



International Contingency Management Plan

Re-routing Scenarios













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1 Version control

Version	Author	Date	Changes
0.1	CO&P WG	25.09.2020	First draft version













2 General information

2.1. Introduction

Large incidents like Rastatt show that international measures must be implemented to be able to quickly organize traffic after a major interruption.

In 2018 European Rail Infrastructure Managers (IMs) agreed on international processes for managing international disruptions due to unforeseen events, such as incidents, with the aim of minimising the impact on the railway system. These processes are described in RNE's "Handbook for International Contingency Management (ICM)".

These re-routing scenarios help traffic management and timetabling with the coordination of the deviation of freight trains in the plannable phase (as soon as possible after an incident) in case of larger incidents with an international impact and support RUs in planning their contingency management with the objective to increase possible use of deviation routes.

This document includes scenarios with the possible re-routing options for all sections with limited re-routing options on Alpine - Western Balkan Corridor.

Railway Undertakings (RUs) are consulted on re-routing overview and re-routing scenarios and asked to give information on restrictions from their point of view. The feedback is not part of this document. The re-routing scenarios shall also serve as a basis for the RU contingency management with the objective to increase possible use of deviation routes.

2.2. Publication and updates

The national IMs are responsible to distribute this document or the contained information with the re-routing scenarios within their own organisation and to the RUs that run on their network. Alpine - Western Balkan Corridor also publishes the document on its website and in RailNetEurope Customer Information Platform (RNE CIP) and organises the consultation with RUs.

The re-routing scenarios for Alpine - Western Balkan Corridor are updated every year until the end of November by the corridor organisation together with the IMs of Alpine - Western Balkan Corridor.

2.3. Processes and communication for international disruptions

In case of international disruptions, international processes for incident management and incident communication that shall apply during the plannable phase are described in chapter 4 of the Handbook for International Contingency Management. They do not replace national incident management procedures but complement them in order to facilitate a better international cooperation.











Chapter 5 of the Handbook for ICM defines the key roles of persons who are involved in the agreed processes for the management of international incidents:

- Incident manager of infrastructure manager and allocation body
- Communication manager of infrastructure manager
- Coordinator of the RFC

All contacts of the <u>incident managers</u>, <u>communication managers</u> and the <u>RFCs</u> are collected and available in a common register managed by RNE.

ICM Coordinator of Alpine - Western Balkan Corridor:

Milan Šegan

C-OSS

milan.segan@rfc-awb.eu

+386 41 302 432

Representatives of Alpine - Western Balkan Corridor member IMs are shown in Annex 1

Flowcharts of the processes are in Annex 2 (Disruption management process) and Annex 3 (Communication process).

2.4. General requirements

RUs crossing a border must take all national rules into account (see network statements). For example: language requirements for the train drivers, other signalling and power systems.

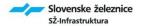
2.5. Definitions

2.5.1. Definitions of infrastructure parameters

These definitions apply to information given in both re-routing scenarios and re-routing overview (Annex 4).

Term	Definition
Line section	Section of the normal RFC routing
Deviation route	Section which replaces the normal routing on the deviation route
Passenger	Section used for passenger traffic
Freight	Section used for freight traffic
Traction power	Catenary voltage
Train length	Maximum allowed length for a train (in meters, locomotive included)











Line category	e.g. C2, C3, D4
Number of tracks	Number of tracks on the line section
Track gauge	e.g. GB, GB1, GC, etc.
Intermodal freight code	The information is mostly given with the PC code in standard format, e.g. P/C 70/400
Signalling	This column is filled out with the version of ETCS (when in use) or the STM
Speed	This is filled out with either the max speed for a freight train or the maximum speed allowed on the line section (in km/h)
Length of re-route option	In km
Train weight	The maximum weight (in tons) which can be handled by one locomotive
Gradient	Gradient (in permille) of the line section
Other border	Alternative border station
Miscellaneous	This column is used to give any useful extra information

Figure 1 - definitions of infrastructure parameters

2.5.2. Usability indication

In the event of a major incident there can be several possible re-routing options. For the scenarios the usability of these possible routes is indicated in three categories. This can facilitate the process of re-routing.

The categorization is defined in options A, B and C. There is no fixed definition for the degree of usability, but the assessment depends on several aspects regarding capacity, technical and/or organisational restrictions (possibilities and limitations). The classification is based on the expert estimates of experienced train traffic controllers (aimed at re-routing freight trains).

The categories are:

- A: good availability (no major restrictions)
- B: usability is reasonable (with some restrictions)
- C: usability is worst (some major capacity, technical and/or organisational restrictions)













2.5.3. Capacity indication

These re-routing options include all relevant and available information regarding technical parameters and a rough indication of capacity, but it should be born in mind that it is impossible to describe precise available capacity on any foreseen re-routing line.

Capacity indications which are given in this document are indications of the free capacity on a deviation route in case of an incident. The assessment is related to the traffic volume on Alpine - Western Balkan Corridor and based on the following ranges:

- extremely limited: appr. < 10 trains per day per direction
- limited: appr. 10 24 trains per day per direction
- good: appr. 25 50 trains per day per direction
- excellent: > 50 trains per day per direction

Detailed information regarding the capacity available on a deviation route can only be given in case of an incident. The capacity depends very much on the concrete situation at the time of the incident, for example including the traffic volume at the time of the year/month and the situation regarding temporary capacity restrictions.

2.5.4. Capacity taken into account

This rerouting overview can only consider free capacity, so remaining after allocation from yearly timetable and ad hoc capacity (estimations on basis of historical information). This has led to situations that some lines are not shown because there is almost no capacity left and that the mentioned capacity in the table is lower than expected.

For heavily used networks discussions are ongoing between legislators and infrastructure managers to get the possibility to withdraw or reschedule already allocated capacity. This possibility which is not part of the existing European legislation, could give IMs the competence to create space to reallocate the capacity in favour of the rerouting of (international) freight trains.

2.6. Structure of the document

The re-routing scenarios are presented in Chapter 2 as follows:

Each scenario is first introduced with an overview map of the relevant sections with limited re-routing possibilities. If the re-routing scenario has the same map as another, there is only a reference to the chapter where the map can be found. The overview is followed by detailed description of the re-routing options with characteristics and parameters. A table of all re-routing options is presented in













this document as well as a full map including all routes is shown in Annex 4 and Annex 5.

The presented re-routing options focus on freight train re-routing.

2.7. Disclaimer/Limitation of Liability

These re-routing scenarios serve for information only. Although every care has been taken by Alpine - Western Balkan Corridor to ensure the accuracy of the information published, no warranty can be given in respect of the accuracy, reliability, up-to-dateness or completeness of this information. Alpine - Western Balkan Corridor and the involved IMs/AB (allocation body) accept no liability for direct or indirect damages of material or immaterial nature arising from use or non-use of the published information. Moreover, all responsibility for the content of any external sites referred to by this document (links) is declined.

Alpine - Western Balkan Corridor reserves the right to alter or remove the content, in full or in part, without prior notice.

The operational scenarios and the described information do not replace national incident management procedures and information from the national Network Statements but complement them in order to allow for a better international cooperation. The national incident management and Network Statement are always leading.











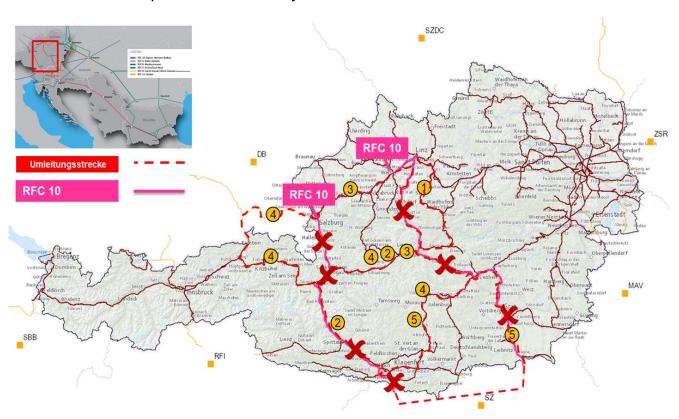




3 Re-routing scenarios

3.1. AUSTRIA

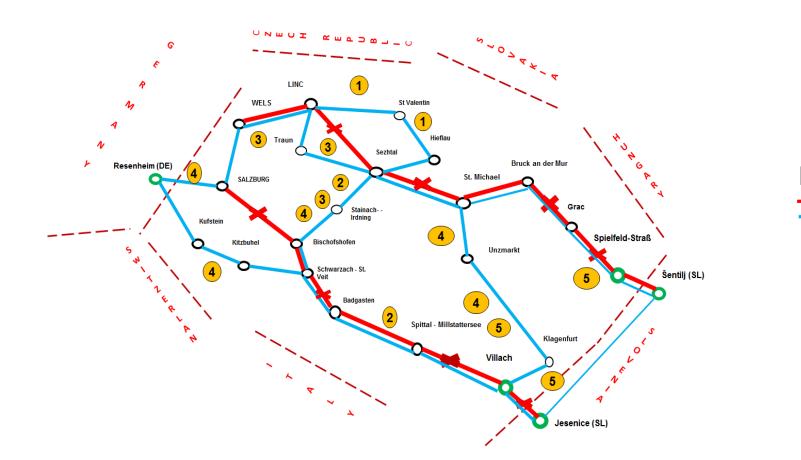
Picture 1: ICM map OBB-Infra - railway network

