



UNECE

**TRANS EUROPEAN MOTORWAY PROJECT
NORTH-SOUTH**

81st Session of Inland Transport Committee

Geneva, 20 February 2019

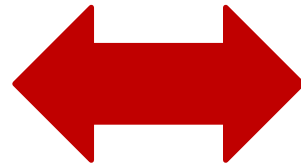
Reporting period

February 2018 – February 2019

NETWORK
ANALYSIS AND PROJECTS COORDINATION

OPERATIONAL PROFICIENCY
BUSINESS PROCESSES IMPROVEMENT

TRENDS
UNDERSTANDING AND RESPONSE



REPORTS

UN ECE BODIES

WORKING GROUPS

INTERNATIONAL COOPERATION

ROAD SECTOR ORGANIZATIONS

Report 1

TEM Network Report



1. Economic data:

- Transport growth evolution in TEM countries
- Trade exchange flows by transport mode (% by tkm) in TEM countries
- Employment by transport mode in TEM countries
- Gross investments spending in road infrastructure in TEM countries
- Maintenance expenditures in road infrastructure in TEM countries
- Registered vehicles by type of vehicles in TEM countries

2. Structure of the national TEM Members network

- Road Network data
 - Total road network (KM) and High Speed Roads
 - Dual and single carriage roads (tolled and not tolled) (KM)
 - Road network density by country (km roads/km² land area)
 - Traffic density by country AADT
- General Transport Data
 - Road passenger and goods transport (pkm+tkm)
- Road Safety

3. Structure of TEM Network

- Road type present and planned
- Number of lanes present and planned
- Sections:
 - In operation, under construction, planned/programmed
 - Years of construction
 - Estimated costs
- AADT volume
- Accidents and fatalities

4. Border Crossings of TEM Network

- Roads
- Average Time
- Services
- Number of HGV
- AADT

Report 2

Governing and funding of road infrastructure



1. Road sub-sector's goals and public services

- Governance and public services according to the UN System understanding
- the goals and services for road authorities, taking into consideration literature review and international best practice
- Generic Balanced Scorecard for road authority

2. Governance and organization of the road sub-sector:

- Roles and responsibilities of ministries, agencies and organizations
- Legal forms of these organizations
- Supply chain organization
- Private Sector involvement

