
D.T1.2.1 Report

D.T1.2.3 Strategic workshop

05.2020

Selection and prioritisation of cross-border projects for
implementation (border CZ - SK)

**Report: Selection and prioritisation of cross- border
projects for implementation (border CZ - SK)
(D.T. 1.2.3, D.T1.2.1)**

Venue : Gliwice

Date : 05.03.2020

Responsible Partner:

PP1 Upper Silesian Agency for Entrepreneurship and Development LTD.

Contribution partners:

PP3 The Union for the Development of the Moravian Silesian Region

PP4 Transport Research Institute, JSC.

PP5 Transport designing, ltd.

PP6 University of Žilina

2. Report

2.1. Introduction

The main purpose of the report is to present infrastructure projects that will allow for the implementation of strategic objectives related to the development of multimodal transport on the border between the Czech Republic and Slovakia in relation to the entire TRITIA area (fig. 1).

Figure 1 - Region Tritia



The basis for presenting and prioritizing the projects were the strategic assumptions contained in the White Paper, strategic goals for the development of multimodal transport in the TRITIA area, the model and scenarios of transport development in the TRITIA area and action plans:

- Inland waterway on the TRANS TRITIA area
- Railways in the TRANS TRITIA area
- Intermodal logistic centers/terminals in the TRANS TRITIA area.

The presentation of projects consisted of several stages:

- Identification of infrastructure projects which have an impact on the development of multimodal transport on the Polish-Slovakian border. The selection of projects was based on a broad analysis of strategic programmes written at international, national or regional level, with particular emphasis on the development of multimodal transport for the TRITIA area. It was assumed that the projects may be in progress or are planned for implementation.
- Identification on the basis of the transport model and bottleneck workshop for the development of multimodal transport on the PL-SK border for the whole TRITIA area.
- Identification of new projects developing multimodal transport on the border between the CZ and SK, which are a proposal for bottlenecks reduction and respond to the needs of key stakeholders (at national and regional level).
- Determination of project priorities according to the scale: high priority (highest importance for the development of multimodal transport on the CZ-SK border), medium priority (medium importance for the development of multimodal transport on the CZ-SK border), low priority (low importance for the development of multimodal transport on the CZ-SK border)

Each project contains a description of: Project goals, project topics with the maps and level of importance (priority) with justification. Projects for rail and road transport are described separately.

2.2. List of projects

The list of projects implemented under the action plan on the Czech Republic-Slovakia border has been compiled on the basis of planned and implemented projects in these two countries. It is emphasized that the projects are of international, national and regional nature and directly relate to the development of multimodal transport on the border of the examined border. The following strategic programs and activities were used to develop the list of projects (programs):

Czech Republic:

- Development of transport infrastructure until 2050 (in original „Rozvoj dopravní infrastruktury do roku 2050”)
- White Paper - Public Transport Concept 2015-2020 with a view to 2030 (in original „Bílá kniha - Koncepce veřejné dopravy 2015-2020 s výhledem do roku 2030”)
- Concept of development of transport infrastructure of the Moravian-Silesian region (in original „Koncepce rozvoje dopravní infrastruktury Moravskoslezského kraje”)

Slovakia

- Strategic plan for development of transport in Slovak Republic to 2030 -phase II
- Operational Programme Integrated Infrastructure 2014 - 2020
- Program of economic and social development of Žilina self-governing region 2014-2020

The list of projects was divided into rail and road transport projects. Priority is given to projects developing rail transport. However, there are projects which, with regard to the development of multimodal freight transport, should be carried out within the framework of road transport. The projects presented in Table 1 are in the zero scenario.

Table 1. List of planned and implemented projects

No.	Projects
Railway transport projects	
1	Project Node Žilina
2	Project Krásno nad Kysucou - Čadca (border)
3	ETCS Mosty u Jablunkova - Dětmárovice
4	Reconstruction of infrastructure of selected railway stations on RFC 5 (extension of trucks for freight trains 740 m long)
5	Optimalization of the railway line section Český Těšín (outside) - Albrechtice u Českého Těšína (inclusive)
Road transport projects	
6	Project D3 Žilina, Brodno - Kysucké Nové Mesto
7	Project D3 Kysucké Nové Mesto - Oščadnica
8	Project D3 Oščadnica - Čadca Bukov 2. profile
9	Project D48 Frýdek-Místek, bypass
10	I/68 Třanovice - Nebory

2.3. Bottlenecks in the development of multimodal transport on the Czech Republic - Slovakia border

Table 2 presents the bottlenecks for rail transport occurring on the PL-CZ border. The list was prepared on the base of the report D.T3.2.2 (Table 10) - Bottlenecks on the railway infrastructure after redistribution of transport load in zero scenario /2030/.