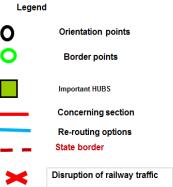






Scheme 1: Rerouting overview OBB-Infra









3.1.1. WELS - LINZ - SELZTHAL - BRUCK a.d. MUR - GRAZ - SPIELFELD

Chart 1: Rerouting options for line section Wales (ÖBB) -Linz- Selzthal - Bruck a.d. Mur - Graz- Spielfeld

										Re-ro	outing Infras	structure							
Line section	Disturbance between	Deviation including route	Passenger- traffic	Freight- traffic	Traction power	Train- Length	Line category	Gradient	Gauge	Intermondal freight code	Control	Number of tracks	Capacity	Speed	Weight	Rerouting time or km	border	Trans- hipment	Miscalleanous
Streckenabschnitt	Störung zwischen	Umleitungsstrecke	Personen- verkehr	Güter- verkehr	Strom- versorgung	Zug-Länge	Strecken- klassen	Neigung	Lichtraum- profil	Profil für Lademaß- überschreitu ng	Zug- sicherung	Anzahl d. Gleise	Kapazität	V/max	Zuggewicht	Umleitungs- Fahrzeit und km	Grenz- übergänge	Umlade- bahnhöfe	Extra Information
Wels (ÖBB) -Linz- Selzthal-	Linz- Selzthal	ÖBB Linz- St.Valentin - Hieflau - Selzthal	x	x	15 kV 16,7 Hz	630 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB, LZB	1/2	x	120 km/h	760 t (one loco 1216)	165 km	Spielfeld		ÖBB Data
Bruck a.d.Mur- Graz-Spielfeld -	0.4.1	ÖBB Selzthal- Bischofshofen- Villach-Jesenice	х	x	15 kV 16,7 Hz	610 m	22,5t, 7,2t/m	29,0 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	ÖBB Data
Jesenice (SZ)	Selzthal- Spielfeld	Selzthal- Bischofshofen- Villach- SZ Jesenice	x	x	15 kV 16,7 Hz	610 m	D3	29	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	SZ Data





3.1.2. SALZBURG - ROSENBACH - JESENICE

Chart 2: Rerouting options for line section Salzburg (ÖBB) - Rosenbach - Jesenice (SL)

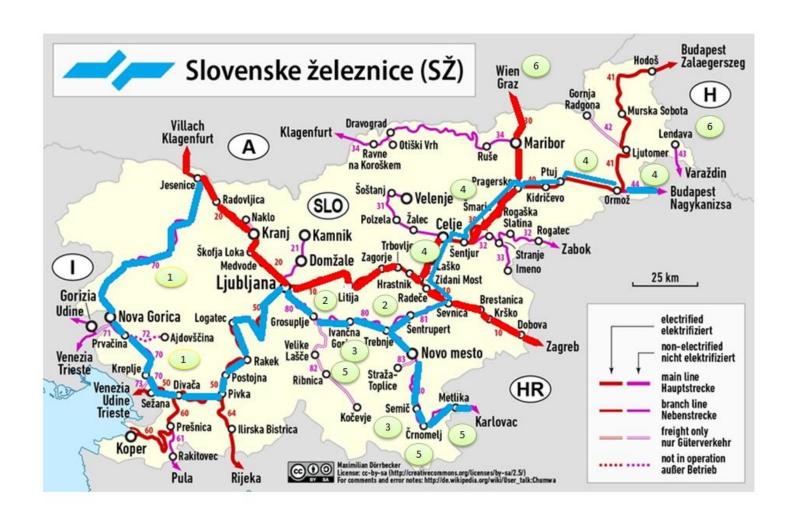
										Re.	routing Infr	astructure							
Line section	Disturbance between	Deviation including route	Passenger- traffic	Freight- traffic	Traction power	Train- Length	Line category	Gradient	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed	Weight	Rerouting time or km	border	Trans- hipment	Miscalleanous
Streckenabschnitt	Störung zwischen	Umleitungsstrecke	Personen- verkehr	Güter- verkehr	Strom- versorgung	Zug-Länge	Strecken- klassen	Neigung	Lichtraum- profil	Profil für Lademaß- überschreitu ng	Zug- sicherung	Anzahl d. Gleise	Kapazität	V/max	Zuggewicht	Umleitungs- Fahrzeit und km	Grenz- übergänge	Umlade- bahnhöfe	Extra Information
	3	ÖBB Salzburg- Wels-Traun- Selzthal- Bischofshofen	x	x	15 kV 16,7 Hz	630 m	22,5t, 8,0t/m	26,3 ‰	GA, G1, G2	P/C 80/410	ETCS/PZB	1/2	x	120 km/h	760 t (one loco 1216)	313 km	Jesenice	Wels	ÖBB Data
	Salzburg - Bischofshofen	Salzburg-DB Rosenheim- Kufstein-Wörgl- Schwarzach	x	x	15 kv 16,7 Hz	630 m	22,5 t (8 t/m)	<15 ‰	GA	P/C 80/410	PZB	2	good	120-160 km/h		150 - 180*	Freilassing		DB Data
	4	ÖBB Salzburg-DB Rosenheim- Kufstein-Wörgl- Schwarzach	x	x	15 kV 16,7 Hz	600 m	22,5t, 8,0t/m	26,7 ‰	x	P/C 50/380	ETCS/PZB	2	x	130 km/h	750 t (one loco 1216) ÖBB	145 km + 114 km DB	Jesenice	Salzburg Liefering, Wörgl	ÖBB Data
	3	ÖBB Bischofshofen- Selzthal-St.Michael - Villach - Jesenice	×	x	15 kV 16,7 Hz	610 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	383 km	Jesenice	St. Michael, Villach	ÖBB Data
Salzburg (ÖBB) - Rosenbach -	Bischofshofen - Schwarzach St.Veit	Salzburg-DB Rosenheim- Kufstein-Wörgl- Schwarzach	x	x	15 kv 16,7 Hz	630 m	22,5 t (8 t/m)	<15 ‰	GA	P/C 80/410	PZB	2	good	120-160 km/h		150 - 180'	Freilassing		DB Data
Jesenice (SZ)	4	ÖBB Salzburg-DB Rosenheim- Kufstein-Wörgl- Schwarzach	x	x	15 kV 16,7 Hz	600 m	22,5t, 8,0t/m	26,7 ‰	x	P/C 50/380	ETCS/PZB	2	x	130 km/h	750 t (one loco 1216) ÖBB	145 km + 114 km DB	Jesenice	Salzburg Liefering, Wörgl	ÖBB Data
	4 Schwarzach	ÖBB Bischofshofen- Selzthal-St.Michael - Villach - Jesenice	x	x	15 kV 16,7 Hz	610 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 kmh	700 t (one loco 1216)	383 km	Jesenice	St. Michael, Villach	ÖBB Data
	St.Veit - Rosenbach - Jesenice	Bischofshofen- Selzthal-St.Michael - Villach - SZ Jesenice	x	x	15 kV 16,7 Hz	610 m	D3	29	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	SZ Data
	5	ÖBB Villach - Graz - Spielfeld - Sentil	x	x	15 KV 16,7 Hz	590 m	D4; 22,5t (8,0 t/m)	23,3 %o	GA, G1, G2	P/C 80/410	PZB	2		100 km/h	1100 t one loco (1216)	306,5 km	Jesenice		ÖBB Data
	Villach - Jesenice	ÖBB Villach - Graz - Spielfeld - SZ Sentil	x	x	3 KV AC	560 m	D4; 22,5t (8,0 t/m)	9 ‰	GA, G1, G2	P/C 80/401	PZB	1	x	80 km/h	2500 t one loco (1216)	330,8 km	Šenitlj	Maribor Tezno	SZ Data





3.2. SLOVENIA

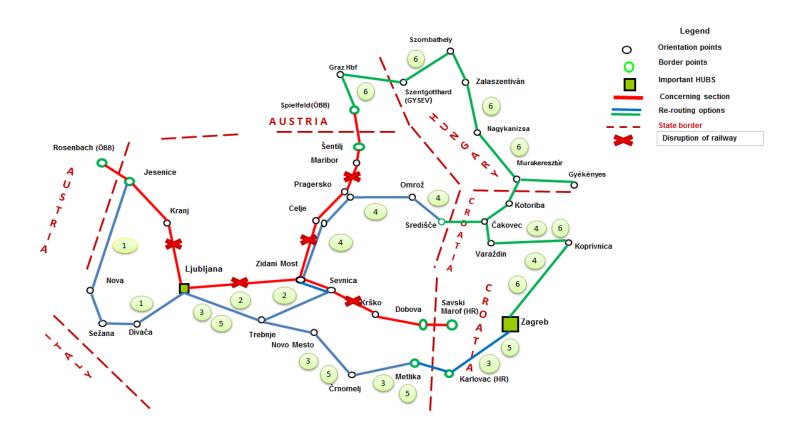
Picture 2: ICM map SŽ Infrastrukutura - railway network







