

Study on Enabling Sustainable Management and Development of Inland Ports

Sixth Expert Meeting on Development of Ports and Port Operations (EM PORTS)

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Green Inland Ports outcomes – Tools, guidelines and strategies



Environmental impacts, energy efficiency and the green transition

- Port Environmental Impact Calculator
Calculation tool for 18 types of environmental impact



ESMS and pilot implementation of ESMS in selected inland ports

- Implementation of Environmental and Sustainable Management System (ESMS) tools:
 - Solutions to overcome environmental challenges and reduce environmental impacts
 - Pathways for sustainable & smart development of inland ports
- Testing and validation with **10 pilot ports**



Urban mobility and short-range Inland Waterway Transport

- Quantified estimation of the roll-out potential for urban and short-range freight IWT and potential impact from modal shift



Digitalisation Masterplan for Inland Ports and Terminals

- Digitalisation vision for inland ports
- Digital Maturity Assessment Tool for inland ports & digitalisation guidelines for improvement of digital readiness, operational efficiency, and environmental sustainability of inland ports

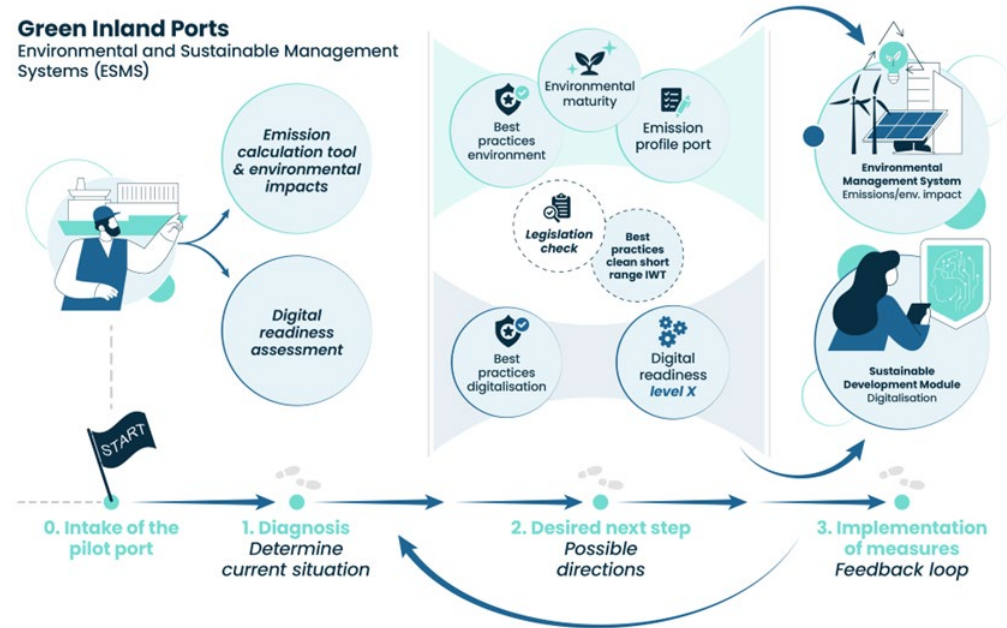
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Environmental & Sustainable Management System (ESMS) tools

Developed for inland ports on the TEN-T Network

- **Monitoring** – Create an environmental and digitalisation baseline, establishing an evidence base
- **Assessment of impacts**
 - Ex-ante
 - Ex-post
- **Self-assessment tools & guidelines**
 - Measures recommended depending on the port's dimensions and situation
 - Application procedures for European and national funding
- Classifies ports based on their **actions, governance and strategic maturity** not emissions volumes
 - Recognises the difficulty to benchmark inland ports with each other



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Cooperation with the sector key to the outcomes of Green Inland Ports



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Special word of thanks to the ports that tested ESMS tools and participated as pilot!

Joint action plan that empowers inland ports to take a leading role in advancing sustainability, digitalisation and connectivity objectives

 Tools, guidelines and strategies are publicly available on the [Green Inland Ports](#) website

 Further **development** and **adoption** is essential to ensure that benefits are sustained

 Key recommendation to European Commission, European inland ports sector and relevant international organisations is to work on a **joint action plan**

-  [European Ports Strategy](#) (published on 4 March 2026)
-  Next European action programme for Inland Waterway Transport, also focussing on inland ports
-  Green Port Masterplan(s) in Horizon Europe projects MAGPIE and PIONEERS

 Report will be published soon on the Publications Office of the EU

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1. Need for a harmonised approach to making an environmental benchmark

- Monitoring and reporting environmental impact will become increasingly important
- Establishing a reliable benchmark of the inland port's emissions profile is challenging:
 - **Financial and human resources** – Most inland ports are significant smaller in size than (large) seaports
 - **Reporting boundaries** – what activities should be included in scope
- Need for a **European framework with guidelines**

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Need for a more consistent approach also recognised in the EU Ports Strategy

On page 11 of the EU Ports Strategy

Member States are encouraged to address GHG emissions and air pollutants in ports in the implementation of their National Energy and Climate Plans and National Air Pollution Control Programmes. Identifying and assessing sources of emissions and other pollutants is challenging due to the complexity of port activities⁴³. EU-funded projects highlighted the need for an agreed approach, common methodology and application. The Commission will **aim for more consistent emission measuring and reporting in ports**, supported by further research and innovation.

