



# **WESTERN BALKANS TRADE AND TRANSPORT FACILITATION PROJECT**

**Transport Global Practice**

September 16, 2020

# BASIC INFORMATION

## Countries in TTF 1:

- Albania
- North Macedonia
- Serbia

## Implementing Agencies:

- Ministry of Construction, Transport and Infrastructure (Serbia)
- Ministry of Transport and Communication (North Macedonia)
- Ministry of Finance and Economy (Albania)

# PROPOSED DEVELOPMENT OBJECTIVE(S)

The Proposed Development Objective is to **reduce the trade costs and increase transport efficiency** in Albania, North Macedonia, and Serbia.

Aligned with **WB goals of reducing poverty** and promoting shared prosperity

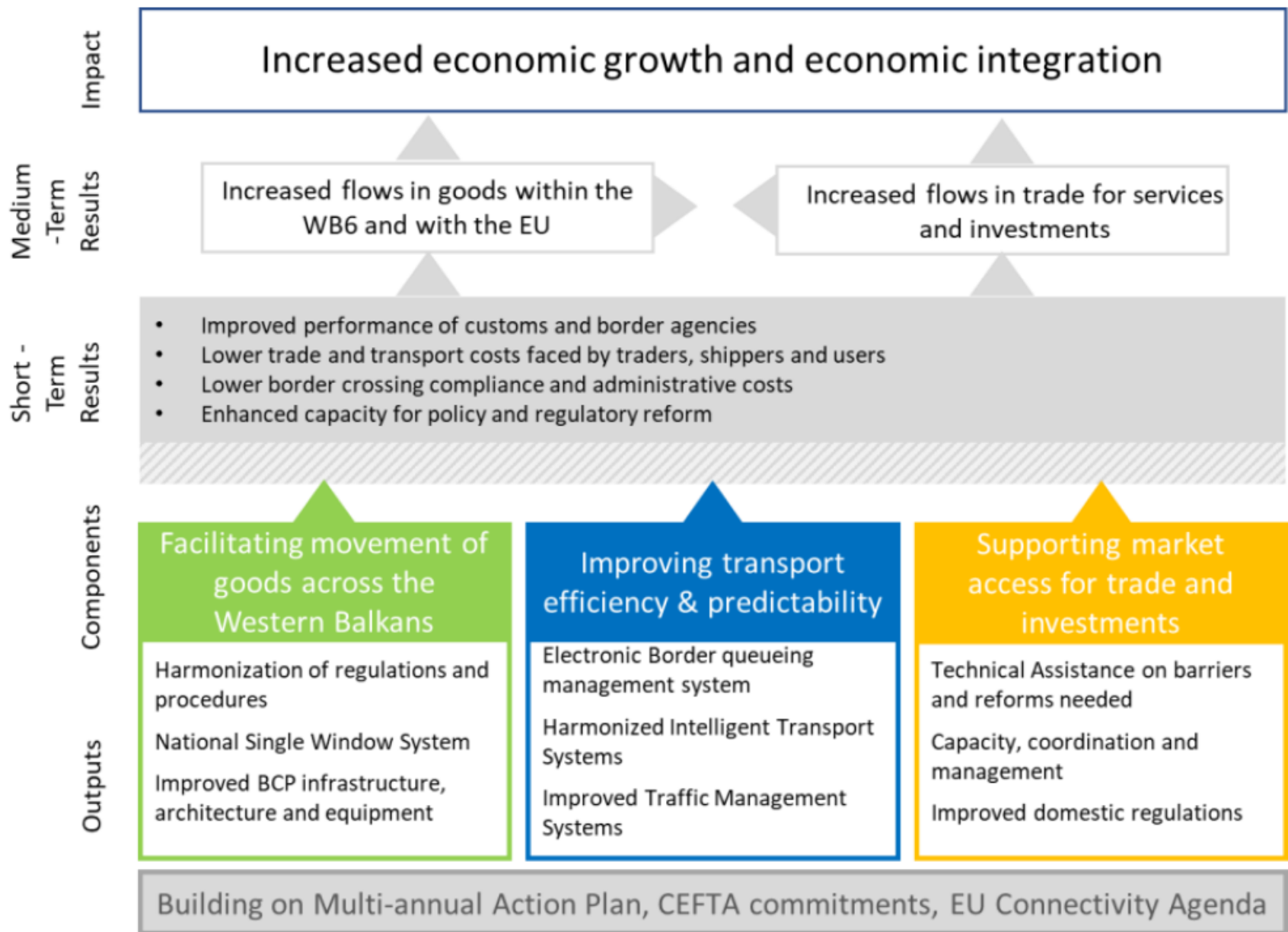
Aligned with **EU accession and integration processes** and EU efforts for closer integration within Western Balkan region

# COMPONENTS

1. Facilitating movement of goods across the Western Balkans
2. Enhancing transport efficiency and predictability
3. Enhancing Market Access for Trade and Investments
4. Supporting Project Implementation and Coordination

# COORDINATION

- Coordinated and collective action is necessary to **reduce trade transaction costs** along regional transport corridors and connectivity to TEN-T EU Network.
- Trade and transport facilitation are key elements of WB6's efforts to **deepening economic integration** in the region and the EU
- Western Balkans Six Clear **EU accession** perspective and integration into the multilateral trading system



# IMPLEMENTATION

## INVESTMENTS, TECHNICAL ASSISTANCE AND REGULATORY AND INSTITUTIONAL REFORMS.

1. Adoption and implementation of a National Single Window (NSW) solution;
2. Improvements in border crossing points and crossing points in selected trade corridors;
3. Adoption of an Intelligent Transport System (ITS);
4. Technical assistance and support for the implementation of regulatory and institutional reforms needed
5. Knowledge transfer and capacity building

# ALBANIA

- Implementation of the NSW,
- Development of the National Transit Application and Economic Operator Registration and Identification (EORI),
- Adoption of Vessel Traffic Management Information System (VTMIS) system and
- Technical assistance and support for the implementation of regulatory and institutional reforms.