Scheme 2: Rerouting overview SŽ Infrastrukutura







3.2.1. JESENICE - LJUBLJANA

Chart 3: Rerouting options for line section Jesenice - Ljubljana

										R	le-routir	ng Infra	struct	ure					
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipme nt	Miscalleanous
		Jesenice - Nova Gorica - Sežana	Y	Υ	diesel	480 m	C2	26	GA, GB	P/C 60/380	MBS	1		60	800/765 t one loco 664				
JESENICE - LJUBLJANA	Jesenice - Ljubljana	Sežana - Ljubljana	Υ	Υ	3 kV DC	515 m	D3	16	GA, GB	P/C 99/429	AB	1		80	2500/1260 t one loco 541				

3.2.2. LJUBLJANA - DOBOVA (BORDER)

Chart 4: Rerouting options for line section Ljubljana – Dobova (Border)

										F	Re-routii	ng Infra	structi	ıre					
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
		Ljubljana - Trebnje	Υ	Υ	diesel	460 m	C2	14	GA, GB	P/C 80/400	MBS	1		70	1420/1420 t one loco 664				
	Ljubljana - Zidani Most	Trebnje - Sevnica	Y	Y	diesel	550 m	C2	20	GA, GB	P/C 78/400	MBS	1		60	1110/915 t one loco 664				
		Sevnica - Zidani Most	Y	Υ	3 kV DC	570 m	D3	4	GA, GB	P/C 99/429	АВ	2		80	2500/2500 t one loco 541				
	Ljubljana - Zidani Most	Ljubljana - Metlika - Karlovac (HŽ)	Y	Y	diesel	430 m	C2	24	GA, GB	P/C 52/378	MBS	1		65			Karlovac (HŽI)		
LJUBLJANA - DOBOVA (BORDER)	_	Zidani Most - Pragersko	Y	Y	3 kV DC	600 m	СЗ	9	GA, GB	P/C 90/410	AB, BS, B	2		80	1900/1900 t one loco 363				
	Zidani Most - Dobova (border)	Pragersko - Ormož	Y	Y	3 kV DC	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
	Eduli most - Bosova (Bolder)	Ormož - Središče - Čakovec (HŽ)	Υ	Υ	diesel	570 m	D4	4	GA, GB	P/C 80/401	RTC	1		100	2000/2000 t one loco 664		Čakovec (HŽI)		
		Čakovec - Zagreb																	
	5	Ljubljana - Metlika - Karlovac (HŽ)	Υ	Y	3 kV DC	430 m	C2	24	GA, GB	P/C 52/378	MBS	1		65			Karlovac (HŽI)		
	Zidani Most - Dobova (border)	Karlovac - Zagreb																	





3.2.3. ŠENTILJ - ZIDANI MOST

Chart 5: Rerouting options for line section Šentilj – Zidani Most

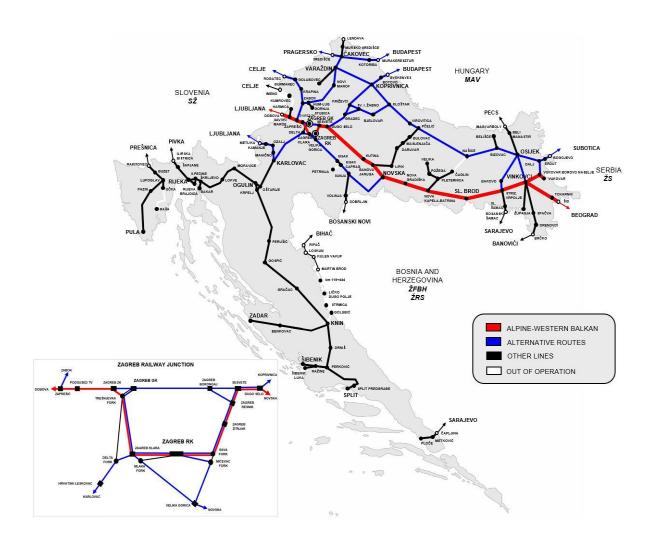
										Re-re	outing Inf	rastruct	ture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks		Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
		Spielfeld (ÖBB) - Graz Hbf	х	х	15 kv 16,7 Hz	590 m	D4	34.99	GA, G1, G2	P/C 80/410	PZB	1		160	1600 t (one loco 1216)	48 km	Apielfeld - Straß	Graz Vbf	Zug stürzen in Graz Hbf
		Graz Hbf - Szentgotthard (GYSEV)	х	х	Diesel	550 m	D4	16,17	GA, G1, G2	P/C 80/410	PZB	1		120	800 t (one loco 2016)	84 km	Szentgotthard	Graz Vbf	Zug stürzen in Graz Hbf
	Šentilj - Pragersko	Szentgottard – Szorrbathely – Zalaszentiván	Y	Υ	25 kV AC	600 m	C2		GA, GB	C21/340	EVM	1		100					
		Zalaszentiván - Nagykanizsa	Υ	Υ	diesel	600	C2	5	GA	70/400	n.a.	1	53,1	80					
ŠENTILJ - ZIDANI MOST		Nagykanizsa - Murakeresztúr - Gyékényes	Y	Υ	25 kV AC	600	C2	5	GA	70/400	n.a.	1	12,8	100					
		Kotoriba (Koprivnica) - Zagreb																	
		Pragersko - Ormož	Υ	Υ	3 kV DC	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
	Pragersko - Zidani Most	Ormož - Središče - Čakovec (HŽ)	Y	Υ	diesel	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
		Čakovec - Zagreb	Υ	Υ	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	764/726 t one loco 2062				





3.3. CROATIA

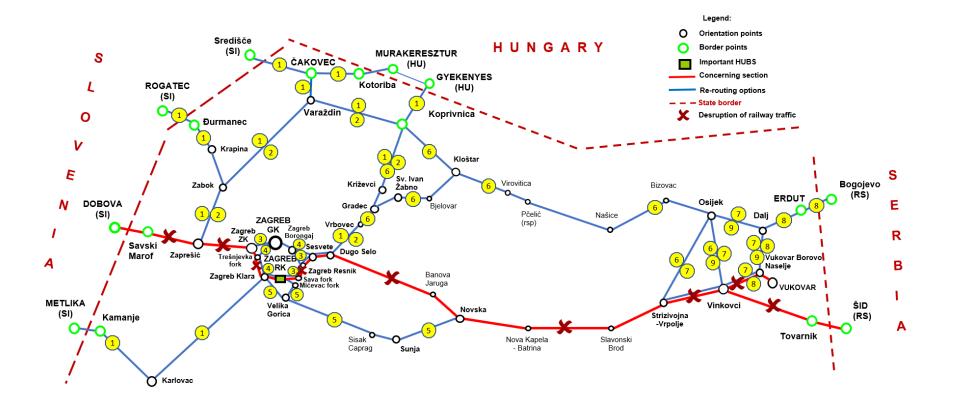
Picture 3: ICM map HŽ Infrastruktura - railway network







Scheme 3: Rerouting overview HŽ Infrastruktura







3.3.1. SAVSKI MAROF DG (BORDER) - ZAGREB ZK

Chart 6: Rerouting options for line section Savski Marof (Border) – Zagreb ZK

											Re-routing	Infrastru	cture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
		Središče (SI) - Čakovec	Υ	Υ	diesel	570 m	D4	4	GC	P/C 80/410	MBS	1		40	2000/2000 t one loco 664		Središče (SI)		
	1	Murakeresztur (HU) - Kotoriba - Čakovec - Varaždin	Υ	Υ	diesel	570 m	D4	2	GC	P/C 80/410	MBS	1		60	2000/2000 t one loco 2062		Murakeresztur (HU)		
	•	Varaždin - Zabok - Zaprešić	Y	Υ	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	764/726 t one loco 2062				
	Savski Marof DG (border point) - Zaprešić	Varaždin - Koprivnica	Υ	Υ	diesel	523 m	D4	6	GC	P/C 80/410	MBS	1		80	2500/2358 t one loco 2062				
SAVSKI MAROF DG (BORDER) - ZAGREB ZK	Zapresic	Gyekeniyes (HU) - Koprivnica - (Križevci - Vrbovec) - Dugo Selo - Zagreb RK	Υ	Υ	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	BS, AB, BT	1 (2) 1		100	2500/2500 t one loco 6193		Gyekenyes (HU)		
		Rogatec (SI) - Đurmanec - Zabok - Zaprešić	Υ	Υ	diesel	277 m	C4, B2, C4	20	GA, GB, GC	P/C 67/389	MBS	1		80	1383/691 t one loco 2062		Rogatec (SI)		
		Metlika (SI) - Kamanje - Karlovac - Zagreb RK	Υ	Y	diesel, 25kV,50Hz AC	492 m	A", B2, D4	10	GB	P/C 80/410	MBS	1		100	472/472 t one loco 2041		Metlika (SI)		
	2	Zaprešić - Zabok - Varaždin	Y	Υ	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	726/764 t one loco 2062				
	Zaprešić - Zagreb ZK	Varaždin - Koprivnica	Υ	Y	diesel	523 m	D4	6	GC	P/C 80/410	MBS	1		80	2500/2358 t one loco 2062				
		Koprivnica - (Križevci - Vrbovec) -Dugo Selo - Zagreb RK	Υ	Υ	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	AB, BT	1 (2) 1		100	2500/2500 t one loco 6193				

