

# EUROPEAN REGULATION 913/2010 Rail Freight Corridor “Atlantic”

## INTERNATIONAL CONTINGENCY MANAGEMENT (ICM) PLAN



### Rerouting itineraries

### Timetabling year 2019



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## List of content

<b>1</b>	<b>General information</b>	<b>2</b>
1.1.	Introduction	2
1.2.	Publication and updates	2
1.3.	Processes and communication for international disruptions	2
1.4.	General requirements	2
1.5.	Definitions	3
1.6.	Traffic volume on RFC Atlantic	4
1.7.	Structure of the document	4
1.8.	Disclaimer / Limitation of Liability	5
<b>2</b>	<b>Processes for international disruptions</b>	<b>6</b>
2.1.	Introduction	6
2.2.	Disruption management process	7
2.3.	Communication process	8
<b>3</b>	<b>Northern part of RFC Atlantic</b>	<b>9</b>
3.1.	Overview re-routing options northern part re-routing options	9
3.2.	Re-routing scenario for section Mannheim – Saarbrücken / Forbach (FR/GE border) – Metz	10
3.3.	Re-routing scenario for section Strasbourg - Nancy	13
3.4.	Re-routing scenario for section Le Havre - Motteville	15
3.5.	Re-routing scenario for section La Rochelle - Poitiers	17
3.6.	Re-routing scenario for section Bordeaux - Hendaye / Irún (FR/SP border) - Altsasu	19
<b>4</b>	<b>Southern Part of RFC Atlantic</b>	<b>22</b>
<b>4.1.</b>	<b>Overview re-routing options southern part</b>	<b>22</b>
4.2.	Re-routing scenario for section Castejón de Ebro - Zaragoza	23
4.3.	Re-routing scenario for section Ávila - Madrid	26
4.4.	Re-routing scenario for section Alcázar - Manzanares	29
4.5.	Re-routing scenario for section Mérida - Aljucén	32
4.6.	Re-routing scenario for section Bobadilla - Algeciras	35
4.7.	Re-routing scenario for section Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border)	37
4.8.	Re-routing scenario for section Aljucén – Badajoz / Elvas (PT/SP border)	41
4.9.	Re-routing scenario for section Pampilhosa - Plataforma de Cacia	44
4.10.	Re-routing scenario for section Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda	47
4.11.	Re-routing scenario for section Badajoz / Elvas (PT/SP border) - Abrantes	50
4.12.	Re-routing scenario for section Águas de Moura-Norte - Pinheiro	53
<b>5</b>	<b>Annex 1: contact information (internal)</b>	Erreur ! Signet non défini.

# 1 General information

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## 1.1. Introduction

In 2018 European Rail Infrastructure Managers (IMs) agreed on international processes described in the “Handbook for International Contingency Management”. An important element of that is an international re-routing overview for the Rail Freight Corridors (RFC) and operational scenarios (re-routing scenarios) for the critical routes.

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.

This document includes scenarios with the possible re-routing options for all sections with limited re-routing options on the RFC Atlantic.

The re-routing scenarios should also serve as a basis for the RU contingency management with the objective to increase possible use of deviation routes.

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## 1.2. Publication and updates

The RFC Atlantic is owner of this document. 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 which run on their network. RFC Atlantic also publishes the document on its website and organises the consultation with RUs.

The re-routing scenarios for RFC Atlantic are updated every year until the end of November by the corridor organisation together with the IMs of RFC Atlantic.

The initial version of the re-routing scenarios and the re-routing overview will first be published for RAG TAG consultation in April 2019.

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## 1.3. Processes and communication for international disruptions

In case of international disruptions, international processes for incident management and incident communication which shall apply during the plannable phase are described in chapter 4 of the Handbook for International Contingency Management (<https://www.atlantic-corridor.eu>). They do not replace national incident management procedures but complement them in order to allow for a better international cooperation. A summary with an overview of the processes and roles can be found in chapter 2 of this document.

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## 1.4. General requirements

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

## 1.5. Definitions

### 1.5.1. Definitions of infrastructure parameters

These definitions apply to information given in both re-routing scenarios and re-routing overview (separate excel document)

Line section	Section of the normal RFC routing
Deviation route	Section which replaces the normal routing on the deviation route
Passengers	Section used for passenger traffic
Freight	Section used for freight traffic
Traction Power	Catenary voltage
Length	Maximum allowed length for a train (in meters, locomotive included)
Line category	e.g. C2, C3, D4, D5...
Number of tracks	The number of tracks on this section
Gradient	The gradient (in percentage) of the line section - mostly important in countries with hills and mountains
Gauge	e.g. GHE16, GEB16, FR3.3, GB1, GB+, GA, GB.. or UIC gauge vs. Iberian gauge
Tunnel gauge	e.g. PTb+, GHE16, GEB16, GPL-1, G2, GB1, GB2.
Intermodal Freight code	This is mostly filled out with the PC code e.g. PC70/400 , P/C 80/400, etc.
Signalling	This column is filled out with the version of ETCS (when in use) or the STM e.g. ATB EG, TBL1, SCMT etc.
Max. 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-routing option	In km
Max. train weight	Here the maximum weight (in tons) is filled out which can be handled by one locomotive (and/or which is used for capacity allocation).

### 1.5.2. Capacity which is 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 inframangers 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.

### 1.5.3. Explanations regarding 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)

#### 1.5.4. Explanations regarding capacity indication

Capacity indications which are given in this document are indications of the free capacity for freight traffic on a deviation route in case of an incident. The assessment is based on the following ranges:

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

Detailed information regarding the capacity available on a deviation route can only be given in case of an incident. They depend 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.

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### 1.6. Traffic volume on RFC Atlantic

The Atlantic corridor connects the sea ports of Sines, Setúbal, Lisbon, Aveiro and Leixões, in Portugal; Algeciras, Bilbao and Pasajes, in Spain; Bayonne, Nantes, La Rochelle and Le Havre, as well as the inland ports of Bordeaux, Rouen and Strasbourg in France; to the main capitals within the corridor Lisbon, Madrid, Paris, to the East of France, to Mannheim in Germany and subsequently to North and Eastern Europe.

The Atlantic Corridor is part of the homonym multimodal corridor integrated in the TEN-T Core network and connects with the Mediterranean Corridor in Madrid and Zaragoza, with the North Sea-Mediterranean Corridor through Paris, Metz and Strasbourg. Furthermore, the recent extension of the Atlantic Corridor to Mannheim in Germany enabled a direct articulation with two other corridors: the Rhine-Alpine and the future Rhine-Danube, thus increasing outreach of the Atlantic Corridor.

The main international markets and routes for the corridor at this moment are:

- **Netherlands to France & Spain** via Paris (jointly with RFC 2), from Antwerp to Bayonne, Irun and Madrid;
- **Germany to Spain via Paris**, from Mannheim, Einsiedlerhof & Saarebrücken to Le Havre, Bayonne, Madrid, Pamplona-Zaragoza;
- **Germany to Spain via Lyon** (jointly with RFC 2 and RFC 6), from Mannheim & Ludwigshafen to Barcelona, Constanti & Granollers;
- **Germany to France**, from Mannheim & Saarebrücken to Woippy, Dugny, Sorcy, Blainville, Vittel, Vaires (East of Paris), Gevrey, Bayonne;
- **Portugal to Spain**, from Entroncamento to Madrid, Zaragoza & Barcelona (jointly with RFC 6).

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### 1.7. Structure of the document

The re-routing scenarios are presented as follows: Chapter 2 focusses on the international processes described in the “Handbook for International Contingency Management”, the corresponding roles and important contact information. Chapter 3 focusses on the re-routing scenarios for the northern part of RFC Atlantic, chapter 4 covers re-routing scenarios for the southern part of RFC Atlantic. Each part is first introduced with an overview map of the relevant sections with limited re-routing possibilities plus short descriptions of the re-routing options. The overview is followed by detailed descriptions of the main re-routing options for each of these sections, including detailed maps and a description of the re-routing options with characteristics and parameters.

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

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## 1.8. Disclaimer / Limitation of Liability

These operational scenarios serve for information only. Although every care has been taken by RFC Atlantic 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. RFC Atlantic 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.

RFC Atlantic 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.

## 2 Processes for international disruptions

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### 2.1. Introduction

The processes of international disruptions > 3 days are described in Chapter 4 of the “Handbook for International Contingency Management” available on the RailNetEurope (RNE) webpage ([http://www.rne.eu/rneinhalt/uploads/International\\_Contingency\\_Management\\_Handbook\\_final\\_v1.5.pdf](http://www.rne.eu/rneinhalt/uploads/International_Contingency_Management_Handbook_final_v1.5.pdf)). The international agreed processes are:

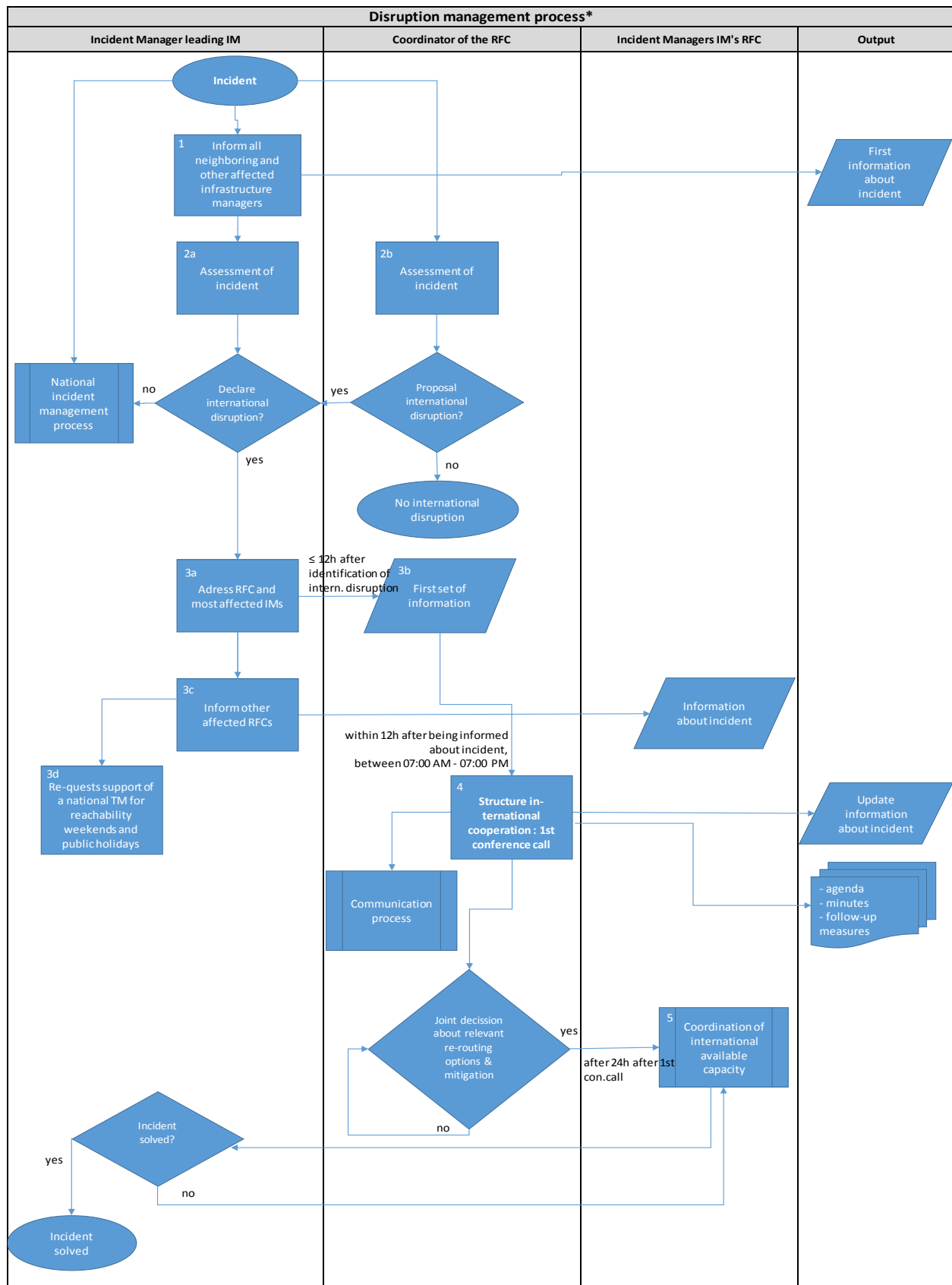
1. Disruption management process;
2. Communication process.

The key roles on a managerial level for these processes are defined in Chapter 5 of this handbook.

This chapter shows a summary of this information.

For the IMs contact information from the persons which should be contacted in case of an international disruption are available on the RailNetEurope (RNE) webpage (<https://cms.rne.eu/international-contingency-management/international-disruption-ims-contact-list-1>) and annex 1 (internal use only).

## 2.2. Disruption management process

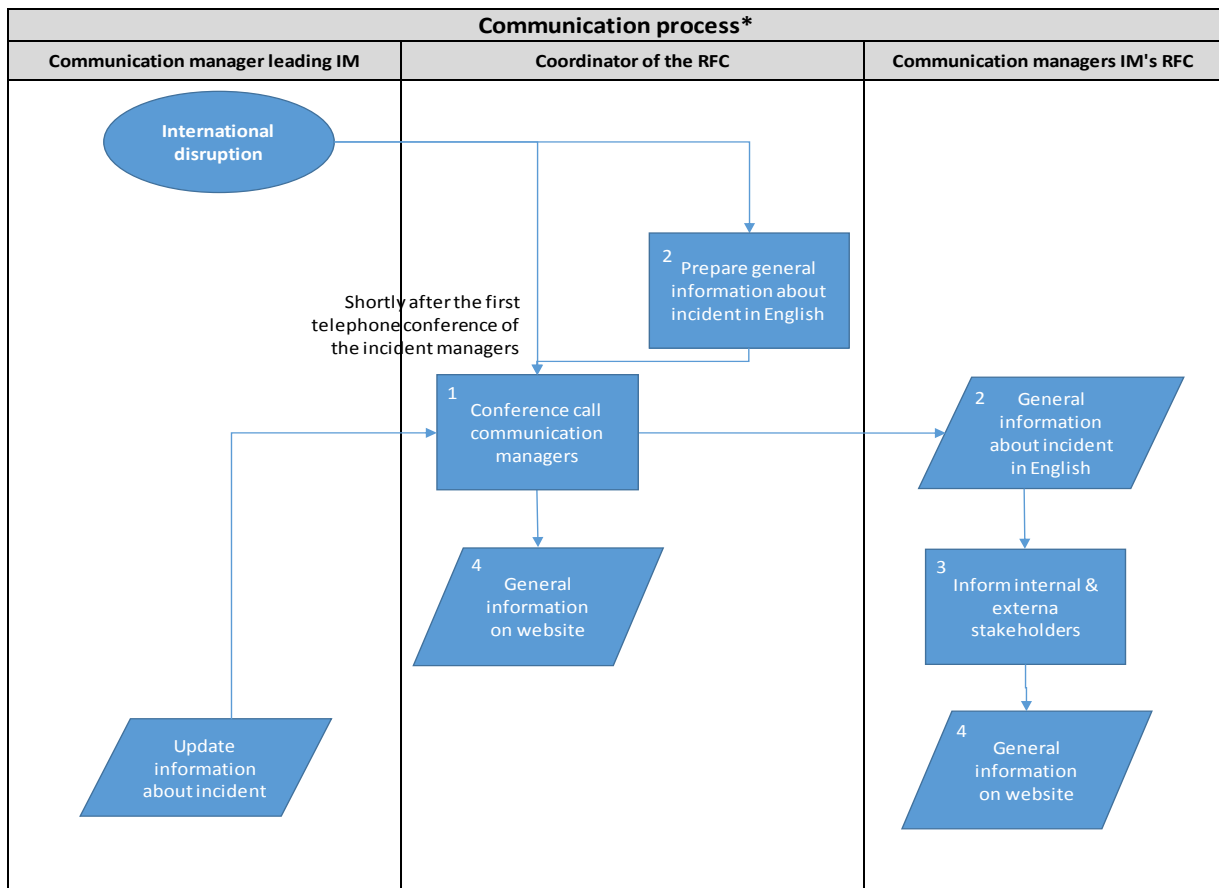


\* process description is on page 10 & 11 of the Handbook International Contingency Management.

