



SDG 9: Relevant UNECE Work on Resilient Infrastructure

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Overview

- Introduction
- Infrastructure Observatory
- Climate Change Impacts and Adaptation for Transport
- Benchmarking Infrastructure Construction Costs
- Data Collection for SDG9



SDG 9: Resilient Infrastructure

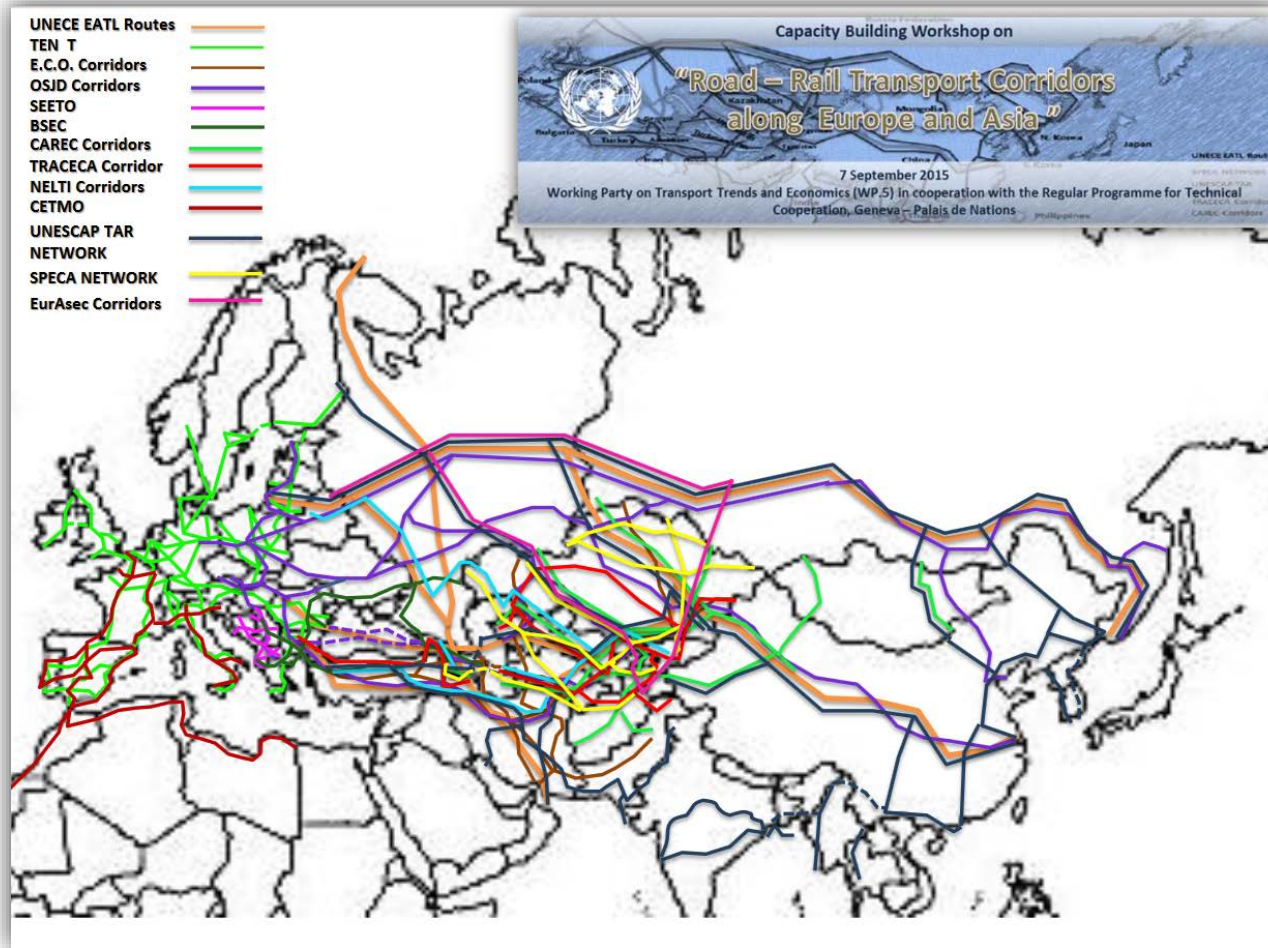
‘Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation’

UNECE WORK

- Identifies main **Euro-Asian links** for priority development and cooperation
- Ensures **seamless connections** throughout Europe through Trans-European Motorways and Railways (TEM and TER)
- Facilitates **border crossings** (TIR convention)



