TRANS-EUROPEAN NORTH-SOUTH MOTORWAY PROJECT (TEM)

COMPLETING NETWORK – IMPROVING MANAGEMENT – RESPONDING TO TRENDS

UNIQUE PLATFORM FOR ROAD INFRASTRUCTURE PROVIDERS, MANAGERS AND OPERATORS

SEPTEMBER 2018
Who we are

TEMSTAT map

UNECE TRANS-EUROPEAN NORTH-SOUTH MOTORWAY PROJECT (TEM)
Why we were established
What we do

UN Sustainable Development Goals (TEM perspective)

- G.3.: Good health and well-being
- G.4.: Quality education
- G.5.: Gender equality
- G.6.: Clean water and sanitation
- G.7.: Affordable and clean Energy
- G.8.: Decent work and economic growth
- G.9.: Industry, Innovation and Infrastructure
- G.10.: Reduced inequalities
- G.11.: Sustainable cities and communities
- G.12.: Responsible production and consumption
- G.13.: Climate action
- G.14.: Life below water
- G.15.: Life on land
- G.16.: Peace, justice and strong institutions
- G.17.: Partnerships for the goals

TEM Project Strategic Objectives

- Facilitating road traffic in Europe
- Improving the quality and efficiency of transport operations in UN ECE region
- Balancing existing gaps and disparities between motorway networks in Western, Eastern, Central and South-Eastern Europe
- Assisting the integration process of European transport infrastructure systems
How we do so
PROJECTS and ACTIVITIES UP TO 2021

Standards:
- Safety standards in work zones
- Development of a standard catalogue of public services in terms of road infrastructure
- Standards for road equipment for the protection of the environment

Evaluation of effectiveness and efficiency:
- Road safety infrastructural means
- Solutions for the protection of the environment
- Tolling systems

Cooperation with partners:
- UN Regional Commissions, Specialized Agencies, Programs and Funds, Departments and Offices
- Highways Engineering Exchange Program, IRF, OECD ITF, PIARC, CEDR
- UNECE (i.e.: WP.5, SC.1, WP.1, WP.29, WP.6)

Internal business processes:
- Data collection, measurement and dissemination processes for road operators
- Alternative methods of energy production in the management of road infrastructure
- Building Information Modeling for road operators
Areas of interest

TEM Project
Strategic Objectives

✓ Facilitating road traffic in Europe

✓ Improving the quality and efficiency of transport operations in UN ECE region

✓ Balancing existing gaps and disparities between motorway networks in Western, Eastern, Central and South-Eastern Europe

✓ Assisting the integration process of European transport infrastructure systems
Network

LEGACY:

- TEM Master Plan has been prepared in 2006 and revised in 2011;
- It contains revised list of priority projects of TEM backbone network;
- The expected status of the network in 2020 is also projected.

CURRENT PROJECT:

- TEM Network Report has been scheduled to be prepared in 2018;
- It will examine progress of network development;
- Transport growth and transport needs in terms of road infrastructure will be presented;
- Road safety has been taken into consideration, as well as
- Border crossings as probable bottle necks on the network.
Network

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
Operational proficiency

**PROJECTS DELIVERED:**
- RSA and RSI on the TEM Network

**CURRENT PROJECTS:**
- Maintenance standards for roads and highways
- Governing and funding of road infrastructure
- Benchmarking of Transport Infrastructure Construction Costs

**LEGACY:**
- TEM Standards and Recommended Practice (design, construction, maintenance)
Operational proficiency
REPORT: 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

Permanent workgroup with iHEEP on Asset Management
Trends in economy and transportation

- Electrification
- Sharing-economy
- Automation

Road operators response in terms of:

- Self-explaining roads
- Well-maintained roads and signs
- Road traffic information
- Data collection and sharing
- New digital infrastructure
- Safety and security policies and procedures
Trends
Report about Mobility as a Service

MOBILITY CUSTOMERS

MOBILITY PROVIDERS

DATA PROVIDERS

TRANSPORT PROVIDERS AND OPERATORS

INFRASTRUCTURE PROVIDERS AND OPERATORS

SERVICE REQUIREMENTS

DATA REQUIREMENTS

DATA REQUIREMENTS

DATA REQUIREMENTS

SERVICE

INSIGHT

DATA

SERVICE
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Conclusions

**UNIQUE PLATFORM FOR ROAD INFRASTRUCTURE PROVIDERS AND OPERATORS**

**NETWORK IMPROVEMENT**

- WHICH SECTIONS AND SERVICES EXIST, WHICH ARE MISSING, WHEN EXPECTED

**OPERATIONAL PROFICIENCY**

- HOW TO ENHANCE EFFECTIVENESS AND EFFICIENCY WITHIN ROAD SUB-SECTOR

**TRENDS RESPONSE**

- CONTRIBUTION TO MOBILITY SUPPLY CHAIN, IMPACT ON THE ROAD INFRASTRUCTURE PROVIDERS, NEW BUSINESS PROCESSES
Thank you for your attention

Do not wait any longer. Join us!

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