The complete disruption management process is described on pages 10 and 11 of the “Handbook for International Contingency Management”.



### 2.3. Communication process



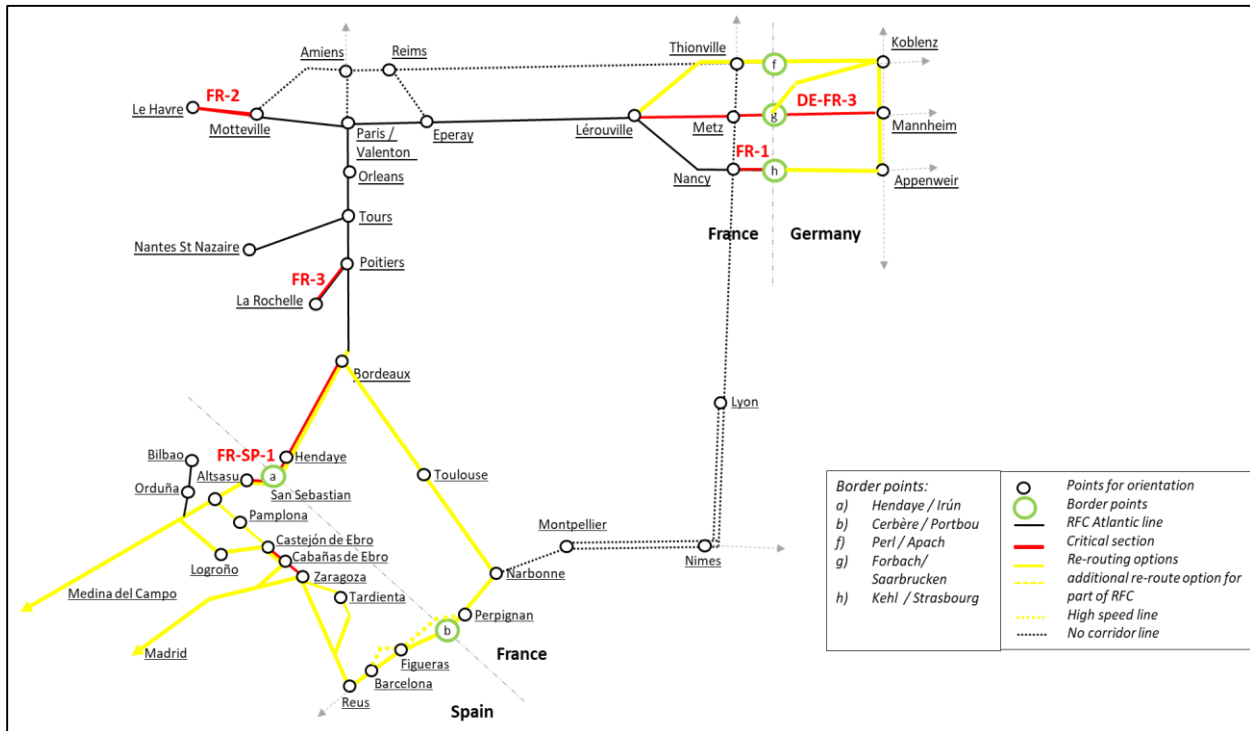
\* process description is on page 11 of the Handbook International Contingency Management.

The complete communication process is described on page 11 of the “Handbook for International Contingency Management”.

### 3 Northern part of RFC Atlantic

#### 3.1. Overview re-routing options northern part re-routing options

The following sections with limited re-routing possibilities are defined for the northern part of the RFC Atlantic.



Some re-routing options can be used for various sections.

Critical sections for which the alternative routes only go through France are not considered in this document. The necessary information about those sections can be found in the SNCF Réseau’s network statement (mainly appendix 5 – principles on the operational management of traffic on the national rail network) and in the document OPE 508 (règles de la gestion opérationnelle des circulations).

On the northern part of RFC Atlantic the following routes can be used for rail freight operations. All of these routes can be used as re-routing options, depending on the line section where an incident happens.

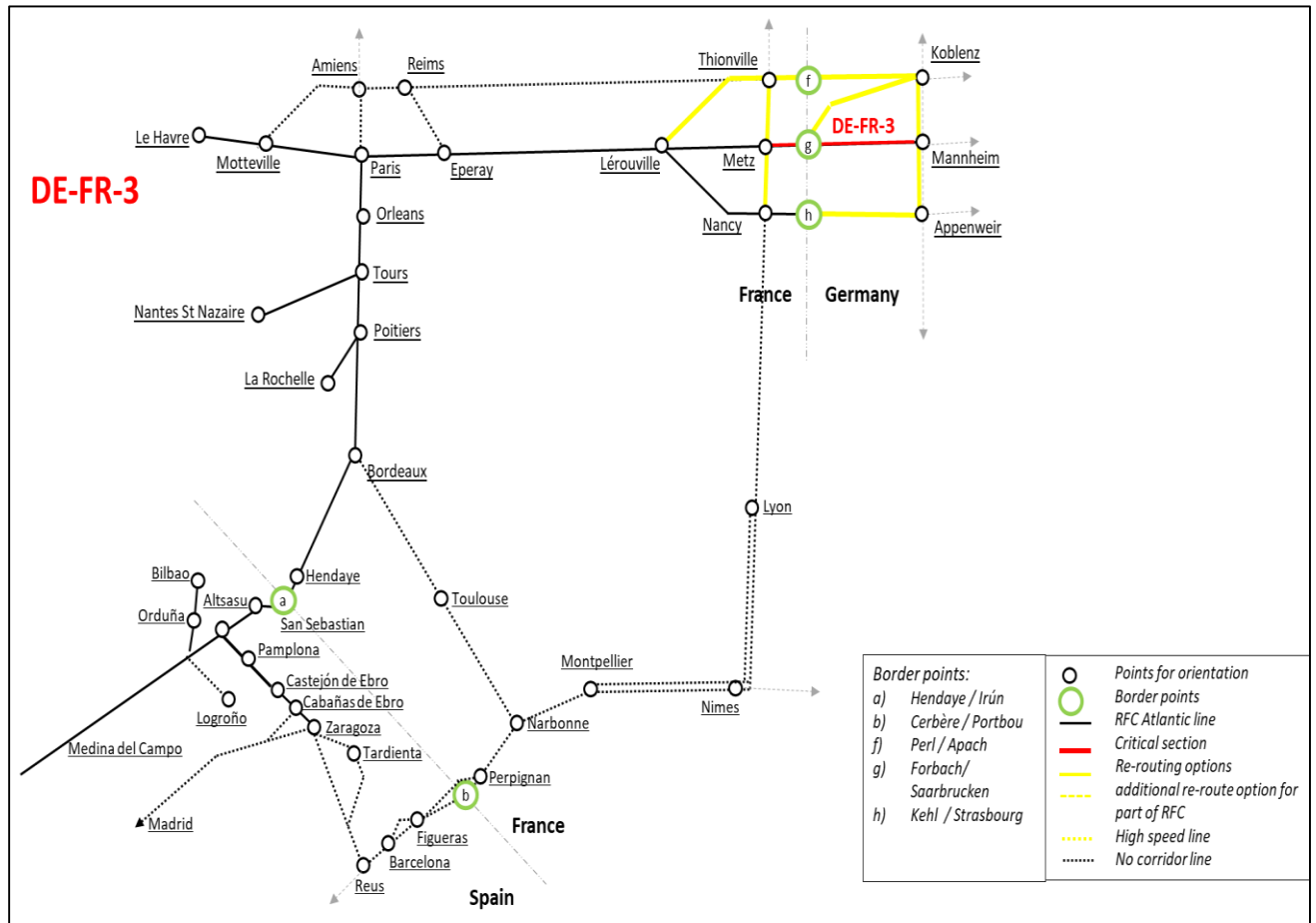
Critical route	Route
DE-FR-3	Mannheim – Saarbrücken / Forbach (FR/GE border) – Metz
FR-1	Strasbourg – Nancy
FR-2	Le Havre - Motteville
FR-3	La Rochelle - Poitiers
FR-SP-1	Bordeaux - Hendaye / Irún (FR/SP border) - Altsasua

The parking locations indicated for France in this document are some of the main ones. The operational rules applicable to the parking areas and their description are indicated in the « consigne locale d’exploitation » of the station. The SNCF Réseau’s network statement (appendix 5) describes the rules applicable to the parking of a train in case of disturbance.

### 3.2. Re-routing scenario for section Mannheim – Saarbrücken / Forbach (FR/GE border) – Metz

#### 3.2.1. General description

Schematic map including re-routing options



When the route Mannheim – Saarbrücken / Forbach (FR/GE border) – Metz is blocked re-routing options are:

Section ID	Usability	Route
DE-FR-3-1	B	Mannheim – Koblenz (via RFC1) – Thionville – Metz / Lérrouville
DE-FR-3-2	B	Mannheim – Appenweier – Kehl / Strasbourg - Nancy – Metz - Lérrouville
DE-FR-3-3	B	Mannheim - Koblenz - Trier - Forbach / Saarbrücken

### 3.2.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category					Number of tracks	Frei			in km		
<b>Section: Mannheim - Forbach / Saarbrücken (FR-GE border) - Metz</b>																	
DB Netz	Mannheim - Saarbrücken (FR/GE border)	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 400 (P/C 70)	PZB	100	142	1: 1890t 2: 1935t (E-Tfz DB-185)	-	FR	
SNCF Réseau	Forbach (FR/GE border) - Metz	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	KVB	101-160	80	N/A	upon request	-	-
<b>Mannheim – Koblenz – Perl / Apach - Thionville – Metz / Lerouville</b>																	
DB Netz	Mannheim - Koblenz - Trier - Perl (FR-GE border)	x	x	AC 15kV 16,7 Hz	630	D4	min. 2	UIC	upon request	P/C 400 (P/C 70)	PZB	100	331	1: 2135t 2: 2110t (E-Tfz DB-185)	-	FR	
SNCF Réseau	Apach (FR/GE border) - Thionville – Metz	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	ERTMS/KVB	101 - 120	60	N/A	upon request	Perl/Apach	limited
<b>Mannheim – Appenweier – Kehl / Strasbourg - Nancy – Metz / Lerouville</b>																	
DB Netz	Mannheim - Appenweier - Kehl (FR-GE border)	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 410 (P/C 80)	PZB	160	148	1: 2855t 2: 3175t (E-Tfz DB-185)	-	FR	
SNCF Réseau	Strasbourg (FR/GE border) - Nancy – Metz	x	x	AC 25kV	750	C4/D4	2	UIC	GB	upon request	KVB	101 - 120	210	N/A	upon request	Kehl/Strasbourg	C4 between Kehl and Strasbourg limited
<b>Mannheim - Koblenz - Trier - Forbach / Saarbrücken</b>																	
DB Netz	Mannheim - Koblenz - Trier - Saarbrücken (FR-GE border)	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 400 (P/C 70)	PZB	100	376	1: 2110t 2: 2135t (E-Tfz DB-185)	-	FR	
SNCF Réseau	Forbach (FR/GE border) - Metz	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	KVB	101-160	80	N/A	upon request	-	-

### 3.2.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Germany	RB Mitte	5	600 - 740 m	
	RB Südwest	5	600 - 740 m	
	Neustadt (Weinstr.)	1	1 x 640 m	
	Hochspeyer	1	1 > 700 m	
	Homburg	1	1 > 700 m	
	Neunkirchen	1	1 > 700 m	
	Saarbrücken Rbf	1	1 > 700 m	
France	Thionville	> 3	380 to 690 m	Restricted capacity
	Metz Woippy	7	753 to 763 m	Very restricted capacity
	Metz Sablons	> 3	700 m	2 tracks partly electrified
	Blainville-Damelevières	17	463 to 749 m	
	Champigneulles	9	574 m to 658 m	
	Strasbourg	> 3	750 m	Hausbergen (railway modernisation)

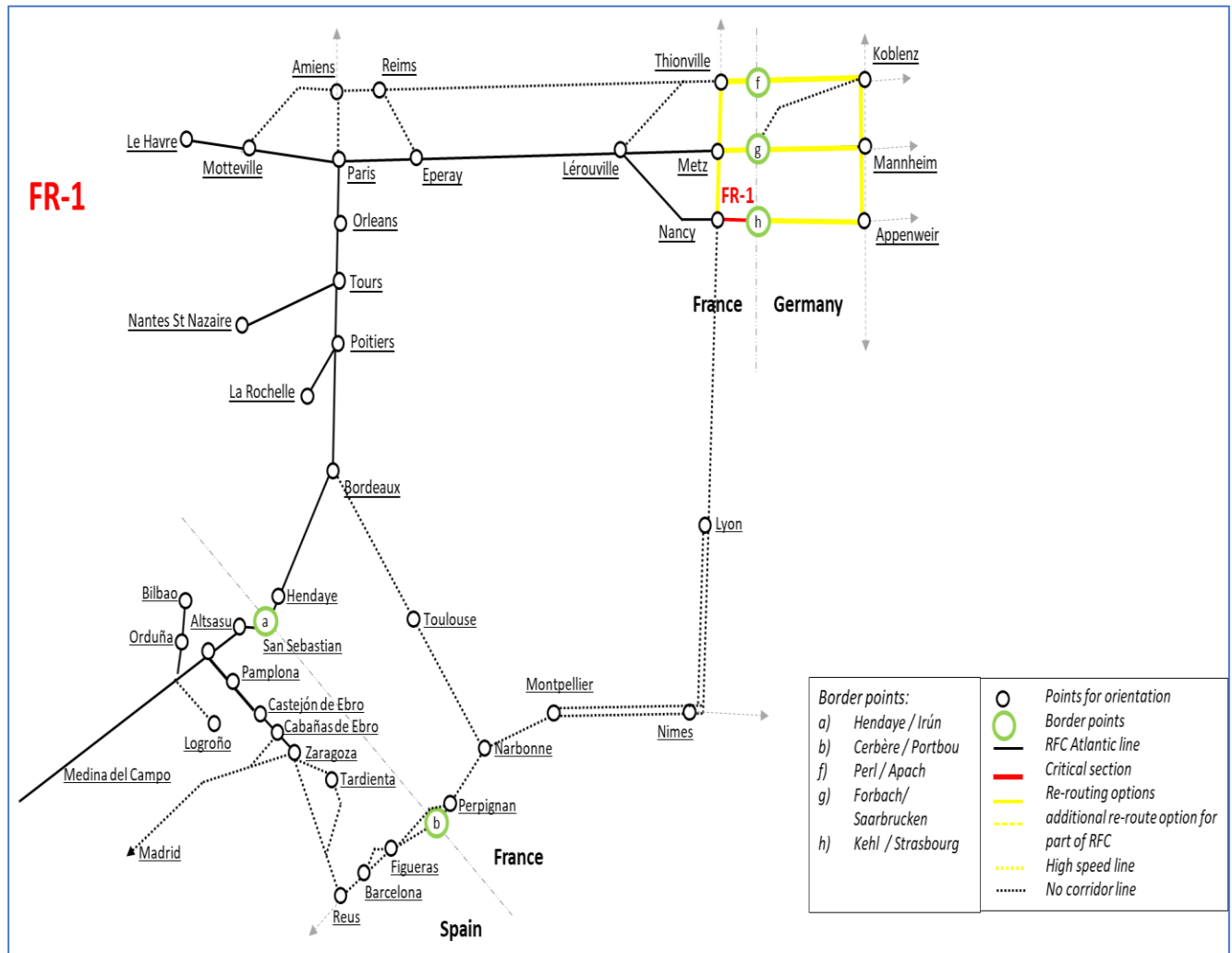
### 3.2.4. Restrictions

No specific (other) restrictions given. See for the infrastructure characteristics the table above.

