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Working Party on Inland Water Transport

Sixty-eighth session

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Item 8 of the provisional agenda

Automation in Inland Navigation and Smart Shipping

Revision of Resolution No. 95 “Enhancing International Cooperation to Support the Development of Automation in Inland Navigation”

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-fifth session, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) finalized the revised draft 2025–2028 road map for an international legal basis for international cooperation in automation and remote operation in inland navigation (annex to resolution No. 95) and requested the secretariat to transmit the draft to the Working Party on Inland Water Transport (SC.3) for adoption at its sixty-eighth session.
3. The present document contains (a) a proposal on updating the text of resolution No. 95 and (b) the road map for 2025–2028, modified in accordance with the decisions of SC.3/WP.3 at its sixty-fifth session. The Working Party may wish to consider and adopt them and provide further instructions to the secretariat.



Annex I

Enhancing International Cooperation to Support the Development of Automation in Inland Navigation

Resolution No. ...

(adopted by the Working Party on Inland Water Transport on ...)

The Working Party on Inland Water Transport,

Affirming its commitment to implement the Ministerial resolution on “Enhancing cooperation, harmonization and integration in the era of transport digitalization and automation”, endorsed at the eighty-first session of the Inland Transport Committee,

Recalling the Ministerial declaration “Inland Navigation in a Global Setting” adopted at the International Conference on Inland Water Transport in Wrocław, Poland, on 18 April 2018, which calls upon all countries with a vested interest in inland navigation to encourage measures aimed at promoting modern technologies, automation and innovations in the inland shipping sector,

Fully aware of the advantages that automation may bring to inland navigation to contribute to the sustainability, competitiveness and increasing the modal share of inland water transport,

Aware of the progress in automated transportation reached in other transport modes, including ~~the maritime sector~~, road and rail transport,

Responding to resolution No. 265 “Facilitating the Development of Inland Water Transport” adopted by the Inland Transport Committee on 22 February 2019,

Recognizing the role of international cooperation for developing the international regulatory framework for automation in inland navigation,

Welcoming efforts of Governments aimed to support automation and digitalization in inland water transport,

Noting with satisfaction progress and the ongoing work of the European Commission, the Central Commission for the Navigation of the Rhine (CCNR), the European Committee for drawing up Standards in the field of Inland Navigation (CESNI), **the International Maritime Organization (IMO)**, the World Association for Waterborne Transport Infrastructure (PIANC) and other international organizations on the development of automation, digitalization and other innovative technologies in inland navigation,

Taking into account the reports of the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation of its fifty-second, fifty-fourth, ~~and~~ fifty-fifth, **sixty-fourth and sixty-fifth** sessions (ECE/TRANS/SC.3/WP.3/104, paragraphs 25–30, ECE/TRANS/SC.3/WP.3/108, **paragraphs 70–72**, and ECE/TRANS/SC.3/WP.3/110, paragraphs 30 and 70–72, **ECE/TRANS/SC.3/WP.3/128, paragraphs 61 and 62**),

1. *Endorses* the **revised** road map for the international cooperation aimed at the promotion and development of automation in inland navigation;

2. *Invites* Governments, intergovernmental organizations, regional economic integration organizations, river commissions and other stakeholders to actively participate in the ~~UNECE~~ work of **the Economic Commission for Europe** aimed to activities towards a harmonized pan-European legislative framework for automation in inland navigation;

3. *Encourages* Governments to include automation and ~~digitalization on inland water transport~~ **remote operation of inland navigation vessels** in national development strategies and action plans;

4. *Invites* Governments, river commissions, non-governmental organizations, academia and other stakeholders to keep the secretariat informed of the measures taken towards the implementation of automation in inland navigation.

Annex II

Road Map for 2025–2028

Forging International Cooperation Towards an International Legislative Basis for Automation and Remote Operation in Inland Navigation

Action 1: Introduce harmonized terms and definitions of autonomy levels into documents of the Economic Commission for Europe

1. Development of the international legislative framework for (a) automation in general and (b) automation and remote operation of vessels in inland navigation is needed for enabling testing and use of automated and remotely operated vessels. However, this work cannot be started without harmonized definitions of autonomy levels in inland navigation. A significant step forward is the adoption of the international definition of automation levels by the Central Commission for the Navigation of the Rhine (CCNR) (Edition 2022). Based on the outcome of the ongoing work by CCNR and developments in other transport modes, the definitions should be agreed and introduced in the documents of the Economic Commission for Europe (ECE) as a resolution on this issue to ensure consistency of the terminology at the pan-European level.

