FINAL

Recommendations of the High-Level Meeting on
Deepening Digitalization of International Rail Transport in Asia Pacific
Xi'an, China
13-15 May 2025

Eighty representatives of railway administrations, railway companies operating along the Trans-Asian Railway (TAR) network and relevant international intergovernmental and non-governmental organizations participated in the High-Level Meeting on Deepening Digitalization of International Rail Transport in Asia Pacific held in Xi'an, China on 13-15 May 2025. The meeting was organized under the aegis of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Global Sustainable Transport Innovation and Knowledge Center (GSTIKC) and the Greater Tumen Initiative (GTI) Secretariat.

The meeting recalled the important role of rail transport in sustainable development of the economies of the Asia-Pacific region's countries and reaffirmed digitalization a key lever to enhance rail's competitiveness. Based on deliberations during the meeting the participants agreed to following:

CONCLUSIONS AND RECOMMENDATIONS:

1. There is tangible progress made in rail digitalization of TAR member countries, as evidenced by national presentations including from Azerbaijan, Bangladesh, Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Malaysia, Mongolia, Republic of Korea, Russian Federation, Tajikistan, Thailand, Türkiye, Turkmenistan and Viet Nam. However, emerging opportunities in rail digitalization require further national efforts, continued regional cooperation and demand-driven capacity building assistance from the development partners.

2. In this connection, the meeting considered the achievements and outcomes of the ESCAP project on "*Promoting cross-border electronic information exchange for efficient railway transport and transit in East and North-East Asia"*. The three-year project involved railway officials and customs authorities from China, Mongolia, and the Russian Federation.

3. The project paved the way for initial efforts among the three countries to implement the new Annex III to Intergovernmental Agreement on Trans-Asian railway network adopted in 2023 containing "Guiding Principles on Electronic Information Exchange

between Railways and among Railways and Control Authorities". The recommendations from the reports conducted under the project provided useful references for other TAR members. In particular, the project contributed to strengthening cross-sectoral coordination in Mongolia, through the reorganization of the joint working group for electronic information exchange between Customs General Administration of Mongolia and the Ulaanbaatar Railway in 2023.

4. The joint working group has progressed in implementing its work plan for the interconnection of electronic information systems until 2026. In early 2025, Mongolia also initiated the domestic process for acceptance of the new Annex III that has been submitted to Mongolia's Parliament and currently under discussion.

5. The meeting recognized that in view of increasing Eurasian rail traffic and involvement of more countries in rail transit, it is crucial to have simple and transparent transit formalities for rail transport that are preferably harmonized. Accordingly, the meeting recommended ESCAP together with other stakeholders to consider developing a suitable regional arrangement for an electronic rail transit transport to further enhance rail's competitiveness.

6. Member countries of the Trans-Asian Railway network should continue to implement measures on electronic data interchange between railways and between railways and regulatory authorities for enhancing efficiency of international rail transport considering the "General Principles on electronic information exchange/data interchange among railways and between railways and control agencies along the Trans-Asian Railway Network" contained in Annex III to the Intergovernmental Agreement on the Trans-Asian Railway network. In this regard it, urged the parties to the Agreement to complete the internal processes and submit instrument of acceptance as early as possible. They are further encouraged to undertake pilot application of digital instruments (electronic consignment notes) along rail corridors in the framework of TAR network based on international standards including those developed by OSJD and UN CEFACT.

7. The meeting considered the initial proposal on a Railway Standards Connectivity Scheme (RSCS) introduced by the GSTIKC. The scheme aims to enhance connectivity along the Trans-Asian Railway network by improving technical and operational interoperability through harmonization/alignment of railway standards and specifications among member states, as appropriate, thereby reducing technical barriers and fostering seamless connectivity in international rail transport.

8. The scheme proposes to set up a suitable mechanism within the framework of the Working Group on Trans-Asian Railway with participation of industry experts and other relevant stakeholders to discuss these issues on continuing basis. It also includes sharing outcomes from pilot projects, capacity-building initiatives, and research on connectivity standards issues, as well as organizing technical exchanges. Such collaborative efforts could further strengthen the institutional framework, reinforce regional cooperation through knowledge-sharing, and practical solutions to support an interconnected, efficient, and sustainable Trans-Asian Railway network.