### 3.3. Re-routing scenario for section Strasbourg - Nancy

#### 3.3.1. General description

Schematic map including re-routing options



When the route Strasbourg - Nancy is blocked, re-routing options are:

Section ID	Usability	Route
DE-FR-3	A	Kehl – Appenweir - Mannheim (via RFC1)– Saarbrücken / Forbach - Metz
DE-FR-3-1	B	Kehl – Appenweir - Mannheim – Koblenz (via RFC1) / Thionville – Metz

### 3.3.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Number of tracks	Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category						Frei	in km			other border		
<b>Section: Strasbourg - Nancy</b>																		
SNCF Réseau	Strasbourg - Nancy	x	x	AC 25kV	750	D4	2	UIC	GB	upon request	KVB	101-160	150	N/A	upon request	-	-	
<b>Kehl – Appenweir - Mannheim (via RFC1)– Saarbrücken / Forbach - Metz</b>																		
DB Netz	Kehl – Appenweir - Mannheim	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 410 (P/C 80)	PZB	160	148	1: 2855t 2: 3175t (E-Tfz DB-185)	-	FR		
DB Netz	Mannheim - Saarbrücken (FR/GE border)	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 400 (P/C 70)	PZB	100	142	1: 1890t 2: 1935t (E-Tfz DB-185)	-	FR		
SNCF Réseau	Forbach (FR/GE border) - Metz	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	KVB	101-160	80	N/A	upon request	-	-	
<b>Kehl – Appenweir - Mannheim – Koblenz (via RFC1) / Thionville – Metz</b>																		
DB Netz	Kehl – Appenweir - Mannheim	x	x	AC 15kV 16,7 Hz	740	D4	min. 2	UIC	upon request	P/C 410 (P/C 80)	PZB	160	148	1: 2855t 2: 3175t (E-Tfz DB-185)	-	FR		
DB Netz	Mannheim - Koblenz - Trier - Perl (FR-GE border)	x	x	AC 15kV 16,7 Hz	630	D4	min. 2	UIC	upon request	P/C 400 (P/C 70)	PZB	100	331	1: 2135t 2: 2110t (E-Tfz DB-185)	-	FR		
SNCF Réseau	Apach (FR/GE border) - Thionville – Metz	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	ERTMS/KVB	101 - 120	60	N/A	upon request	Perl/Apach	-	limited

### 3.3.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Germany	RB Mitte	18	600 - 740 m	
	RB Südwest	5	600 - 740 m	
	Mainz-Bischofsheim	4	1x 740 m 3x > 600 m	
France	Forbach	9	535 to 690 m	Restricted capacity
	Thionville	> 3	380 to 690 m	Restricted capacity
	Metz Sablon	> 3	700 m	2 Tracks partly electrified

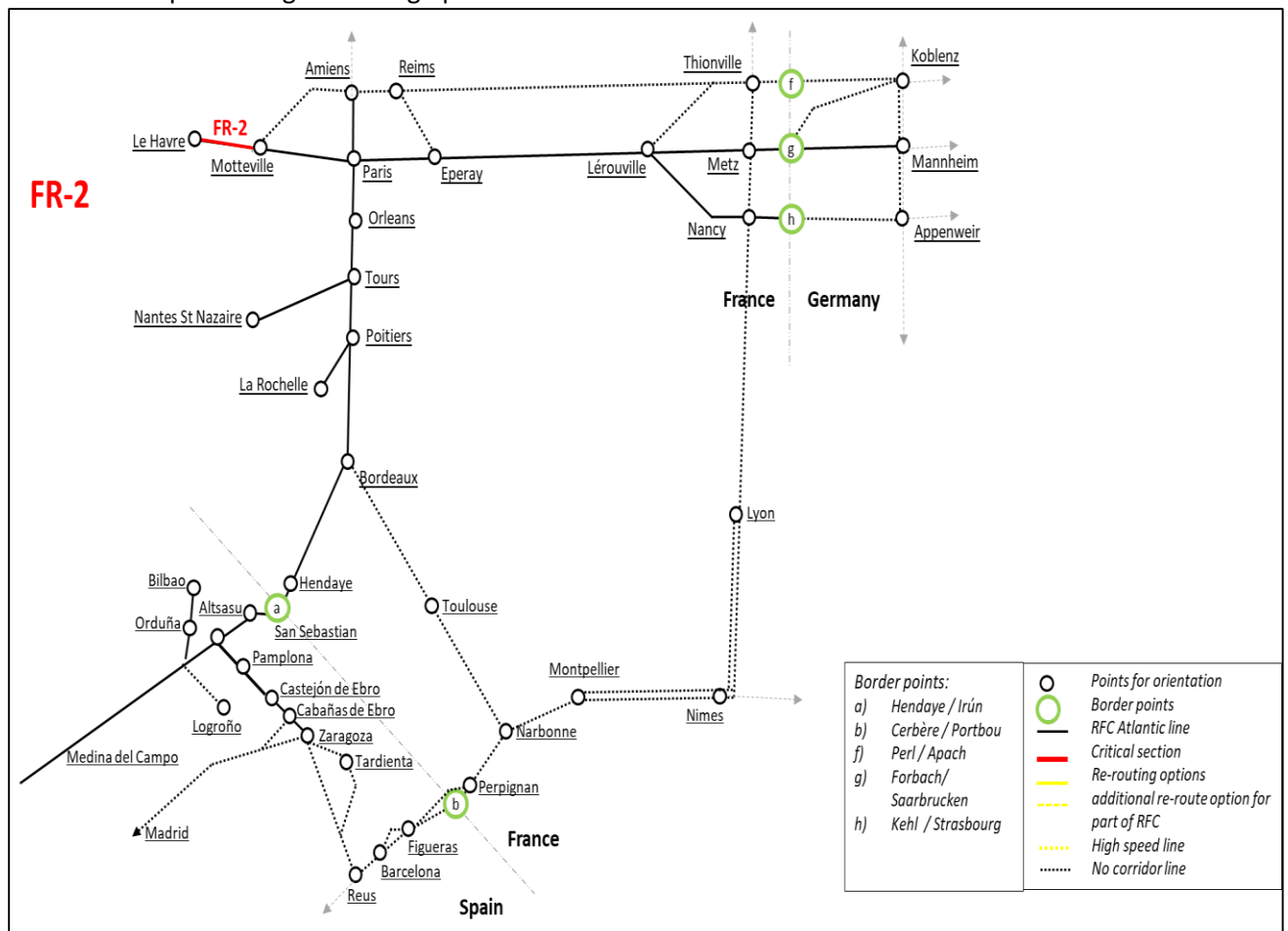
### 3.3.4. Restrictions

No specific (other) restrictions given. See for the infrastructure characteristics the table above.

### 3.4. Re-routing scenario for section Le Havre - Motteville

#### 3.4.1. General description

Schematic map including re-routing options



**No alternative routes** are available when the route Le Havre - Motteville is blocked.



### 3.4.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (0/000)	Border	Miscellaneous	Capacity Indication	
		Pass	Frei	Traction power	Maxi train length (m)	Line Category					Number of tracks	Frei			in km			other border
Section: Le Havre - Motteville																		
SNCF Réseau	Le Havre - Motteville	x	x	AC 25kV	750	D4	2	UIC	GB1	upon request	KVB	121-160	-	N/A	upon request	-	-	
No alternative																		

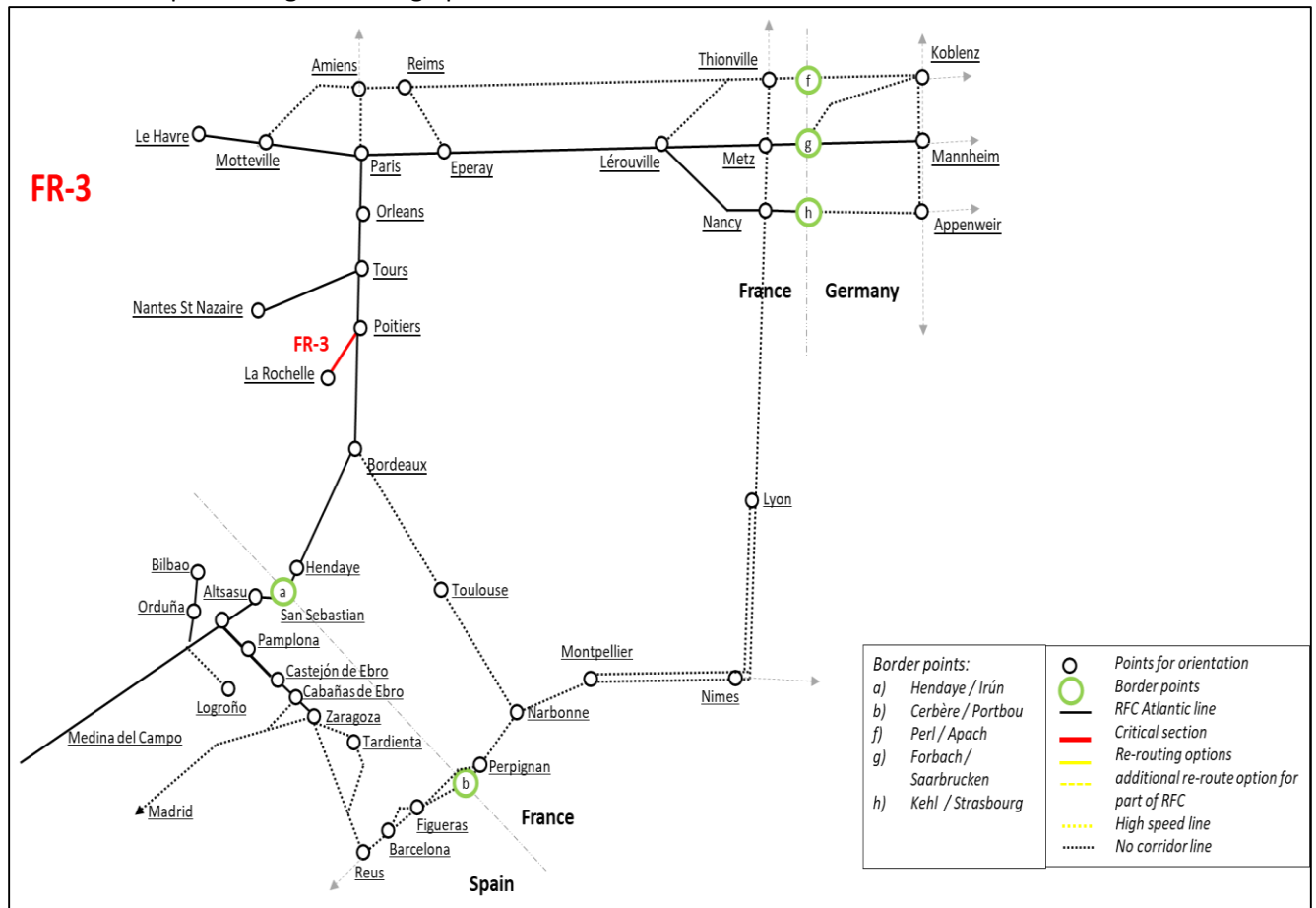
### 3.4.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
France	Rouen	8	750 m	No Exceptional transport

### 3.5. Re-routing scenario for section La Rochelle - Poitiers

#### 3.5.1. General description

Schematic map including re-routing options



There are **no alternative routes** when the route La Rochelle - Poitiers is blocked.

### 3.5.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Maximum gradient (o/ooo)	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
Section: La Rochelle - Poitiers																		
SNCF Réseau	La Rochelle - Poitiers	x	x	AC25kV	750	D4	1-2	UIC	GA	upon request	KVB	101-120	-	-	upon request	-	-	
No alternative																		

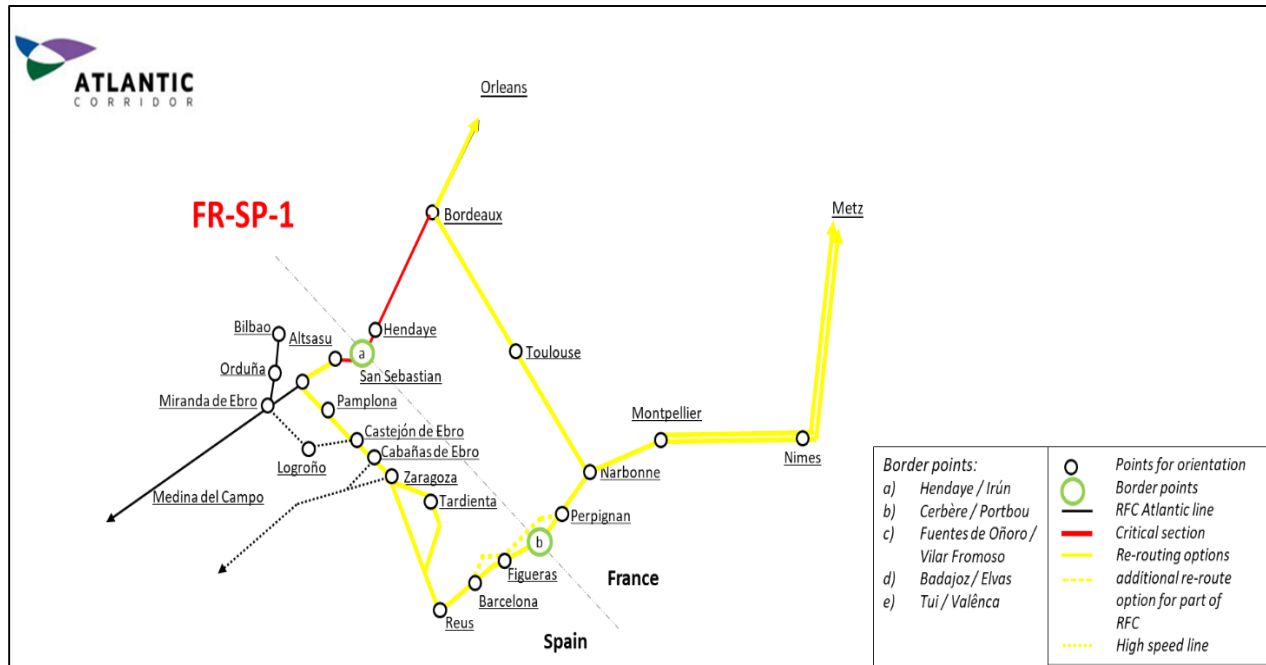
### 3.5.3.Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
France	Poitiers	9	500 to 899 m	
	Tours SPDC	4	664 to 769 m	

