



Technical Assistance to Connectivity in the Western Balkans

EuropeAid/13785/IH/SER/MULTI

REGIONAL

Preparation of 5-year Maintenance Plans for Road/Rail in the Western Balkans

Partners:

- South East Europe Transport Observatory (SEETO) Secretariat
- Western Balkan Regional Participants
- Ministries of Transport, Road Authorities and Railways Infrastructure Managers in the region

Budget of Technical Assistance:

- Euro 537,000

EU contribution¹:

- As above (100%)

Technical Assistance provided by:

- CONNECTA (Technical Assistance to Connectivity in the Western Balkans)

The EU-Western Balkans summit in July 2016 in Paris adopted a regional Connectivity Reform Measures Management Plan for 2016/2017. Among these connectivity transport reform measures are specific ones related to road/rail maintenance.

This Technical Assistance was hence part of the European Union's "Connectivity Agenda" in the Western Balkans and aimed to support the South East Europe Transport Observatory (SEETO) and national beneficiaries in implementing part of the agreed measures in road and rail maintenance.

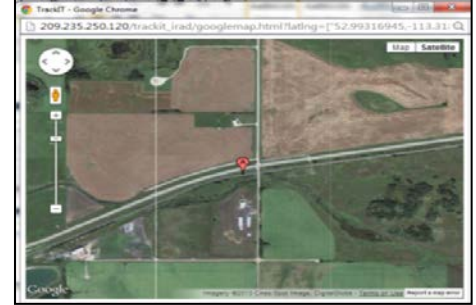
The **purpose** of the assignment was to undertake an assessment of the institutional and budgetary framework for road/rail maintenance, to propose best practice solutions taking the situation in the Western Balkans into consideration and to prepare maintenance plans for 2018 - 2022 for the indicative extension of the TEN-T (indicative extensions) Road/Rail Core/Comprehensive Network to the Western Balkans.

The **general objective** was the improvement of infrastructure conditions. Infrastructure improvements are expected to lead to increased performance of the transport networks and increased competitiveness of the region.

The **specific objective** was the establishment of a functioning maintenance system ensuring no section is in poor/very poor condition by 2020 and focusing on implementing a sustainable and optimised solution to managing and maintaining infrastructure assets.

The assignment components included:

- 1) Preparation of 5-year Maintenance Plan for road infrastructure along TEN-T Core/Comprehensive networks;
- 2) Preparation of 5-year Maintenance Plan for railway infrastructure along TEN-T Core/Comprehensive networks.

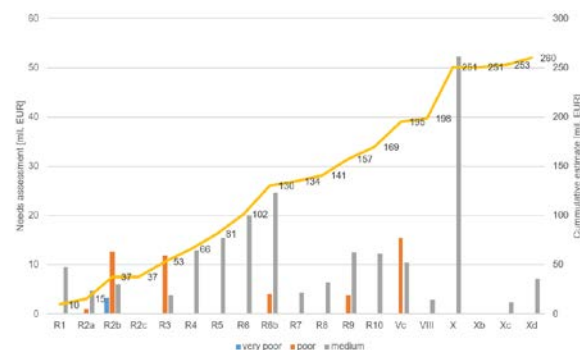


Extract from Asset Management System;

Results achieved by the TA:

- Scoping and needs assessment, including review of road/rail networks and of current maintenance practices as well as assessing short/medium term needs;
- Guidelines for maintenance of road pavement and structures;
- Contractual arrangements and recommendations for railway maintenance, including assessment of Business Plans of Infrastructure Managers with respect to Directive 2012/34/EC;
- Recommendations for setting up Roads/Railways Asset Management Systems (RAMS) and Performance Based Maintenance Contracts (PBMC) for roads;
- Roads/Railways Maintenance Plans 2019-2023, including financial analysis for various budget scenarios (per corridor/route and per country).

Transport

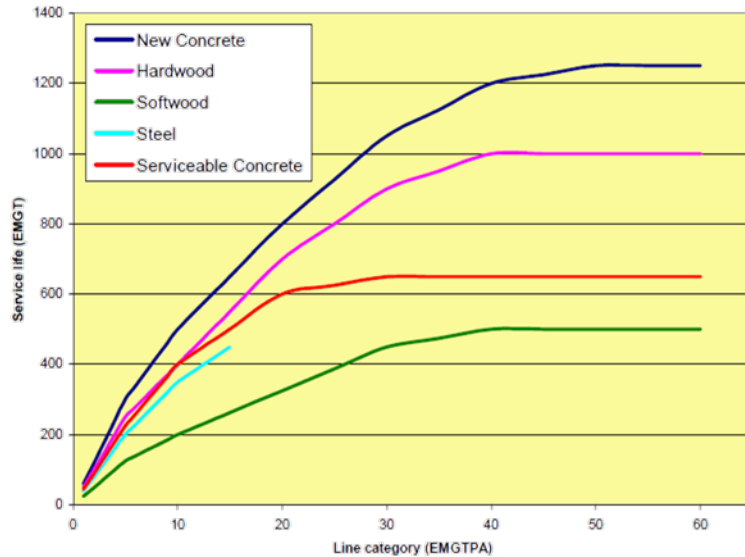


Summary of road maintenance needs per Corridor/Route

¹ EU contribution concerns only Technical Assistance services for project development

Key recommendations - further actions:

- Systematic planning and proper annual budgeting of maintenance needs;
- Establishment of proper data collection along networks;
- Set up and regularly update Asset Management Systems as a base for maintenance plans;
- Introduction of PBMC, where feasible;
- Adoption of relevant EU best practices;
- Development of asset valuation methodology;
- Introduction of a condition monitoring mechanism;
- Review and update rulebooks and specifications related to maintenance;
- Link maintenance with safety aspects.



Rail assets service life

Key conclusions:

With respect to roads:

The total needs estimate for the identified portion of the TEN-T Core/Comprehensive Network of almost 2,100 km (39.4% of total network) is approximately EUR 260 million. This amount may be increased by another 15-20% to come to a final estimate of EUR 300-315 million for coverage of the maintenance backlog over the complete SEETO Core/Comprehensive Network taking into consideration the whole structure of the roads.

The recommended maintenance plan resulted in an overall amount of EUR 199 million.

There is a need to establish proper practice of road network data collection, not only for portions of the SEETO Core/Comprehensive Network, but for all roads under the jurisdiction of each road authority. This should be followed by regular analysis of maintenance activities and studies on a short- and medium-term basis.

Road authorities should make a strategic decision on how to collect data (in-house or outsourcing) and how to use existing equipment in their ownership. This must run in parallel with completion/establishment of the system and implementation of asset management (RAMS) principles.

With respect to railways:

The total maintenance and repair needs in the region are very high and are estimated at EUR 3,360 million in the ideal scenario.

To take care of limitations in available budgets across the countries, a medium budget scenario was developed by prioritising needs that resulted in EUR 1,290 million as well as a minimum budget scenario of EUR 620 million.

A prioritisation strategy therefore needs to be adopted by using criteria, such as line category, overall condition data as well as route significance.

Benefits expected due to Technical Assistance:

- Endorsement of systematic Maintenance Plans in the Western Balkans;
- Prioritising maintenance needs in relation to conditions and other criteria;
- Minimising sections in poor/very poor condition;
- Better planning and budgeting of assets maintenance;
- Use of EU best practices in maintenance planning.

Impacts anticipated:

- Better understanding of the economic efficiency of the regular and proper maintenance of assets;
- Improvement of respective condition indices;
- Improvement of safety conditions.