3. Capabilities of the road sub-sector:

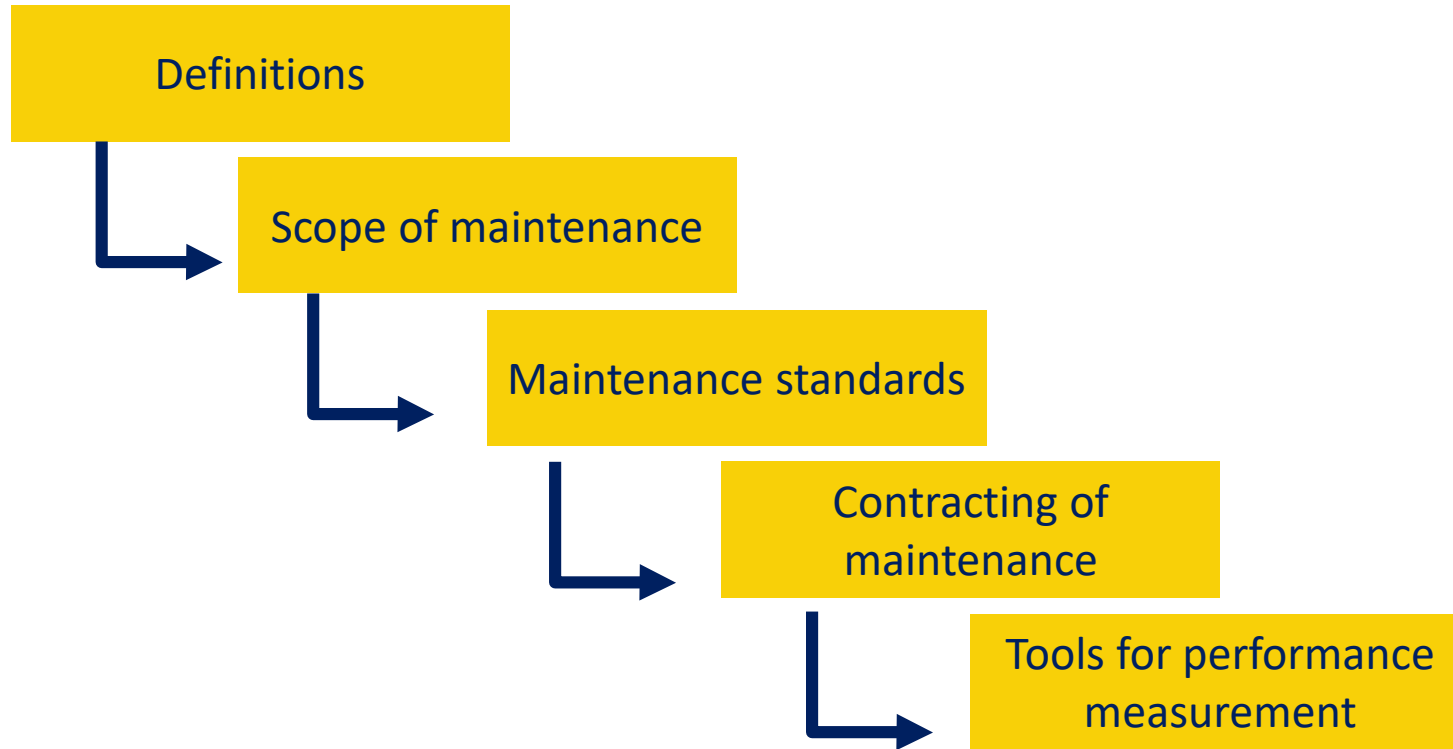
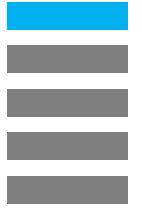
- Asset management maturity and strategy
- Data collection and management
- Planning and programming processes
- Performance measurement

4. Funding strategies and PPP Projects:

- Funding sources
- Governance of funding
- Debt financing
- Road expenditures
- Preparation and management of PPP projects

Report 3

Maintenance standards for road operators



UN ECE bodies and Working groups



- Working Party 5 (reporting to the group)
- Benchmarking Transport Infrastructure Construction Costs
- International Transport Infrastructure Observatory
- Report: Mobility as a Service

UNECE WORKING PARTY 5

INTERNATIONAL TRANSPORT
INFRASTRUCTURE OBSERVATORY

BENCHMARKING TRANSPORT
INFRASTRUCTURE
CONSTRUCTION COSTS

CLIMATE CHANGE AND
TRANSPORT

MOBILITY AS A SERVICE

FINANCING TRANSPORT
INFRASTRUCTURE

TRENDS AND CHALLENGES IN THE
ROAD SECTOR

1. TEM NETWORK REPORT
2. OPERATIONAL PROFICIENCY:
GOVERNANCE AND CAPABILITIES

1. CHAIRING THE GROUP
2. PROVIDING SERVICE FOR ROAD
INFRASTRUCTURE SUB-GROUP

INTEGRATION OF CLIMATE
CHANGE INTO ASSET
MANAGEMENT

1. DATA MANAGEMENT
2. CHAPTER PROVIDER FOR THE
MAAS UNECE WP.5 REPORT

1. ROAD FUNDS AND TOLLING
2. PPP: PROJECTS' PREPARATIONS
AND MANAGEMENT

1. ROAD ASSET MANAGEMENT
AND RELIABILITY
2. DATA MANAGEMENT

UNECE TRANS EUROPEAN MOTORWAY PROJECT NORTH SOUTH



Chairing the Group of Experts

For benchmarking transport infrastructure construction costs



	Terminology and questionnaire under preparation	Terminology and questionnaire review	Terminology and questionnaire ready	Terminology and questionnaire adopted	Data collection	Chapter ready
Roads	Green	Green	Green	Green	Green	Light Blue
Railways	Green	Green	Green	Green	Yellow	Light Blue
Ports	Green	Green	Red	Light Blue	Light Blue	Light Blue
Intermodal terminals	Green	Green	Green	Green	Yellow	Light Blue
Inland Water Ways	Green	Green	Yellow	Yellow	Light Blue	Light Blue
Case studies, existing tools and methodologies	Green	Green	Green	Green	Green	Light Blue