3.3.2. ZAGREB ZK - SESVETE

Chart 7: Rerouting options for line section Zagreb ZK - Sesvete

											Re-routing	Infrastruc	cture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length		Gradient (‰)		Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
Z ZAGREB ZK - SESVETE	3 Zagreb ZK - Zagreb Klara - Zagreb RK	Zagreb ZK - Zagreb GK - Zagreb Borongaj - Sesvete	Y	Υ	25kV,50Hz AC	401 m	D4	5	GC, GB	P/C 80/410	BS, AB, BT	2		100	2500/2500 t one loco 6193				
	Lagies Lit Lagies Maid - Lagies Mix	Zagreb Borongaj - Zagreb Resnik - (Zagreb RK)	Υ	Y	25kV,50Hz AC	752 m	D4	4	GC	P/C 80/410	BS	1 (2)		50	2500/2500 t one loco 6193				
	Zagreb RK - Sesvete	Zagreb RK - Zagreb Klara - Zagreb GK - Zagreb Borongaj - Sesvete	Υ	Y	25kV,50Hz AC	401 m	D4	5	GC, GB	P/C 80/410	BS, AB	1, 2		100	2500/2500 t one loco 6193				





3.3.3. SESVETE - DUGO SELO - NOVSKA

Chart 8: Rerouting options for line section Sesvete - Dugo Selo - Novska

											Re-routing	Infrastru	ture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
SESVETE - DUGO SELO -	5 Sesvete - Novska	Zagreb Klara - Velika Gorica - Sunja - Novska	Υ	Υ	25kV,50Hz AC	536 m	D4	6	GB	P/C 80/410	AB, MBS	1		100	2500/2500 t one loco 6193				
NOVSKA	Desvete - Novska	Zagreb RK OS - Mićevac - Velika Gorica	Υ	Υ	25kV,50Hz AC	600 m	D4	2	GC	P/C 80/410	BS, AB	1		30	2500/2500 t one loco 6193				

3.3.4. NOVSKA - VINKOVCI - TOVARNIK DG (BORDER)

Chart 9: Rerouting options for line section Novska – Vinkovci – Tovarnik (Border)

										I	Re-routing	Infrastru	cture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
	6	Dugo Selo - (Vrbovec - Križevci) - Koprivnica	Υ	Υ	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	AB	1		100	2500/2500 t one loco 6193				
	•	Gradec - Sveti Ivan Žabno - Bjelovar - Kloštar	Υ	Υ	diesel	296 m	D4, C4	11	GC, GB	P/C 80/410	BS, MBS	1		100	1179/1179 t one loco 2062				
	Novska - Strizivojna- Vrpolje	Koprivnica - Kloštar - Osijek	Υ	Υ	diesel	400 m	D4	8	GC	P/C 80/410	MBS, BS	1		80	2072/1846 t one loco 2062				
		Osijek - Strizivojna-Vrpolje	Υ	Υ	diesel	285 m	C4	9	GC	P/C 80/410	MBS	1		80	1662/1510 t one loco 2062				
		Osijek - Vinkovci	Y	Υ	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2358/2072 t one loco 2062				
NOVSKA - VINKOVCI - TOVARNIK DG (BORDER)	7	Strizivojna-Vrpolje - Osijek	Υ	Y	diesel	285 m	C4	9	GC	P/C 80/410	MBS	1		80	1662/1510 t one loco 2062				
	Strizivojna-Vrpolje -	Osijek - Vinkovci	Υ	Υ	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2358/2072 t one loco 2062				
	Vinkovci	Osijek - Dalj	Υ	Υ	diesel	531 m	А	3	GC	P/C 80/410	MBS	1		20	2500/2500 t one loco 2062				
		Dalj - Vukovar Borovo Naselje - Vinkovci	Υ	Υ	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2358/2072 t one loco 2062				
	8	Vinkovci - Vukovar Borovo Naselje	Υ	Υ	diesel	600 m	C4	5	GC	P/C 80/410	MBS	1		50	2358/2358 t one loco 2062				
	Vinkovci - Tovarnik DG (border point)	Vukovar Borovo Naselje - Dalj - Erdut - Bogojevo (RS)	Y	Υ	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2072/2358 t one loco 2062		Bogojevo (RS)		





3.3.5. VINKOVCI – VUKOVAR

Chart 10: Rerouting options for line section Vinkovci – Vukovar

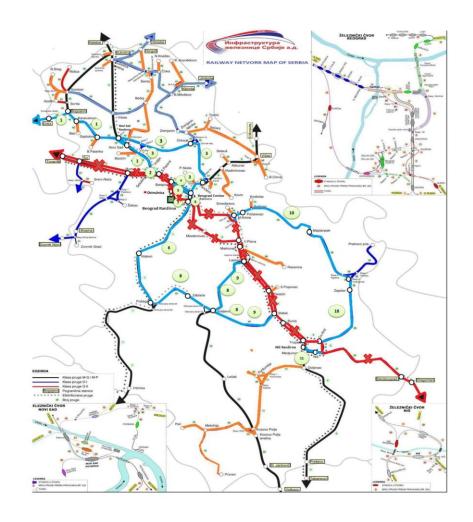
										ı	Re-routing	Infrastru	cture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)		Intermondal freight code		Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
	9	Vinkovci - Osijek	Y	Y	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2072/2358 t one loco 2062				
VINKOVCI - VUKOVAR	Vinkovci - Vukovar Borovo Naselje	Osijek - Dalj	Υ	Y	diesel	531 m	Α	3	GC	P/C 80/410	MBS	1		20	2500/2500 t one loco 2062				
		Dalj - Vukovar Borovo Naselje	Υ	Υ	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2358/2072 t one loco 2062				
	Vukovar Borovo Naselje - Vukovar	No alternative route																	





3.4 SERBIA

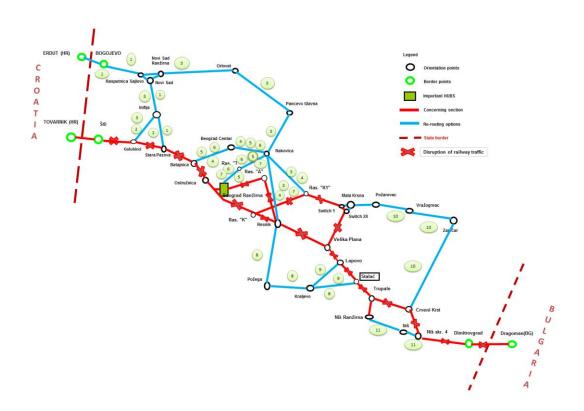
Picture 4: ICM map IŽS - Serbian Railways Infrastructure







Scheme 4: Rerouting overview IŽS - Serbian Railways Infrastructure







3.4.1 (BORDER) ŠID – OSTRUŽNICA

Chart 11: Rerouting options for line section (Border) - Šid - Ostružnica

										Re-routir	ng Infrastr	ucture							
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
	1	State Border - Bogojevo	Υ	Y	dizel	730	C3	0/5	GB	-	ID	1		30			Erdut HŽ		
	(HR) State Border- Šid-Golubinci-Golubinci	Bogojevo - Novi Sad putnička	Υ	Υ	dizel	387	A, C3, D3	4/4	GB	-	ID	1		60 - 100					
		Novi Sad putnička-Stara Pazova	Υ	Υ	25 KV 50Hz	492	D3	5/13	GB	-	PZB	1		70 - 100					
		Golubinci - Indija	Υ	Υ	25 KV 50Hz	616	D3	5/3	GB	-	PZB	1		100					
	Golubinci - Stara Pazova	Indija - Stara Pazova	Υ	Υ	25 KV 50Hz	616	D3	0/5	GB	-	PZB	1		100					
		Golubinci - Novi Sad ranžirna	Υ	Y	25 KV 50Hz	592	D3	5/13	GB	-	PZB	1		50-100					
(HR) State Border- Šid-		Novi Sad ranžirna - Orlovat	Υ	Υ	dizel	548	A, C3	8/10	GB	-	ID	1		30-60					
Golubinci - Ostružnica	Stara Pazova - Batajnica	Orlovat - Pančevo glavna	Υ	Y	dizel	473	A, D2	4/4	GB		ID	1		50-70					
	Stara Pazova - Batajnica	Pančevo glavna - Rakovica	Υ	Υ	25 KV 50Hz	594	D4	8/7	GB		PZB	2		70-100					
		Rakovica - Beli Potok (za smer Jug-Sever)	Υ	Υ	25 KV 50Hz	702	D4	12/2	GB		PZB	1		60-80					
		Rakovica - Resnik (za smer Sever-Jug)	Υ	Υ	25 KV 50Hz	730	D4	6/3	GB	-	PZB	2		70					
	_	Batajnica - Beograd Centar	Υ	Υ	25 KV 50Hz	506	D4	5/10	GB	-	ID	1		50					
	4	Beograd Centar - Rakovica	Υ	Y	25 KV 50Hz	506	D4	8/7	GB	-	PZB	2		70-80					
	Batajnica - Ostružnica	Rakovica - Beli Potok (za smer Jug-Sever)	Υ	Y	25 KV 50Hz	702	D4	12/2	GB	-	PZB	1		60-80					
		Rakovica - Resnik (za smer Sever-Jug)	Υ	Y	25 KV 50Hz	702	D4	6/3	GB	-	PZB	2		70-80					