Action 2: Review resolutions of the Working Party on Inland Water Transport, international conventions and agreements

2. Evaluation of resolutions of the Working Party on Inland Water Transport (SC.3) should be continued to identify gaps, challenges and bottlenecks that hamper the development of automated navigation and remote operation of inland vessels, including the impact of automation on River Information Services (RIS). The list of resolutions is given in the appendix. Work will be continued on sharing the knowledge and best practices and establishing a harmonized forward-looking approach.

3. The next step will be work on temporary derogations or amendments to the relevant provisions of the European Code for Inland Waterways and other resolutions or developing new documents, in order to enable testing of automated and remotely operated vessels.

4. Evaluation of international conventions and agreements should be continued and the most appropriate way of addressing the operation of automated and remotely operated vessels should be determined. Amendment proposals should be agreed by SC.3. Contracting Parties will be encouraged to transmit the agreed amendments according to the procedure established by the relevant international conventions and agreements.

Action 3: Harmonize approaches for creating a basis for the deployment of automated navigation and remote operation of inland vessels

5. This action includes exchanging the experience and best practice and is aimed to collect and accumulate the experience gained in tests of various types of automated vessels and navigation conditions of testing zones in terms of the waterway parameters, specific infrastructure requirements including traffic signals, weather restrictions, measures to be undertaken to minimize potential risks.

6. SC.3 will continue this activity in 2025–2028.

Action 4: Facilitate the exchange of information relevant for automation

7. This action includes harmonizing approaches and tools on exchanging information and data relevant for automation, that may include digitalization of certificates and documents of vessels and crews, information on pilot projects of automated and remotely operated vessels and other relevant data. Resolutions of SC.3 should be reviewed for identifying provisions which prevent the use of digitized documents or may be affected and therefore may need amendments or clarifications.

Action 5: Ensure data protection, cybersecurity, address the liability concerns and other relevant issues

8. This action includes exchanging best practice in the work of governments, ECE, IMO and other international organizations in introducing data protection and cybersecurity measures, including automated navigation and remote operation of inland vessels.

9. The action also includes exchanging views and experience in the work of governments, international organizations and other stakeholders on determining the responsibility and liability in automated shipping, insurance and related issues.

10. SC.3 will continue this activity in 2025–2028.

Action 6: Evaluate the social impact of automation, harmonize manning requirements, education and training

11. This action includes exchanging the experience of social impact of automation on the sector and views on how to prevent or minimize implications and risks. The conclusions should be reflected in ECE documents.

12. Special attention should be paid to new approaches, training and retraining programmes and courses developed and implemented by member States.

13. SC.3 will continue this activity in 2025–2028.

Action 7: Assist governments, contribute to capacity-building and awareness-raising, organize workshops and round tables on automation in inland navigation and taking part in the United Nations Round Tables on Intelligent Transport Systems and automation of transport

14. Implementation of automated shipping and preparations for its deployment should be included in the national capacity building support provided by the secretariat to assist member States. Dissemination of information and awareness raising on automation in inland navigation can be realized by (a) organizing workshops and round tables on automation in inland navigation in the ECE framework with the engagement of the key stakeholders and (b) through the participation and contributions of governments, river commissions, international organizations and other stakeholders to the United Nations round table discussions convened under the aegis of ECE on issues related to Intelligent Transport Systems and automation on inland transport held regularly.

15. SC.3 will continue this activity in 2025–2028.

Appendix

List of International Conventions, Agreements and Resolutions Subject to Evaluation According to Action 2

1. International Conventions and Agreements

Convention on the Registration of Inland Navigation Vessels

Convention relating to the Unification of Certain Rules concerning Collisions in Inland Navigation

European Agreement on Main Inland Waterways of International Importance

2. Resolutions

Resolution No. 21 “Prevention of pollution of inland waterways by vessels”, revision 2

Resolution No. 24 “European Code for Inland waterways (CEVNI)”, revision 6

Resolution No. 31 “Recommendations on Minimum Requirements for the Issuance of Boatmaster’s certificates in Inland Navigation with a view to their Reciprocal Recognition for International Traffic”, revised

Resolution No. 35 “Standardized UNECE Vocabulary for Radio-Connections in Inland Navigation”

Resolution No. 48 “Recommendation on Electronic Chart Display and Information System for Inland Navigation (Inland ECDIS)”, revision 4

Resolution No. 58 “Guidelines and Criteria for Vessel Traffic Services on Inland Waterways”, revised

Resolution No. 61 “Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels”, revision 2

Resolution No. 63 “International Standard for Tracking and Tracing on Inland Waterways (VTT)”, revised

Resolution No. 79 “International Standard for Electronic Ship Reporting in Inland Navigation”, revised

Resolution No. 90 “European Code for Signs and Signals on Inland Waterways (SIGNI)”.