Economic and Social Council

Economic Commission for Europe

Inland Transport Committee

Working Party on Inland Water Transport

**Working Party on the Standardization of Technical
and Safety Requirements in Inland Navigation**

Sixty-second session
Geneva, 15–17 February 2023
Item 4 of the provisional agenda

**Workshop "Information and Computerization
Technologies and Intelligent Transport Systems
in the Inland Water Transport Sector"**

Background and Main Objectives of the Workshop

Note by the secretariat

I. Mandate

1.   This document is submitted in line with the proposed Programme Budget for 2023, part V, Regional cooperation for development, section 20, Economic Development in Europe, Programme 17, Economic Development in Europe (A/77/6 (Sect. 20), table 20.6).

2.   Following the decision of the Working Party on Inland Water Transport (SC.3) at its sixty-sixth session (ECE/TRANS/SC.3/217, paragraph 105), delegations are invited to take part in the workshop dedicated to information and computerization technologies and intelligent transport systems in the inland water transport sector.

II. Background

3.   The Road Map of the Economic Commission for Europe (ECE) on Intelligent Transport Systems (ITS) for 2021–2025,[1] adopted by the Inland Transport Committee (ITC) at its eighty-third session, contains 18 Actions that aim to guide the work of ITC in the field of ITS during the period 2021–2025. Action 11 "Integrating with Inland Water Transport" includes (a) the promotion of River Information Services (RIS) and other information technologies on European inland waterways through updating its resolutions relevant to RIS and harmonizing them with state-of-the-art international, regional and national RIS standards, and (b) forging international cooperation towards an international legislative basis for automation in inland navigation, in particular, preparations for the deployment of automated inland navigation in the national capacity building support provided by the ECE

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[1] ECE/TRANS/2021/15.

secretariat to assist member States and the dissemination of information and awareness raising on automation in inland navigation and related issues.

4.   The ECE Road Map on ITS contains other actions that may be also relevant for inland water transport:[2]

(a)   Action 1 - Reaching a common definition for ITS

Inland transport systems to which information and communication technologies have been applied to improve mobility are generically referred to as ITS. ITS systems are comprised of Information and Communications Technology (ICT) and ITS-unique applications, technologies, and communications. As a global partner, ECE endeavours to facilitate the dialogue about ITS deployment, and, to that end, seeks to contribute to the search for a common definition that can be used by all stakeholders.

(b)   Action 2 - Harmonizing policies

ECE offers an advantageous platform through its intergovernmental structures (the ITC Working Parties) whose mandate includes safe, efficient and sustainable policies relatable to dedicated legal instruments, to lead and collaborate in shaping key ITS strategies, such as harmonization and deployment. Within such a unique operative framework, ITS infrastructure and services could be more effectively planned and coordinated, and efficiently implemented both in terms of technical regulations and legal instruments. Once implemented at national level, the ECE ITS vision conveyed through this Road Map would be a tool for offering reliable, safe and seamless, both for freight and passengers, transport at a global level.

(c)   Action 3 - Forging international cooperation

The status and implementation of the ECE Road Map on ITS until 2020 showed that Governments and stakeholders support the work of ECE in this field, especially its policy and regulatory work, as ITS is the enabler of the connected, cooperative automated mobility of the forthcoming decades. It will facilitate environmental protection, energy efficiency, inter-modality and logistic operational optimization. It will provide the necessary outputs to reach the targets of the United Nations Agenda 2030, by contributing to the accomplishment of transport related goals for a safe, sustainable inclusive mobility, as well as the quality of life. In addition, bridging function of ECE as a regulatory platform for transport harmonized policies, has proved to be fundamental, especially with reference to the cross-border international cooperation with non-European Union countries of ECE neighbouring regions.

(d)   Action 5 - Ensuring data security

Security and privacy concerns could become potential barriers to ITS deployment. Data losses and the danger of identity theft could reduce the potential performance and benefits of ITS. ITS should be implemented by way of viable business cases that require consistent data driven guidelines, standards and regulations on liability and highest levels of security for personal data guaranteed during the lifecycle of the technology and in an impartial manner.