3.4.2 OSTRUŽNICA - BEOGRAD RANŽIRNA (PARK A)

Chart 12: Rerouting options for line section Ostružnica – Beograd Ranžirna (Park A)

										Re-rou	ting Infr	astruct	ure						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
	5	Batajnica - Beograd Centar	Υ	Υ	25 KV 50Hz	506	D4	5/10	GB	-	ID	1		50					
	Ostružnica - Beograd Ranžirna (A)	Beograd Centar - Rakovica	Υ	Y	25 KV 50Hz	506	D4	8/7	GB	-	PZB	2		70-80					
	Osliuzilica - Beograd Rafizilila (A)	Rakovica - Rasputnica "T"	N	Y	25 KV 50Hz	702	D4	8/3	GB		ID	1		50					
Ostružnica - Beograd		Rasputnica "T" - Beograd ranžirna A	Y	Υ	25 KV 50Hz	789	D4	6/3	GB		ID	1		50					
Ranžirna (A)		Batajnica - Beograd Centar	Y	Υ	25 KV 50Hz	506	D4	5/10	GB	-	ID	1		50					
	Beograd ranžirna (A)	Beograd Centar - Rakovica	Υ	Υ	25 KV 50Hz	506	D4	8/7	GB	-	PZB	2		70-80					
		Rakovica - Rasputnica "T"	N	Υ	25 KV 50Hz	702	D4	8/3	GB		ID	1		50					
		Rasputnica "T" - Beograd ranžirna B	N	Υ	25 KV 50Hz	702	D4	2/0	GB		ID	2		30					

3.4.3 BEOGRAD RANŽIRNA (PARK B) - Rasputnica "A"

Chart 13: Rerouting options for line section Beograd Ranžirna (Park A) – Rasputnica "A"

										Re-rout	ting Infrastro	ucture							
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
	7	Beograd ranžirna B - Rasputnica "T"	N	Y	25 KV 50Hz	702	D4	0/2	GB		ID	2		30					
Beograd ranžirna B - Rasputnica "A"	Beograd ranžirna B - Rasputnica "A"	Rasputnica "T" - Rakovica	N	Υ	25 KV 50Hz	702	D4	3/8	GB		ID	1		50					
казриніса А		Rakovica - Resnik	Υ	Υ	25 KV 50Hz	702	D4	6/3	GB	-	PZB	2		70-80					





3.4.4 VELIKA PLANA – STALAĆ

Chart 14: Rerouting options for line section Velika Plana - Stalać

										Re-rout	ing Infras	tructu	re						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
		Resnik-Požega	Υ	Y	25 KV 50Hz	544	D4	16/15	GB		TK	1		50-100					
	Velika Plana - Lapovo 8	Požega - Kraljevo	Υ	Υ	25 KV 50Hz	605	D4	8/7	GB		ID	1		80-100					
VELIKA PLANA - STALAĆ		Kraljevo-Stalać	Υ	Y	dizel	693	B2, C3	5/7	GB		ID	1		25-30					
STALAC	Lapovo-Stalac 9	Lapovo-Kraljevo	Υ	Υ	dizel	530	C3	12/10	GB		ID	2		40					
	Lapovo-Stalac 9	Kraljevo-Stalać	Y	Y	dizel	693	B2, C3	5/7	GB		ID	1		25-30					

3.4.5 STALAĆ – TRUPALE

Chart 15: Rerouting options for line section Stalać - Trupale

										Re-routing	ng Infrasti	ucture							
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
		Mala Krsna - Požarevac - Majdanpek - Bor Teretna - Vražogrnac	Υ	Y	dizel	538	A, B2, C3, D3, D4	14/15	GB		ID	1		30-60					
Stalać-Trupale	Stalać-Trupale 10	Vražogmac - Zaječar - Knjaževac - Svrljig - Crveni Krst	Y	Y	dizel	494	B2	11/12	GB		ID	2		30-40					





3.4.6 CRVENI KRST- Switch number 4 station Niš

Chart 16: Rerouting options for line section Crveni Krst - Switch number 4 station Niš

										Re-rou	iting Infra	struct	ure						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)		Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
Crveni Krst - Switch	11 Cryeni Krst - Switch number 4 station Niš	Niš ranžirna-Niš	N	Υ	25 KV 50Hz	488	D4	5/5	GB		PZB	1		30-50					
number 4 station Niš	Green Nist - Switch humber 4 Station Nis	Niš-Niš Switch number 4	Y	Υ	25 KV 50Hz	488	D3	2/2	GB		PZB	1		50					

3.4.7 CRVENI KRST- Dimitrovgrad (Border)

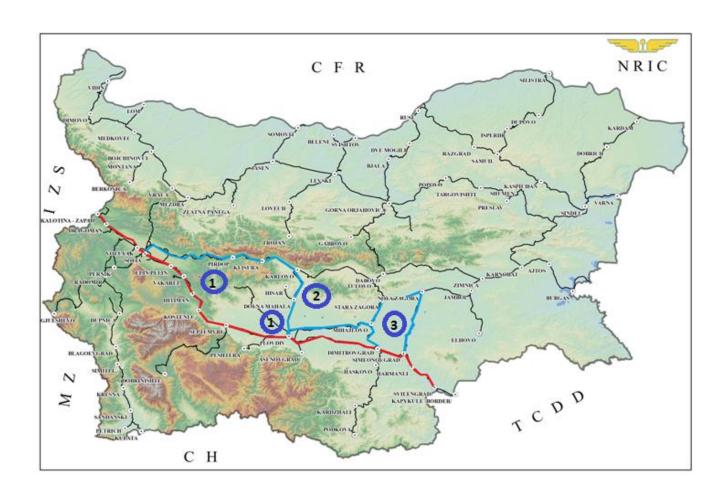
No alternative route





3.5 BULGARIA

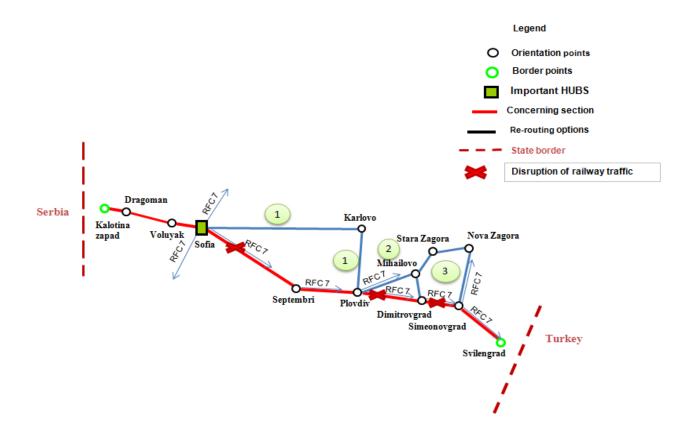
Picture 5: ICM map NRIC - National Railway Infrastructure Company







Scheme 5: Rerouting overview NRIC - National Railway Infrastructure Company







3.5.1 DRAGOMAN - SOFIA

No alternative route

3.5.2 SOFIA – DIMITROVGRAD (NRIC)

Chart 17: Rerouting options for line section Sofia – Dimitrovgrad (NRIC)

										Re-ro	uting Infr	astruct	ure						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length		Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
	Sofia - Plovdiv	Sofia - Karlovo	Υ	Υ	25 kV AC	610 m	D4	16	GC	P/C 59/389	BS	1		80	2260/1130 t one loco 1116	154,4			
	Sona - Plovdiv	Karlovo - Plovdiv	Y	Y	25 kV AC	480 m	D4	18	GC	P/C 59/389	BS	1		80	2040/1020 t one loco 1116	66,1			
SOFIA - DIMITROVGRAD	Ploydiy - Dimitroygrad 2	Plovdiv - Mihailovo	Υ	Υ	25 kV AC	620 m	D4	12	GC	P/C 59/389	BS	1		80	2820/1410 t one loco 1116	83,7			
	Plovdiv - Dimitrovgrad 2	Mihailovo - Dimitrovgrad	Υ	Υ	25 kV AC	620 m	D4	16	GC	P/C 59/389	BS	1		80	2260/1130 t one loco 1116	33,6			

3.5.3 DIMITROVGRAD - SIMEONOVGRAD - SVILENGRAD (border BG-TR)

Chart 18: Rerouting options for line section Dimitrovgrad – Simeonovgrad – Svilengrad (border BG-TR)

										Re-ro	uting Infr	astructu	ıre						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
		Dimitrovgrad- Nova Zagora	Υ	Y	25 kV AC	620 m	D4	12	GC	P/C 59/389	BS	1		80	2820/1410 t one loco 1116	86,8			
DIMITROVGRAD - SIMEONOVGRAD - SVILENGRAD	Dimitrovgrad - Simeonovgrad	Nova Zagora - Simeonovgrad	Υ	Υ	Diesel	550 m	D4	10	GC	P/C 59/389	BS	1		80	2480/1240 t one loco DE 600	61,2			
/border BG-TR/	Simeonovgrad- Svilengrad - (Border BG - TR)	No alternative route																	





