Position Paper

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Cross-Border Agreements

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Why we need Cross-Border Agreements in rail and how existing agreements can be improved

1. Introduction

Cross-Border Agreements between National Safety Authorities (NSAs) are referred to in Article 21 point 8 of the Interoperability Directive 2016/797[1]. They focus on the access to the neighbouring facility (station, marshalling yard, maintenance facility, …) close to the border. These parts of **the railway infrastructure between the border and railway stations or marshalling yards on both sides of the border are called Border Sections**. They play a crucial role when it comes to running a train smoothly across a national border.

Railway Systems in Europe still differ with respect to safety certificates, vehicle authorisation, infrastructure characteristics (e.g power supply, signalling systems) and communication regimes, **making it difficult to transit from one country to another**. Infrastructure doesn't change precisely at the border and vehicles and drivers cannot be changed on the border point. A Railway Undertaking (RU) willing to operate a train in such a section is facing challenges linked to differences in national approaches and regarding the transparency on existing rules and regulations.

Cross-Border Agreements are **relevant for Railway Undertakings** in Europe as they give **flexibility and clarity** for a facilitated crossing of borders and thus play an important role for the **continuity of international rail traffic**. For example, authorizing vehicles for a border section in another Member State without full country authorization is important for operational flexibility and cost efficiency. For Infrastructure Managers, Cross-Border Agreements provide a clear definition of networks with similar characteristics and the fixed installations located in a given country which can be of the neighbouring country's technology.

Special regimes for Border Sections **depending on specific local circumstances** have **existed long before European rail regulation** started. They have been set up between railways and Infrastructure Managers in the past to organise cross-border traffic. Rules were historically fixed in **multilateral agreements between Governments** and in Cross-Border Agreements. As part of the 4th Railway Package, the responsibility for Cross-Border Agreements was transferred from Infrastructure Managers (IMs) to National Safety Authorities (NSA). While the Interoperability Directive quoted above creates a framework for the authorisation of vehicles, other relevant aspects of Cross-Border operations for railways are not addressed and made transparent, yet.

The **purpose of this CER Position Paper** is to make proposals on how to simplify traffic across a border up to the first adequate facility on the other side of the border on the basis of Cross-Border Agreements. CER supports the vision of full interoperability of the European Railway system with the progressive establishment of a Single European Railway Area.

[1] EU Directive 2016/797 (Article 21(8)) states: "Where the area of use is limited to a network or networks within one Member State only, the national safety authority of that Member State may, under its own responsibility and when the applicant so requests, issue the vehicle authorisation for placing on the market" …. "The authorisation shall also be valid without extension of the area of use for vehicles travelling to stations in neighbouring Member States with similar network characteristics, when those stations are close to the border, following consultation of the competent national safety authorities. This consultation may be carried out on a case-by case basis or set out in a cross-border agreement between national safety authorities."

Cross-Border Agreements are an important intermediate step on this path that has to be maintained, adapted, revitalised and improved.

These agreements also play a crucial role when it comes to facilitating **Military Mobility** by rail as the transport of troops and equipment across Europe inevitably has to confront the challenges of different national railway systems when crossing national borders.

Therefore, CER makes the following **proposals**:

