



D.T1.4.2 - PRIORITY LIST OF ACTIONS & COST ESTIMATION

Work paper

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1) Introduction

Republic of Croatia have the total length of 2617 km of the railway tracks. It gives a good ratio of kilometres of railways per the number of inhabitants (1556 people per kilometre) and puts the Republic of Croatia on a par with the developed European countries. However, the problem is that Croatian railway tracks have been mostly built during the 19th and 20th century and not invested in much since then. In Croatia, railway network consists of single and double track lines. The construction length of the whole railway network is 2617 km, of which:

- 2342 km of single-track
- 274 km of double-track lines.

Beside that, only 980 km of track is electrified. Just from this data, it is clear that Croatian railway network need modernisation and upgrade, especially in infrastructure part.

Data suggested that in next 5 to 8 years it is possible to maintain only 45,6% of total length of Croatian railways, and remaining 54,4% will need to carry out investment works or major repairs as part of the maintenance. 89,5% is the single-track line and 10,5% is double track line (only 274 km). 37,4% is electrified (980 km). The total length of the catenary on electrified lines is 1,827 km. During the war in the 1990s, 633 km of the contact network were damaged, of which 62 km are still out of operation and awaiting repair. Insufficient investments in the past period have caused a deterioration in the technical condition of the system as a whole.

Due to all this, it is necessary to thoroughly revitalize the entire system in order to preserve the functionality and safety of traffic. This document brings the overview of the most important infrastructure projects planned for Croatian railways.

2) Priority list of actions

In this section, please describe priority actions for your region and their costs estimates by filling in the following table. Please comment the table below if necessary. The first example has already been put to the table.

Action	Priority area	Challenges/ results, impact of action	Priority level	Area/level	Timeframe (start of action)	Estimated costs	Potential indicators to measure the success	Responsible entity



							of the action	
Name of action	- Transport infrastructure - Rolling stock / machinery - Services /operations - Legislation/ administration - Other: _____	What the action will improve?	-high(H) -low (L) - medi-um (M)	- country - region, - municipality, -	- Short term – S (in 1-2 years) - Medium term - M (in 3-5 years) - Long term – L (in more than 5 years)	In EUR	- increased capacity - shorter travel time - lower maintenance costs - lower operational costs -	-region, - railway infrastructure manager, - port authority, -
<i>Reconstruction and renewal of the railway line on the section Dugo Selo - Novska</i>	Transport infrastructure	<i>achieving train speeds of 160 km / h construction of the second track construction of the completely new two-track electrified railway on the section Kutina – Lipovljani reconstructions of the stations and stops and dispatch the abolition of most railway-road crossings and construction of intersections in two levels</i>	H	<i>Zagreb County, Sisak – Moslavina County</i>	<i>M to L</i>	<i>572,5 mil EUR</i>	<i>-Capacity increase - shorter travel time</i>	<i>HŽ Infrastructure</i>
<i>Reconstruction of the existing and construction of the second track on the section Hrvatsi Leskovac – Karlovac on the railway line M202 Zagreb GK - Rijeka</i>	Transport infrastructure	<i>Reconstructions of the stations and stops Reconstructions of bridges and viaducts, railway-road crossings and construction of intersections in two levels, construction of a new electronic signalling and safety device ETCS level 1 and a new traffic control infrastructure subsystem with remote control of external elements, electrification with 25 kV / 50 Hz system, reconstruction of the electric traction substation Mrzlo Polje and Zdenčina, achieving train speeds of 160 km / h</i>	H	<i>Zagreb County, Karlovac County</i>	<i>S to M</i>	<i>315 mil EUR</i>	<i>-Capacity increase -Shorter travel time</i>	<i>HŽ infrastructure</i>
<i>Modernization of the railway line M202 Zagreb GK – Rijeka, on the part Oštarije - Škrljevo</i>	Transport infrastructure	<i>Construction of the second railway line Škrljevo – Rijeka – Opatija – Matulji, Modernization and reconstruction of the railway line on the oart Opatija – Matulji – Jurdani, Reconstruction of the station Šapjane and stop Permani, Reconstruction of the signaling and safety device on section Jurdani - Šapjane</i>	H	<i>Primorje – Gorski Kotar County</i>	<i>L</i>	<i>270 mil EUR</i>	<i>-Capacity increase -Shorter travel time</i>	<i>HŽ infrastructure</i>



3) Process, responsibilities and lessons learnt

Please provide answers to the following questions concerning planning and implementation of selected priority actions:

- 1) Which organisations/stakeholders were consulted in the selection of priorities? What were their priorities and how were they involved?

The main stakeholders involved were HŽ Infrastructure. HŽ infrastructure is a company of strategic importance that manages the railway infrastructure in the Republic of Croatia.

- 2) Who will ensure that the priority list will be followed up when investment decisions are taken and how (referring to responsible entities in the list of actions table)?

The investments included in the table will mostly be obtained through EU funding sources. The main responsible stakeholder is HŽ infrastructure.

- 3) What lessons were learnt when the priority list was selected/negotiated?

Due to the insufficient investments in the past period, the state of railway infrastructure in Croatia is not the best. The technical condition of the system as a whole is in a bad shape. The renewal of the system prescribed every eight to ten years has not been carried out due to lack of funds in the past 35 years. Due to all this, it is necessary to thoroughly revitalize the entire system in order to preserve the functionality and safety of traffic.

- 4) Which constraints are expected in its realization?

Possible delays with the technical documentation which can cause delays in the implementation. Possible fund problems.

4) Conclusion

In this final section please describe how the actions in general will improve the situation in your region.

The priority list includes the main actions needed to revitalise the regional freight rail transport sector and to strengthen the connection with TEN-t corridor that passes through Croatia. These actions will support the modal shift from road to rail of the freight transport.