Infrastructure Observatory

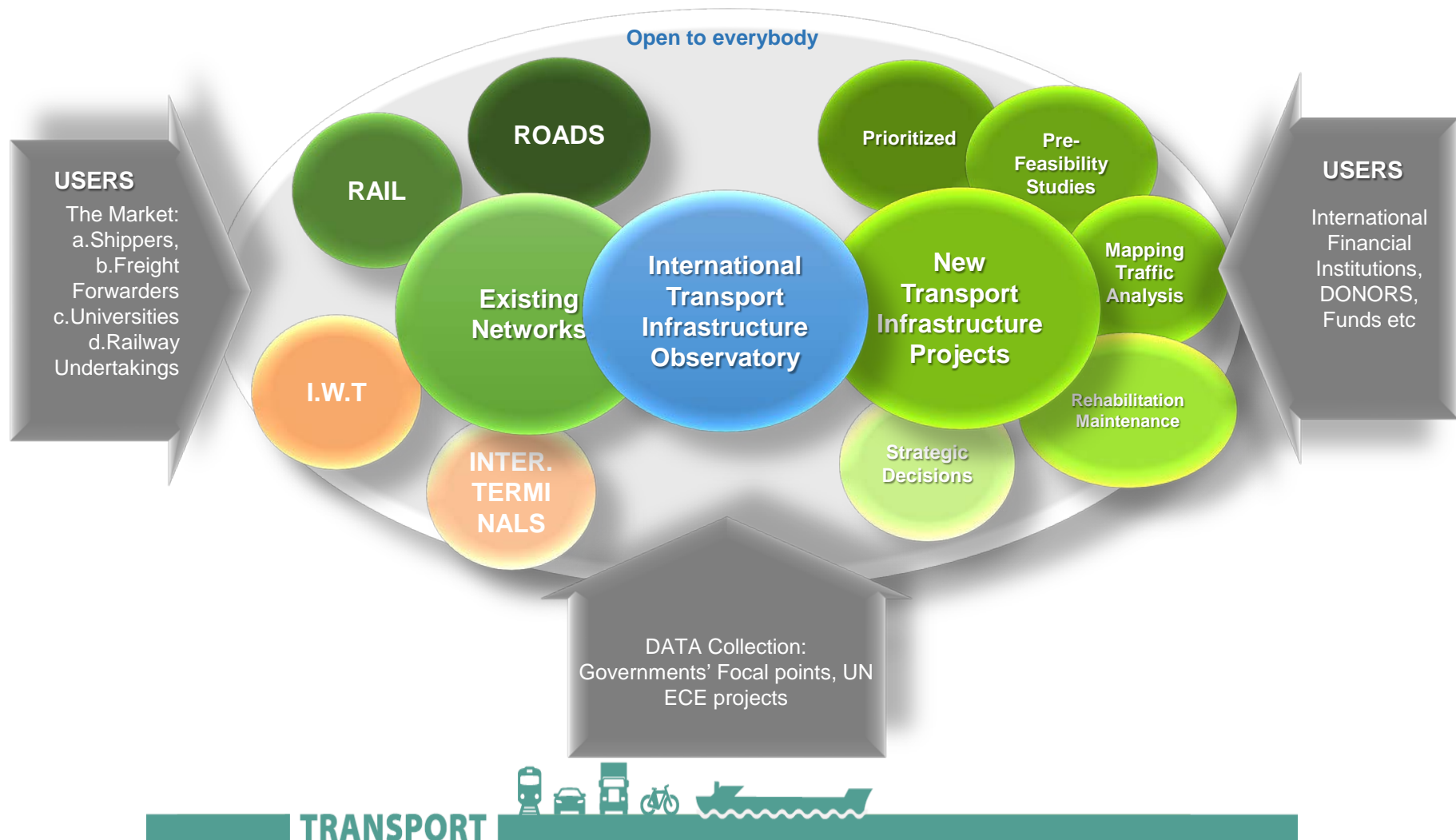


Infrastructure Observatory

- Given large number of different identified transport networks, Observatory will act as online repository for users to exchange basic information on projects, meetings, and to seek cooperation
- In the future, all international corridors should be hosted in a GIS environment. Hopefully ready by end-2018