### 3.6. Re-routing scenario for section Bordeaux - Hendaye / Irún (FR/SP border) - Altsasu

#### 3.6.1. General description

Schematic map including re-routing options



When the route Bordeaux - Hendaye / Irún (FR/SP border) - Altsasu is blocked re-routing options are:

Section ID	Usability	Route	Gauge
FR-SP-1-1	B	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (vía Logroño or vía Pamplona)	UIC/Iberian
FR-SP-1-2	B	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (vía Logroño or vía Pamplona)	UIC/Iberian
FR-SP-1-3	B	Bordeaux – Toulouse – Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	UIC
FR-SP-1-4	B	Metz – Nimes - Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	UIC

### 3.6.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km		other border			
<b>Section: Bordeaux - Hendaye / Irún (FR/SP border) - Altsasu</b>																		
SNCF Réseau	Bordeaux - Hendaye / Irún (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	61-160	240	N/A	upon request	-	-	
ADIF	Hendaye / Irún (FR/SP border) - Altsasu	x	x	3 kVDC	450	D4	2	IB			ASFA	restriction up to	104	1300t Elect.	18		Different tracks in FR / SP: France 1435 mm / Spain and Portugal 1668 mm (Iberian gauge)	Good
<b>Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (via Logroño or via Pamplona)</b>																		
SNCF Réseau	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	121-160	500	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta)- Zaragoza - Altsasu (via Logroño or via Pamplona)	x	x	3 kVDC	500	D4	1-2	IB			ASFA	40-120	716 (excl. France)	1400t Elect.	19	Portbou (FR)	Different tracks in FR / SP: France 1435 mm / Spain and Portugal 1668 mm (Iberian gauge)	Good level capacity except section Massanet – Mollet – Castellbisbal - Sant Viçenc de Calders, which could be Limited.
<b>Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (via Logroño or via Pamplona)</b>																		
SNCF Réseau	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	AC 25kV / 1500 VDC	750	D4	2	UIC	GA	upon request	KVB	101-120	1000	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta)- Zaragoza - Altsasu (via Logroño or via Pamplona)	x	x	3 kVDC	500	D4	1-2	IB			ASFA	40-120	716 (excl. France)	1400t Elect.	19	Portbou (FR)	Different tracks in FR / SP: France 1435 mm / Spain and Portugal 1668 mm (Iberian gauge)	Good level capacity except section Massanet – Mollet – Castellbisbal - Sant Viçenc de Calders, which could be Limited.
<b>Bordeaux – Toulouse – Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis</b>																		
SNCF Réseau	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	121-160	500	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	(LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	x	x	25 kV AC / 3kV DC	750	D4	2	UIC			ERTMS N1 / ASFA	no restriction up to 120		1500t Elect.	30	LFP International section	Different tracks within SP network: Barcelona Can Tunis - Bif. Mollet three rails track with both 1435/1668 mm and Bif. Mollet - LFP International section 1435 mm (UIC gauge)	Good level capacity except section Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis which could be Limited.
<b>Metz – Nimes - Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis</b>																		
SNCF Réseau	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	AC 25kV / 1500 VDC	750	D4	2	UIC	GA	upon request	KVB	101-120	1000	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	(LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	x	x	25 kV AC / 3kV DC	750	D4	2	UIC			ERTMS N1 / ASFA	no restriction up to 120		1500t Elect.	30	LFP International section	Different tracks within SP network: Barcelona Can Tunis - Bif. Mollet three rails track with both 1435/1668 mm and Bif. Mollet - LFP International section 1435 mm (UIC gauge)	Good level capacity except section Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis which could be Limited.

### 3.6.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
France	Hourcade	48	Up to 750m	
	Saint Jory	5	Up to 750m	
	Perpignan-Le Soler	>7	Up to 789 m	
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		FR-SP-1-1 & 2: 500 m FR-SP-1-3 & 4: 750 m	
	Lleida	3	542 m	
	Mora la Nova	5	655 m	
	L'Árboç	2	593 m	
	Girona Mercaderies	3	464 m	
	Albacete Mercancías	4	840 m	
	Sagunt Mercaderies	6	698 m	

### 3.6.4. Restrictions

Each re-routing option has specific restrictions:

FR-SP-1-1: Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (via Logroño or via Pamplona)

Because the gauge is different in Spain (Iberian instead of UIC), freight have to be moved to another train. Limited resources for freight transshipment and changing bogies at Port Bou and Cerbère.

FR-SP-1-2: Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza - Altsasu (via Logroño or via Pamplona)

Because the gauge is different in Spain (Iberian instead of UIC), freight have to be moved to another train. Limited resources for freight transshipment and changing bogies at Port Bou and Cerbère.

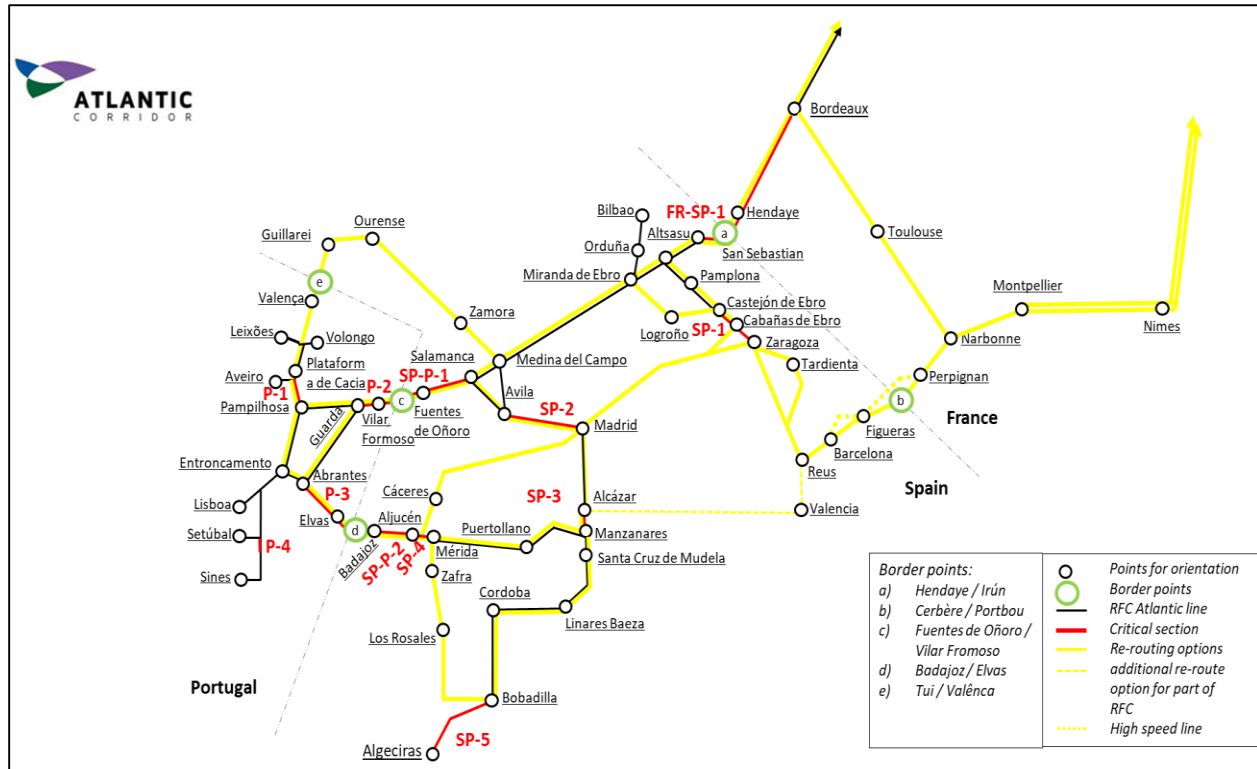
FR-SP-1-3 & 4: (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis

This line is operated by LFP. This line is only usable to/from Barcelona and not to other locations in Spain. From Perpignan to Barcelona, currently the trains should run with Locos that have integrated 3 voltage types (1,5 kV DC, 25 kV AC, 3 kV DC).

## 4 Southern Part of RFC Atlantic

### 4.1. Overview re-routing options southern part

The following sections with limited re-routing options are defined for the southern part of RFC Atlantic.



Some re-routing options can be used for various sections.

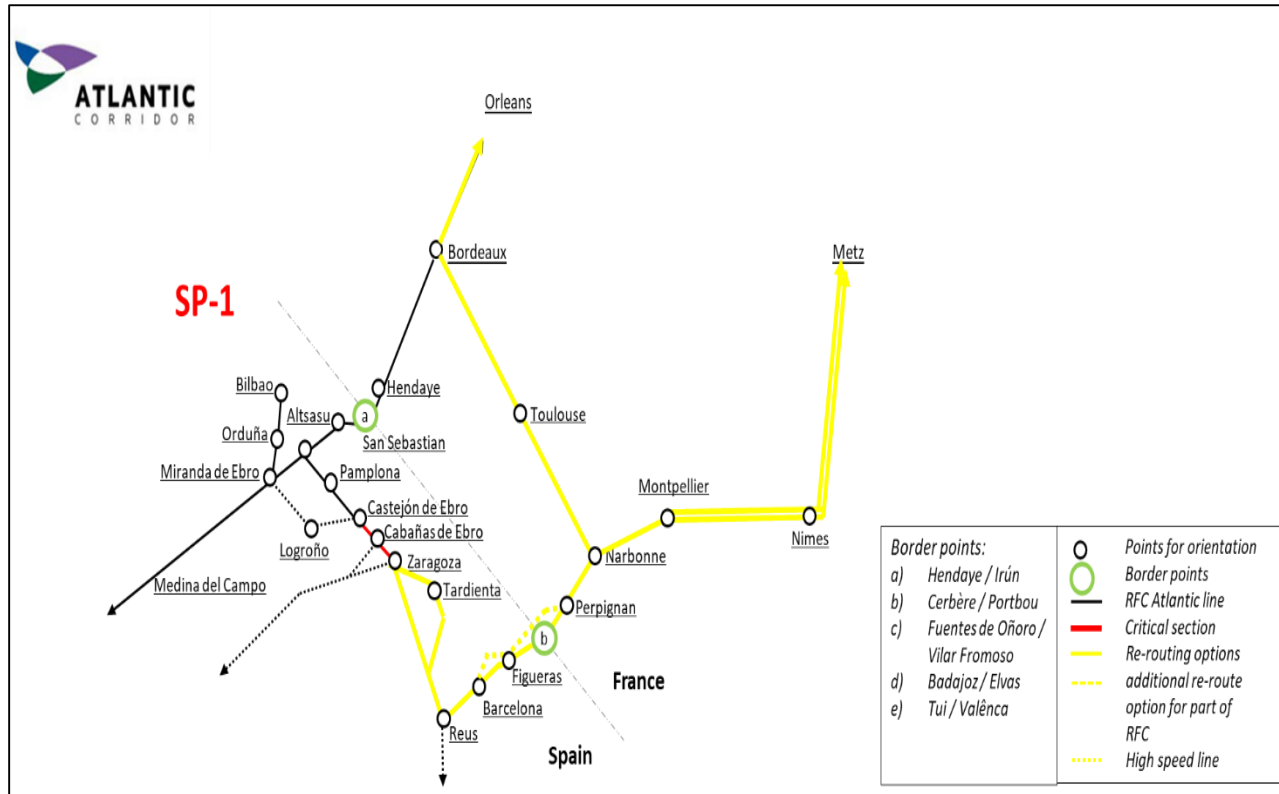
On the southern part of RFC Atlantic the following routes can be used for rail freight operations. All of these routes can be used as re-routing options, depending on the line section where an incident happens.

Critical route	Route
SP-1	Castejón de Ebro - Zaragoza
SP-2	Ávila - Madrid
SP-3	Alcázar - Manzanares
SP-4	Mérida - Aljucén
SP-5	Bobadilla - Algeciras
SP-P-1	Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border)
SP-P-2	Aljucén – Badajoz / Elvas (PT/SP border)
P-1	Pampilhosa - Plataforma de Cacia
P-2	Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda
P-3	Badajoz / Elvas (PT/SP border) - Abrantes
P-4	Águas de Moura-Norte - Pinheiro

## 4.2. Re-routing scenario for section Castejón de Ebro - Zaragoza

### 4.2.1. General description

Schematic map including re-routing options



When the route Castejón de Ebro - Zaragoza is blocked re-routing options are:

Section ID	Usability	Route	Gauge
FR-SP-1-1	B	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza	UIC/Iberian
FR-SP-1-2	B	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza	UIC/Iberian
FR-SP-1-3	B	Bordeaux – Toulouse – Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	UIC
FR-SP-1-4	B	Metz – Nimes - Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	UIC



## 4.2.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication	
		Pass	Frei	Traction power	Maxi train length (m)	Line Category					Number of tracks	Frei			in km			other border
<b>Section: Castejón de Ebro - Zaragoza</b>																		
SNCF Réseau	Bordeaux - Hendaye / Irún (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	61-160	240	N/A	upon request	-	-	
ADIF	Castejón de Ebro - Zaragoza	x	x	3 kVDC	500	D4	2	IB			ASFA	no restriction up to 120	78	1300t Elect.	10		Iberian gauge	Good
<b>Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza</b>																		
SNCF Réseau	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	121 -160	500	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta)- Zaragoza - Altsasu (via Logroño or via Pamplona)	x	x	3 kVDC	500	D4	1-2	IB			ASFA	40-120	716 (excl. France)	1400t Elect.	19	Portbou (FR)	Different tracks in FR / SP: France 1435 mm / Spain and Portugal 1668 mm (Iberian gauge)	Good level capacity except section Massanet – Mollet – Castellbisbal - Sant Viçenc de Calders, which could be Limited.
<b>Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza</b>																		
SNCF Réseau	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	AC 25kV / 1500 VDC	750	D4	2	UIC	GA	upon request	KVB	101-120	1000	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta)- Zaragoza - Altsasu (via Logroño or via Pamplona)	x	x	3 kVDC	500	D4	1-2	IB			ASFA	40-120	716 (excl. France)	1400t Elect.	19	Portbou (FR)	Different tracks in FR / SP: France 1435 mm / Spain and Portugal 1668 mm (Iberian gauge)	Good level capacity except section Massanet – Mollet – Castellbisbal - Sant Viçenc de Calders, which could be Limited.
<b>Bordeaux – Toulouse – Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis</b>																		
SNCF Réseau	Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	1500 VDC	750	D4	2	UIC	GB	upon request	KVB	121 -160	500	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	(LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	x	x	25 kV AC / 3kV DC	750	D4	2	UIC			ERTMS N1 / ASFA	no restriction up to 120		1500t Elect.	30	LFP International section	Different tracks within SP network: Barcelona Can Tunis - Bif. Mollet three rails track with both 1435/1668 mm and Bif. Mollet - LFP International section 1435 mm (UIC gauge)	Good level capacity except section Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis which could be Limited.
<b>Metz – Nimes - Narbonne – (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis</b>																		
SNCF Réseau	Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border)	x	x	AC 25kV / 1500 VDC	750	D4	2	UIC	GA	upon request	KVB	101-120	1000	N/A	upon request	Cerbère-Portbou	last stretch before Cerbère is 61 to 100 km/h	limited
ADIF	(LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis	x	x	25 kV AC / 3kV DC	750	D4	2	UIC			ERTMS N1 / ASFA	no restriction up to 120		1500t Elect.	30	LFP International section	Different tracks within SP network: Barcelona Can Tunis - Bif. Mollet three rails track with both 1435/1668 mm and Bif. Mollet - LFP International section 1435 mm (UIC gauge)	Good level capacity except section Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis which could be Limited.