Table 2. Bottlenecks on the railway infrastructure after redistribution of transport load in zero scenario /2030/ - border CZ-SK

Priority	ID	Section name	Tracks (number)	Capacity (Number of trains/week (2030))	Number of passenger trains/week (2030)	Number of freight trains/week (2030)	Number of containers/day (2030)	Number of container trains/day (2030)	Number of container trains/week (2030)	Number of total trains/week (2030)	Occupancy rate (%) (2030)
8	CZ301A-1	(SK) st. border - Mosty u Jabl.st. border	2	1554	294	381	2429	122	854	1529	98,4%
14	CZ301A-2	Mosty u Jabl.st.hr. - Návsí	2	2135	450	380	2429	122	854	1684	78,9%
15	CZ301A-3	Návsí - Bystřice n. Olší	2	2338	540	380	2429	122	854	1774	75,9%

Moreover, based on a discussion during the workshop and consultations with stakeholders, the following project, which eliminate bottlenecks in rail transport have been identified in the flow of goods on the border Czech-Slovakia:

- Information technologies of railway infrastructure managers and unification of dispatching management.

2.4. Projects resulting from the analysis of the intermodal transport model and bottleneck analysis

Table 3 show the resulting of projects from the analysis of the intermodal transport model and bottleneck analysis.

Table 3. The special railway projects eliminating or reducing bottlenecks

No.	Projects
Railway transport projects	
11	Information technologies of railway infrastructure managers and unification of dispatching management

2.5. Detailed project description and prioritization

A detailed description of the projects includes:

- Project name
- Project goals
- Project priority with justification
- Project topics with the maps

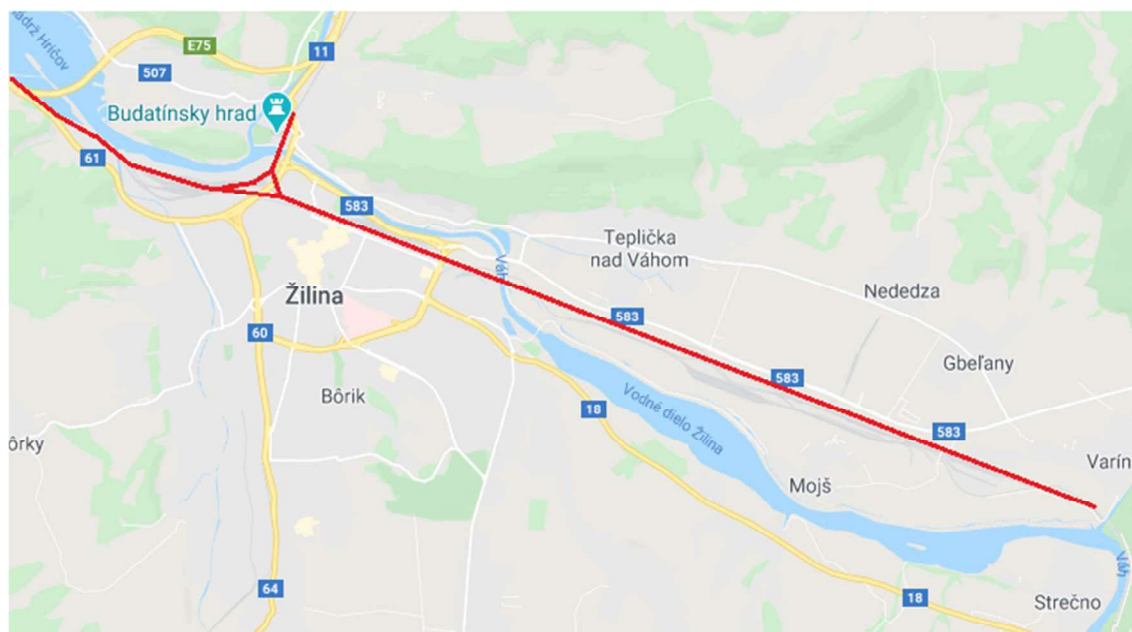
Priorities were assigned based on the following assumptions:

- High importance for the development of multimodal transport on the CZ-SK border - high priority
 - Medium importance for the development of multimodal transport on the CZ-SK border - priority medium
 - Low importance for the development of multimodal transport on the CZ-SK border - low priority
- In addition, indicated the level of project implementation (national/regional/private)