4 Annexes

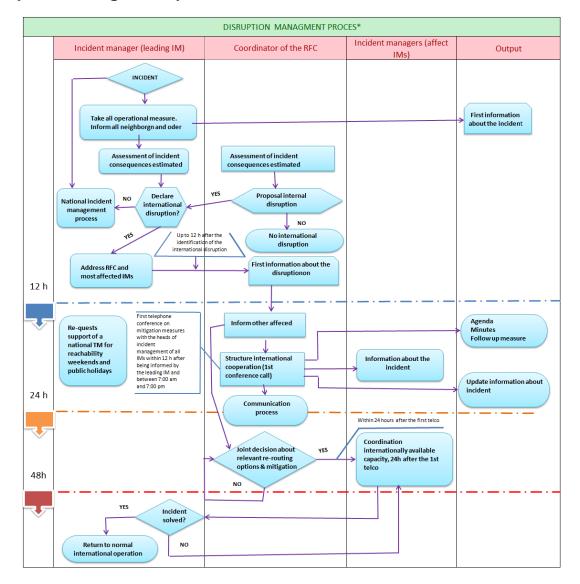
4.1. Annex 1: Representatives of AWB RFC member IMs

Country	Infrastructure Manager	Incident Manager (24/7)	Communication Manager (24/7)
Austria	ÖBB Infrastruktur AG	Networkcoordinator in the NTMC Vienna +43(0) 1 93000 45600 NEKO.VLZ-Infra@oebb.at	Leader Central Incident Management +43(0) 1 93000 45605 Zentraler.Ereignisstab@oebb.at
Slovenia	Slovenske železnice- Infrastruktura, d.o.o.	Ivan Tabor +386 1 29 123 10 +386 51 311 092 ivan.tabor@slo-zeleznice.si	Ivan Tabor +386 1 29 123 10 +386 51 311 092 ivan.tabor@slo-zeleznice.si
Croatia	HŽ Infrastruktura	Tihomir Španić +385 98 499 893 tihomir.spanic@hzinfra.hr	Antonija Jergović +385 99 380 390 antonija.jergovic@hzinfra.hr
Serbia	"Infrastruktura železnice Srbije" a.d.	Vladimir Krkobabić +381 64 842 7124 <u>vladimir.krkobabic@srbrail.rs</u>	Dejan Šavelić +381 64 816 2895 dejan.savelic@srbrail.rs
Bulgaria	National Railway Infrastructure Company	Central dispatching centre +359 887 449 110 st_disp@rail-infra.bg	Central dispatching centre +359 887 449 110 st_disp@rail-infra.bg





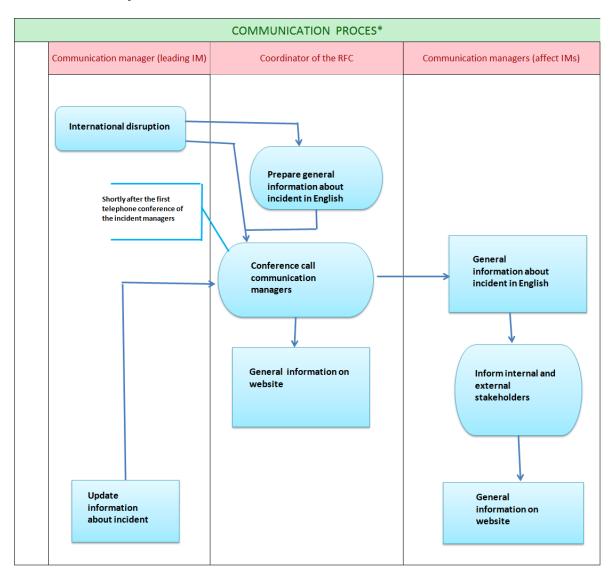
4.2. Annex 2: Disruption management process







4.3. Annex 3: Communication process







4.4. Annex 4: Re-routing overview

Chart 19: Rerouting Overview RFC 10

					Re	routing	Overview	RFC 10											
Line section	Disturbance between	Deviation including route	Passenger- traffic	Freight- traffic	Traction power	Train- Length	Line category	Gradient	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed	Weight	Rerouting time or km	Border	Trans- hipment	Miscalleanous
Streckenabschnitt	Störung zwischen	Umleitungsstrecke	Personen- verkehr	Güter- verkehr	Strom- versorgung	Zug-Länge	Strecken- klassen	Neigung	Lichtraum- profil	Profil für Lademaß- überschreitung	Zug-sicherung	Anzahl d. Gleise	Kapazität	V/max	Zuggewicht	Umleitungs- Fahrzeit und km	Grenz- übergänge	Umlade- bahnhöfe	Extra Information
Wels (ÖBB) -Linz- Selzthal-	Linz-Seizthal 1	ÖBB Linz-St.Valentin - Hieflau - Selzthal	x	х	15 kV 16,7 Hz	630 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB, LZB	1/2	x	120 km/h	760 t (one loco 1216)	165 km	Spielfeld		ÖBB Data
Bruck a.d.Mur-		ÖBB Selzthal-Bischofshofen-Villach-Jesenice	х	x	15 kV 16,7 Hz	610 m	22,5t, 7,2t/m	29,0 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	ÖBB Data
Graz-Spielfeld - Jesenice (SZ)	Selzthal-Spielfeld 2	Selzthal-Bischofshofen-Villach- SZ Jesenice	x	x	15 kV 16,7 Hz	610 m	D3	29	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	SZ Data
	3	ÖBB Salzburg-Wels-Traun-Selzthal-Bischofshofen	x	x	15 kV 16,7 Hz	630 m	22,5t, 8,0t/m	26,3 ‰	GA, G1, G2	P/C 80/410	ETCS/PZB	1/2	x	120 km/h	760 t (one loco 1216)	313 km	Jesenice	Wels	ÖBB Data
	Salzburg - Bischofshofen	Salzburg-DB Rosenheim-Kufstein-Wörgl- Schwarzach	x	x	15 kv 16,7 Hz	630 m	22,5 t (8 t/m)	<15 ‰	GA	P/C 80/410	PZB	2	good	120-160 km/h		150 - 180'	Freilassing		DB Data
	4	ÖBB Salzburg-DB Rosenheim-Kufstein-Wörgl- Schwarzach	x	x	15 kV 16,7 Hz	600 m	22,5t, 8,0t/m	26,7 ‰	x	P/C 50/380	ETCS/PZB	2	x	130 km/h	750 t (one loco 1216) ÖBB	145 km + 114 km DB	Jesenice	Salzburg Liefering, Wörgl	ÖBB Data
	3	ÖBB Bischofshofen-Selzthal-St.Michael - Villach - Jesenice	x	x	15 kV 16,7 Hz	610 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	383 km	Jesenice	St. Michael, Villach	ÖBB Data
Salzburg (ÖBB) - Rosenbach -	Bischofshofen - Schwarzach St.Veit	Salzburg-DB Rosenheim-Kufstein-Wörgl- Schwarzach	x	x	15 kv 16,7 Hz	630 m	22,5 t (8 t/m)	<15 ‰	GA	P/C 80/410	PZB	2	good	120-160 km/h		150 - 180'	Freilassing		DB Data
Jesenice (SZ)	4	ÖBB Salzburg-DB Rosenheim-Kufstein-Wörgl- Schwarzach	х	x	15 kV 16,7 Hz	600 m	22,5t, 8,0t/m	26,7 ‰	x	P/C 50/380	ETCS/PZB	2	x	130 km/h	750 t (one loco 1216) ÖBB	145 km + 114 km DB	Jesenice	Salzburg Liefering, Wörgl	ÖBB Data
	4	ÖBB Bischofshofen-Selzthal-St.Michael - Villach - Jesenice	x	x	15 kV 16,7 Hz	610 m	22,5t, 8,0t/m	23,83 ‰	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 kmh	700 t (one loco 1216)	383 km	Jesenice	St. Michael, Villach	ÖBB Data
	Schwarzach St.Veit - Rosenbach - Jesenice	Bischofshofen-Selzthal-St.Michael - Villach - SZ Jesenice	x	x	15 kV 16,7 Hz	610 m	D3	29	GA, G1, G2	P/C 80/410	PZB	1/2	x	100 km/h	700 t (one loco 1216)	265 km	Jesenice	Villach	SZ Data
	5	ÖBB Villach - Graz - Spielfeld - Sentil	x	x	15 KV 16,7 Hz	590 m	D4; 22,5t (8,0 t/m)	23,3 %o	GA, G1, G2	P/C 80/410	PZB	2		100 km/h	1100 t one loco (1216)	306,5 km	Jesenice		ÖBB Data
	Villach - Jesenice	ÖBB Villach - Graz - Spielfeld - SZ Sentil	x	x	3 KV AC	560 m	D4; 22,5t (8,0 t/m)	9 ‰	GA, G1, G2	P/C 80/401	PZB	1	x	80 km/h	2500 t one loco (1216)	330,8 km	Šenitlj	Maribor Tezno	SZ Data