Report: Mobility as a Service

Role of infrastructure provider



- Part 1: Generic services and value proposition of infrastructure providers
 - Definition of current situation
 - Requirements for improvement concerning:
 - Customer perspective
 - Internal business perspective
 - Learn and growth perspective
- Part 2: Current trends in transportation and a role of infrastructure providers and operators in mobility supply chain
 - Trends definition:
 - Electrification
 - Sharing economy
 - Automation
 - Requirements, brought by mentioned above trends in transportation, will be investigated with a special focus on the possible and/or expected roles of the infrastructure operator in the mobility supply chain
- Part 3: Identification of new business processes and needs for re-engineering of existing business processes of infrastructure providers and operators
 - Impact of the mobility requirements, on the existing business processes, will be investigated
 - Possible new business processes will be suggested in line with learning and growth perspective.

International cooperation and Road Sector organizations



Bilateral cooperation

- **Highways Engineering Exchange Program**
- Meeting in Prague, Czech Republic: May 2018
- Meeting in Lincoln, NE: September 2018

TEM as an expert

- **International Road Federation**
- European Road Congress in Dubrownik, Croatia: October 2018

Highways Engineering Exchange Program



2018

Maintenance &
Asset Management

Seminars in Europe in US
Permanent Working Group on
Asset Management

2019

Building Information Modeling:
- Report on BIM
- Seminar in Europe
- Conference in USA

International Road Federation



2018

- Delivering Value and Innovation in Road Project Procurement
- Successful Corridor Strategies
- Road Asset Management: from vision to deployment



2019

- 25-27 of March, Zagreb, Croatia
- Road Asset Management (RAM)
- Foundation of cooperation with IRF in order to establish a training capacity in the field of RAM