- The **European Commission and the European Union Agency for Railways (ERA) should ensure that Cross-Border Agreements,** such as specified for railway vehicle authorisation by Commission Implementing Regulation EU/2018/545 article 12[2]**, are made available for every specific Border Section** and clearly describe all the requirements for Railway Undertakings not only regarding vehicle authorisation.
- **ERA should ensure that existing agreements are preserved and revitalised by National Safety Authorities** while the flexibility they introduce must be maintained. ERA should publish guidelines on the process to update and revise Cross-Border Agreements.
- **National Safety Authorities should more actively coordinate and update existing agreements** in line with the 4th Railway Package and according to their obligations under Article 12 of Commission Implementing Regulation EU/2018/545.
- The **European Commission should define a clear deadline for the transfer of the Cross-Border Agreements to NSAs**. As these agreements are crucial for daily operations both in passenger and in freight traffic, CER considers ensuring conformity with the existing legislation a priority.
- **Agreements should be based on a uniform European structure defined by ERA** which goes beyond vehicle authorisation. Existing agreements cover different aspects and are addressed to different stakeholders. Today, they are not based on a uniform structure. National Safety Authorities should update Cross-Border Agreements based on this uniform European structure.
- **Transparency on existing agreements should be increased.** The list of Cross-Border Agreements already made available by ERA[3] should include information on the availability of a Cross-Border Agreement, a standardised description of technical characteristics, existing installations and applicable national rules on the Border Section[4].
- **Cross-Border Agreements should be set up and apply both to EU Member States and Neighbouring Countries** (e.g. Switzerland) as there is also significant rail traffic with non-EU Member States.
- **ERA should be empowered, if the applicant decides so, to authorise vehicles for a border section.** Today, the simplification of article 21(8) of the Interoperability Directive 2016/797 refers only to authorisations delivered by NSAs. In addition, ERA should issue a clarification note on the interpretation of Cross-Border Agreements within the vehicle authorisation process according to Article 12 of Implementing Regulation (EU) 2018/545.

[2] "1. The NSAs shall make publicly available on their website the procedure to be followed regarding cross-border agreements for the authorisation to cover stations in the neighbouring Member States [...]"
[3] Informative lists of border stations in accordance with Article 10 (8) of Directive EU 202016 798
Detailed maps with beacons, signals, characteristics of tracks, operational documents etc.

- **Re-location of stations or shunting yards or infrastructure renewal measures must proactively take into account the impact of these measures on existing Cross-Border Agreements.** NSA's and IM's are to inform RU's early and proactively on changes. Even better, the cross-border agreements should consider the possibility of evolution, for instance to reach a new maintenance facility, station or marshalling yard.

2. Main topics of Concern for CER

1) Transparency on Cross-Border Agreements

The European Union Agency for Railways (ERA) should ensure that Cross-Border Agreements are made available for every specific Border Section and clearly describe the requirements for Railway Undertakings.

ERA should define a template for a typical Cross-Border Agreement that contains a clear structure of the content to be included in the agreement.

Currently, we have a clarification note of ERA on Single Safety Certificates, the ERA Application Guide on Vehicle Authorisation contains some explanations in point, 3.2.12 and there is an informative list of Border Stations published by ERA[5].

To increase transparency, ERA could publish a Clarification Note on Vehicle Authorisation in Border Sections.

Moreover, to facilitate access to the documents for stakeholders from all neighbouring countries, documents on Cross-Border Agreements should always be published at least in the official language of the countries on both sides of the border.

The websites of the NSAs with the Border Section Agreements should be referenced by ERA[6].

2) Reauthorisations related to existing Border Section traffics as pretext for full set of ETCS requirements

As a German example from the freight sector and the Italian example of Parco Esterno in the annex show, some NSA's ask the applicant to meet ETCS requirements for the whole neighbouring Member State (area of use) although the locomotive was and is technically perfectly able to drive to the border station and the objective of the operator is to use it only on the border section. The distinction between requirements for Border Sections on the one hand and the entire network on the other hand should be maintained.

[5] Informative lists of border stations in accordance with Article 10(8) of Directive (EU) 2016_798.pdf
[6] From ERA Application Guide on VA: The information concerning cross-border agreements and neighbouring stations that is officially communicated to the Agency by NSAs will be made available through the VA Toolbox: https://eraeuropaeu.sharepoint.com/sites/VATool/SitePages/Cross-Border.aspx

3) Safety Certificates

The valid safety certificate should, under all circumstances, permit the operator to operate the train up to the designated border station / operational facility in accordance with Article 10(8) of Directive (EU) 2016/798 and Article 3(11) of Regulation (EU) 2018/763.

The above arrangement should always be made possible when the applicant indicates in its application for a single safety certificate that it intends to operate to stations in neighbouring States with similar network characteristics and similar operating rules. Additionally, when those stations are close to the border, the single safety certificate shall also be valid to such stations without requesting an extension for this area of operation, as stated in article 21.8 of the IOD.