# NORTH MACEDONIA

- Technical assistance support will be provided together with NSW
- Implementation/interface with existing systems,
- Deployment of ITS on the A1 motorway, part of Corridor X,
- Technical Assistance on ITS implementation of EU Directives (legal and technical).

# SERBIA

- Adoption and implementation of a NSW solution,
- Installation of Electronic Data Interchange (EDI) systems for railways,
- Developing overall ITS architecture and deploying it on Corridor X, and
- Improving specific railway level crossings (RLC) on the network

# ENHANCING TRANSPORT EFFICIENCY AND PREDICTABILITY

This component will focus on

- (a) development of **National ITS Strategy**
- (b) adoption of an **Intelligent Transport System (ITS)**
- (c) **Corridor Performance Monitoring and Measurement tool**

# NATIONAL INTELLIGENT TRANSPORTATION SYSTEM (ITS) STRATEGY FOR NORTH MACEDONIA

# NATIONAL INTELLIGENT TRANSPORTATION SYSTEM (ITS) STRATEGY FOR NORTH MACEDONIA

- Strategic Framework for implementation of ITS on the TEN-T Core/Comprehensive Networks in Western Balkan 6 (EU- DG Near 2017 project recommendations and results)
- Aligned with National Transport Strategy of NM
- Aligned with EU Directive legal framework and related standards for deployment of ITS (architecture, applications and services)
- High priority for Western Balkan countries and EC expectations for:
  - a) reforms and adoption of the EU acquis
  - b) ensuring an interoperable transport network in the region with standards equal to TEN-T
- Timeframe 2020-2030
- Development in 12 months

# ITS NATIONAL STRATEGY DEVELOPMENT OBJECTIVES

Identify **potentials and weaknesses** in the ITS legal, organizational, technology and application implementation

Develop **strategic actions** and **measures** to be address for full **legal, institutional, technical and operational deployment** of ITS on National Level, aligned with International standards

2020-2030 period with recommendation of **priority areas** and timeline of projects, activities, initiatives and policies, and indicators for progress monitoring

Final Delivery shall comprise of **National ITS Strategy and Action Plan** including Financial needs for short, medium and long term actions

# CORRIDOR PERFORMANCE MONITORING AND MEASUREMENT SYSTEM (CPMM)

# SPECIFIC OBJECTIVES OF CPMM

- 1 Monitor the performance by following quality and reliability of the travel
- 2 Measure and identify efficient operation and management of the transport system;
- 3 Provide decisions-support for priority investment
- 4 Improve traffic safety and reduce accidents on the roads
- 5 Enhance Mobility by improving transport and logistics functions



# LEVEL OF DETAILS OF CPMM

**Corridor Links** - homogeneous links with similar traffic flow conditions

**Inter-city links** which present city-to-city corridor performance

**Entire Corridor** measurements, for multi-corridor comparison of performances

## **Points of interest for monitoring:**

- port areas;
- road and rail border crossings;
- road and rail custom clearance stations/terminals ;
- highway rest areas and parking (intentional stops, applicable for road transport),
- corridor segments between major economic centers
- unintentional stoppages and idling over the corridor components
- length of queueing and time to pass on Border Crossing, Customs Offices and Terminals and other points detected along the corridor (geofencing)

# DATA AND DATA ANALYTIC PROCEDURES

- **Real-time data and Historical data**
- **Data sources:**
  - **Institutional** data (customs procedures, border police, ports, ITS data, traffic police data, infrastructure data...)
  - **Commercial** Data
- **Institutional:** Road data (infrastructure, ITS data and GIS data), Rail data (infrastructure and GIS), Customs IT system data, Border Police data, Ports data, Traffic Police Data
- **Commercial** data: Transport companies' data, Logistic providers and freight forwarders, Big data providers, other

# INDICATORS FOR MEASURING CORRIDOR PERFORMANCE

- Travel time, time cost, quality for Road Transport
- Emission - Amounts of air pollutants (CO, HC, NOx, PM2.5 and PM10) generated at Corridor
- Safety - Road accident statistics and accident hot spot
- Reliability for Road Transport - Travel Time Index (TTI) and Planning Time Index (PTI)
- Travel time, time cost, quality and reliability for Rail Transport
- Regulatory procedures time and delaying at BC and CT
- Quality and reliability for Multi-modal integration
- Volume of Trade and Type of goods

