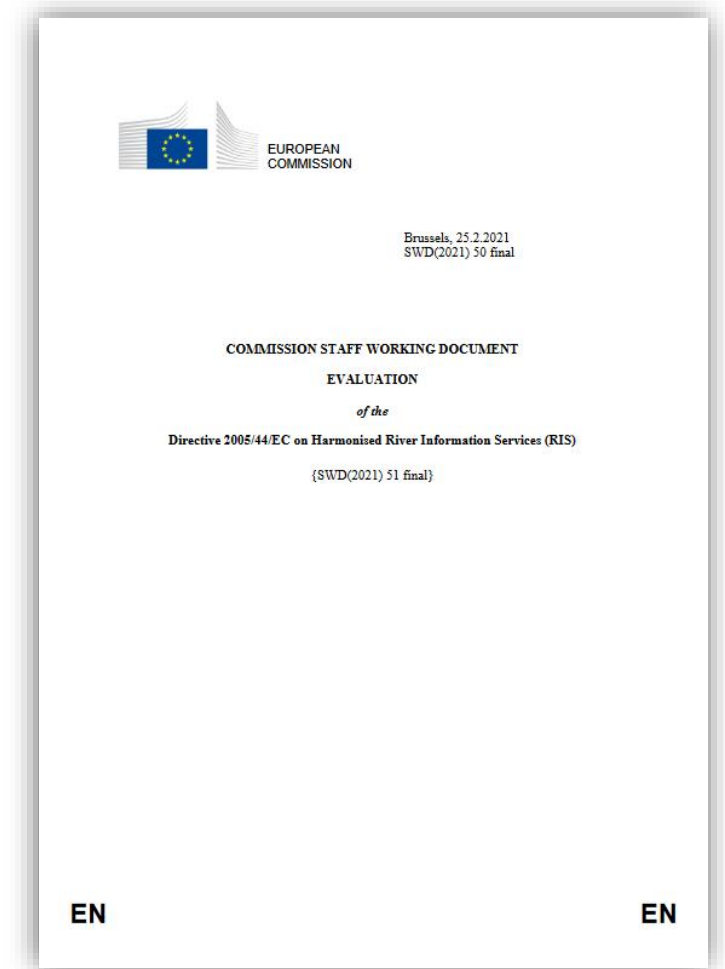
RIS Directive: Context

- The RIS Directive 2005/44/EC sets an interoperability framework for digital information services to support traffic and transport management in the EU inland waterway transport sector.
- The Directive defines the general obligation of Member States to ensure the development and implementation of these services in an efficient, expandable and interoperable way.
- It currently applies to 13 Member States that are part of the European interconnected network of waterways. Some Member States (IT, ES, PT) and third countries (RS, UA) apply its provisions on a voluntary basis.