9. The meeting noted that the scheme was timely given that many TAR members were investing heavily to expand their rail networks and it was opportune time to discuss the connectivity standards/solutions to enhance transport connections among different rail

networks, while bearing in mind, the established global and regional standards setting mechanisms, the current scope of the Working Group on Trans-Asian Railway Network and the mandate of ESCAP secretariat. After an initial round of comments, it was agreed that the draft of the scheme would be shared with the participants for their inputs by 10 June 2025, so that the finalized connectivity scheme would be presented at the Working Group on the Trans-Asian Railway at its ninth meeting (10-11 September 2025) for consideration for adoption as appropriate.

10. In view of increasing digitalization of rail processes the importance of addressing rail cyber threats proactively was underscored. Global experience suggest that rail cybersecurity can be better addressed with cooperation among countries such as by experience sharing, information and intelligence sharing. The meeting further noted that the regional framework on enhancing rail cybersecurity presented at the meeting can be considered as suitable mechanism for more cooperation among countries. In this regard, the meeting requested that the final draft framework be put up for the consideration for adoption, as appropriate, at the Working Group on the Trans-Asian Railway at its ninth meeting (10-11 September 2025).

11. Development of high-speed rail networks in the region should be approached as a long-term strategic investment and requires sustained political commitment, technical expertise, and financial resources. With careful planning and implementation, it can serve as a catalyst for economic development, urban transformation, and regional integration. Noting, the progress in development of high-speed railway among member countries (China, Russian Federation, Thailand and Türkiye) and the ESCAP's draft guidelines on the development of high-speed railway for countries in Southeast Asia, it recommended that ESCAP, through its platform of Trans-Asian Railway network should play a more active role in the region to promote high-speed rail including by knowledge and experience sharing, undertaking studies, and other related activities as requested by the member countries.

12. Given the operationalization of Lao-China railway link, the rail connectivity between Southeast Asia and North and Central Asia opens a new opportunities for sustainable transport connectivity between two subregions of ESCAP. A draft road map on rail connectivity between countries on between Southeast Asia and North and Central Asia prepared under the project on "*Leveraging Trans-Asian Railway network for efficient and resilient transport network in ASEAN and beyond"* was presented. The meeting noted that the draft road map could be considered as a basis for further collaboration among countries involved. Focus on a particular rail corridor and tightening cooperation among the stakeholders can lead to tangible outcomes such as increased rail traffic over long to medium term.

13. The meeting noted that to further improve rail connectivity between South Asia, Southeast Asia and Central Asia, more coordination among the different connectivity initiatives including standardization of railways and comprehensive planning is desirable. For this purpose, it is recommended to have an extensive consultation among member countries of Trans-Asian Railway network.

14. The meeting noted the policy insights provided by the Asian Transport Observatory on state of play of rail transport among countries in North and Central Asia and enhancing role of women in rail corridors as part of the Capacity Building Workshop on rail connectivity between Southeast Asia and North and Central Asia.

15. The meeting called for increased cooperation among TAR member countries in the practical applications on electronic information exchange in railway transport, including electronic data interchange, processing of transport and accompanying documents, development of telecommunications networks in railway transport, including on the basis of 4G/5G technologies, digital rail asset management, use of big data and data analytics in rail decision making processes, digital customer services, and ensuring the protection of information from unauthorized access and cyber threats and other issues as detailed in the Strategy 2030 on Accelerating Rail Digital Transformation in Asia and the Pacific.

16. Meeting called on countries who are still not party to the Intergovernmental Agreement on the Trans-Asian Railway Network to take necessary action to join the agreement to harness full opportunities from increasing role of rail transport for sustainable development.

17. The participants expressed their appreciation to the Global Sustainable Transport Innovation and Knowledge Center of the Ministry of Transport, China, Shaanxi Rail Transit Group Co., Ltd., and Xi'an Metro for hosting and to GTI Secretariat and ESCAP for jointly organizing the High-Level Meeting on Deepening Rail Digitalization in Asia-Pacific with the financial support of the projects under the China-ESCAP Cooperation Programme.

18. These conclusions and recommendations were agreed in Xi'an, China on 14 May 2025.

Xian, China
14 May 2025