2.5.1. Railway transport projects

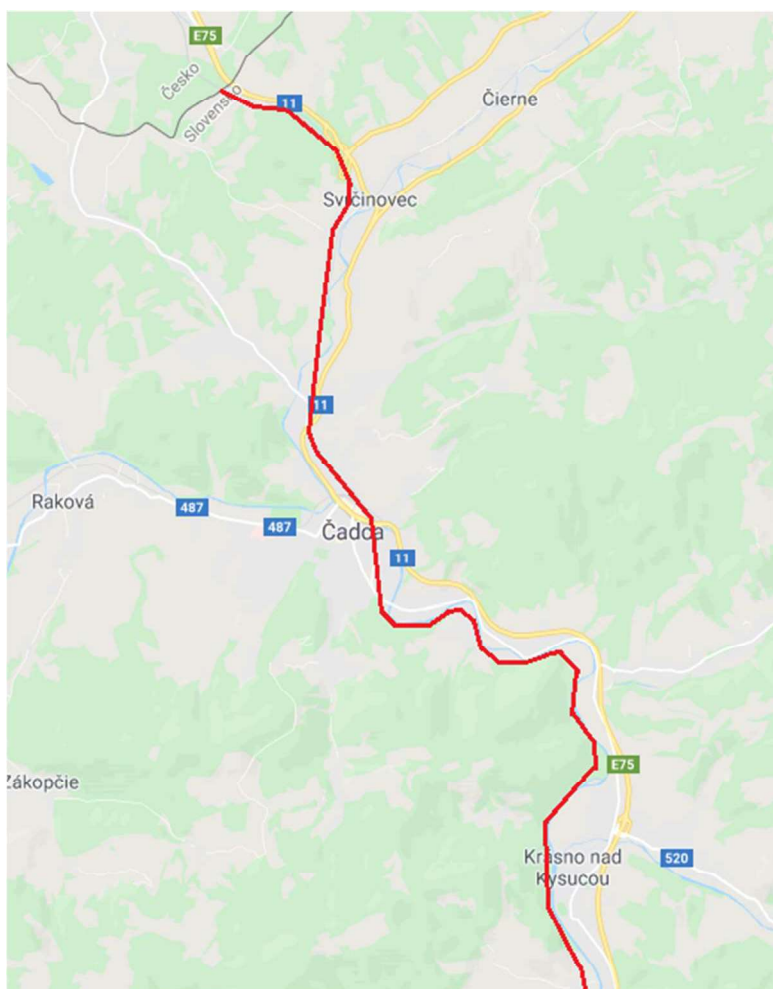
1. Project: Node Žilina

Project goals	Modernization of infrastructure with elimination of speed bumps in Railway station Žilina. The catenary will be modernized with preparation for transition from AC to DC and its implementation on section Púchov - Žilina.
Project topics with the maps	Line category - TEN-T core Line class - D4 on whole section Line maximum speed - Up to 160 km/h
Level of importance (priority) with justification	High national Žilina node modernization is part of important railway modernization projects in Slovakia. Žilina node is end station of track no. 120 from Bratislava, track no. 180 from Košice and track no. 127 from Čadca. Žilina is intersection of two TEN-T core corridors - Baltic-Adriatic and Rhine-Danube. The modernization will ensure the track parameters in accordance of the AGC and AGTC agreements.



2. Project: Krásno nad Kysucou - Čadca (border)

Project goals	Modernization of infrastructure with elimination of speed bumps. The catenary will be modernized with preparation for transition from AC to DC in later date after modernization of whole line Liptovský Mikuláš (Poprad) - Žilina.
Project topics with the maps	Line category - TEN-T core Line class - D4 on whole section Line maximum speed - Up to 160 km/h (dependint on section)
Level of importance (priority) with justification	High National The modernization of section Krásno nad Kysucou - Čadca - Border crossing SK/CZ means and update of the railway superstructure and substructure for parameters in accordance with the AGC and AGTC agreements.



3. Project: ETCS Mosty u Jablunkova - Dětmárovice

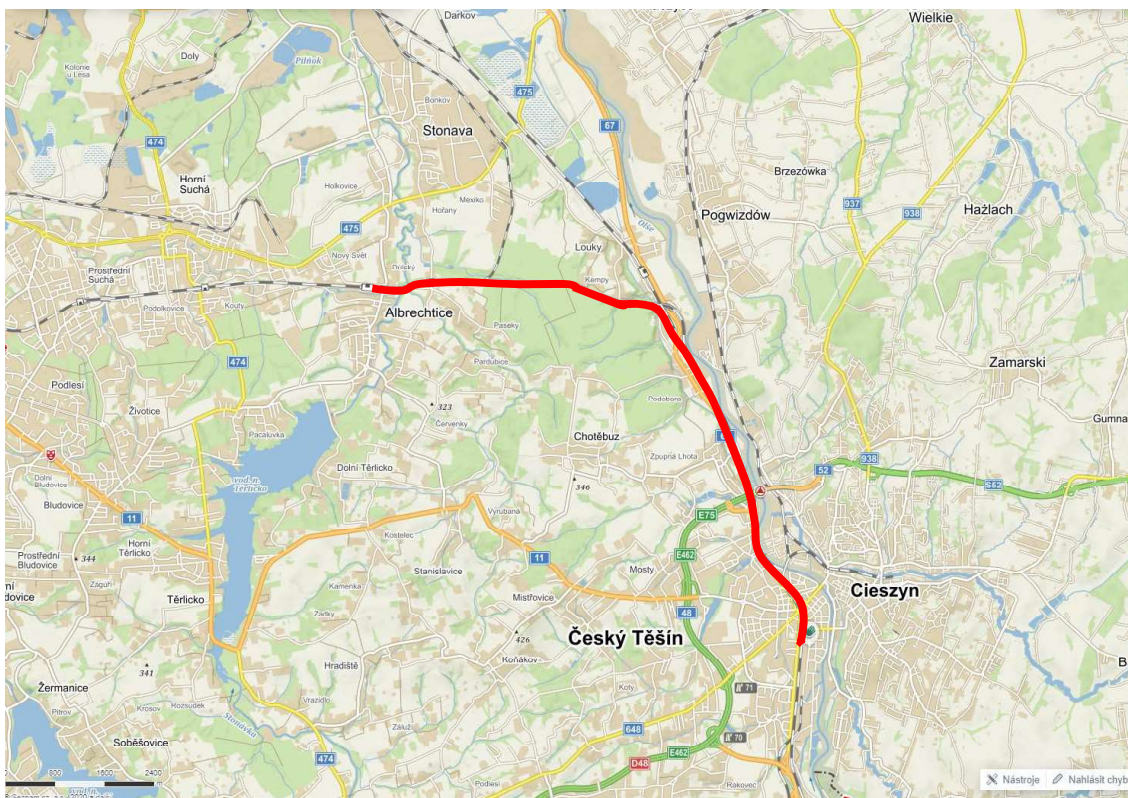
Project goals	Equipment of line 301A in the section Mosty u Jablunkova - Dětmárovice with the ETCS system - a unified pan-European security system, which will ensure higher safety of operation on European railways and enable smooth crossing of the railway between individual states. It will remove obsolete and inconsistent systems in individual states. Allows you to increase the speed to 160 km/h.
Project topics with the maps	Full coverage of the ETCS track section.
Level of importance (priority) with justification	High National The introduction of the European ERTMS system in the form of the single train protection system ETCS is a condition for the safe and smooth operation of international interoperable rail transport.