Despite the clear principles enshrined in the EU legislation, persistent gaps and uneven implementation across Member States are critically undermining efforts to establish a coherent and harmonized regulatory framework. This situation has significant repercussions on the railway operating community, resulting in unnecessary costs and the allocation of substantial resources.

These inconsistencies may stem from the dual structure involving both the European Union Agency for Railways (ERA) and National Safety Authorities (NSAs) in the Single Safety Certificate (SSC) issuance process. While ERA serves as the central issuing body for SSCs covering operations in multiple countries, NSAs continue to play a significant role in the assessment and contribute to the final decision. Divergent interpretations and approaches among NSAs often result in delays and conflicting requirements for cross-border applicants.

CER believes in strengthening the role of ERA as a binding authority in the context of multiple country assessments. In addition, the European Union Agency for Railways should play a more prominent role in overseeing the unilateral inclusion of provisions for border lines by:

1. Ensuring that any simplified procedures are harmonized across all border stations (Member States and Neighbouring States).
2. Introducing clearer and binding guidelines for NSAs on border access procedures and the simplification of safety certifications.
3. Ensuring that the SSC process remains truly uniform, with all Member States and Neighbouring States adhering to the same safety certification principles.

As a note, the Germany's EBA 'Guidelines for Uniform Safety Certification' continue to serve as a valuable reference point for further discussions and harmonization efforts at the European level.

For operations limited to or crossing into a border zone, this flexibility should be extended to include safety documentation, correspondence, and operational communication with NSAs and ERA.

Furthermore, we propose to introduce an option to submit the documentation and communication that has to be provided by Railway Undertakings that want to operate in Border Sections in either:

- the official language of the country of the border station, or
- English as a common working language

4) Vehicle Authorisation

Border Sections can lead to a significant amount of uncertainty in the vehicle authorisation process. Sometimes, the applicant does not want to get authorisation for the whole railway network of a country, but the border station is still situated in another country (EU Member State or Neighbouring Country). Because of this, it would help if the rules for these stations were clearly documented and easy to access.

EU Directive 2016/797 (Article 21(8)) states that national safety authorities (NSAs) should make agreements with each other about cross-border issues. However, when such agreements do not exist, or have not yet been updated according to the 4th Railway Package, it creates uncertainty for applicants.

To address these challenges, the European Commission and ERA play a key role by trying to support the creation of such agreements, or by using other ways (clarification notes) to reduce uncertainty in the vehicle authorisation process.

There is already a clarification note on Border Sections in the safety certification (SSC) process. It would be useful to either expand this clarification note to include vehicle authorisation (VA), or better create a new note only for VA. This note should also give a clear definition of what a cross-border section is, as required in Article 12 of Regulation (EU) 2018/545.

A good example that shows why this is needed is the Menton–Ventimiglia-Parco Esterno cross-border section, where the agreement does not cover anymore the station Parco Esterno between the countries involved.

The objective is to maintain the possibility to authorize vehicles from one country for a border section in another country without granting an extension of area of use for the entire country. The condition for this is "similar network characteristics".

Furthermore, two important aspects with respect to the timeline of vehicle authorisations for border sections should be taken into account:

i. The timeframe that the responsible NSA's have to meet jointly for the assessment of the application of such Cross-Border cases shall be in line with the obligations already in place in Regulation 2018/545 (Practical Arrangements VA) Article 34. This means one month or shorter for the evaluation of completeness of the application (Article 34 paragraph 1) and four months or less for the final decision over the issuing of the vehicle type authorization (Article 34 paragraph 2).

ii. In that sense, an EU-wide harmonized timeline regarding the final decision on the vehicle type authorization with respect to Cross-Border cases is to be applied in order to ensure that the NSA's responsible for the authorization in the respective area of use (member state including border stations) need to receive the necessary input to treat the entire file within the given deadline. If contributions are received late, this might have an impact on the entire timeline.

5) Communication Regime

Ensuring efficient and safe communication between railway staff in different languages at Border Sections is crucial for safety and operational efficiency.