#### 4.2.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
France	Hourcade	48	Up to 750m	
	Saint Jory	5	Up to 750m	
	Perpignan	>7	Up to 789 m	
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		FR-SP-1-1 & 2: 500 m FR-SP-1-3 & 4: 750 m	
	Castejón de Ebro	4	633 m	
	Lleida	3	542 m	
	Mora la Nova	5	655 m	
	LÁrboç	2	593 m	
	Girona Mercaderies	3	464 m	
	Albacete Mercancías	4	840 m	
	Sagunt Mercaderies	6	698 m	

#### 4.2.4. Restrictions

Each re-routing option has specific restrictions:

FR-SP-1-1: Bordeaux – Toulouse – Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza

Because the gauge is different in Spain (Iberian instead of UIC), freight have to be moved to another train. Limited resources for freight transshipment and changing bogies at Port Bou and Cerbère.

FR-SP-1-2: Metz – Nimes - Narbonne – Cerbère/Port Bou (FR/SP border) - Sant Viçenc de Calders - (via Reus or via La Plana-Picamoixons - Tardienta) - Zaragoza

Because the gauge is different in Spain (Iberian instead of UIC), freight have to be moved to another train. Limited resources for freight transshipment and changing bogies at Port Bou and Cerbère.

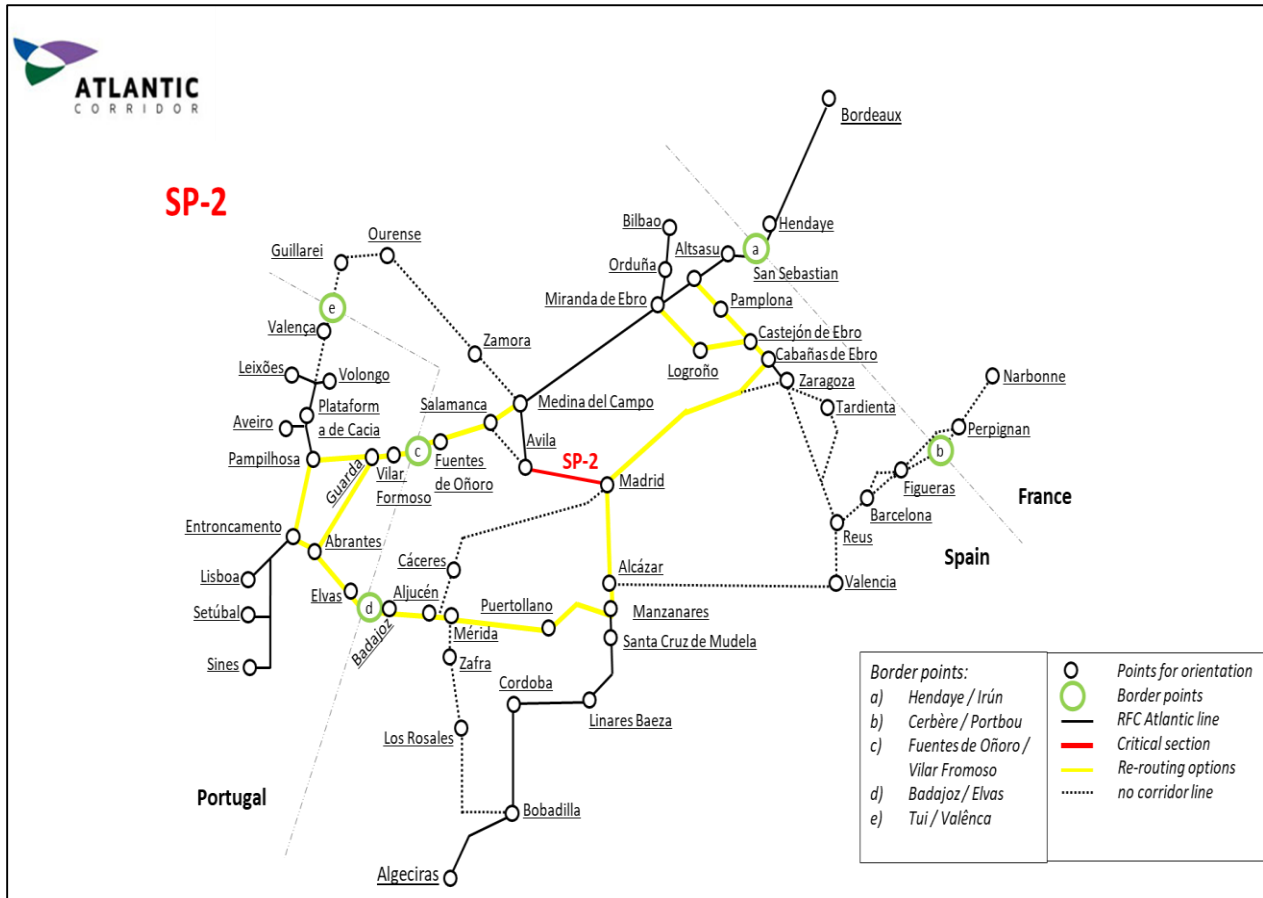
FR-SP-1-3 & 4: (LFP international section) - Figueres Vilafant- Bif. Mollet - Barcelona Can Tunis

This line is operated by LFP. This line is only usable to/from Barcelona and not to other locations in Spain. From Perpignan to Barcelona, currently the trains should run with Locos that have integrated 3 voltage types (1,5 kV DC, 25 kV AC, 3 kV DC).

### 4.3. Re-routing scenario for section Ávila - Madrid

#### 4.3.1. General description

Schematic map including re-routing options



When the route Ávila - Madrid is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	B, due to a substantial increase in km	Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt
SP-P-3	B	Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt
SP-2-1	A	Altsasua - Pamplona - Cabañas de Ebro - Madrid Belt
SP-2-2	A	Miranda de Ebro - Logroño - Castejón - Cabañas de Ebro - Madrid Belt

### 4.3.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
<b>Section: Ávila - Madrid</b>																		
ADIF	Ávila - Madrid	x	x	3 kV DC	480	D4	2	IB			ASFA	no restriction up to 120	121	1300t Elect.	18		Iberian gauge	Good
<b>Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt	x	x	3 kV DC / not electrified	400	D4	1	IB			ASFA	no restriction up to 120	appr. 610 (excl. Portugal)	1300t Diesel	17	Badajoz (PT Border)	Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Abrantes	x	x	25 kV	500	D2	1	IB	CPb+		Convel	100	212	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt	x	x	3 kV DC / not electrified	400	D4	1	IB			ASFA	no restriction up to 120	appr. 610 (excl. Portugal)	1300t Diesel	17	Badajoz (PT Border)	Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Altsasu - Pamplona - Cabañas de Ebro - Madrid Belt</b>																		
ADIF	Altsasu - Pamplona - Cabañas de Ebro - Madrid Belt - Medina del Campo	x	x	3 kV DC	480	D4	1-2	IB			ASFA	no restriction up to 120	756	1300t Elect.	17		Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Miranda de Ebro - Logroño - Castejón - Cabañas de Ebro - Madrid Belt</b>																		
ADIF	Miranda de Ebro - Logroño - Castejón - Cabañas de Ebro - Madrid Belt - Medina del Campo	x	x	3 kV DC	450	D4	1-2	IB			ASFA	no restriction up to 120	762	1300t Elect.	18		Iberian gauge	Good, except sections within Madrid Belt which could be Limited

### 4.3.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		RFC 4: 550 m SP-2-1: 480 m SP-2-2: 450 m	Electrified/Not electrified
	Castejón de Ebro	4	633 m	
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
Portugal	Vilar Formoso	5	583 m	
			483 m	
			341 m	
			277 m	
			211 m	
	Guarda	6	386 m	
			686 m	
			621 m	
			536 m	
Elvas	2	710 m	Not electrified	
		122 m		
			202 m	
			388 m	
			325 m	

### 4.3.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border)
  - non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length
- Elvas / Badajoz (PT/SP Border) - Puertollano:
  - non-electrified lines

SP-P-3: Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border)
  - non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length
- Elvas / Badajoz (PT/SP Border) - Puertollano: non-electrified line

SP-2-1: Altsasua - Pamplona - Cabañas de Ebro - Madrid Belt

No specific (other) restrictions given. See for the infrastructure characteristics the table above.

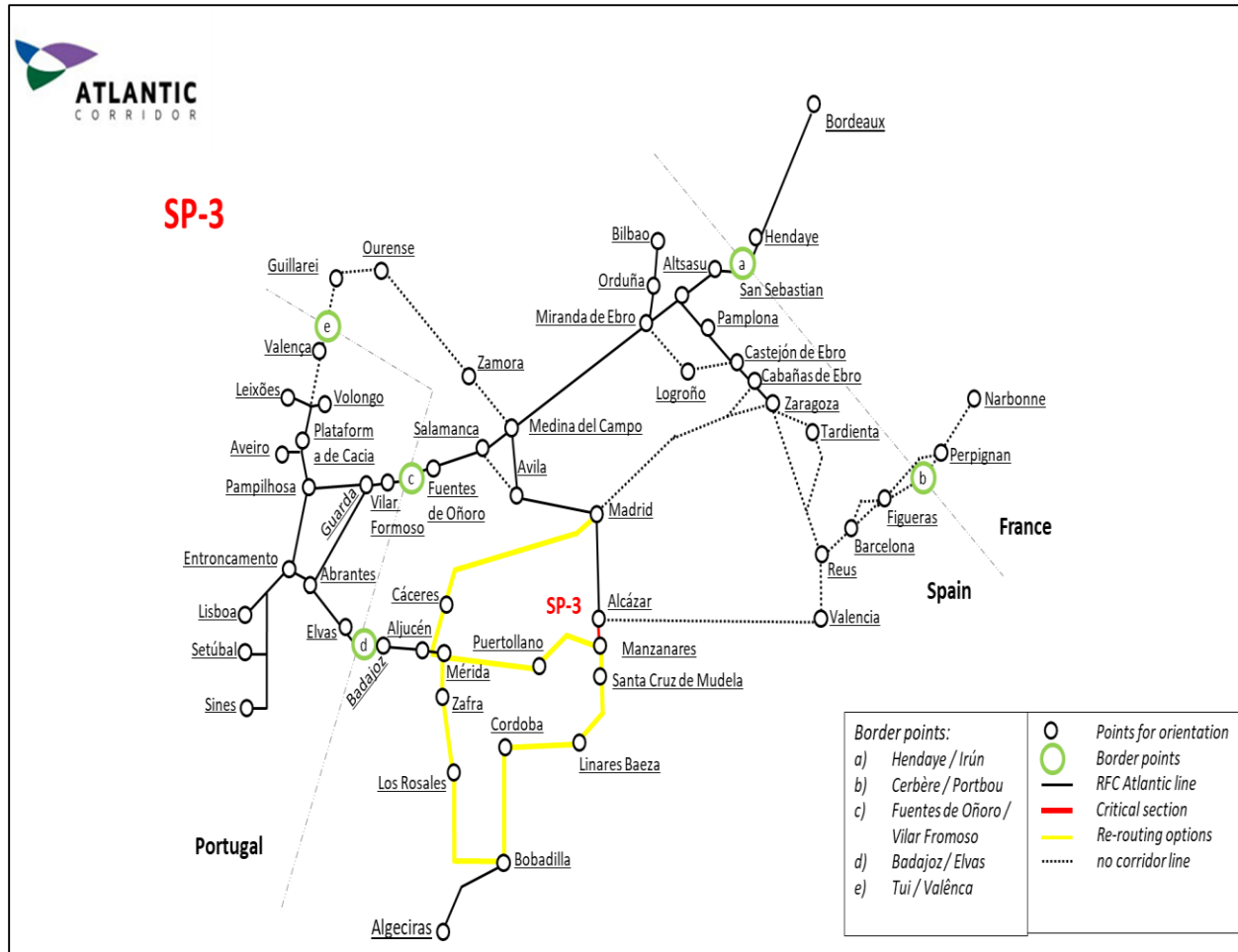
SP-2-2: Miranda de Ebro - Logroño - Castejón - Cabañas de Ebro - Madrid Belt

No specific (other) restrictions given. See for the infrastructure characteristics the table above.

#### 4.4. Re-routing scenario for section Alcázar - Manzanares

##### 4.4.1. General description

Schematic map including re-routing options



When the route Alcázar - Manzanares is blocked re-routing options are:

Section ID	Usability	Route
SP-3-1	A	Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt
SP-3-2	A	Santa Cruz de Mudela – Cordoba - Bobadilla - Sevilla Belt - Los Rosales - Zafra - Mérida - Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt

#### 4.4.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
<b>Section: Alcázar - Manzanares</b>																		
ADIF	Alcázar - Manzanares	x	x	3 kVDC	500	D4	2	IB			ASFA	no restriction up to 120		1400t Elect.	6		Iberian gauge	Good
<b>Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt</b>																		
ADIF	Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt	x	x	3 kVDC / not electrified	420	D4	1-2	IB			ASFA	no restriction up to 120	appr. 450	1100t Diesel	22		Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Santa Cruz de Mudela – Cordoba - Bobadilla - Sevilla Belt - Los Rosales - Zafrá - Mérida - Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt</b>																		
ADIF	Bobadilla - Sevilla Belt - Los Rosales - Zafrá - Mérida - Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt	x	x	3 kVDC / not electrified	350	D4	1-2	IB			ASFA	no restriction up to 120	appr. 1150	1100t Diesel	28		Iberian gauge	Good: except sections within Madrid and Sevilla Belts which could be Limited.