# EXPERIENCE FROM CORRIDOR Vc and best practices worldwide

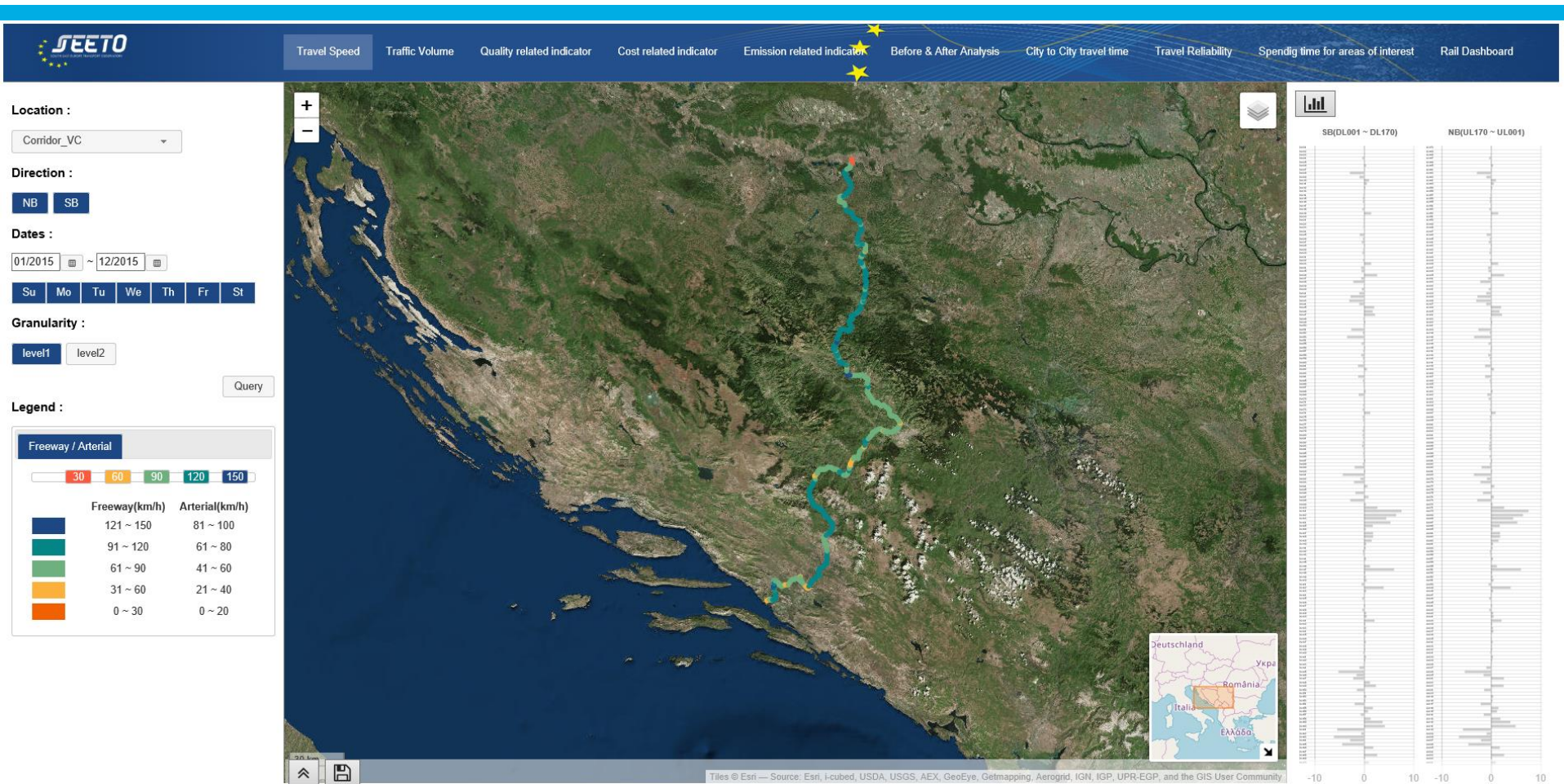
## A. Outline of Prototype System for the Corridor Vc

- Monitor the corridor performance & Support decision-making
- Data
  - 2015-2016 Truck GPS data
  - 2015-2016 16-Traffic Volume **Data**
- Features of Corridor Vc
  - 5 Major Cities
  - 2 Border Crossings
  - 7 Inland Customs
  - 1 Port