4. Project: Reconstruction of infrastructure of selected railway stations on RFC 5 (extension of trucks for freight trains 740 m long)

Project goals	Extension of useful track lengths of railway stations on corridor RFC 5 (lines 301A, 305B, 301D) and 302A (Ostrava - Valašské Meziříč) and 306A (Studénka - Veřovice).
Project topics with the maps	line category: whole track in the TEN-T network Selected railway stations on the mentioned line sections with the achievement of the parameters of overtaking tracks in the length of at least 740 meters.
Level of importance (priority) with justification	High National It is a construction on the TEN-T network of importance for international transport. The extension of freight trains to the standard of 740 meters will allow to increase the transported load on one connection without the need to increase the capacity of the lines in other ways.

5. Project: Optimization of the railway line section Český Těšín (outside) - Albrechtice u Českého Těšína (inclusive)

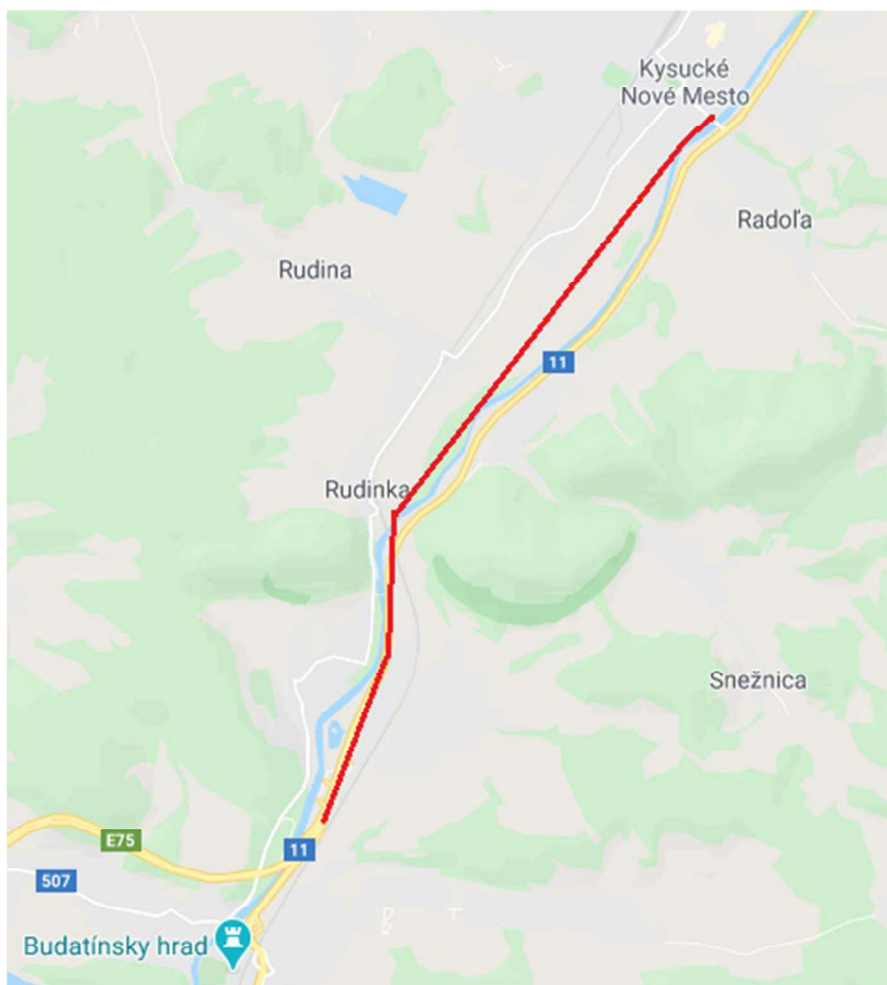
Project goals	Increasing the speed on the 301 D line in the given section from 80 km/h to 100-145 km/h and thus increasing the throughput.
Project topics with the maps	line category: whole track in the TEN-T network length: 10,589 km projected speed: 100-140 km/h axle load: (25 t / axle for line category D4)
Level of importance (priority) with justification	High National It is a construction on the TEN-T network of importance for international transport.