(e)   Action 14 - Improving the long-term environmental sustainability of transport

The potential contribution of ITS to reduced pollution and congestion is crucial. In January 2011, the ECE Sustainable Transport Division launched the United Nations Development Account funded project on climate change and transport. The goal was to develop and implement a monitoring and assessment tool for CO_2 emissions in inland transport to facilitate climate change mitigation. As the outcome of this project, the ForFITS (For Future Inland Transport Systems) tool is primarily focused on CO_2 emissions from inland transport, including road, rail and inland waterways, and predicts future emissions based on current patterns. The tool is freely available to all United Nations Member States and has been used by a number of member States across the ECE region. It provides a robust framework for analysing different scenarios of sustainable transport, proposing transport-policy strategies, among them the further development of ITS.

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[2]   ECE/TRANS/2021/15.

5. The Ministerial declaration "Inland Navigation in a Global Setting", adopted on 18 April 2018 in Wroclaw (Poland), has proposed Strategic action No. 14, one of the four actions aimed at encouraging the realization of a modern fleet and fostering innovations:

Ministers recognize that the development of digital technologies and data exchange, River Information Services, Vessel Traffic Services and the traffic management on inland waterways, the digitalization and other opportunities given by new technologies is a significant step forward to a sustainable and efficient transport mode and invite countries and international organizations to promote its cross-border harmonized development.

6. The ECE White Paper on the progress, accomplishment and future of sustainable inland water transport, endorsed by ITC at its eighty-second session, has set out the following policy recommendations that are related to ITS: (a) Policy Recommendation No. 5 - Promote the development and pan-European application of River Information Services (RIS) and other information technologies (IT) and (b) Policy Recommendation No. 6 - Promote the development of automation, digitalization and other innovations in the inland water transport sector.

7. Policy Recommendation No. 5 proposes the following actions:

(a) Further support a pan-European dialogue on the implementation and further development of RIS and RIS corridor management;

(b) Cooperate with the European Commission and the Working Group for information technologies of the European Committee for Drawing up Standards in the Field of Inland Navigation and regularly update RIS related resolutions maintained by SC.3, as well as other relevant instruments: the European Code for Inland Waterways (CEVNI), the European Code for Signs and Signals on Inland Waterways (SIGNI) and resolution No. 61 "Recommendations on harmonized Europe-wide technical Requirements for inland navigation vessels", revision 2;

(c) Cooperate with the European Commission to ensure that the interests of member States outside the European Union are duly noted in programmes of development and pan-European application of RIS and other IT, the European Hull Database, the databases for the Union certificates of qualification, service record books, electronic log books and other relevant digital tools maintained by the European Commission;

(d) Encourage other uses of IT to facilitate inland water transport operations and inspections of inland vessels and elaborate and promote the harmonized rules and criteria in this area.

8. Policy Recommendation No. 6 proposes the following actions:

(a) Promote the development of automation in inland navigation as a part of the activity of ITC on ITS, 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;

(c) Continue the cooperation with the European Commission on issues related to digitalization in inland water transport;

(d) Improve cooperation with the ECE Trade Division and working parties under the purview of ITC on exchanging best practices on recent developments in automation and digitalization in other transport sectors;

(e) Encourage and support the development of a harmonized international legal framework for the digitalization of transport documents and consider a possible impact on the existing legal instruments, in particular, the Budapest Convention on the Contract for the Carriage of Goods by Inland Waterway (CMNI);

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

III.   Topics for discussion at the workshop

9.   The purpose of the workshop is to exchange best practices in applying IT and ITS on inland waterways, highlight the advantages of IT and ITS for navigation safety, sustainability and greening of the inland water transport sector and provide recommendations for SC.3 and SC.3/WP.3 on the implementation of the ECE Road Map on ITS.

10.   The following topics are proposed for discussion at the workshop:

• Key ITS strategies and technologies in inland water transport

• Prospects for the harmonization of policies and forging international cooperation in the field of information and computerization technologies and ITS in the sector

• Ongoing projects and initiatives in this field

• Progress in automation and smart shipping

• Lessons learned and next steps.

11.   Participants are invited to take part in the round table discussions and share their experience, best practices and developments in this field, discuss main challenges and strategies, and consider further steps that could be undertaken by SC.3 and SC.3/WP.3.

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