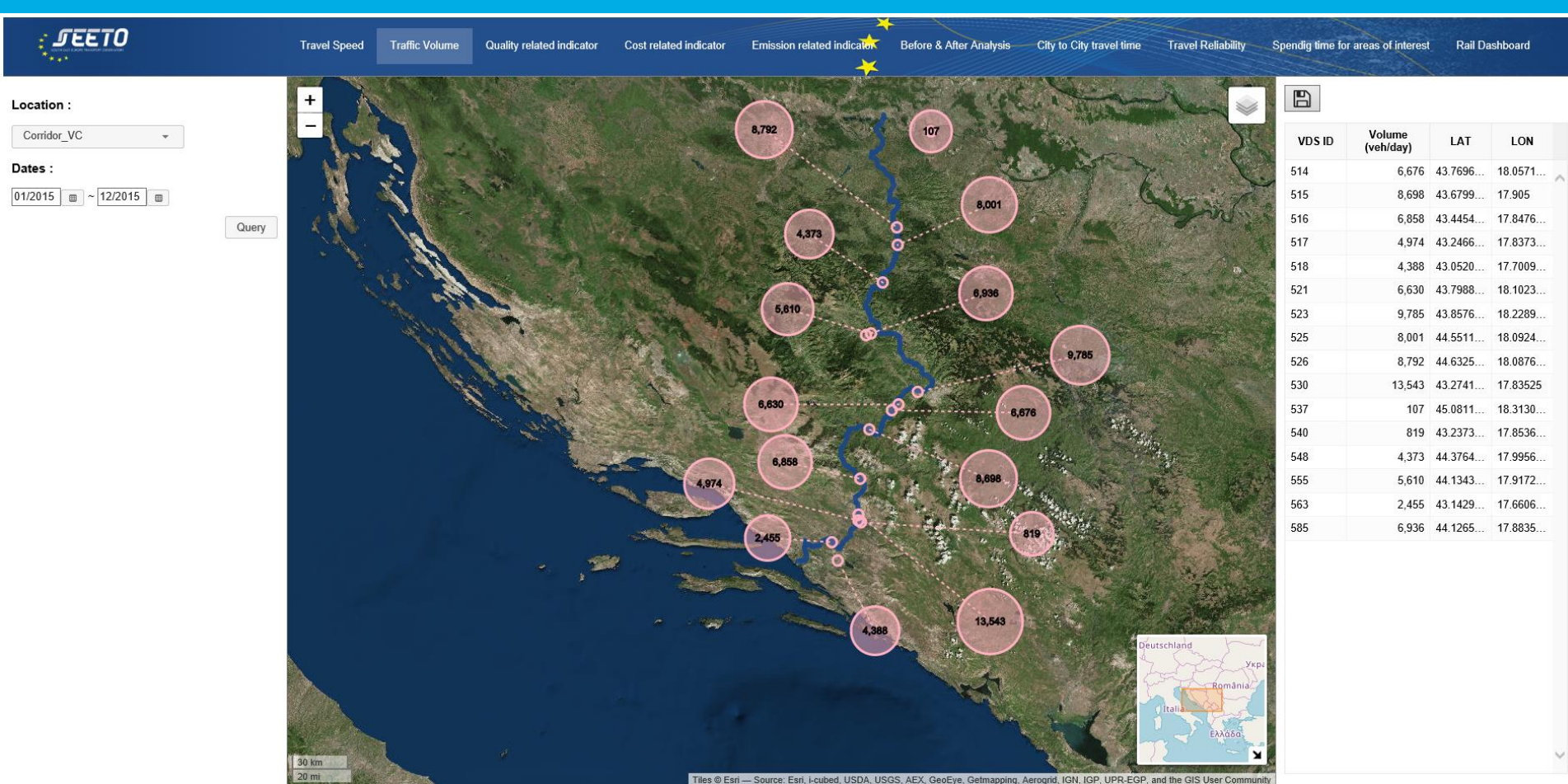




# Travel Speed

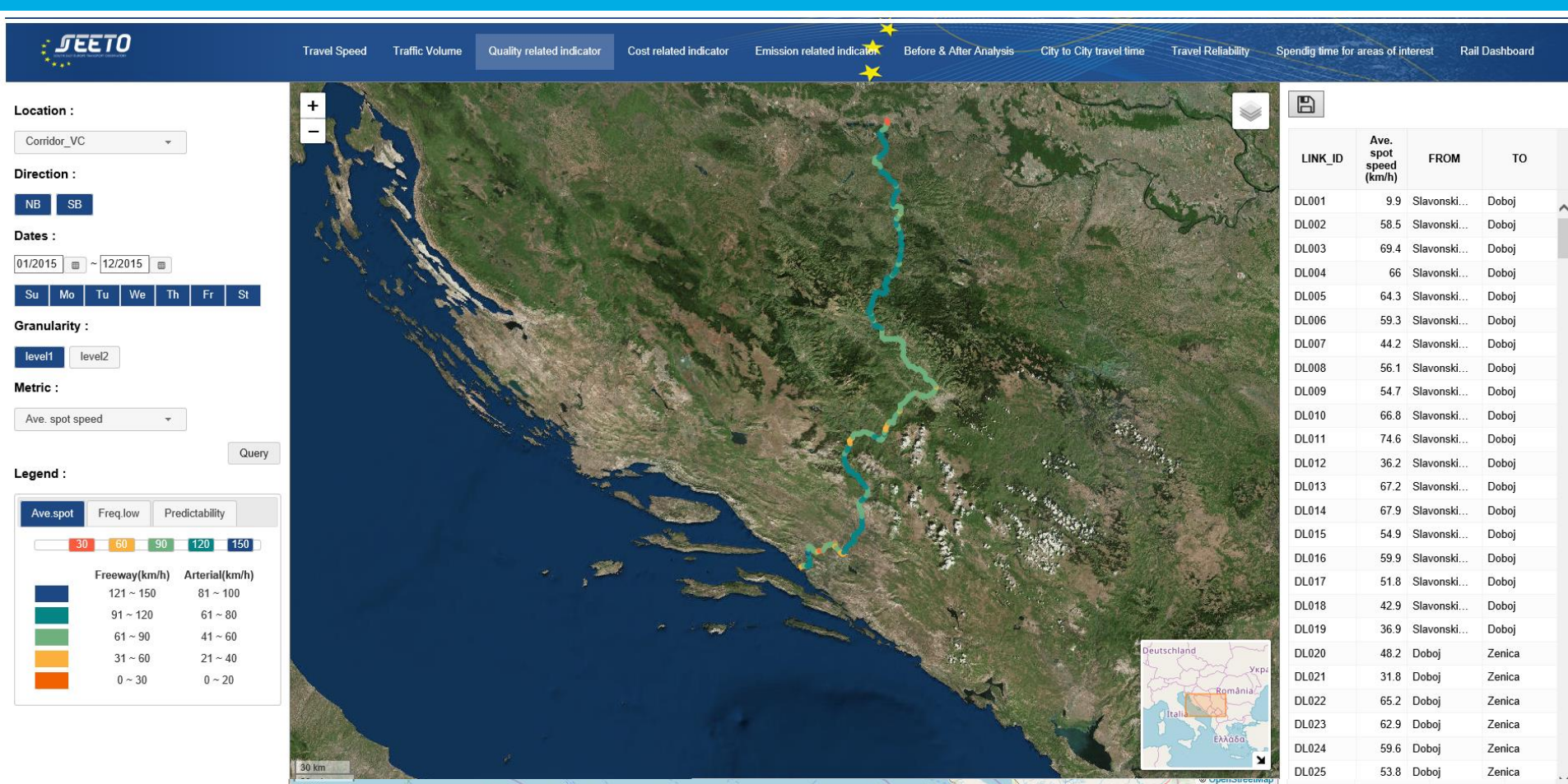


# Traffic Volume

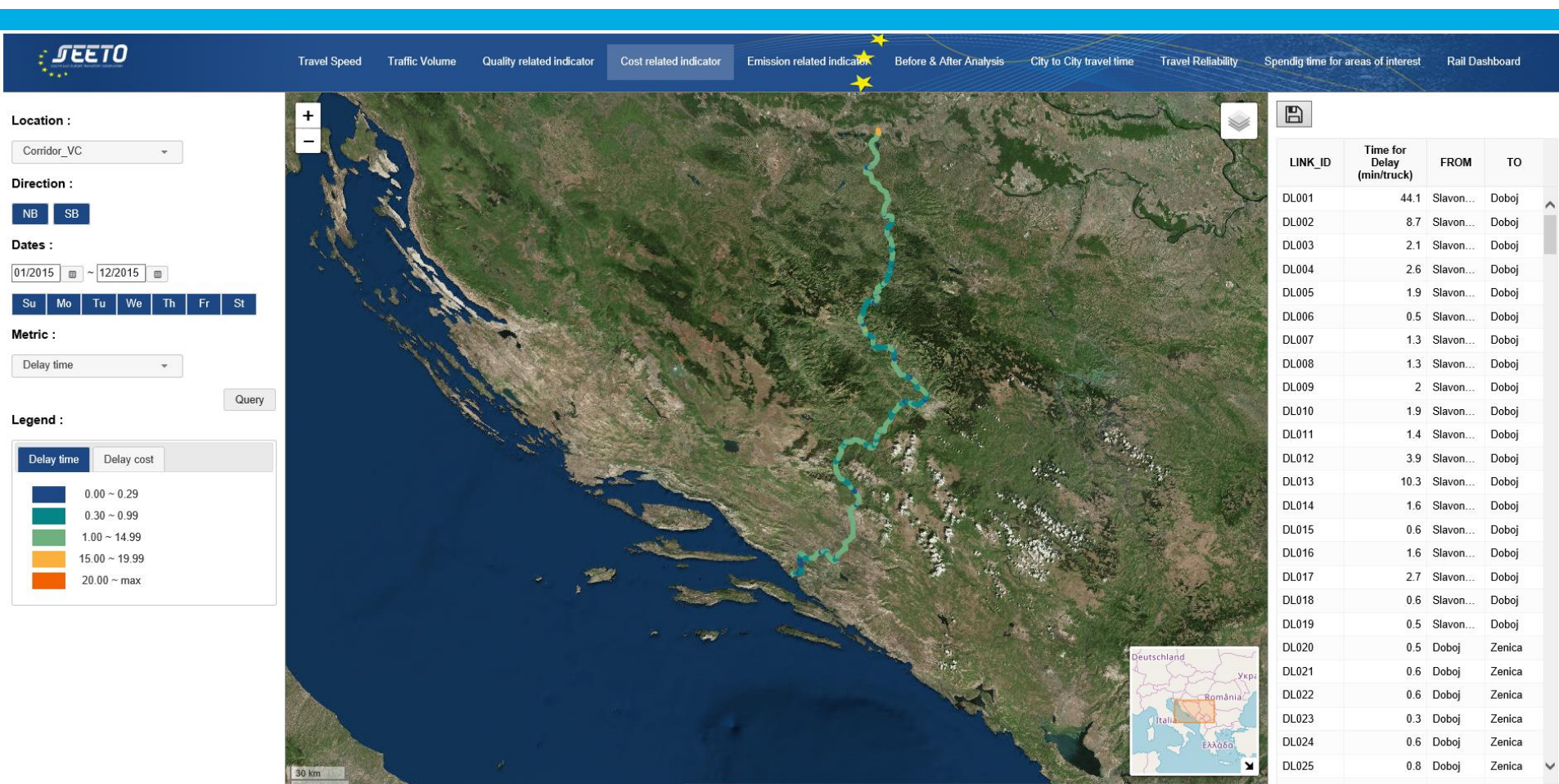




# Quality related Indicators

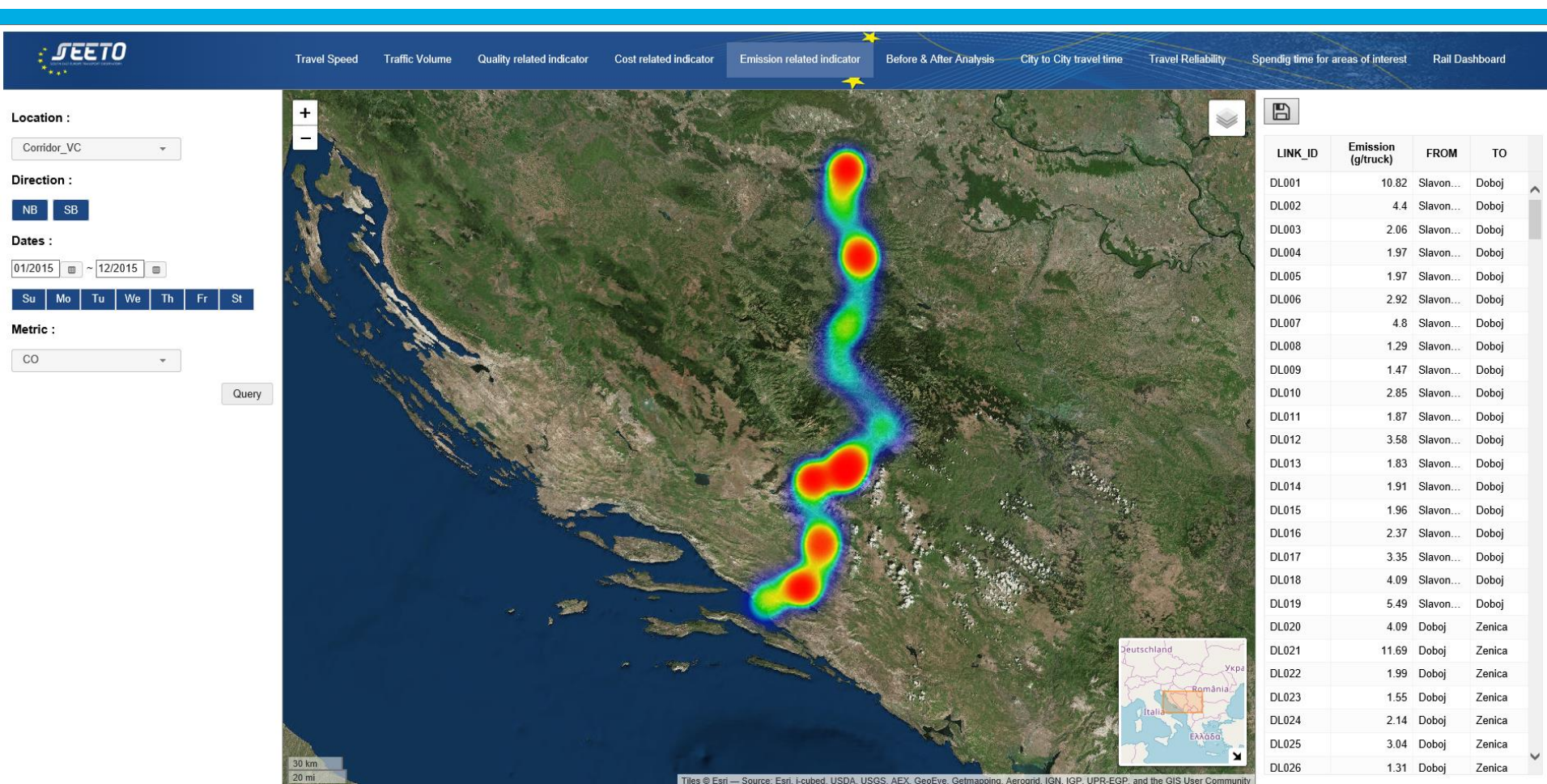