2.5.2. Road projects

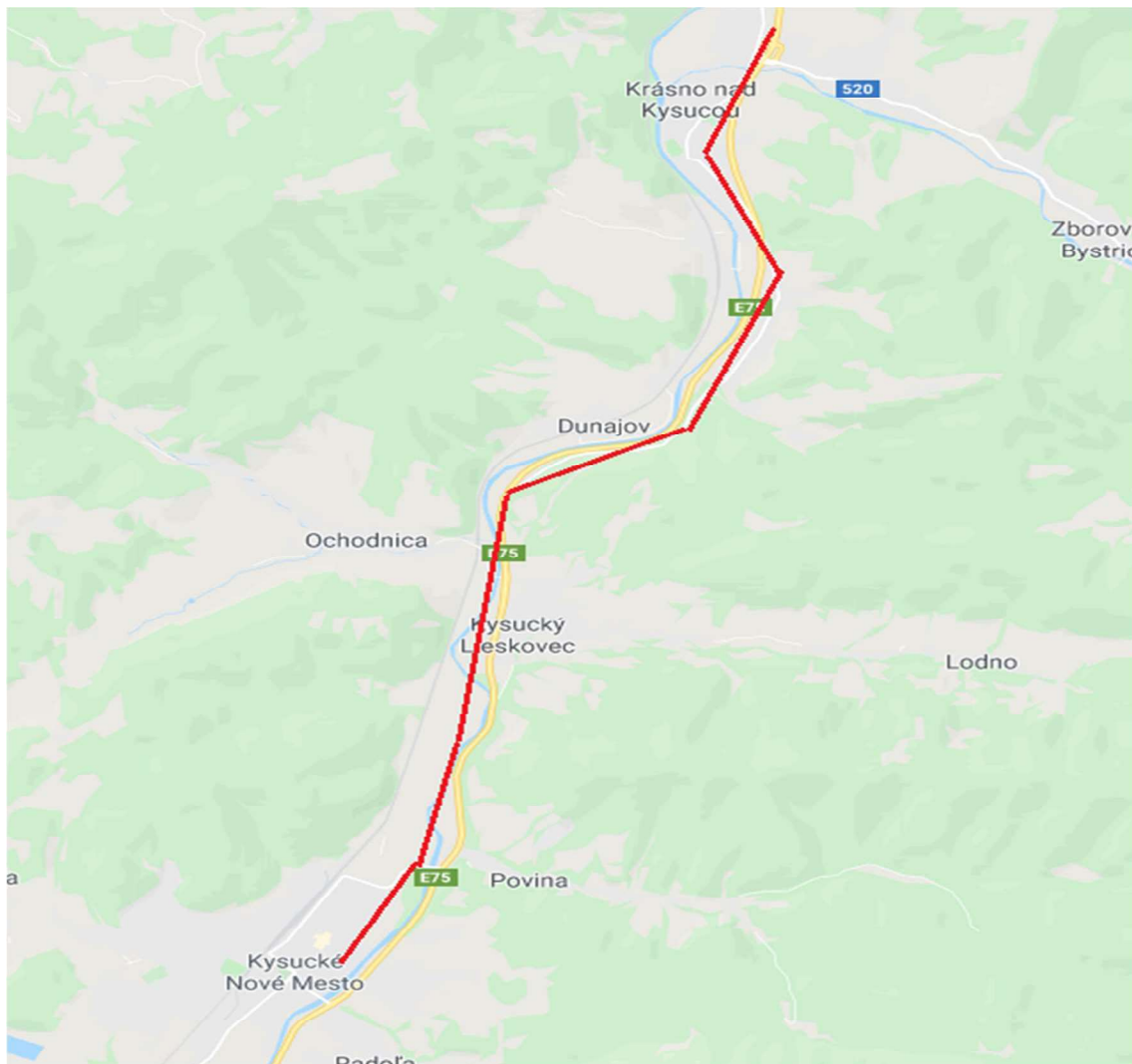
6. Project: D3 Žilina, Brodno - Kysucké Nové Mesto

Project goals	Construction of new motorway between towns Kysucké Nové Mesto and Žilina a part of South - North D3 expressway Žilina - Čadca - national border SK/CZ
Project topics with the maps	Length of the section - 11,200 km in D24,5 profile Number of new bridges on D1 - 16 with total length of 3 896 m Length of noise concealing walls - 9 419 m Tunnels - 0 Level crossings - 2, Brodno and Kysucké Nové Mesto
Level of importance (priority) with justification	Medium National By the implementation of projects D3 Žilina, Brodno - Kysucké Nové Mesto - Oščadnica - Čadca, Bukov will be build missing 26 km motorway and connected the coherent 4 lane motorway from Žilina to Čadca as part of the multimodal TEN-T corridor (Baltic-Adriatic, Rhine-Danube).