												o routing	Infrastructure						
											к	e-routing	Intrastructure						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
JESENICE - LJUBLJANA	Jesenice - Liubliana	Jesenice - Nova Gorica - Sežana	Y	Y	diesel	480 m	C2	26	GA, GB	P/C 60/380	MBS	1		60	800/765 t one loco 664				
JESENICE - LJUBLJANA	Jesenice - Ljubljana	Sežana - Ljubljana	Υ	Υ	3 kV DC	515 m	D3	16	GA, GB	P/C 99/429	AB	1		80	2500/1260 t one loco 541				
		Ljubljana - Trebnje	Υ	Y	diesel	460 m	C2	14	GA, GB	P/C 80/400	MBS	1		70	1420/1420 t one loco 664				
	Ljubljana - Zidani Most 2	Trebnje - Sevnica	Υ	Y	diesel	550 m	C2	20	GA, GB	P/C 78/400	MBS	1		60	1110/915 t one loco 664				
	Ĭ	Sevnica - Zidani Most	Y	Y	3 kV DC	570 m	D3	4	GA, GB	P/C 99/429	AB	2		80	2500/2500 t one loco 541				
	Ljubljana - Zidani Most	Ljubljana - Metlika - Karlovac (HŽ)	Υ	Y	diesel	430 m	C2	24	GA, GB	P/C 52/378	MBS	1		65			Karlovac (HŽI)		
LJUBLJANA - DOBOVA (BORDER)		Zidani Most - Pragersko	Υ	Y	3 kV DC	600 m	C3	9	GA, GB	P/C 90/410	AB, BS, BT	2		80	1900/1900 t one loco 363				
	Zidani Most - Dobova (border)	Pragersko - Ormož	Υ	Y	3 kV DC	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
		Ormož - Središče - Čakovec (HŽ)	Υ	Y	diesel	570 m	D4	4	GA, GB	P/C 80/401	RTC	1		100	2000/2000 t one loco 664		Čakovec (HŽI)		
		Čakovec - Zagreb																	
		Ljubljana - Metlika - Karlovac (HŽ)	Υ	Υ	3 kV DC	430 m	C2	24	GA, GB	P/C 52/378	MBS	1		65			Karlovac (HŽI)		
	Zidani Most - Dobova (border)	Karlovac - Zagreb																	
		Spielfeld (ÖBB) - Graz Hbf	х	x	15 kv 16,7 Hz	590 m	D4	34.99	GA, G1, G2	P/C 80/410	PZB	1		160	1600 t (one loco 1216)	48 km	Apielfeld - Straß	Graz Vbf	Zug stürzen in Graz Hb
	6	Graz Hbf - Szentgotthard (GYSEV)	x	x	Diesel	550 m	D4	16,17	GA, G1, G2	P/C 80/410	PZB	1		120	800 t (one loco 2016)	84 km	Szentgotthard	Graz Vbf	Zug stürzen in Graz Hb
	Šentilj - Pragersko	Szentgottard – Szombathely – Zalaszentiván	Υ	Y	25 kV AC	600 m	C2		GA, GB	C21/340	EVM	1		100					
		Zalaszentiván - Nagykanizsa	Υ	Y	diesel	600	C2	5	GA	70/400	n.a.	1	53,1	80					
ŠENTILJ - ZIDANI MOST		Nagykanizsa - Murakeresztúr - Gyékényes	Υ	Y	25 kV AC	600	C2	5	GA	70/400	n.a.	1	12,8	100					
		Kotoriba (Koprivnica) - Zagreb																	
		Pragersko - Ormož	Υ	Y	3 kV DC	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
	Pragersko - Zidani Most	Ormož - Središče - Čakovec (HŽ)	Υ	Y	diesel	600 m	D4	5	GA, GB	P/C 80/401	AB, RTC	1		100	2000/2000 t one loco 363				
		Čakovec - Zagreb	Y	Y	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	764/726 t one loca 2062				



											Re-routing	Infrastru	cture						
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	Border	Transhipment	Miscalleanous
		Središče (SI) - Čakovec	Υ	Υ	diesel	570 m	D4	4	GC	P/C 80/410	MBS	1		40	2000/2000 t one loco 664		Središče (SI)		
		Murakeresztur (HU) - Kotoriba - Čakovec - Varaždin	Υ	Υ	diesel	570 m	D4	2	GC	P/C 80/410	MBS	1		60	2000/2000 t one loco 2062		Murakeresztur (HU)		
	"	Varaždin - Zabok - Zaprešić	Υ	Y	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	764/726 t one loco 2062				
SAVSKI MAROF DG BORDER) - ZAGREB ZK	Savski Marof DG (border point) - Zaprešić	Varaždin - Koprivnica	Y	Y	diesel	523 m	D4	6	GC	P/C 80/410	MBS	1		80	2500/2358 t one loco 2062				
		Gyekenyes (HU) - Koprivnica - (Križevci - Vrbovec) - Dugo Selo - Zagreb RK	Y	Y	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	BS, AB, BT	1 (2) 1		100	2500/2500 t one loco 6193		Gyekenyes (HU)		
BORDER) - ZAGREB ZK		Rogatec (SI) - Đurmanec - Zabok - Zaprešić	Y	Y	diesel	277 m	C4, B2, C4	20	GA, GB, GC	P/C 67/389	MBS	1		80	1383/691 t one loco 2062		Rogatec (SI)		
		Metlika (SI) - Kamanje - Karlovac - Zagreb RK	Υ	Y	diesel, 25kV,50Hz AC	492 m	A", B2, D4	10	GB	P/C 80/410	MBS	1		100	472/472 t one loco 2041		Metlika (SI)		
ZAGREB ZK - SESVETE	2	Zaprešić - Zabok - Varaždin	Υ	Y	diesel	203 m	B2	18	GC	P/C 72/398	MBS	1		80	726/764 t one loco 2062				
	Zaprešić - Zagreb ZK	Varaždin - Koprivnica	Υ	Y	diesel	523 m	D4	6	GC	P/C 80/410	MBS	1		80	2500/2358 t one loco 2062				
		Koprivnica - (Križevci - Vrbovec) -Dugo Selo - Zagreb RK	Y	Y	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	AB, BT	1 (2) 1		100	2500/2500 t one loco 6193				
	3	Zagreb ZK - Zagreb GK - Zagreb Borongaj - Sesvete	Υ	Y	25kV,50Hz AC	401 m	D4	5	GC, GB	P/C 80/410	BS, AB, BT	2		100	2500/2500 t one loco 6193				
	Zagreb ZK - Zagreb Klara - Zagreb RK	Zagreb Borongaj - Zagreb Resnik - (Zagreb RK)	Υ	Υ	25kV,50Hz AC	752 m	D4	4	GC	P/C 80/410	BS	1 (2)		50	2500/2500 t one loco 6193				
	4 Zagreb RK - Sesvete	Zagreb RK - Zagreb Klara - Zagreb GK - Zagreb Borongaj - Sesvete	Y	Υ	25kV,50Hz AC	401 m	D4	5	GC, GB	P/C 80/410	BS, AB	1, 2		100	2500/2500 t one loco 6193				
SESVETE - DUGO SELO -	5	Zagreb Klara - Velika Gorica - Sunja - Novska	Υ	Y	25kV,50Hz AC	536 m	D4	6	GB	P/C 80/410	AB, MBS	1		100	2500/2500 t one loco 6193				
NOVSKA	Sesvete - Novska	Zagreb RK OS - Mićevac - Velika Gorica	Υ	Υ	25kV,50Hz AC	600 m	D4	2	GC	P/C 80/410	BS, AB	1		30	2500/2500 t one loco 6193				
		Dugo Selo - (Vrbovec - Križevci) - Koprivnica	Υ	Y	25kV,50Hz AC	540 m	D4	8	GC	P/C 80/410	AB	1		100	2500/2500 t one loco 6193				
	6 Novska - Strizivojna-Vrpolje	Gradec - Sveti Ivan Žabno - Bjelovar - Kloštar	Υ	Y	diesel	296 m	D4, C4	11	GC, GB	P/C 80/410	BS, MBS	1		100	1179/1179 t one loco 2062				
		Koprivnica - Kloštar - Osijek	Υ	Y	diesel	400 m	D4	8	GC	P/C 80/410	MBS, BS	1		80	2072/1846 t one loco 2062				
		Osijek - Strizivojna-Vrpolje	Υ	Υ	diesel	285 m	C4	9	GC	P/C 80/410	MBS	1		80	1662/1510 t one loco 2062				
		Osijek - Vinkovci	Υ	Υ	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2358/2072 t one loco 2062				
NOVSKA - VINKOVCI - TOVARNIK DG (BORDER)		Strizivojna-Vrpolje - Osijek	Y	Y	diesel	285 m	C4	9	GC	P/C 80/410	MBS	1		80	1662/1510 t one loco 2062				
	Strizivojna-Vrpolje -	Osijek - Vinkovci	Y	Y	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2358/2072 t one loco 2062				
	Vinkovci	Osijek - Dalj	Υ	Y	diesel	531 m	А	3	GC	P/C 80/410	MBS	1		20	2500/2500 t one loco 2062				
		Dalj - Vukovar Borovo Naselje - Vinkovci	Y	Υ	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2358/2072 t one loco 2062				
	8	Vinkovci - Vukovar Borovo Naselje	Υ	Y	diesel	600 m	C4	5	GC	P/C 80/410	MBS	1		50	2358/2358 t one loco 2062				
	Vinkovci - Tovarnik DG (border point)	Vukovar Borovo Naselje - Dalj - Erdut - Bogojevo (RS)	Y	Υ	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2072/2358 t one loco 2062		Bogojevo (RS)		
	9	Vinkovci - Osijek	Y	Y	diesel	600 m	D4	6	GC	P/C 80/410	MBS	1		80	2072/2358 t one loco 2062				
	Vinkovci - Vukovar Borovo Naselje	Osijek - Dalj	Y	Υ	diesel	531 m	А	3	GC	P/C 80/410	MBS	1		20	2500/2500 t one loco 2062				
VINKOVCI - VUKOVAR		Dalj - Vukovar Borovo Naselje	Y	Y	diesel	572 m	C4	6	GC	P/C 80/410	MBS	1		50	2358/2072 t one loco 2062				
	Vukovar Borovo Naselje - Vukovar	No alternative route																	