# Cost related indicator



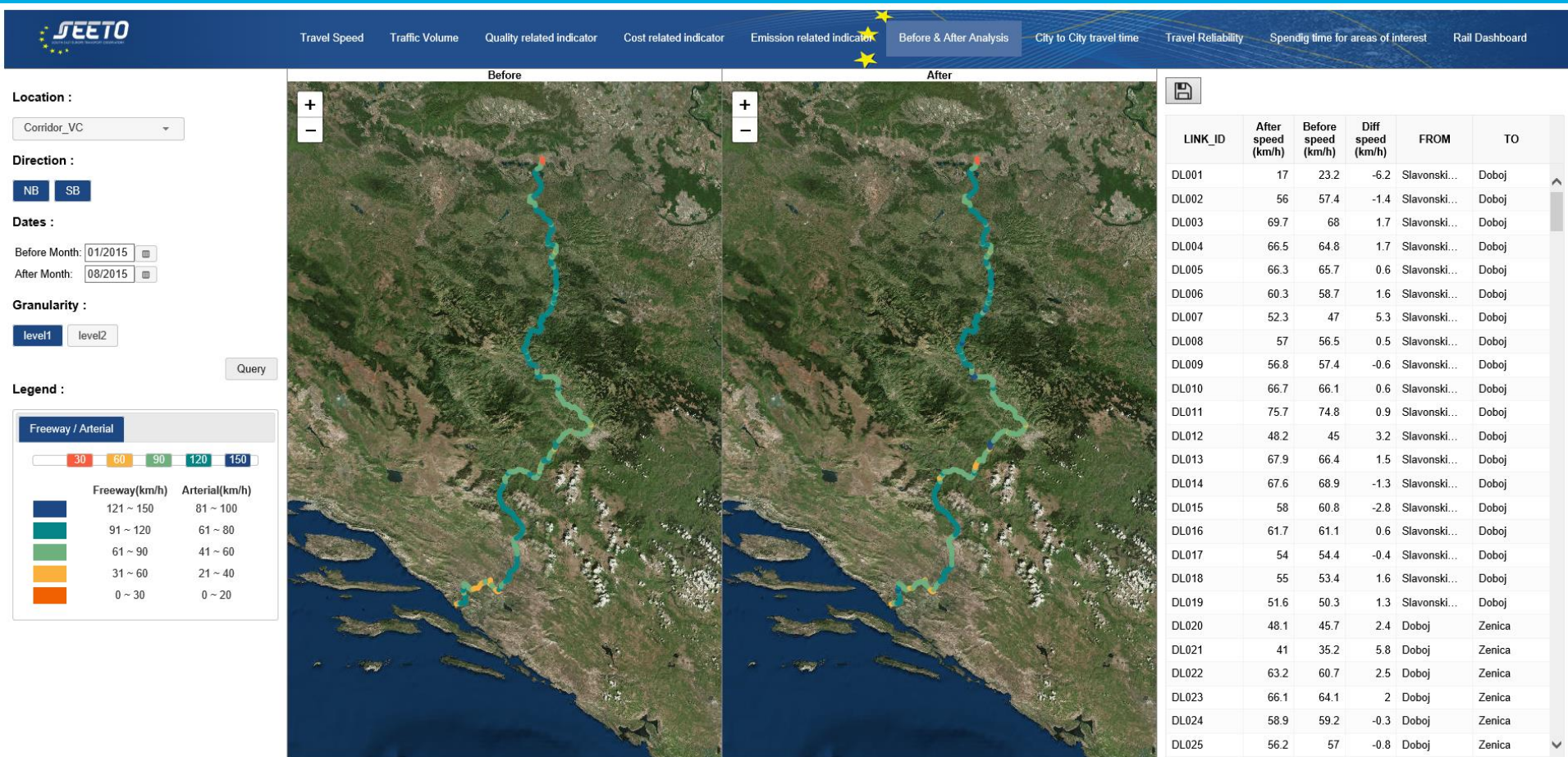


# Emission related indicator





# Before and After intervention Analysis



# Links travel time by direction


[Travel Speed](#)