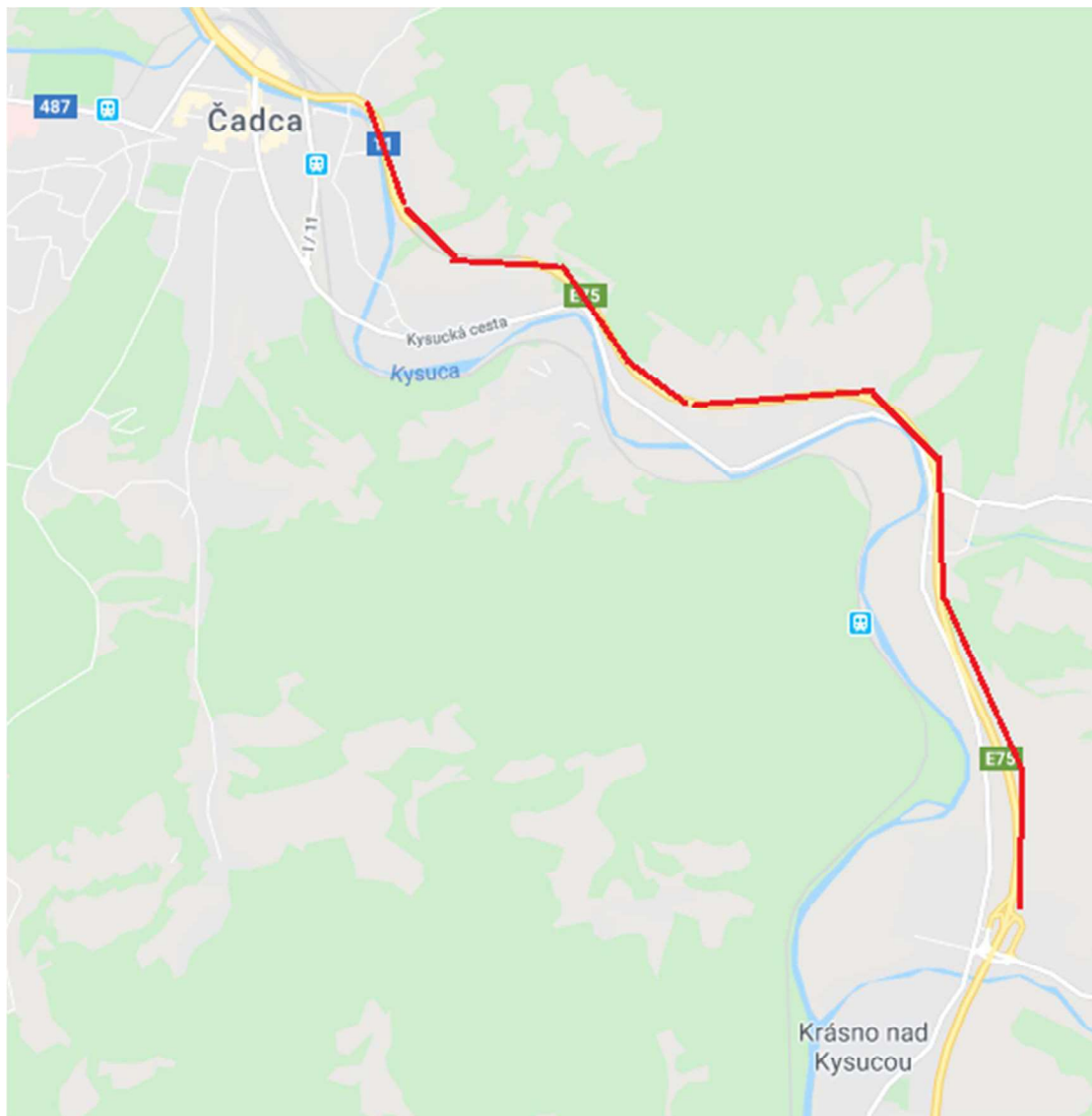
7. Project: D3 Kysucké Nové Mesto - Oščadnica

Project goals	Construction of new motorway between town Kysucké Nové Mesto and vilage Krásno nad Kysucou a part of South - North D3 expressway Žilina - Čadca - national border SK/CZ
Project topics with the maps	Length of the section - 10,800 km in D24,5 profile Number of new bridges on D1 - 18 with total length of 2 060 m Length of noise concealing walls - unknown Tunnels - 0 Level crossings - 1, Krásno nad Kysucou
Level of importance (priority) with justification	Medium National By the implementation of projects D3 Žilina, Brodno - Kysucké Nové Mesto - Oščadnica - Čadca, Bukov will be build missing 26 km motorway and connected the coherent 4 lane motorway from Žilina to Čadca as part of the multimodal TEN-T corridor (Baltic-Adriatic, Rhine-Danube).