#### 4.4.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		SP-3-1: 420 m SP-3-2: 350 m	Electrified/Not electrified
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified

#### 4.4.4. Restrictions

SP-3-1: Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt:

- non-electrified lines

SP-3-2: Santa Cruz de Mudela – Cordoba - Bobadilla - Sevilla Belt - Los Rosales - Zafra - Mérida - Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt  
Bobadilla - Sevilla Belt - Los Rosales - Zafra - Mérida - Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt:

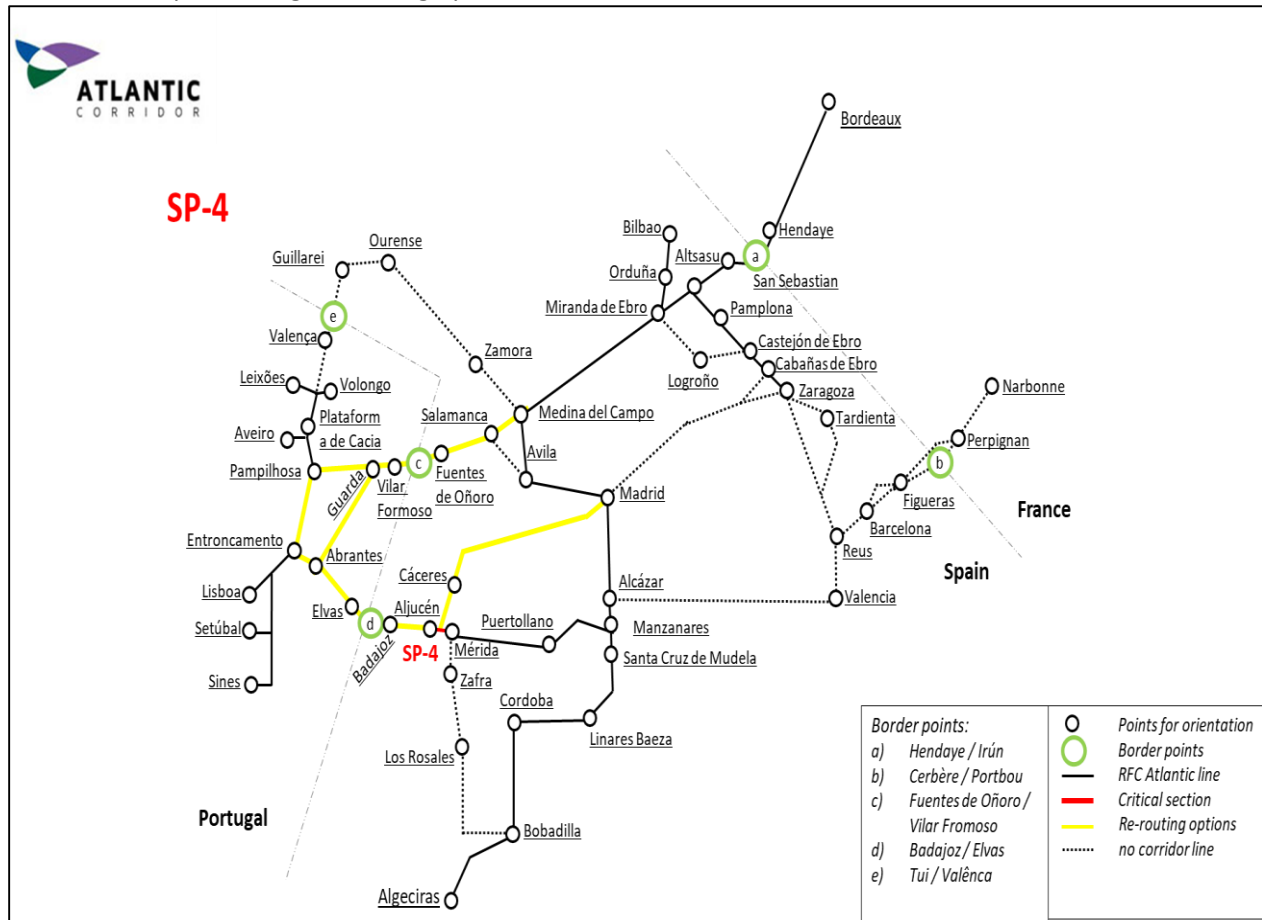
- non-electrified lines



## 4.5. Re-routing scenario for section Mérida - Aljucén

### 4.5.1. General description

Schematic map including re-routing options



When the route Mérida - Aljucén is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	A	Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt
SP-P-3	B	Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt
SP-3-1	A <sup>1</sup>	Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt

<sup>1</sup> Maybe because of works the usability can be changed to B.

#### 4.5.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Number of tracks	Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category						Frei	in km			other border		
<b>Section: Mérida - Aljucén</b>																		
ADIF	Mérida - Aljucén	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	35	1400t Diesel	-		Iberian gauge	Good
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT Border)</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Aljucén - Badajoz / Elvas (SP/PT Border)	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 75	1400t Diesel	-		Iberian gauge	Good
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT Border)</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Aljucén - Badajoz / Elvas (SP/PT Border)	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 75	1400t Diesel	-		Iberian gauge	Good
<b>Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt</b>																		
ADIF	Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt	x	x	3 kV DC / not electrified	420	D4	1-2	IB			ASFA	no restriction up to 120	appr. 410	1100t Diesel	22		Iberian gauge	Good, except sections within Madrid Belt which could be Limited

#### 4.5.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		RFC 4: 550 m SP-3-1: 420 m	Electrified/Not electrified
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
Portugal	Vilar Formoso	5	583 m 483 m 341 m 277 m 211 m	
	Guarda	6	386 m 686 m 621 m 536 m 710 m 122 m 202 m	
	Elvas	2	388 m 325 m	Not electrified

#### 4.5.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border)

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

SP-P-3: Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

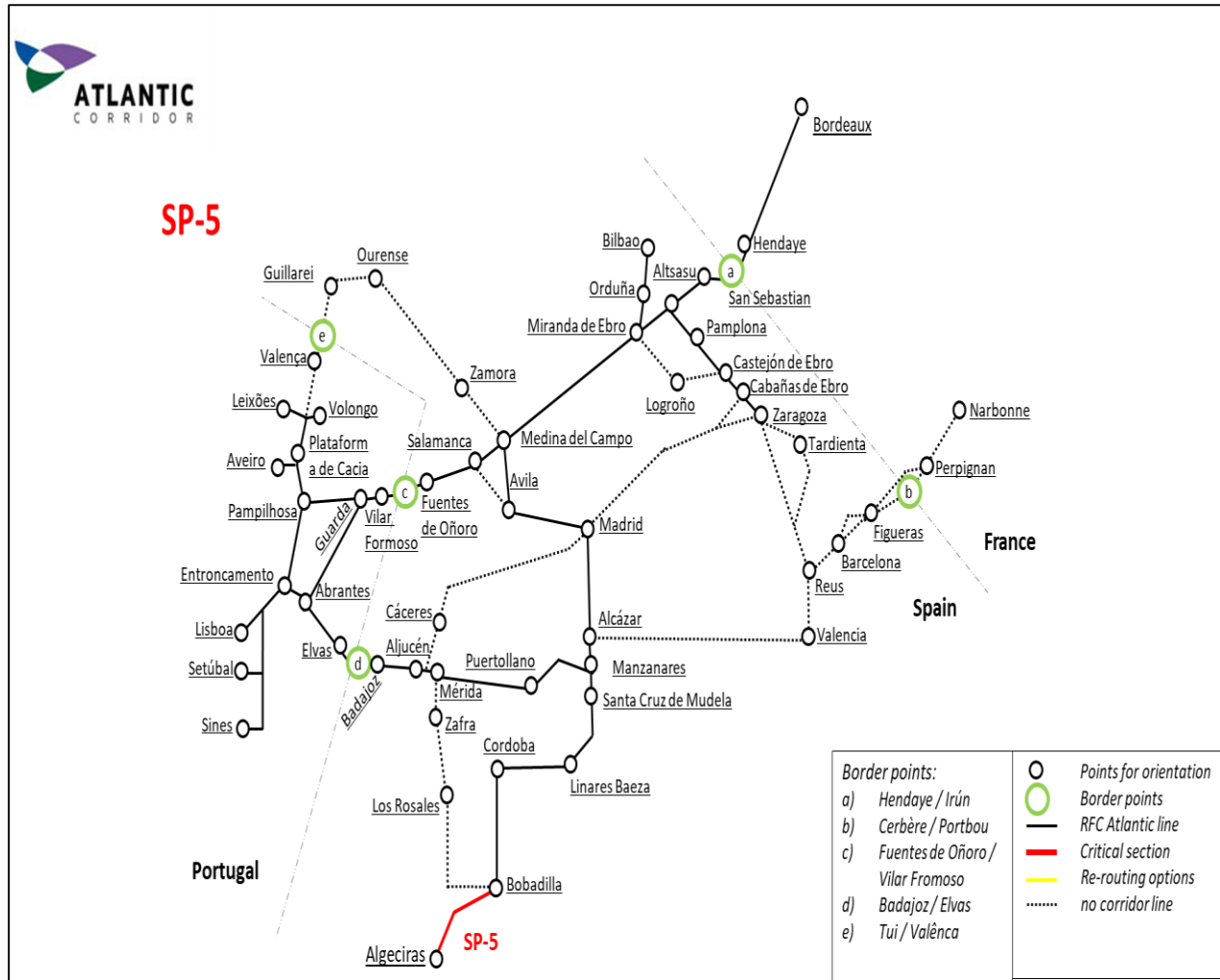
SP-3-1: Aljucén - Cáceres - Villaluenga Yuncler - Madrid Belt

- Non-electrified lines

## 4.6. Re-routing scenario for section Bobadilla - Algeciras

### 4.6.1. General description

Schematic map including re-routing options



There are **no alternative routes** when the route Bobadilla - Algeciras is blocked.

#### 4.6.2.Parameters of route

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
Section: Bobadilla - Algeciras																		
ADIF	Bobadilla - Algeciras	x	x	not electrified	600	D5	1	IB			ASFA	no restriction up to 120	176	1100t Diesel	24		Iberian gauge	Good
No alternative																		

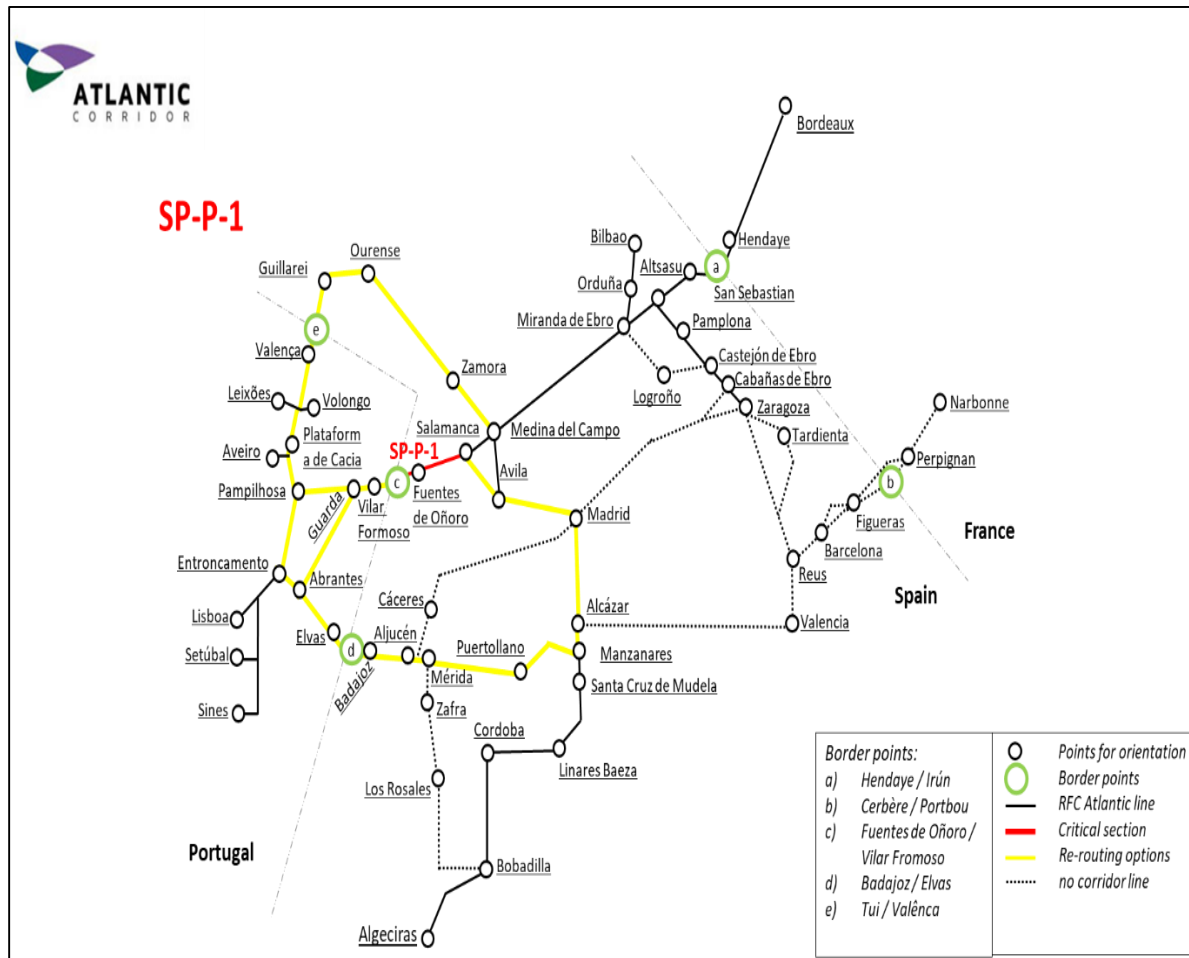
#### 4.6.3.Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route.		RFC 4: 550 m SP-3-2: 320 m	
	Sevilla La Negrilla	4	400 m	Temporary modal shift road-rail to/from Algeciras Port is necessary

#### 4.7. Re-routing scenario for section Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border)

##### 4.7.1. General description

Schematic map including re-routing options



When the route Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	A	Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila – Salamanca
SP-P-3	B	Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda - Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila – Salamanca
SP-P-1-1	A	Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Ermesinde – Pampilhosa – Guarda

#### 4.7.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure			Number of tracks	Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category						Frei	in km		other border			
<b>Section: Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border)</b>																		
ADIF	Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	not electrified	550	D4	1	IB			ASFA	no restriction up to 120	125	1300t Diesel	18		Iberian gauge	Good
<b>Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila – Salamanca</b>																		
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Aljucén - Badajoz / Elvas (SP/PT Border)	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 75	1400t Diesel	-		Iberian gauge	Good
ADIF	Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila - Salamanca	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 870 (excl. Portugal)	1300t Diesel	-	Badajoz (PT Border)	Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda - Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila – Salamanca</b>																		
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Abrantes	x	x	25 kV	500	D2	1	IB	CPb+		Convel	100	212	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
ADIF	Aljucén - Badajoz / Elvas (SP/PT Border)	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 75	1400t Diesel	-		Iberian gauge	Good
ADIF	Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila - Salamanca	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 870 (excl. Portugal)	1300t Diesel	-	Badajoz (PT Border)	Iberian gauge	Good, except sections within Madrid Belt which could be Limited
<b>Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Ermesinde – Pampilhosa – Guarda - Fuentes de Oñoro / Vilar Fromoso (PT/SP border)</b>																		
ADIF	Medina del Campo - Zamora - Ourense - Tui (PT Border)	x	x	3 kV DC/not electrified	400	D4	1	IB			ASFA	no restriction up to 120	442 (excl. Portugal)	1100t Diesel	18	Tui (PT Border)	Iberian gauge	Good
IP	Tui / Valença (SP/PT border) - Ermesinde	x	x	-	300	D4	1	IB	CPb		RCT/Convel	120	391	1210 (vossloh euro 4000)	18	SP	Iberian gauge	
IP	Pampilhosa - Plataforma de Cacia	x	x	25 kV	450	D4	2	IB	CPb+		Convel	120	47	1310 (siemens 5600)	16		Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	

#### 4.7.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route. Some main locations are:		RFC 4: 400 m SP-P-1-1: 400 m	Electrified/Not electrified
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
	Ourense	8	527 m	
	Tui	3	400 m	Not electrified
Portugal	Vilar Formoso	5	583 m 483 m 341 m 277 m 211 m	
			386 m 686 m 621 m 536 m 710 m 122 m 202 m	
	Elvas	2	388 m 325 m	Not electrified
	Valença	4	450 m 325 m 325 m 417 m	Not electrified