Infrastructure Observatory



Transportation Network



Rail Network and Auxiliary Infrastructure

Rail Projects

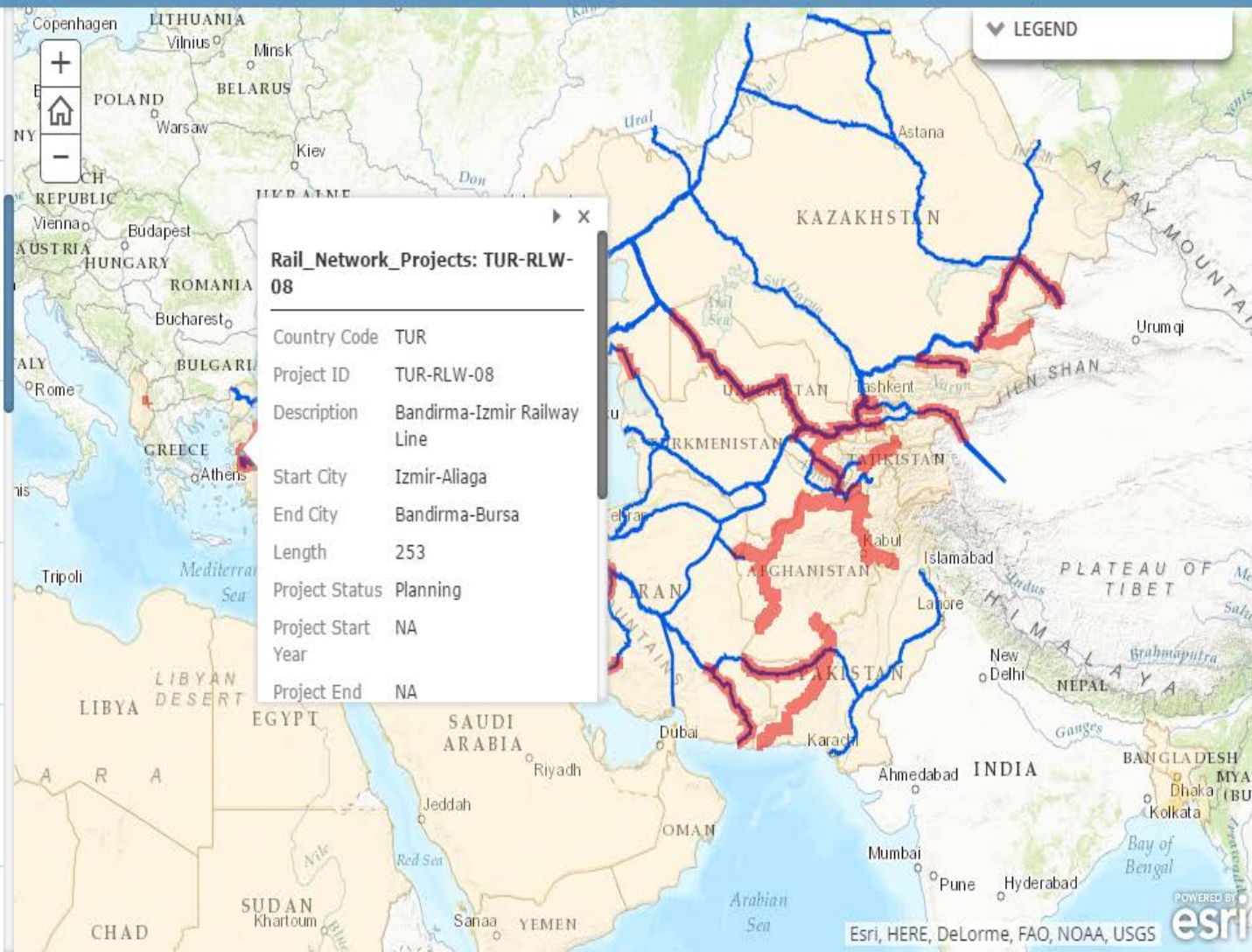
Rail Projects

Border Crossing

Dry Ports

Maritime Ports

Rail Network by Legal



Climate change adaptation

- Group of Experts on Climate Change Impacts and Adaptation for transport Networks and Nodes (WP.5/GE.3) active since 2010
- Identifies parts of transport networks vulnerable to climate change impacts
- Develops tools to address potential extreme hazards to transport infrastructure
- Assess potential economic, social and environmental impacts and provide cost/benefit analysis of adaptation options
- Has a focus on geospatial applications (uses E-Road and E-Rail Census maps)



Infrastructure Costs

- Group of Experts on Benchmarking Transport Infrastructure Construction Costs (WP.5/GE.4)
- Identifies tools for **evaluating** infrastructure construction costs
- Identifies **terminologies used** for construction costs
- Collects data to **benchmark construction costs**, by country and transport mode



Infrastructure Costs

Examples of Cost Terminologies

Construction Service: Activity that supports the construction process or subsequent maintenance (SOURCE: EN 15804:2012+A1:2013)(2).

Construction Works: Everything that is constructed or results from construction operations. Note 1 to entry: This covers both building and civil engineering works, and both structural and non-structural elements. Note 2 to entry: Adapted from the definition in ISO 6707-1 (2).

Construction Administration Cost: The normal cost of administration, management, reporting, design services in construction, and community outreach required in the construction phase of a project (4).

Construction Allowance: An amount of additional resources included in an estimate to cover the cost of known but undefined requirements for a construction activity or work item. A construction allowance is a normal cost (4).



See <https://www.unece.org/fileadmin/DAM/trans/doc/2017/wp5/ECE-TRANS-WP5-GE4-2017-01r1e.pdf>



SDG 9: How to Measure?

- 9.1.1: proportion of rural population who live within 2 km of an all-season road
- How to measure? Not surveys; mapping and/or satellite data combined with road network information, plus population density data
- 9.1.2: Passenger and freight volumes, by mode of transport
- How to measure?
 - Passenger km, goods vehicle-km (or ton-km), consistent across modes (using Glossary definitions)
 - Measured by UNECE for all transport modes except aviation and maritime



Summary

- UNECE works on improving infrastructure in countries by sharing information, best practices and comparison tools, and identifying networks for improvement
- Key passenger and freight volume statistics feed into measuring SDG 9.1.2



Suggestions? Comments?
We are here to help!

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