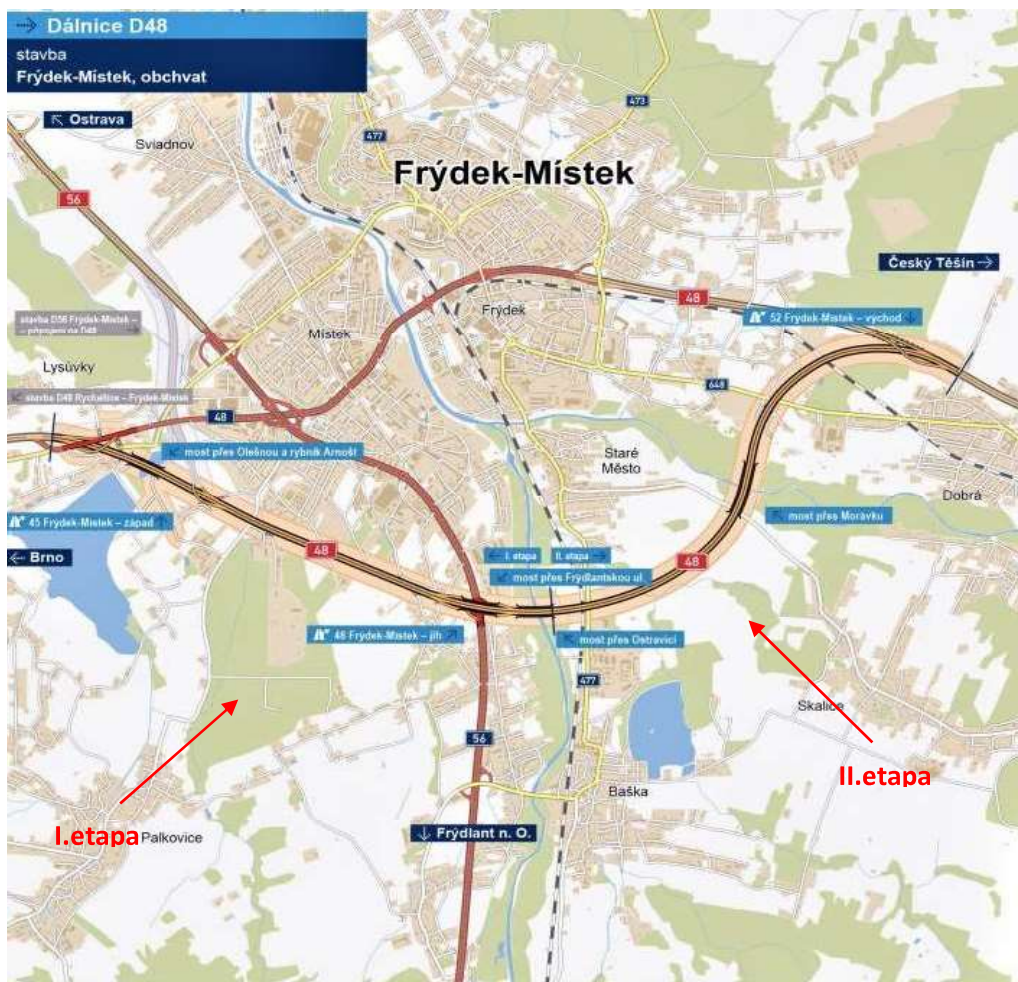
8. Project: D3 Oščadnica - Čadca Bukov 2. Profile

Project goals	Construction of new motorway around town Čadca a part of South - North D3 expressway Žilina - Čadca - national border SK/CZ
Project topics with the maps	Length of the section - 10,800 km in D24,5 profile Number of new bridges on D1 - 8 Length of noise concealing walls - up to 5 000 m Tunnels - 1 Level crossings - 0
Level of importance (priority) with justification	Medium National By the implementation of projects D3 Žilina, Brodno - Kysucké Nové Mesto - Oščadnica - Čadca, Bukov will be build missing 26 km motorway and connected the coherent 4 lane motorway from Žilina to Čadca as part of the multimodal TEN-T corridor (Baltic-Adriatic, Rhine-Danube).