#### 4.7.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Guarda - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila - Salamanca

- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length
- Elvas / Badajoz (PT/SP Border) - Puertollano:
  - non-electrified lines
- Avila – Salamanca:
  - non-electrified lines

SP-P-3: Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda - Abrantes - Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt - Avila – Salamanca

- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length
- Elvas / Badajoz (PT/SP Border) - Puertollano:
  - non-electrified lines



- Avila – Salamanca:
  - non-electrified lines

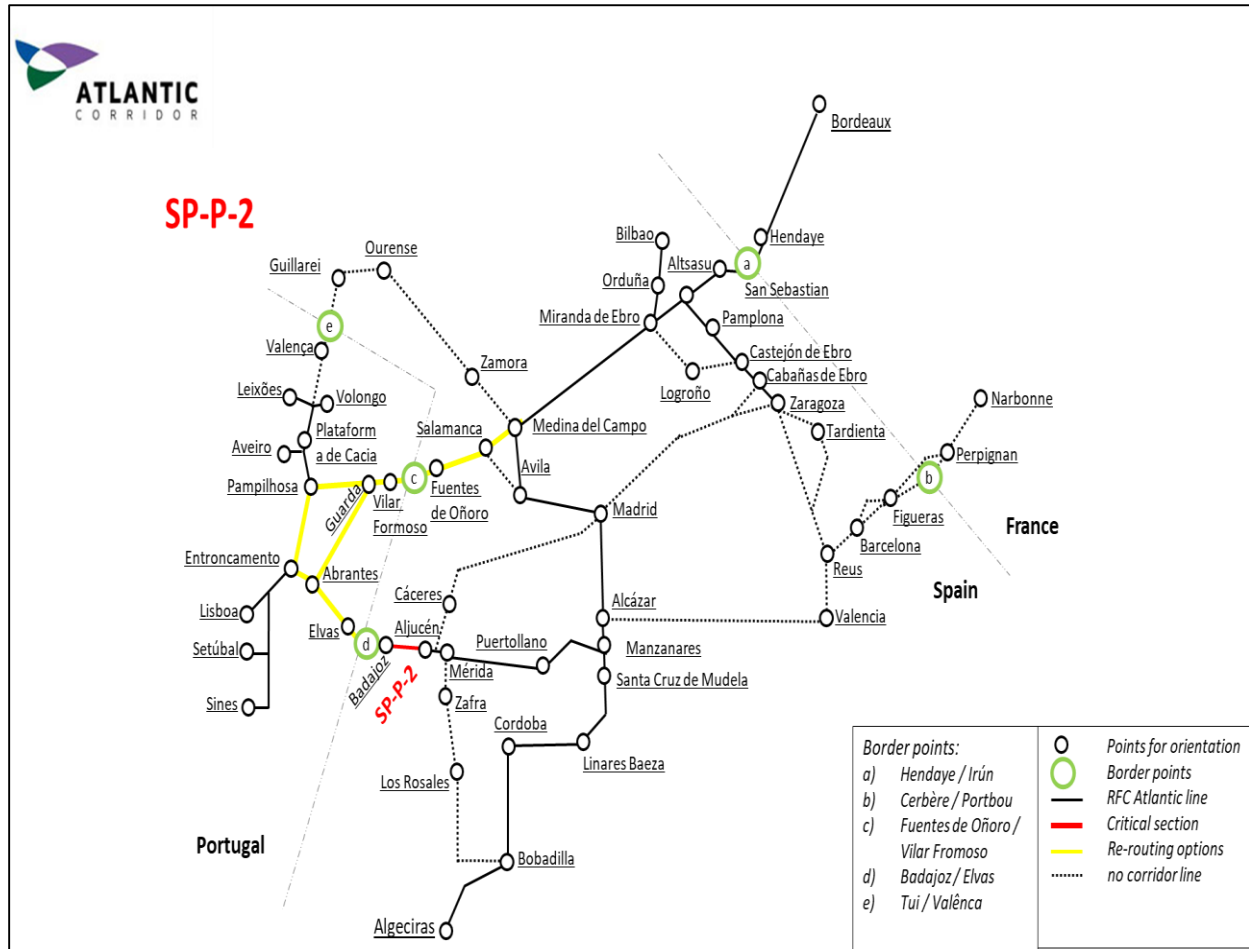
SP-P-1-1: Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Ermesinde – Pampilhosa - Guarda

- Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border):
  - Non-electrified lines
- Valença (PT/SP Border) - Ermesinde:
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

#### 4.8. Re-routing scenario for section Aljucén – Badajoz / Elvas (PT/SP border)

##### 4.8.1. General description

Schematic map including re-routing options



When the route Aljucén – Badajoz / Elvas (PT/SP border) is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	A	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT/SP- Border)
SP-P-3	B	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT Border)

#### 4.8.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
<b>Section: Aljucén – Badajoz / Elvas (PT/SP border)</b>																		
ADIF	Aljucén - Badajoz / Elvas (SP/PT Border)	x	x	not electrified	500	D4	1	IB			ASFA	no restriction up to 120	appr. 75	1400t Diesel	-		Iberian gauge	Good
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT Border)</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT Border)</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Abrantes	x	x	25 kV	500	D2	1	IB	CPb+		Convel	100	212	900 (siemens 5600)	22		Iberian gauge	
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	

#### 4.8.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route.		RFC 4: 550 m	Electrified/Not electrified
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
Portugal	Vilar Formoso	5	583 m	
			483 m	
			341 m	
			277 m	
			211 m	
	Guarda	6	386 m	
			686 m	
			621 m	
			536 m	
Elvas	2	710 m		
		122 m		
			202 m	
			388 m	
			325 m	
			Not electrified	

#### 4.8.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes - Elvas / Badajoz (PT Border)

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

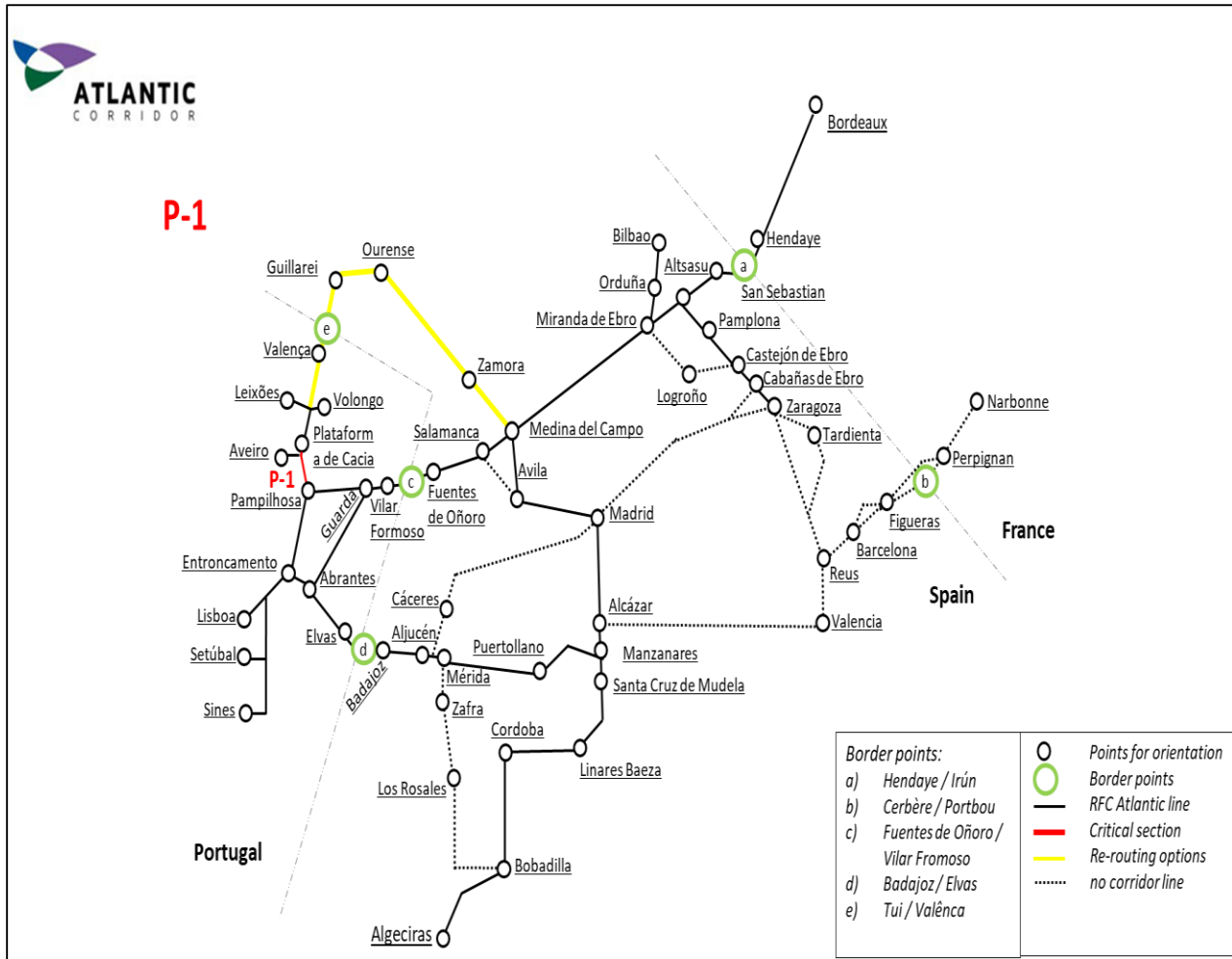
SP-P-3: Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes - Elvas / Badajoz (PT Border)

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

## 4.9. Re-routing scenario for section Pampilhosa - Plataforma de Cacia

### 4.9.1. General description

Schematic map including re-routing options



When the route Pampilhosa - Plataforma de Cacia is blocked re-routing options are:

Section ID	Usability	Route
SP-P-1-1	A	Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Contumil

#### 4.9.2.Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)		Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km					
<b>Section: Pampilhosa - Plataforma de Cacia</b>																		
IP	Pampilhosa - Plataforma de Cacia	x	x	25 kV	450	D4	2	IB	CPb+		Convel	120	47	1310 (siemens 5600)	16		Iberian gauge	
<b>Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Contumil</b>																		
ADIF	Medina del Campo - Zamora - Ourense - Tui (PT Border)	x	x	3 kVDC/not electrified	400	D4	1	IB			ASFA	no restriction up to 120	442 (excl. Portugal)	1100t Diesel	18	Tui (PT Border)	Iberian gauge	Good
IP	Tui /Valença (SP/PT border) - Contumil	x	x	-	300	D4	1	IB	CPb		RCT/Convel	120	184	1210 (vossloh euro 4000)	18	SP	Iberian gauge	

#### 4.9.3.Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route.		SP-P-1-1: 400 m	
	Ourense	8	527 m	
	Tui	3	400 m	
Portugal	Valença	4	450 m 325 m 325 m 417 m	Not electrified

#### 4.9.4. Restrictions

Each re-routing option has specific restrictions:

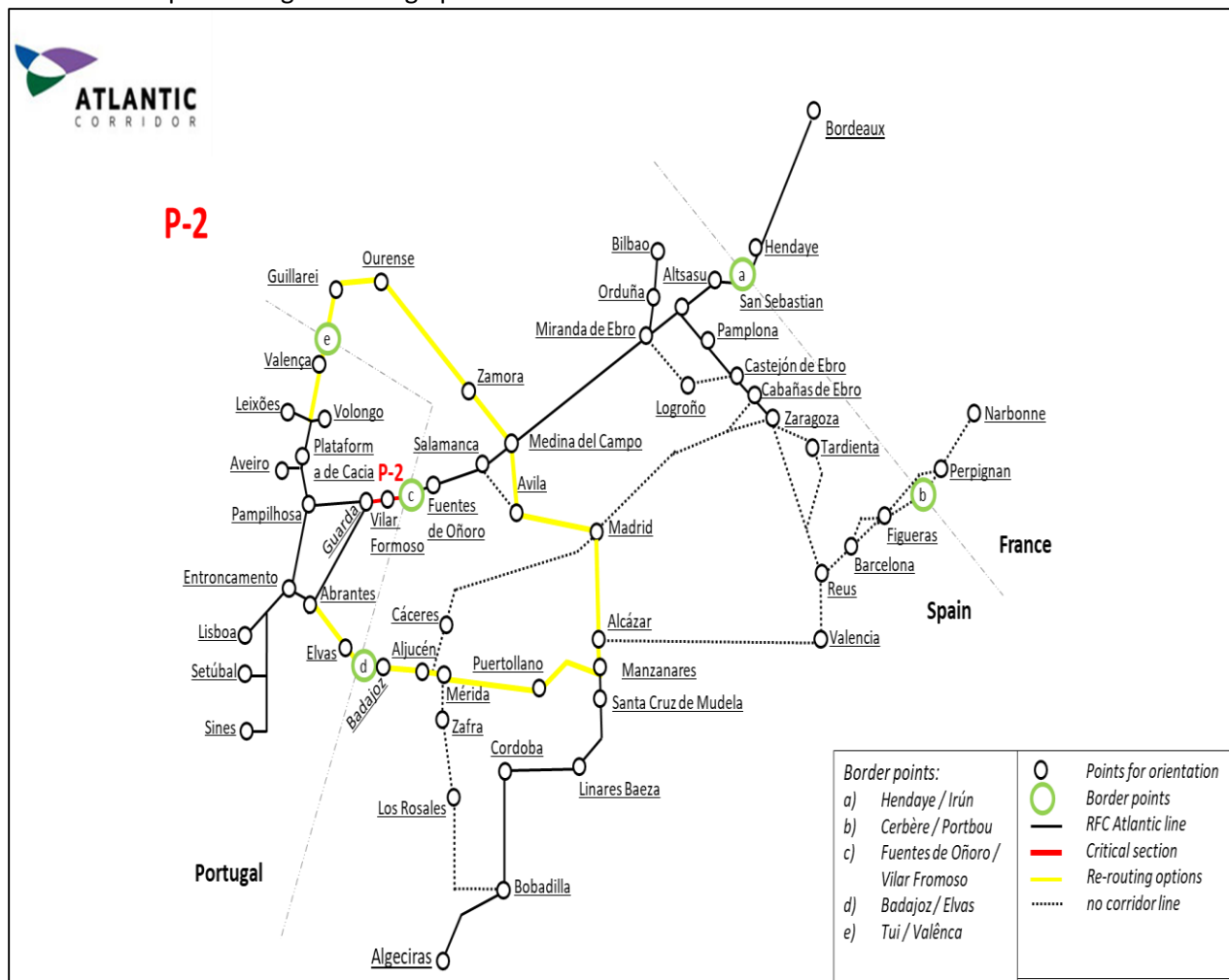
##### SP-P-1-1: Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Contumil

- Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border):
  - Non-electrified lines
- Valença (PT/SP Border) - Contumil:
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

#### 4.10. Re-routing scenario for section Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda

##### 4.10.1. General description

Schematic map including re-routing options



When the route Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	A	Medina del Campo - Avila - Madrid Belt - Alcázar - Manzanares - Aljucén - Badajoz/ Elvas (PT/SP Border) - Abrantes
SP-P-1-1	A	Medina del Campo - Zamora - Ourense - Tui/ Valença (PT/SP Border) - Ermesinde - Contumil



