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## **Economic Commission for Europe**

### **Inland Transport Committee**

#### **Eighty-fifth session**

Geneva, 21–24 February 2023

Item 7 (p) of the provisional agenda

**Strategic questions of a horizontal and cross-sectoral policy  
or regulatory nature: Project related activities -  
Trans-European Motorway (TEM)  
and Trans-European Railway (TER) Projects**

### **Trans-European North-South Motorway (TEM) and Trans-European Railway (TER) projects**

**Submitted by the TEM Project Manager and TER Project Manager**

#### **I. Information on the Trans-European North-South Motorway (TEM) project development**

##### **A. Trans-European North-South Motorway project activities and achievements in 2022**

1. The following tasks were included in TEM Programme of Work 2022:

(a) Strengthening capacities of TEM member states by attending the workshops and exchanging of knowledge and best practices in the following areas:

- Network development and funding strategies
- Operational proficiency of road sector within TEM member states
- Responsiveness to trends in transportation and economy

(b) Preparation of high-quality deliverables/reports based on organized workshops with topics closely related to the areas mentioned above, and with active involvement of representatives of TEM member states.

(c) Increase effectiveness and efficiency of TEM Project, both for TEM member states and other countries, through an active cooperation with European and American partners based on experience and best practice sharing and cooperation.

2. The main TEM Project activities and achievements in 2022 were:

- (a) Reports and publications

According to the TEM Strategic Plan and the decisions of TEM Steering Committee, following report were prepared in 2022:

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*Operational Proficiency*

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TEM Strategy area and topic	C.3. Development of a standard catalogue of public services and model architecture of information systems in the management of road infrastructure
Title	Data management in road transport infrastructure
Purpose and scope	The report discusses how road infrastructure operators are facing currently major changes that are based on new technologies. All operations and systems like Road asset management, e-call, Intelligent transport system (ITS), connected and automated driving (CAD), cooperative ITS (C-ITS), Vehicle-to-Vehicle(V2V) and Vehicle to Infrastructure (V2I) communications, Electronic Toll Collection (ETC), Virtual Traffic Lights/Signs, incident management, road inspection, maintenance, traffic management, traffic information services, enforcement are strongly based on information technologies and accurate data. Accordingly, data management for road infrastructure operator is becoming more important than ever before. With development of CAD vehicles, internet of things (IoT) and 5G technologies data management will become even more important for road operators. Without quality and accurate data road safety and customer services cannot be provided, which is main mission of road operators. One of solution that is needed to face challenges in near future is Big-data approach. The report presents: <ul style="list-style-type: none"><li>• International state of art in terms of implementation of data management in road infrastructure operations</li><li>• International best practices examples</li><li>• Identification and review of current situation within TEM Member Countries</li><li>• Comprehensive glossary.</li></ul> On that basis report provides with recommendations for TEM Backbone Network management and achieving of the Project's objectives
Status as for 31/12/2022	Sent for publication

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(b) Contribution to the UNECE Working Parties

3. During 117<sup>th</sup> session of the Working Party on Road Transport (SC.1) TEM Project Manager (Mr. Andrzej Maciejewski) gave a presentation on substantive progress of the TEM project since the last session. This included highlights of the TEM reports published as UNECE publications, i.e.: “Building Information Modelling (BIM) for road infrastructure: TEM requirements and recommendations”, “Business models for the road sector/TEM Network: considerations and recommendations”, “Tools for asset management: TEM recommendations for road operators”.

He presented approved TEM Project Strategic Plan for the years 2022-2026 with a special focus on the road safety and road infrastructure safety management and shared strategic areas of the TEM project for 2022-2026.

It was agreed by the SC.1, that TEM Project will prepare a paper on the best practice in road safety audits and inspections in TEM member states.

The SC.1 welcomed the proposal and invited SC.1 members, with the assistance of the Secretariat, to be involved in the preparation of the paper or other appropriate document for the next session. This proposal has been endorsed by the TEM Steering Committee in October 2022.

4. Moreover, Government of Türkiye with special engagement of Mr. Muchait Arman (TEM National Coordinator from Türkiye) and TEM Project Manager (Mr. Andrzej Maciejewski) participated in the work of the Group of Experts for benchmarking of construction costs of transport infrastructure under the Working Party on Transport Trends and Economics (WP.5).

## **B. TEM plans for 2023**

5. As agreed during the last TEM SC meeting (October 2022) and taking into consideration both current experiences of the TEM Project gained during implementation of the Strategic Plan 2017-2021 (concentrated on operational excellence of road sector organisations) and multiannual legacy of the Project in the planning and monitoring of the TEM Backbone Network development it was decided to focus Project's works on both dimensions.

6. The TEM Backbone Network dimension will provide up-to-date information and perhaps also forecasts in respect to the traffic demand and infrastructure supply in the TEM region. This, in consequence, will contribute to the purpose of the Project's creation which is support for the transport network integration.

7. From another hand cooperation related to creating of recommendations and guidelines will continuously improve capacities and capabilities of TEM member states in increasing of effectiveness and efficiency of public services delivery by the road sector organisations and institutions.

8. Each dimension has been divided into strategic initiatives, which eventually are divided into particular projects and activities, i.e. reports, workshops, conferences. The work dimensions represent value and services the TEM Project provides to TEM member states. The TEM member states participate in the Project to strengthen their economies by the regional cooperation and development of the road network in the north-south direction, therefore analyses envisaged under the Dimension I provide this value to the member states. Moreover, participation in the Project allows member states to benchmark their current capacities and capabilities with the neighbouring countries. The TEM Project provides therefore this kind of services under the Dimension II. The Strategic Initiatives reflect detailed outputs of this Strategic Plan. Level of activities defines how outputs will be achieved.