[Traffic Volume](#)
[Quality related indicator](#)
[Cost related indicator](#)
[Emission related indicator](#)
[Before & After Analysis](#)
[City to City travel time](#)
[Travel Reliability](#)
[Spendig time for areas of interest](#)
[Rail Dashboard](#)

Location :

Corridor\_VC

From:

Port Ploce

To:

Slavonski Brod

Dates :

01/2015 ~ 12/2015

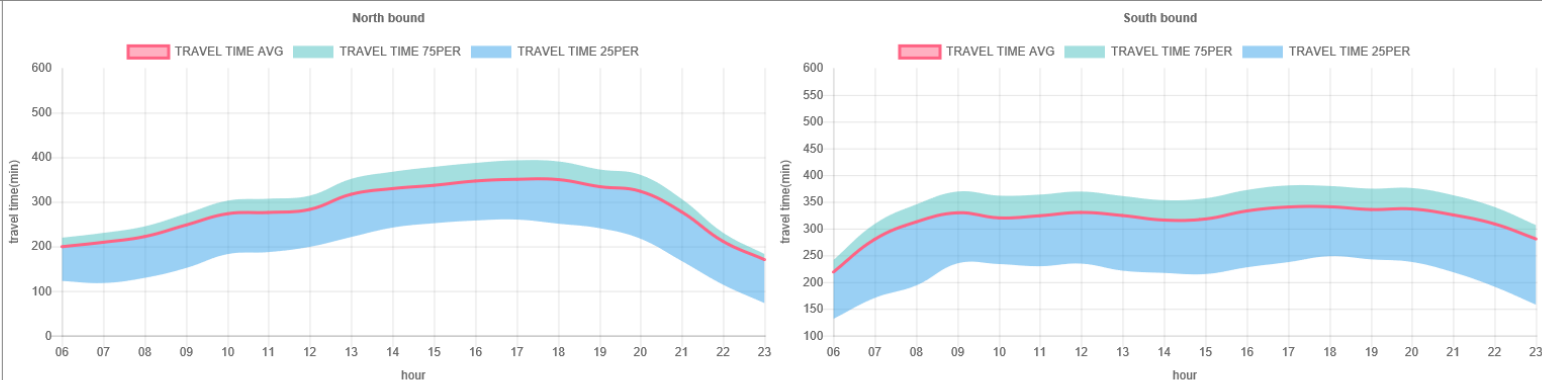
X-axis :

hour week month

Query

Statistics :