#### 4.10.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
<b>Section: Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda</b>																		
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
<b>Medina del Campo - Avila - Madrid Belt - Alcázar - Manzanares - Aljucén - Badajoz/ Elvas (PT/SP Border) - Abrantes</b>																		
ADIF	Medina del Campo - Ávila	x	x	3 kVDC	480	D5	2	IB			ASFA	no restriction up to 120	86	1300t Elect.	10		Iberian gauge	Good
ADIF	Ávila - Madrid	x	x	3 kVDC	480	D4	2	IB			ASFA	no restriction up to 120	121	1300t Elect.	18		Iberian gauge	Good
ADIF	Elvas / Badajoz (PT/SP Border) - Aljucén - Manzanares - Alcázar - Madrid Belt	x	x	3 kVDC / not electrified	400	D4	1	IB			ASFA	no restriction up to 120	appr. 610 (excl. Portugal)	1300t Diesel	17	Badajoz (PT Border)	Iberian gauge	Good, except sections within Madrid Belt which could be Limited
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17	SP	Iberian gauge	
<b>Medina del Campo - Zamora - Ourense - Tui/ Valença (PT/SP Border) - Ermesinde - Contumil</b>																		
ADIF	Medina del Campo - Zamora - Ourense - Tui (PT Border)	x	x	3 kVDC / not electrified	400	D4	1	IB			ASFA	no restriction up to 120	442 (excl. Portugal)	1100t Diesel	18	Tui (PT Border)	Iberian gauge	Good
IP	Tui / Valença (SP/PT border) - Contumil	x	x	-	300	D4	1	IB	CPb		RCT/Convel	120	184	1210 (vossloh euro 4000)	18	SP	Iberian gauge	

### 4.10.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route.		RFC 4: 400 m SP-P-1-1: 400 m	Electrified/Not electrified
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
	Ourense	8	527 m	
	Tui	3	400 m	Not electrified
Portugal	Valença	4	450 m 325 m 325 m 417 m	Not electrified
	Vilar Formoso	5	583 m 483 m 341 m 277 m 211 m	
	Guarda	6	386 m 686 m 621 m 536 m 710 m 122 m 202 m	
	Elvas	2	388 m 325 m	Not electrified

### 4.10.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Medina del Campo - Avila - Madrid Belt - Alcázar - Manzanares - Aljucén – Badajoz/ Elvas (PT/SP Border) - Abrantes

- Puertollano - Elvas / Badajoz (PT/SP Border):
  - non-electrified line
- Abrantes - Elvas / Badajoz (PT/SP Border):
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

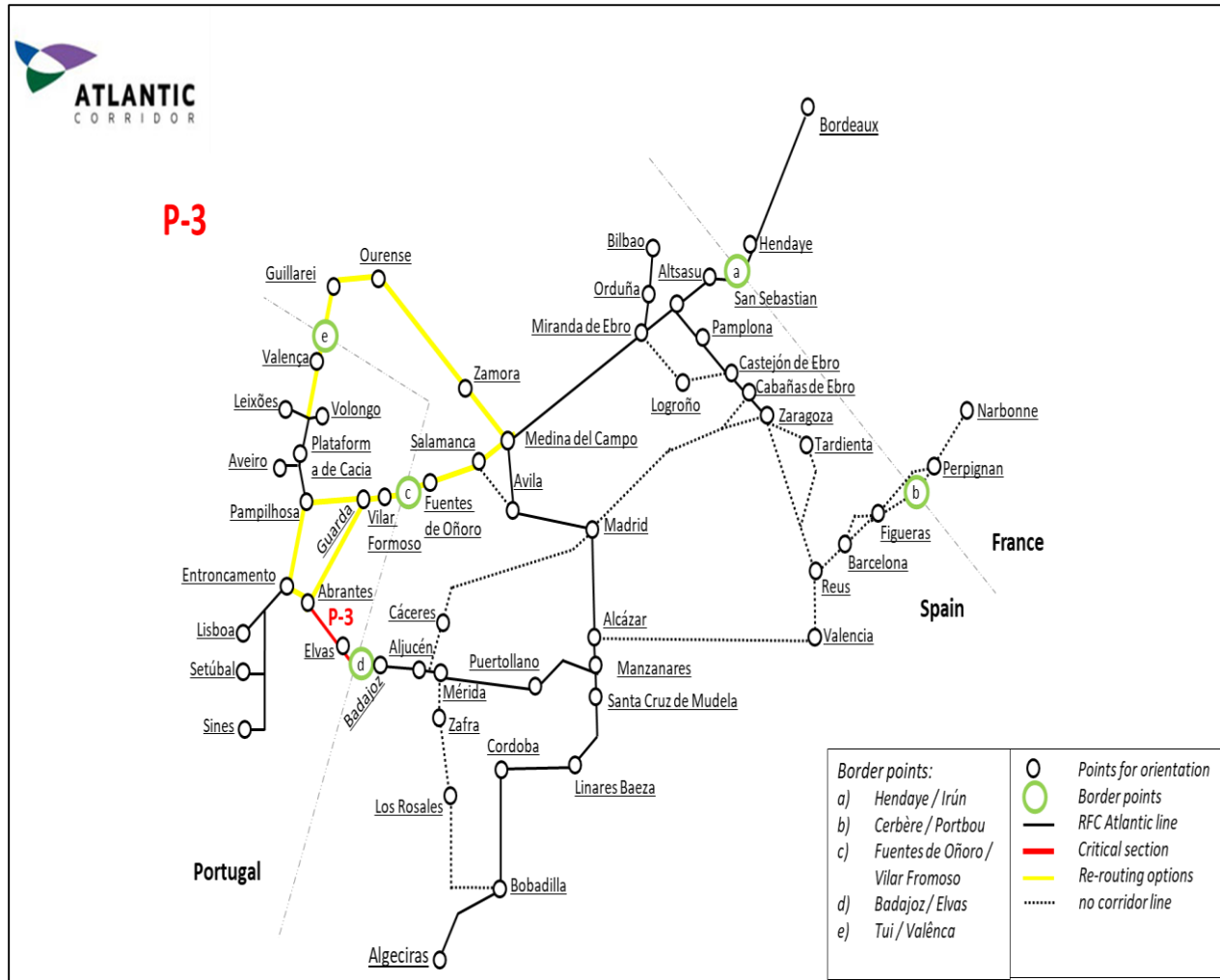
SP-P-1-1: Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Contumil

- Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border):
  - Non-electrified lines
- Valença (PT/SP Border) - Contumil:
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

#### 4.11. Re-routing scenario for section Badajoz / Elvas (PT/SP border) - Abrantes

##### 4.11.1. General description

Schematic map including re-routing options



When the route Badajoz / Elvas (PT/SP border) - Abrantes is blocked re-routing options are:

Section ID	Usability	Route
RFC-4	A	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes
SP-P-3	B	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes
SP-P-1-1	A	Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Ermesinde - Contumil

#### 4.11.2. Parameters of re-routing options including capacity indication

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
<b>Section: Badajoz / Elvas (PT/SP border) - Abrantes</b>																		
IP	Elvas / Badajoz (PT/SP Border) - Abrantes	x	x	-	385	D4	1	IB	CPb		RCT	90	141	1180 (vossloh euro 400)	17		Iberian gauge	
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Pampilhosa – Abrantes</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Pampilhosa - Entroncamento - Abrantes	x	x	25 kV	260-340	D4	1-2	IB	CPb+		RCT/Convel	90 - 120	307	900 (siemens 5600)	22		Iberian gauge	
<b>Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (PT/SP border) - Guarda – Abrantes</b>																		
ADIF	Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Fromoso (SP/PT border)	x	x	25 kV / not electrified	550	D4	1	IB			ASFA	no restriction up to 120	appr. 202 (excl. Portugal)	1300t Diesel	18	Fuentes de Oñoro (PT Border)	Iberian gauge	Good
IP	Fuentes de Oñoro / Vilar Fromoso (SP/PT border) - Guarda	x	x	25 kV	515	D4	1	IB	CPb+		Convel	120	46	1000 (siemens 5600)	19	SP	Iberian gauge	
IP	Guarda - Abrantes	x	x	25 kV	500	D2	1	IB	CPb+		Convel	100	212	900 (siemens 5600)	22		Iberian gauge	
<b>Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Ermesinde - Contumil</b>																		
ADIF	Medina del Campo - Zamora - Ourense - Tui (PT Border)	x	x	3 kVDC/not electrified	400	D4	1	IB			ASFA	no restriction up to 120	442 (excl. Portugal)	1100t Diesel	18	Tui (PT Border)	Iberian gauge	Good
IP	Tui / Valença (SP/PT border) - Contumil	x	x	-	300	D4	1	IB	CPb		RCT/Convel	120	184	1210 (vossloh euro 4000)	18	SP	Iberian gauge	

#### 4.11.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Spain	Along the sections of the line there are enough stations and tracks to park trains in case of deviation route.		RFC 4: 550 m SP-P-1-1: 400 m	Electrified/Not electrified
	Medina del Campo	4	505 m	
	Mérida Mercancías	4	440 m	Not electrified
	Cáceres	9	633 m	Not electrified
	Ourense	8	527 m	
	Tui	3	400 m	Not electrified
Portugal	Valença	4	450 m 325 m 325 m 417 m	Not electrified
	Vilar Formoso	5	583 m 483 m 341 m 277 m 211 m	
	Guarda	6	386 m 686 m 621 m 536 m 710 m 122 m 202 m	
	Elvas	2	388 m 325 m	Not electrified

#### 4.11.4. Restrictions

Each re-routing option has specific restrictions:

RFC-4: Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Pampilhosa – Abrantes

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines

SP-P-3: Medina del Campo - Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border) - Guarda – Abrantes

- Salamanca - Fuentes de Oñoro / Vilar Formoso (PT/SP border):
  - Non-electrified lines

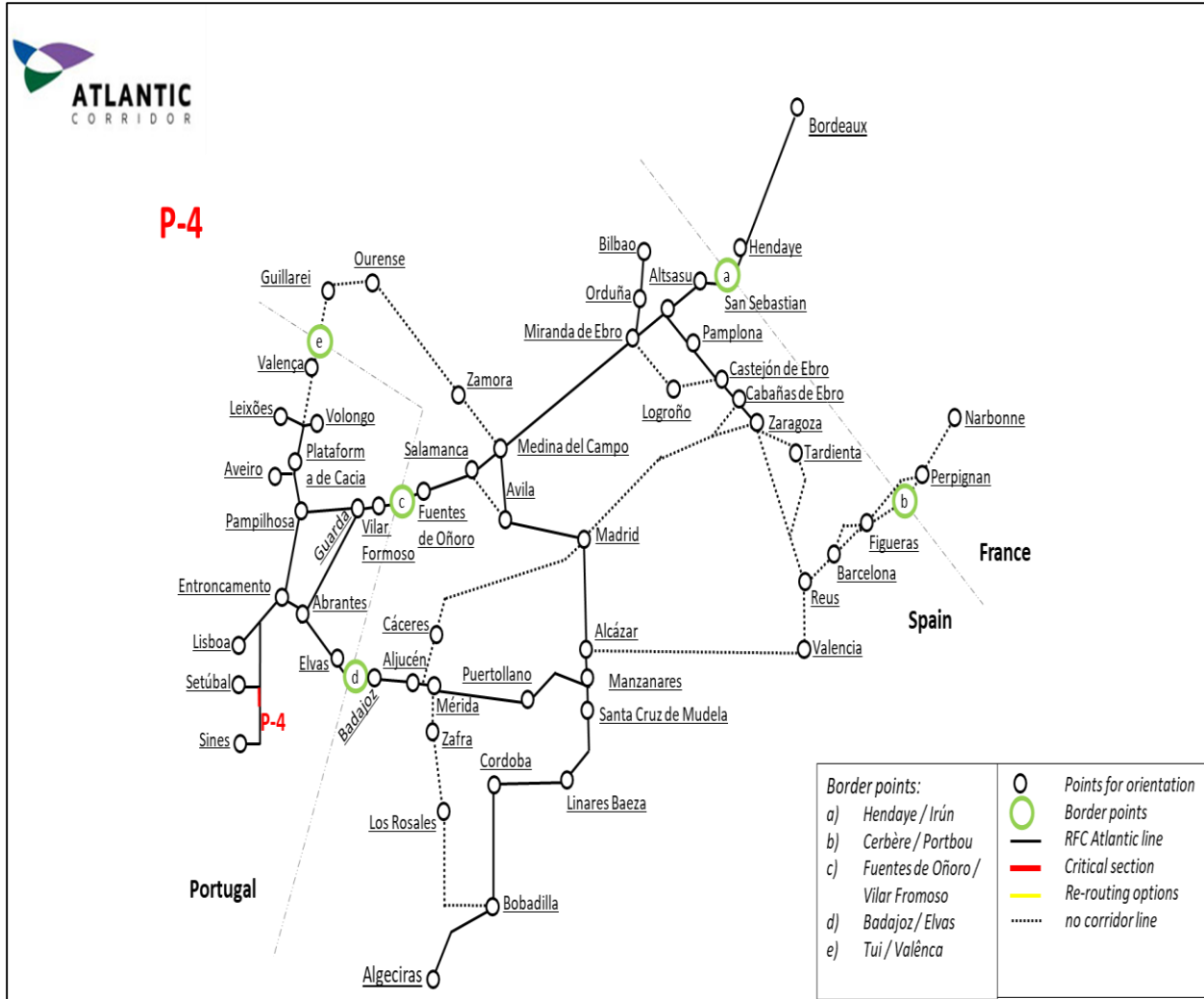
SP-P-1-1: Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border) - Contumil

- Medina del Campo - Zamora - Ourense – Tui/ Valença (PT/SP Border):
  - Non-electrified lines
- Valença (PT/SP Border) - Contumil:
  - Non-electrified lines
  - Single track with telephone block signalling system
  - Short length station limiting the running train length

## 4.12. Re-routing scenario for section Águas de Moura-Norte - Pinheiro

### 4.12.1. General description

Schematic map including re-routing options



When the route Águas de Moura-Norte - Pinheiro is blocked there is **no re-routing option** available.

#### 4.12.2. Parameters of re-routing options

IM	Deviation including route	Usage		Infrastructure				Track gauge	Tunnel gauge	Intermodal Freight Code	Signalling	Maximum Speed (km/h)	Length of re-routing option	Max train weight	Maximum gradient (o/ooo)	Border	Miscellaneous	Capacity Indication
		Pass	Frei	Traction power	Maxi train length (m)	Line Category	Number of tracks					Frei	in km			other border		
Section: Águas de Moura-Norte - Pinheiro																		
IP	Águas de Moura-Norte - Pinheiro	x	x	25kV	630	D4	1	IB	CPb+		Convel	160	14	1660 (siemens 5600)	10		Iberian gauge	
No alternative																		

#### 4.12.3. Parking locations & capacity

Country	Location	Number of tracks	Maximum train length	Restrictions
Portugal	Vilar Formoso	5	583 m	
			483 m	
	341 m			
Guarda	6	277 m		
		211 m		
		386 m		
		686 m		
		621 m		
		536 m		
710 m				
Elvas	2	122 m		
		202 m		
		2	388 m	Not electrified
			325 m	



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