											Re-routin	g Infrastruct	ure								
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (%)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous		
	1	State Border - Bogojevo	Y	Y	dizel	730	C3	0/5	GB		ID	1		30			Erdut HŽ				
	(HR) State Border- Šid-Golubinci-Golubinci	Bogojevo - Novi Sad putnička	Y	Y	dizel	387	A, C3, D3	4/4	GB	-	ID	1		60 - 100							
		Novi Sad putnička-Stara Pazova	Y	Y	25 KV 50Hz	492	D3	5/13	GB	-	PZB	1		70 - 100							
	Golubinci - Stara Pazova	Golubinci - Indija	Y	Y	25 KV 50Hz	616	D3	5/3	GB	-	PZB	1		100							
	Golubinci - Stara Pazova	Indija - Stara Pazova	Y	Y	25 KV 50Hz	616	D3	0/5	GB		PZB	1		100							
	3	Golubinci - Novi Sad ranžima	Y	Y	25 KV 50Hz	592	D3	5/13	GB	-	PZB	1		50-100							
		Novi Sad ranžirna - Orlovat	Y	Y	dizel	548	A, C3	8/10	GB		ID	1		30-60							
IR) State Border- Šid-Golubinci - Ostružnica	Stara Pazova - Batajnica	Orlovat - Pančevo glavna	Y	Y	dizel	473	A, D2	4/4	GB		ID	1		50-70							
	Stara Pazova - Batajnica	Pančevo glavna - Rakovica	Y	Y	25 KV 50Hz	594	D4	8/7	GB		PZB	2		70-100							
		Rakovica - Beli Potok (za smer Jug-Sever)	Y	Y	25 KV 50Hz	702	D4	12/2	GB		PZB	1		60-80							
		Rakovica - Resnik (za smer Sever-Jug)	Y	Y	25 KV 50Hz	730	D4	6/3	GB		PZB	2		70							
	4	Batajnica - Beograd Centar	Y	Y	25 KV 50Hz	506	D4	5/10	GB		ID	1		50							
	Batainica - Ostružnica	Beograd Centar - Rakovica	Y	Y	25 KV 50Hz	506	D4	8/7	GB		PZB	2		70-80							
	batajnica - Ostruznica	Rakovica - Bell Potok (za smer Jug-Sever)	Y	Y	25 KV 50Hz	702	D4	12/2	GB	-	PZB	1		60-80							
		Rakovica - Resnik (za smer Sever-Jug)	Y	Y	25 KV 50Hz	702	D4	6/3	GB	-	PZB	2		70-80							
	Ostružnica - Resnik	* a part of the corridor with the entrance to the Belgrade marshalling yard is used	· ·																		
	5	Batajnica - Beograd Centar	Y	Y	25 KV 50Hz	506	D4	5/10	GB		ID	1		50							
		Beograd Centar - Rakovica	Y	Y	25 KV 50Hz	506	D4	8/7	GB		PZB	2		70-80							
		Rakovica - Rasputnica "T"	N	Y	25 KV 50Hz	702	D4	8/3	GB		ID	1		50							
		Rasputnica "T" - Beograd ranžima A	Y	Y	25 KV 50Hz	789	D4	6/3	GB		ID	1		50							
	6	Batajnica - Beograd Centar	Y	Y	25 KV 50Hz	506	D4	5/10	GB		ID	1		50							
		Beograd Centar - Rakovica	Y	Y	25 KV 50Hz	506	D4	8/7	GB		PZB	2		70-80							
		Rakovica - Rasputnica "T"	N	Y	25 KV 50Hz	702	D4	8/3	GB		ID	1		50							
		Rasputnica "T" - Beograd ranžima B	N	Y	25 KV 50Hz	702	D4	2/0	GB		ID	2		30							
	Beograd ranžima B	* a part of the corridor is used without entering the Belgrade																			
	7	Beograd ranžirna B - Rasputnica "T"	N	Y	25 KV 50Hz	702	D4	0/2	GB		ID	2		30							
	Beograd ranžirna B - Rasputnica "A"	Rasputnica "T" - Rakovica	N	Y	25 KV 50Hz	702	D4	3/8	GB		ID	1		50							
		Rakovica - Resnik	Y	Y	25 KV 50Hz	702	D4	6/3	GB		PZB	2		70-80							
	Rasputnica "A" - Resnik	* part of the corridor across Ostružnica is used																			
	Resnik - Velika Plana	"part of the corridor across Mala Krsna is used																			
	raspnica K1- Velika Plana	*part of the corridor across Mladenovac is used																			
	8	Resnik-Požega	Y	Y	25 KV 50Hz	544	D4	16/15	GB		TK	1		50-100							
	Velika Plana - Lapovo	Požega - Kraljevo	Y	Y	25 KV 50Hz	605	D4	8/7	GB		ID	1		80-100							
		Kraljevo-Stalač	Y	Y	dizel	693	B2, C3	5/7	GB		ID	1		25-30							
	9	Lapovo-Kraljevo	Y	Y	dizel	530	С3	12/10	GB		ID	2		40							
	Lapovo-Stalac	Kraljevo-Stalač	Y	Y	dizel	693	B2, C3	5/7	GB		ID	1		25-30							
	Stalać-Trupale	Mala Krsna - Požarevac - Majdanpek - Bor Teretna - Vražogmac	Y	Y	dizel	538	A, B2, C3, D3, D4	14/15	GB		ID	1		30-60							
	Stalać-Trupale	Vražogrnac - Zaječar - Knjaževac - Svrljig - Crveni Krst	Y	Y	dizel	494	B2	11/12	GB		ID	2		30-40							
	Trupale-Crveni Krst	uses the corridor through the Nis marshalling yard																			
	11	Niš ranžima-Niš	N	Y	25 KV 50Hz	488	D4	5/5	GB		PZB	1		30-50							
rveni Krst - Switch number 4 station Niš	Crveni Krst - Switch number 4 station Niš	Niš-Niš Switch number 4	Y	Y	25 KV 50Hz	488	D3	2/2	GB		PZB	1		50							
	Dimitrovgrad - Državna granica-Border (BG)	No alternative route																			
RVENI KRST- DIMITROVGRAD- ate Border (BG)	(==,																				



		Re-routing Infrastructure																	
Line section	Disturbance between	Deviation including route	Passenger	Freight	Traction power	Train- Length	Line category	Gradient (‰)	Gauge	Intermondal freight code	Command Control Signalling	Number of tracks	Capacity	Speed (km/h)	Weight	Rerouting length	border	Transhipment	Miscalleanous
DRAGOMAN - SOFIA	Dragoman- Sofia	No alternative route																	
	Sofia - Plovdiv	Sofia - Karlovo	Υ	Υ	25 kV AC	610 m	D4	16	GC	P/C 59/389	BS	1		80	2260/1130 t one loco 1116	154,4			
	Sona - Ploydiv	Karlovo - Plovdiv	Υ	Y	25 kV AC	480 m	D4	18	GC	P/C 59/389	BS	1		80	2040/1020 t one loco 1116	66,1			
SOFIA - DIMITROVGRAD	Plovdiv - Dimitrovgrad 2	Plovdiv - Mihailovo	Υ	Υ	25 kV AC	620 m	D4	12	GC	P/C 59/389	BS	1		80	2820/1410 t one loco 1116	83,7			
	Plovdiv - Dimitrovgrad 2	Mihailovo - Dimitrovgrad	Υ	Y	25 kV AC	620 m	D4	16	GC	P/C 59/389	BS	1		80	2260/1130 t one loco 1116	33,6			
	Dimitrovgrad - Simeonovgrad	Dimitrovgrad- Nova Zagora	Υ	Υ	25 kV AC	620 m	D4	12	GC	P/C 59/389	BS	1		80	2820/1410 t one loco 1116	86,8			
DIMITROVGRAD - SIMEONOVGRAD - SVILENGRAD /border BG-TR/	Dimitrovgrad - Simeonovgrad	Nova Zagora - Simeonovgrad	Υ	Υ	Diesel	550 m	D4	10	GC	P/C 59/389	BS	1		80	2480/1240 t one loco DE 600	61,2			
	Simeonovgrad- Svilengrad - Border BG - TR	No alternative route																	





4.5. Annex 5: ICM Schematic map