TEM Reports

Plan for 2019

- **BIM for road Infrastructure: requirements and recommendations**

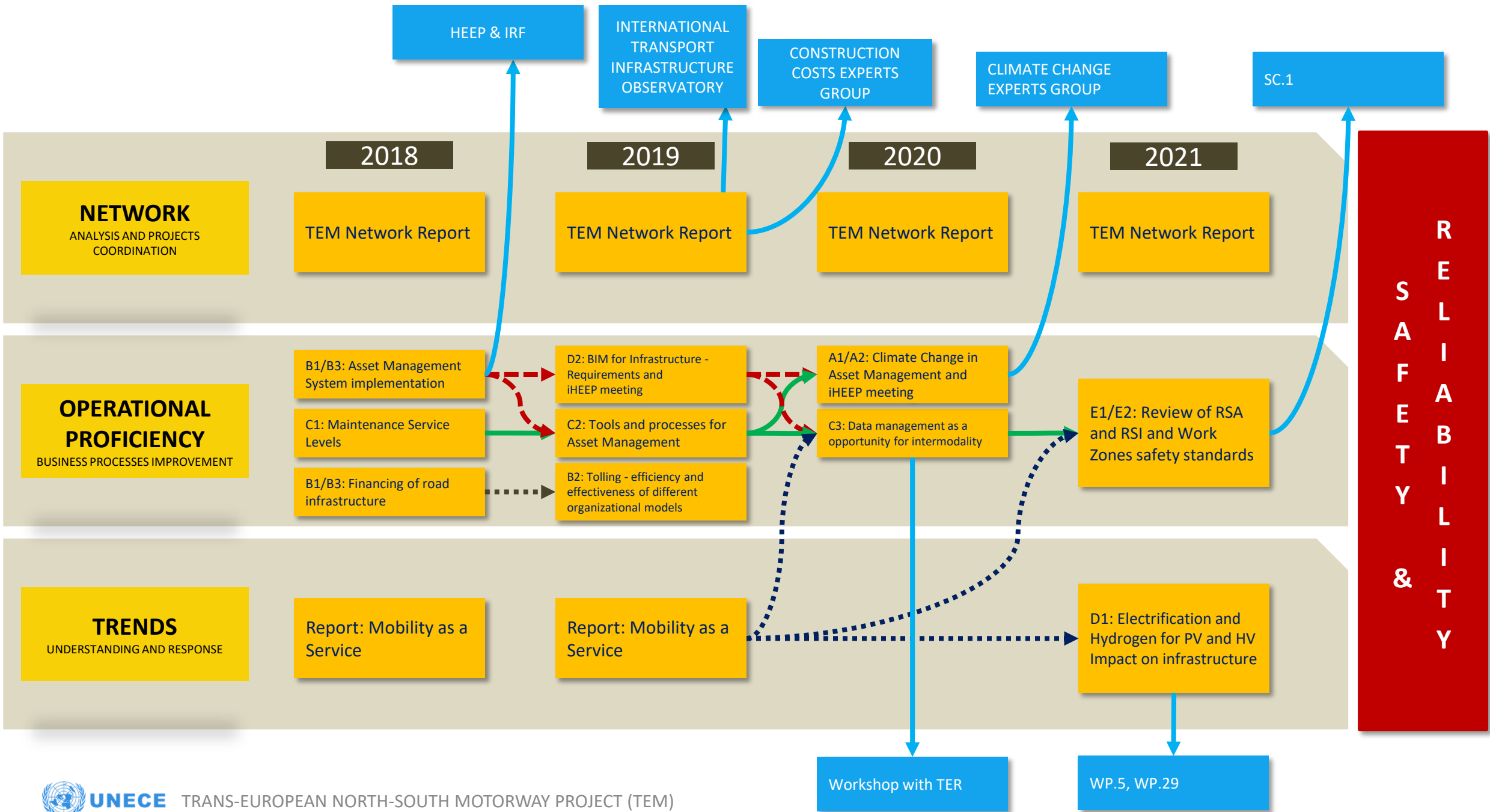
Abstract: Building Information Modeling for road Infrastructure becomes one of the trends Worldwide. The concept of BIM consists of 3D modelling, digital data workflow, data integration, interoperability and governance. This concept is used in all phases of the life of asset. To implement wisely this approach to road organizations it requires a robust data base, competences and capabilities. This study will list the requirements for the road organization and will propose how to get ready for BIM. This report will be based on the report B1/B3 from the year 2018/2019.

- **Tools for asset management: recommendations for road operators**

Abstract: A Transportation Asset Management Information Systems is a collection of hardware, software, data and processes that support asset Management business processes. A TAMIS is used to collect, process, store and analyze information about assets, which helps to develop sound maintenance and rehabilitation strategies and to schedule, track and manage work. Common functional elements of TAMIS are: asset inventory, asset condition, performance and utilization tracking, asset condition and performance prediction, treatment selection etc. To implement such a comprehensive and complex set of tools it requires sound knowledge not only about business processes but also in terms of planning IT implementation. This study will present what are possible tools to support asset management and in parallel will recommend how to implement this tools to eliminate the risk of vendor lock-in. This report is a continuation of reports B1/B3 and C1 from the year 2018/2019.

- **Tolling systems deployment: considerations and recommendations**

Abstract: funding strategies are more often based on the tolling systems. Usually electronic tolling systems are treated as IT software whereas it is a complex and comprehensive set of processes which are realized and delivered by number of organizations within road sub-sector. This study will analyze what is the best International practice, what are International standards in terms of tolling organization. Will also provide information how does it situation looks like in TEM Member Countries and will present recommendations how to deploy the best solutions in Project's Countries. This report is a continuation of reports B1/B3 from the year 2018/2019.



Thank you for your attention

Do not wait any longer. Join us!

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