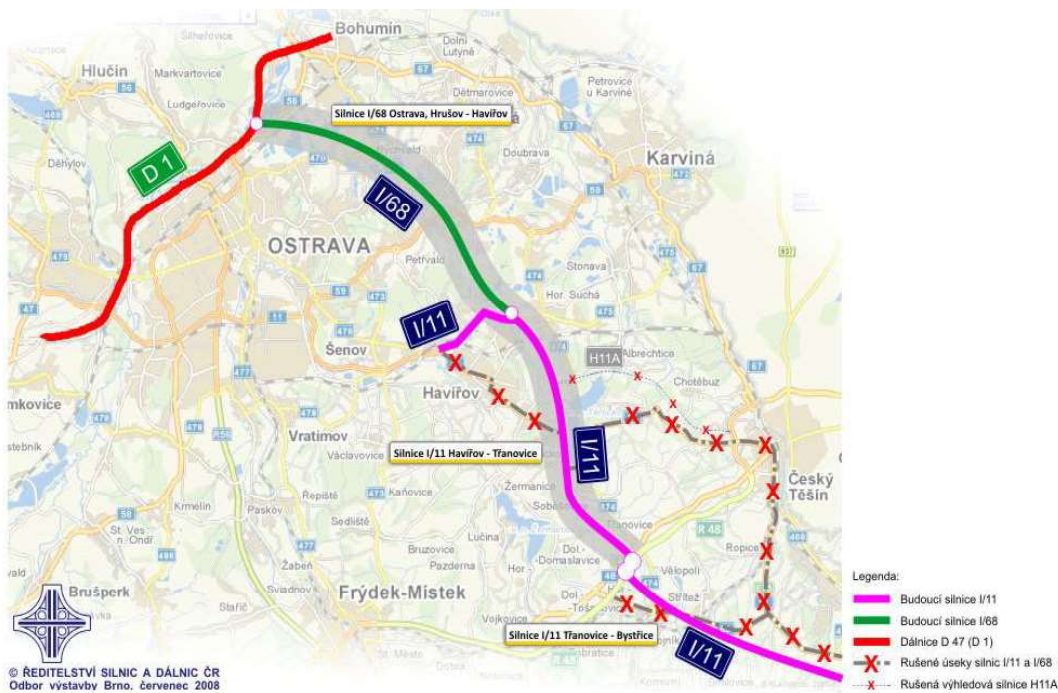
9. Project: D48 Frýdek-Místek, bypass

Project goals	Diversion of transit traffic from the city center. Within the Moravian-Silesian Region, the D48 motorway forms an important traffic artery oriented in a west-east direction. The road connects the southern part of the Moravian-Silesian Region with Central Moravia, Poland and Slovakia.
Project topics with the maps	Stage I: length: 4.25 km category: R 25.5 / 120 Stage II: road category: R 25.5 / 80 length: 4,316 km The section includes a view of Frýdlant nad Ostravicí, through the village of Staré Město and the Morávka River to the connection to the motorway to Český Těšín in the village of Dobrá.
Level of importance (priority) with justification	Medium National It will enable the transfer of transit freight traffic outside the center of Frýdek-Místek.



10. Project: I/68 Třanovice - Nebory

Project goals	The last part of the Třinec bypass (it connects to the previously put into operation part of the road I/11 in the section Nebory - Oldřichovice - Bystřice).
Project topics with the maps	road category: S 24.5 / 100 length: 5.4 km
Level of importance (priority) with justification	Medium National It will allow the transfer of transit freight traffic outside the village on the route, completing an important connection in the west-east direction.



2.5.3. Projects eliminating or reducing bottlenecks

Railway transport

11. Information technologies of railway infrastructure managers and unification of dispatching management

<p>Project goals</p>	<p>Improving the management of rail freight transport (possibility of obtaining current data on the position of the train on the PKP PLK network, on the composition of trains in advance before arrival at border crossing stations) and shortening stays at border crossing stations (Petrovice u Karviné/Zebrzydowice and Bohumín-Vrbice/Chalupki (train clearance, replacement of locomotives, staff, etc.).</p>
<p>Project topics with the maps</p>	<p>Includes:</p> <ul style="list-style-type: none"> - unification of dispatch control for the international transport of freight trains - cooperation in the harmonization of allocated ad hoc routes and freight train timetables (including the same period of validity of ad hoc routes), shortening the waiting time for route allocation - eliminate the problem of allocating ad hoc routes in cross-border sections - so that only individual cars or small groups of cars can be transported - to include in the information systems also cases where one train at the border station on the PKP PLK network or Správa železnic, s.o. it breaks down into several trains and each resulting train goes across the border separately - harmonization of timetable change data between Správa železnic, s.o. and PKP PLK - cooperation in the harmonization of exclusion activity on lines in border areas and on the RFC 5 corridor, - improving the cooperation of small railway carriers in the Czech Republic with Polish carriers regarding the timely provision of information about trains for the needs of international traffic dispatch management - for the timely delivery of locomotives for train overhangs, ensuring their sufficient number - to sanction cases of frequent and repeated arrival of repair wagons on international trains from the PKP PLK network in the direction of the Railway Administration, s.o.
<p>Level of importance (priority) with justification</p>	<p>High National Organizational measures in the scope of introduction and maintenance of set levels and rules of dispatch control of freight transport in international transport. A more efficient organization of freight transport will enable an improvement in the use of existing capacities and thus offer a higher capacity until the implementation of infrastructure constructions.</p>

3. Conclusions

3.1. Rail transport

1. Rail freight transport from/to Slovakia - Žilina Region to/from the Czech Republic - Silesia - Moravia Region is carried out through the Jablunkovska Pass, which significantly limits the possibilities to increase capacity due to technical conditions, i.e. the slope of the tracks and the width of the pass itself, through which road transport also takes place,
2. Realization of all railroad investments in the area of Silesia-Moravia and Žilina Region indicated in the design studies will allow to achieve the basic goal of the Project, i.e. to indicate the technical conditions for moving the road transport to another one to the extent required by the European Union White Paper.
3. Investment activities in the field of railroads should be complemented by a number of organizational activities improving the freight traffic on the territory of our countries going beyond the borders of the TRANS TRITIA Project, first of all, improving data exchange between IT systems.

3.2. Road transport

1. Road transport is currently the most important freight exchange between the Silesia-Moravia Region and the Žilina Region
2. The implementation of the road investments indicated in this study will contribute to the improvement of road traffic in the area of the Silesia and Moravia Region and the Žilina Region, which will indirectly affect the realization of the Project objective

3.3. Inland transport

1. In the time horizon under consideration and in the area under consideration, no inland waterway transport investments were made until 2030.
2. The modernization of the intermodal terminal in Žylna, i.e. conversion from bimodal to tri-modal, requires a separate technical and economic analysis.

3.4. Final conclusions

The research on freight transport in the TransTrita Project area and the results of modelling and technical analysis showed the necessity:

- implementation of all investment plans, i.e. planned and indicated in our Project, in the area of rail and road, and after 2030 also investments in the area of inland waterways.
- introduction of a number of organizational improvements, especially in the area of rail transport, which mainly concerns Poland, assuming further unification of rail transport between the Czech Republic and Slovakia.