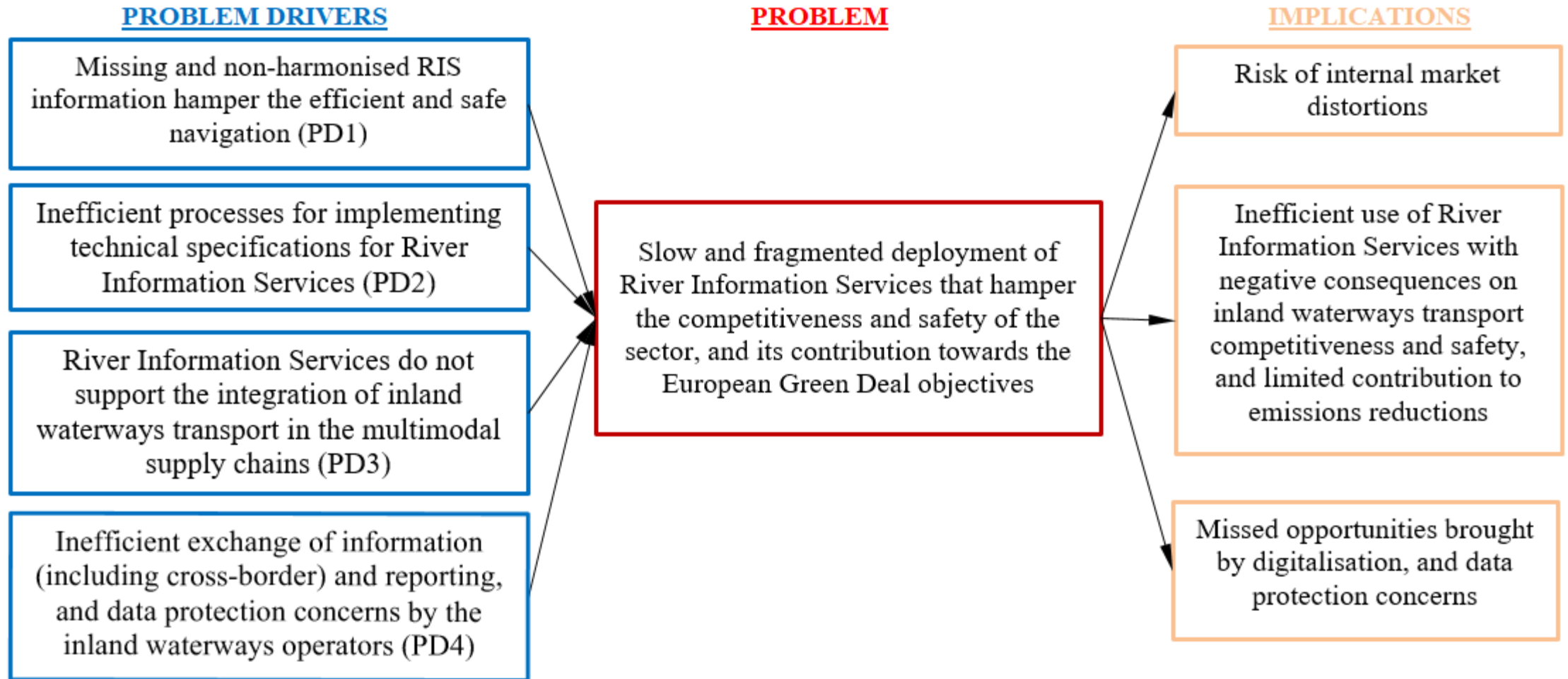
RIS Directive: Evaluation

Evaluation of the RIS Directive

- From 2019 – 2020 an ex-post evaluation of the RIS Directive has been performed
- Publication of Staff Working Document SWD(2021)50 on 25 February 2021



RIS Directive: Revision (problem tree)



RIS Directive revision (currently envisaged measures)

- Speed up the process of adoption of technical standards
- Improve the way users of services can report on their challenges
- Streamline the exchange of data by enhancing use of digital applications and to the extent possible using existing solutions
- Clarify as possible data protection issues
- Improve connections with other modes of transport

RIS Directive Revision – timeline

Impact Assessment

- 2022 Q1 – 2023 Q1: Impact Assessment Study
- 2023 Q2: Draft Impact Assessment (SWD)

Proposal for a new RIS Directive

- 2023 Q3: Adoption of new policy proposal by EC
- 2023 Q4: Start of negotiations in the Council
- ...

Development of an IWT Digitalisation Vision

NAIADES III Action Plan

- Revision of the Directive 2005/44/EC on Harmonised River Information Services (action 23)
- Technical assistance for a permanent operational structure for a single point of access for the provision of RIS-based Corridor Information Services (action 24)
- **An integrated and operationalised vision for the digital transformation of current traffic and transport related business models and processes in the sector (action 25)**
- **CEF technical assistance project to strengthen public-private cooperation in inland waterway transport and facilitate implementation of the digitalisation vision (action 26)**
- Facilitate the Development, demonstration and the deployment of holistic Smart Shipping Concepts for the digital integration of inland waterway transport in the synchromodal supply chain, including RIS, through Horizon Europe and CEF (action 27)

IWT Industry in the lead

- The actual driving force, main implementers and primary beneficiaries of the digitalisation vision and digital transformation process should be the IWT industry.
- Direct involvement of the IWT industry is therefore crucial to the success of the digitalisation vision and the digitalisation transformation process.

Next steps

- **Creation of a IWT Digitalisation Vision (Action 25)**
 - PLATINA 3: discussion paper presenting a structure and a process for the development and implementation of a IWT digitalisation vision (completed)
 - European IWT-Platform: designated rapporteur for drafting the digitalisation vision for IWT in the DINA Expert Group
- **Implementation of the IWT Digitalisation Vision (Action 26)**
 - Elaboration of IWT Digitalisation Roadmap (CEF Technical Assistance)

Study with pilots on EU Space Data for automated vessels on European inland waterways: objective

General objective

- ❑ Contribute to the NAIADES III objectives for the development, demonstration and deployment of holistic, smart and automated shipping concepts.

Specific objectives

- ❑ Define the minimum requirements in technical, operational and regulatory terms to guarantee safe and secure navigation for automated vessels in different levels of automation on European inland waterways
- ❑ Demonstrate and validate the findings by means of several pilots making use of EU Space data from Galileo, EGNOS and Copernicus.
- ❑ Contribute to the EU policy framework for automated vessels on European inland waterways and shall contribute to the work of the European Committee for Drawing up Standards in the Field of Inland Navigation (CESNI).

Study with pilots on EU Space Data for automated vessels on European inland waterways – activities

Activities envisaged:

- ❑ Identify the user requirements for safe navigation on inland waterways where autonomous, remotely piloted and manually piloted vessels will co-exist.
- ❑ Define operations and positioning performance needs for different operations of automated vessels, based on which the main challenges will be identified to ensure safe operation and resilient positioning.
- ❑ Identify and analyze the technical and regulatory barriers for automated vessels (e.g. lack of standards and regulation, for different levels of automation – based on the definition of CCNR), industry value chains and new business models that could emerge in inland waterways navigation, building on synergies between satellite-based navigation, imagery and telecom.

Study with pilots on EU Space Data for automated vessels on European inland waterways - activities

Activities envisaged:

- ❑ Identify and define possible actions at EU, Member State, regional and local level to boost business development, and support SMEs/start-ups to deliver EU Space based solutions to realise the future EU automated vessels capability for inland waterways.
- ❑ Investigation of possible implications on harmonised river information services in Europe according to Directive 2005/44/EC.
- ❑ Develop a prototype of on-board equipment that uses Galileo differentiators to address the main needs not covered so far by existing equipment, with focus on the use of Galileo authentication and Galileo high accuracy services.
- ❑ Define and develop a Copernicus safety case for inland waterways, which will be implemented and validated by means of a demonstrator.

Thank You!

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