9. In detail in 2023 it is planned to:

- Prepare working document for the TEM Steering Committee in respect to the TEM Backbone Network and traffic data availability
- Prepare analysis of implementation of Road Safety Audit and Road Safety Inspection in TEM member states which will contribute to discussion who to update UN legal instruments on this subject
- Prepare report on the managing of the climate change risks in the road infrastructure sector together with the Group of Experts on Climate Change Impact (WP.5/GE.3)
- Continue cooperation with the American Highway Engineers Exchange Program (iHEEP)

## **C. Conclusions**

10. In 2022 TEM Project addressed priority topics for member states which lead to a more rapid integration of the transport infrastructure networks within North-South dimension. At the same time, TEM stipulated standardization of business processes in the road network

management framework by improving those processes, common understanding of trends in transportation and challenges for infrastructure operators in terms of mobility. In 2023 TEM is planning to enhance cooperation among the countries to ensure a higher quality of service along major motorway corridors.

## **II. Trans-European Railway (TER) Project**

11. The Trans-European Railway (TER) Project represents specific platform for cooperation of member countries in the field of rail transport. At the intergovernmental level, the TER constitutes the regional platform dealing with the topics of common interest for rail transport and assisting in achieving higher standards of rail networks in the member countries.

12. Thirteen countries of Central, Eastern and South-Eastern Europe and the Caucasus (Armenia, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia and Turkiye) participate in the Project, with UNECE as its Executing Agency. The TER Cooperation Trust Fund Agreement, established in 1991 by UNECE, made the Project self- sustained, financed by direct contributions of the member countries and ensuring the achievement of its main goals, namely:

- Facilitate rail and multimodal transport development and integration of the TER region.
- Serve as a bridge between UN Member States and promote efficient performance of railway corridors.
- Promote sustainable development of the TER participating Governments through strengthening capacities on improvements of economic and environmental effects of rail projects.
- Become an advisor and promoter of efficient and innovative railway solutions.

13. To achieve these goals, the Project organizes meetings of decision-makers, TER National Coordinators, railway stakeholders and experts as well as workshops with the aim to facilitate the exchange of experience and best practices. The TER Project also works closely together with the UNECE bodies and other organizations.

14. The TER Project Central Office (PCO) is hosted by the Serbian Government in Belgrade. Serbia agreed on extension of the Host Country Agreement until the end of June 2024.

### **A. Project activities carried out during the reporting period**

15. In the reporting period, the 54<sup>th</sup> session of the TER Steering Committee in June (online) and 55<sup>th</sup> session in November (hybrid) were held. The decisions and main conclusions taken and approved are listed in the reports of these sessions, available in the TER PCO and at the UNECE Sustainable Transport Division.

16. To follow the implementation of the revised TER Master Plan, the Final Report of which was launched in 2011, the special monitoring mechanism was set up. Based on the respective data provided by the member countries, the TER PCO prepared annual summary reports on the results of the Master Plan Revision monitoring for the TER Steering Committee. The 2022 report is expected in the second quarter of 2023.

17. Monitoring the status of the TER Backbone Network and its development, aimed inter alia at the progress in bringing this network up to the UNECE AGC standards, is going to be accomplished by preparation of 2022 TER Backbone Report. The report is going to be submitted in the second quarter of 2023.

18. The final report on the TER High Speed Master Plan Phase 2 has been published at the UNECE website and a number of copies has been printed.

19. Two consultants continued their work in order to prepare (1) TER Backbone Network and data in GIS format, (2) Study on the compliance of TER infrastructure to the technical parameters identified in international legal agreements.

20. Presenting TER Backbone Network and data in GIS – the work is at the final stage. The results achieved so far have been successfully presented. TER obtained a user-friendly tool with the information about railway lines and nodes. Soon, TER member states will have the opportunity to check functionality of this tool. When implemented, it will be updated on a regular basis.

21. Study on the compliance of TER infrastructure to the technical parameters identified in international legal agreements – is not completed due to the fact that the contract with the Consultant was terminated. Status of this study is going to be clarified.

22. During its 55<sup>th</sup> session, the TER Steering Committee took the decision to start two new projects.

- The first project is linked with the Group of Experts on Assessment of Climate Change Impacts and Adaptation for Inland Transport (WP.5/GE.3). The resilience to climate change hazard of the selected rail asset will be measured. It is expected to obtain a case study with the practical outputs.
- The second project is a subsequence of work of the Group of Experts on Benchmarking Infrastructure Construction Cost (WP.5/GE.4). Regarding the railway part - the work concentrated on construction, upgrade, and renewal; now, it is intended to shift the focus of the work to prepare an additional analysis of transport infrastructure maintenance, including best practices and integrating the data and analytical findings into the GIS format.

## **B. Conclusions**

23. All activities carried out during the reporting period were in line with the Programme of Work of the TER Project for 2022.

24. In the reporting period, the Project strengthened its co-operation with major international organizations dealing with rail transport issues, and with other UNECE working bodies.

25. The Project represents useful tool for implementing the AGC and AGTC standards in the region and for improving the railway and combined transport services.

26. One of the crucial tasks of the TER Project, started in the reporting period represents the implementation of activities defined by the TER Project Strategy until 2025.

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