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Working Party on Inland Water Transport

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Item 4 of the provisional agenda

Workshop “Digitalization and Greening of Inland Water Transport”

Background and Objectives of the Workshop

Note by the secretariat

I. Mandate

1. The present document is submitted in accordance with the proposed programme budget for 2024, part V (Regional cooperation for development), section 20 (Economic development in Europe), programme 17 (Economic development in Europe) (A/78/6 (Sect. 20), table 20.5).
2. At its sixty-seventh session, the Working Party on Inland Water Transport (SC.3) decided that the theme topic for its sixty-eighth session would be digitalization and greening of inland water transport (ECE/TRANS/SC.3/220, paragraph 85).
3. SC.3 is invited to take part in the workshop dedicated to strategies, programmes and projects in this field, progress made by countries, international organizations and other key stakeholders and the way forward. Participants are invited to share their experience, best practices and developments in this field and consider further steps that could be undertaken by SC.3.

II. Background

4. Reducing harmful emissions from inland vessels and digitalization are among the key priorities for the inland water transport sector for the coming years. They are fundamental for improving the sustainability and competitive edge of the sector, the realization of the policy recommendations of the *White Paper on the Progress, Accomplishments and Future of Sustainable Inland Water Transport* (White Paper) and the objectives put forward in the Ministerial declaration “Inland Navigation in a Global Setting”, adopted at the International Ministerial Conference in Wroclaw (Poland) on 18 April 2018. It is stressed in the White Paper that “continued and strengthened international cooperation with other transport modes at the pan-European and global level is important to secure a future transport sector that strongly contributes to achieving the Sustainable Development Goals”.



5. The Inland Transport Committee (ITC) Strategy on Reducing Greenhouse Gas Emissions from Inland Transport¹ adopted at its eighty-sixth session on 20–23 February 2024 and, in particular, the Initial Climate Action Plan with Milestones have established the priorities and actions for SC.3 in this field. Fostering the efficient use of energy through route optimization and optimized driving behaviour and the use of Intelligent Transport Systems and digitalization, the accelerated substitution of fossil fuelled vehicles with zero emission vehicles, and the efficient use of transport networks, movement of people and freight is one of the strategic objectives for the implementation of the Strategy by the inland transport sector. The proposals for ITC work on the digitalization effort and fully utilizing the digitalization and automation concepts for achieving sustainable, safe, smart and seamless transport mobility across all inland transport modes was also mentioned at its eighty-fifth session on 21–24 February 2023 in the context of the climate change mitigation, as digitalization can prove to be a powerful tool to provide multimodal integration.²

6. Policy Recommendation No. 4 of the White Paper “Encouraging the modernization and greening of the fleet and infrastructure to better tackle environmental challenges” of the White Paper includes the following actions:

(a) Continue exchanging best practices and support programmes and pilot projects aimed at modernization and greening of the fleet, new and enhanced vessel types, low and zero emission propulsion systems and monitor their implementation;

...

(d) Support and encourage research studies and activities, aimed at maintaining and further increasing the inland water transport competitive edge in environmental performance, including research on the measures to reduce the emissions by inland vessels and on alternative fuels for inland vessels;

(e) Support the initiative to reduce greenhouse gas emissions by 35 per cent compared with 2015 by 2035, reduce pollutant emissions by at least 35 per cent compared with 2015 by 2035, and largely eliminate greenhouse gases and other pollutants by 2050 set out in the Mannheim declaration. Encourage other member States to do so;

(f) Promote the role of water transport using alternative fuels or electromotion in an urban environment. Support the development of clean and sustainable, enhanced or alternative propulsion systems for inland navigation vessels and other environment-related issues.

7. In recent years, such innovations as automated navigation and digitalization have already become a part of inland shipping. Digitalization for the sector can improve administrative procedures and processes, facilitate the movement of goods, increase the efficiency of organization and management of cargo flows and facilitate integration with other transport modes and promoting multimodality. Policy Recommendation No. 6 of the White Paper “Promote the development of automation, digitalization and other innovations in the Inland Water Transport sector” includes the following actions:

(a) Promote the development of automation in inland navigation as a part of the activity of ITC on Intelligent Transport Systems, the development of the international regulatory framework and encourage measures aimed at reducing possible negative impacts on the sector;

(b) Support the developments in the digitalization of transport documents and measures aimed at improving administrative procedures for inland water transport, simplified reporting procedures by means of digital tools, RIS electronic reporting related services and other activities;

...

(e) Encourage and support the development of a harmonized international legal framework for the digitalization of transport documents and consider a possible impact on

¹ ECE/TRANS/2024/3.

² ECE/TRANS/2023/1.

the existing legal instruments, in particular, the Budapest Convention on the Contract for the Carriage of Goods by Inland Waterway (CMNI);

(f) Adjust UNECE resolutions to a legal framework that embraces innovation, automation and digitalization without threatening the current and high safety in inland navigation.

8. The two core objectives of the European Union strategy for a green and environmentally safe inland water transport, set out in the action plan “NAIADES III: Future-proofing European inland waterway transport”³ are: “shifting more freight transport to inland waterways, and setting the sector on an irreversible path to zero-emissions, underpinned by a paradigm shift towards further digitalization, as well as accompanying measures to support the current and future workforce.”

9. As mentioned by UNCTAD in Policy brief No. 11, “the green and digital transitions have developed in parallel to date, especially in latecomer countries, but green and digital technologies are increasingly becoming intertwined”.⁴ Digital technologies therefore can be a key driver for green transition (twin transitions). As applied to inland water transport, this is already being developed in the green and sustainable transport and planning concepts by optimizing route planning, the integration of digital planning and information systems, River Information Services (RIS) and other tools.

III. Topics for Discussion at the Workshop

10. The purpose of the workshop is to:

- Highlight strategies, programmes and projects in the field of greening of inland water transport
- Highlight digitalization strategies, activities and initiatives in inland water transport
- Discuss the role of digitalization in climate action in the sector
- Address green and sustainable logistics and its application on inland waterways
- Consider best practice from other inland transport modes and its relevance for inland water transport
- Provide recommendations for SC.3 to assist countries in addressing this challenge.

11. SC.3 may wish to discuss the following topics:

- Progress made by countries, international organizations and other key stakeholders and lessons learned
- Possibilities for a convergence between green transport and digital initiatives, a seamless alignment of digital initiatives in the sector
- Advantages and challenges of the twin transitions, ways how to accelerate this
- Priorities for future activities in this field.

12. Participants are invited to take part in the round table discussions and share their experience, best practices and developments in this field and consider further steps that could be undertaken by SC.3 and the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation.

³ ECE/TRANS/SC.3/2021/1.

⁴ <https://unctad.org/publication/twin-transition-global-value-chains-green-and-digital>.