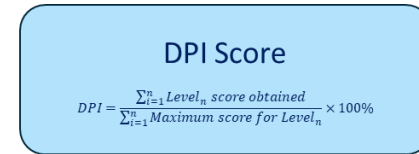
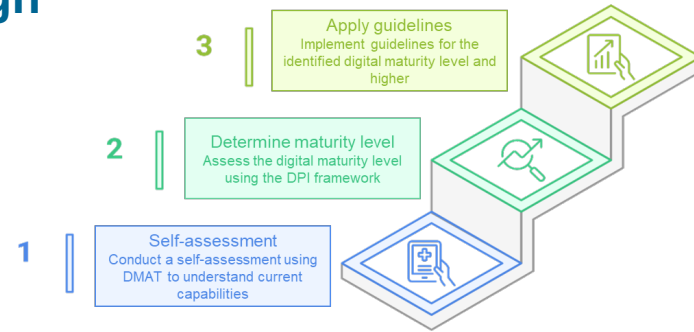
Provides clear guidance for the Joint statement of decarbonisation of Danube Ports and its implementation

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2. Foster the digitalisation potential through enhanced cooperation


- There is **significant potential** to strengthen the competitiveness of inland ports and multimodal transport through further digitalisation
- Policymakers should safeguard a **coordinated approach across borders** and **between transport modes** by setting the roadmap and by defining common interoperability standards
- Common standards are only effective if they align well with the **overall level of digitalisation in the sector**.
- Inland ports and terminal operators should measure their digital readiness and inform policymakers of their Digital Performance Index (DPI) and their digitalisation measures.

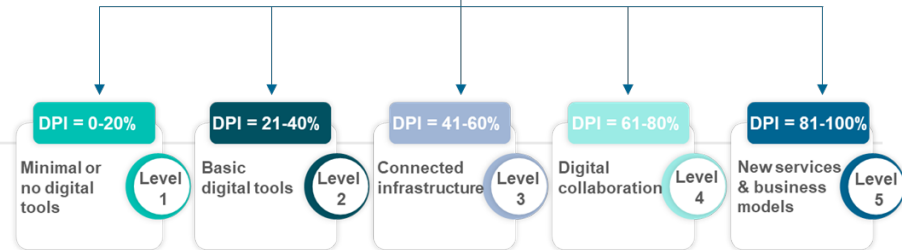
How to use the Digitalisation Guidelines



Digital Performance Index (DPI) value distribution



 DPI values span between **27%** and **61%**



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From Green Inland Ports to DiVINE

How Green Inland Ports digitalisation lessons inform a long-term vision for inland waterways

General objective

To contribute to the objectives of the **NAIADES III** Inland Waterway Transport Action Plan 2021 – 2027 regarding the creation of a **smart European inland waterway transport sector**. The project should develop closer **public-private cooperation** in IWT and facilitate the implementation of the **IWT Digitalisation Vision** across all navigable EU river basins.

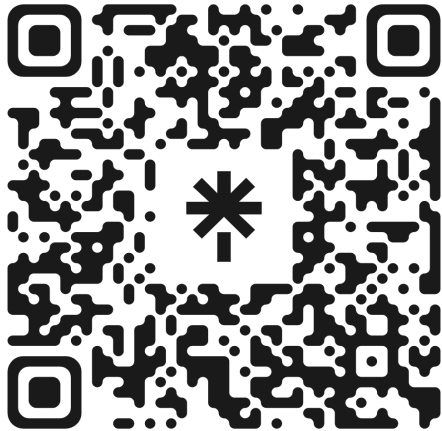
Specific objectives

- Phase 1:** To compose a list of all **relevant stakeholders** that need to be involved in the implementation process of the objectives set out in the **IWT Digitalisation Vision**.
- Phase 2:** To conduct **desk research and one-to-one interviews** with the relevant actors to further elaborate and refine the **objectives of the IWT Digitalisation Vision**.
- Phase 3:** To set up a **stakeholder consultation process** with all relevant stakeholders to discuss the **role and commitment of the different categories of actors** in the **implementation process** of the objectives set out in the IWT Digitalisation Vision, with the objective to meet them by 2035.

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Thank you & Questions

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