AVG 75%TILE 25%TILE

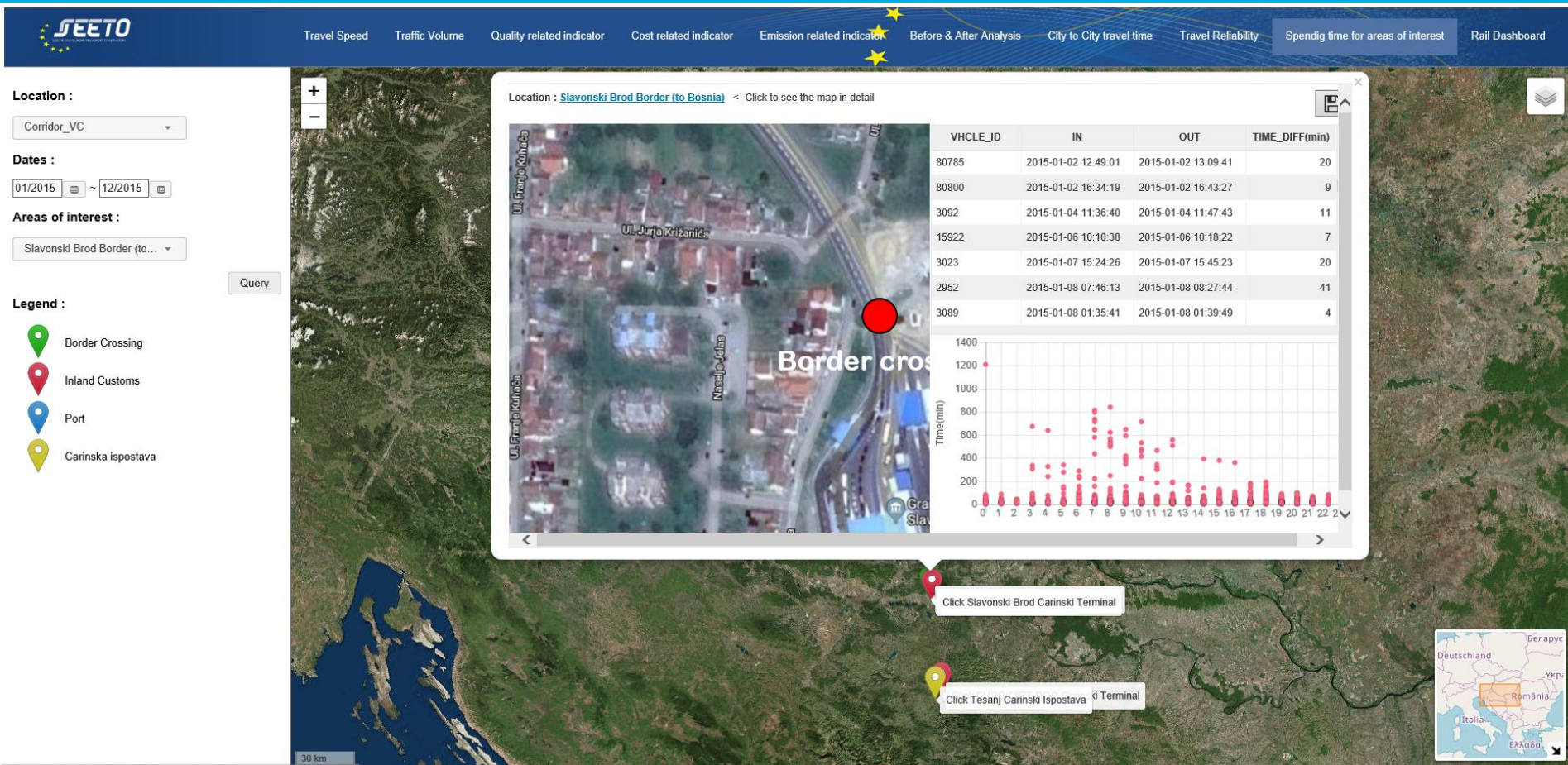


City to City Travel Time (min)

FROM \ TO	Port Ploce	Mostar	Sarajevo	Zenica	Doboj	Slavonski Brod
Port Ploce	0	81.05	185.72	228.53	292.6	356.36
Mostar	71.4	0	110.03	152.83	216.9	280.67
Sarajevo	177.45	106.05	0	42.8	106.88	170.64
Zenica	220.48	149.08	43.03	0	64.07	127.84
Doboj	287.06	215.66	109.61	66.58	0	63.77
Slavonski Brod	352.77	281.37	175.32	132.29	65.71	0



# Time spent at specific points of interest (Border Crossing)



# Railway Dashboard



Travel Speed

Traffic Volume

Quality related indicator

Cost related indicator

Emission related indicator

Before & After Analysis

City to City travel time

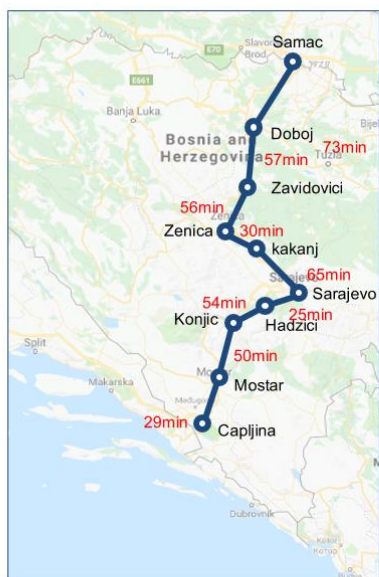
Travel Reliability

Spending time for areas of interest

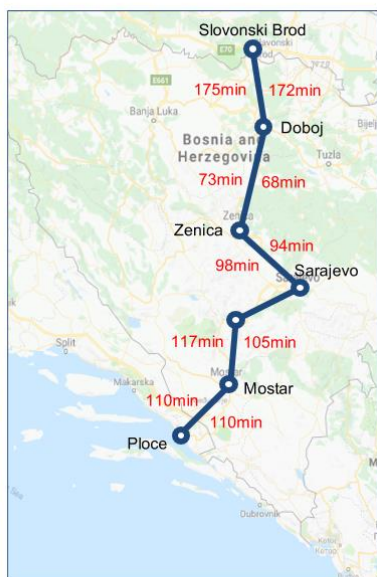
Rail Dashboard

## • Comparison between Railway Passenger Train Time Table and Roadway Truck Travel Time

Railway Passenger Train Time Table

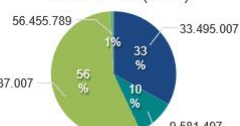


Roadway Truck Travel Time(2015-2016 Average)

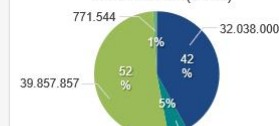


## • Volumes of Freight Trains for Corridor Vc

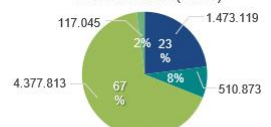
in net ton-km(2015)



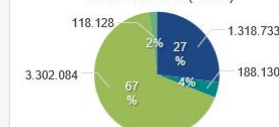
in net ton-km(2016)



in million tons(2015)



in million tons(2016)



## • Overview of the Types of Accidents When Performing Rail Transport

Type of Accident		Year		
		2014	2015	2016
ŽRS	Collision of trains	1	-	-
	Fire on the means of transport	-	-	-
	Derailments	1	4	1
	Accidents at road crossings	13	-	4
	A train ride on a pedestrian	1	1	1
	Suicides	-	-	-
	Other	-	9	2

# CPMM SUSTAINABILITY CHALLENGES

*Vision and plan for scaling up CPMM throughout the WB6 and all corridors is delivered.*

- i. Institutional Capacity for System utilization,
- ii. Stakeholder collaboration and Data collection,
- iii. System ownership and
- iv. System financing

**Discussions started 2017 with SEETO/TCT, EU DG Move and DG Near as well as within current active World Bank projects on Trade and Transport Facilitation.**

# Thank you

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