Historically, there were agreements set up allowing staff of the Infrastructure Managers (IM) (a few persons) in border stations to speak the language of the "incoming" drivers, which are many more. This is working well, as the infrastructure staff in this case uses this language also for IM-IM communication. Such existing good practice between IMs should be kept in upcoming revisions. IMs should keep the possibility of finding a derogatory regulation for the language regime of a border section as it is established under the Train Drivers Directive (2007/59).

A general rule, which would require drivers to have a B1 level command of the language of the neighbouring country for a penetration of no more than a few kilometres, is not very rational and puts a brake on rail exchanges. For short interpenetrations (border areas), where situations are less diverse than for rail traffic in an entire country, it is authorised by the TDD (Article 12, Annex VI, Point 8.3) to apply a specific language level, different from the requirements for the full country ("*In case where the train operations take place in sections between the borders and the stations situated close to the borders and designated for Cross-Border operations, drivers of trains operated by a railway undertaking may be exempted by the infrastructure manager from the requirements of paragraph 2 [...]"* under particular conditions.) This possibility should be kept and further improved in the upcoming revision of the TDD.

6) Evolution and Update of Cross-Border Agreements

In practice an evolution of Border Sections beyond the historic limits e.g. in the case of closure of a station / marshalling yard is necessary. In other words, there is a need to adapt to changing infrastructure needs. Border Section Agreements should be maintained and adapted when there are changes on the infrastructure.

Moreover, when a modification affecting interoperability on Border Sections, such as a change in the signalling system or the decision to re-locate a station or a yard, is carried out on a cross-border section, for the benefit of the system, a joint work with RUs and IMs must be performed first and with the NSAs to take it into account operational requirements in the Cross-Border Agreements. In case of evolution, it must be anticipated because it will impact installations i.e. operational considerations, and maybe the content of the agreement. If not anticipated it will raise technical difficulties, interruption of traffic and delays. Anticipation is key, first between RU and IM to analyse the impact and then with NSAs to adapt existing agreements (cf. example Menton/Ventimiglia below).

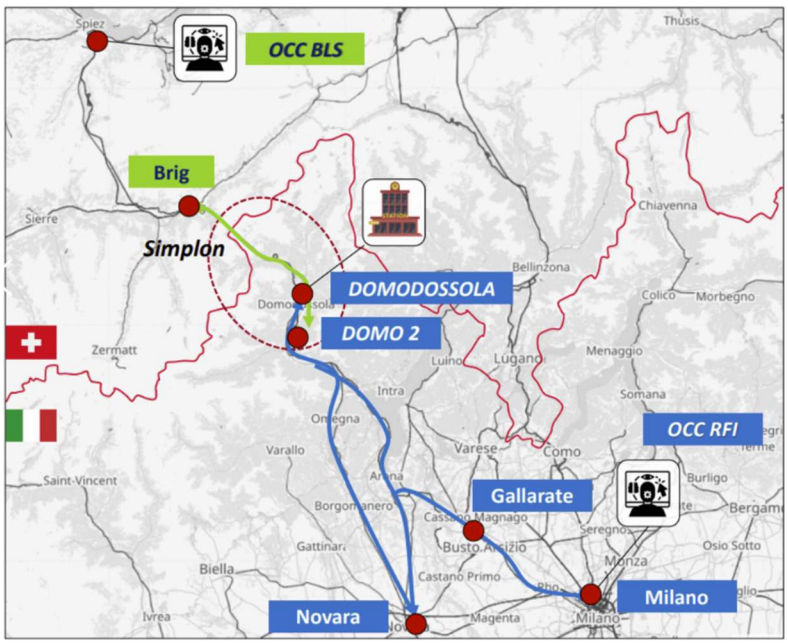
Annexe – Examples

a) Switzerland – Vehicle Authorisation and Extension of the Area of Use

Switzerland, as a neighbouring state, aims to establish agreements with adjacent countries wherever technically feasible, to extend national vehicle approval to specified border routes and enable network connections in the neighbouring country without unnecessary approval procedures, like among others a nationwide authorisation. Switzerland has signed agreements based on the 3rd railway package and cross-acceptance. These agreements cannot be applicable today.

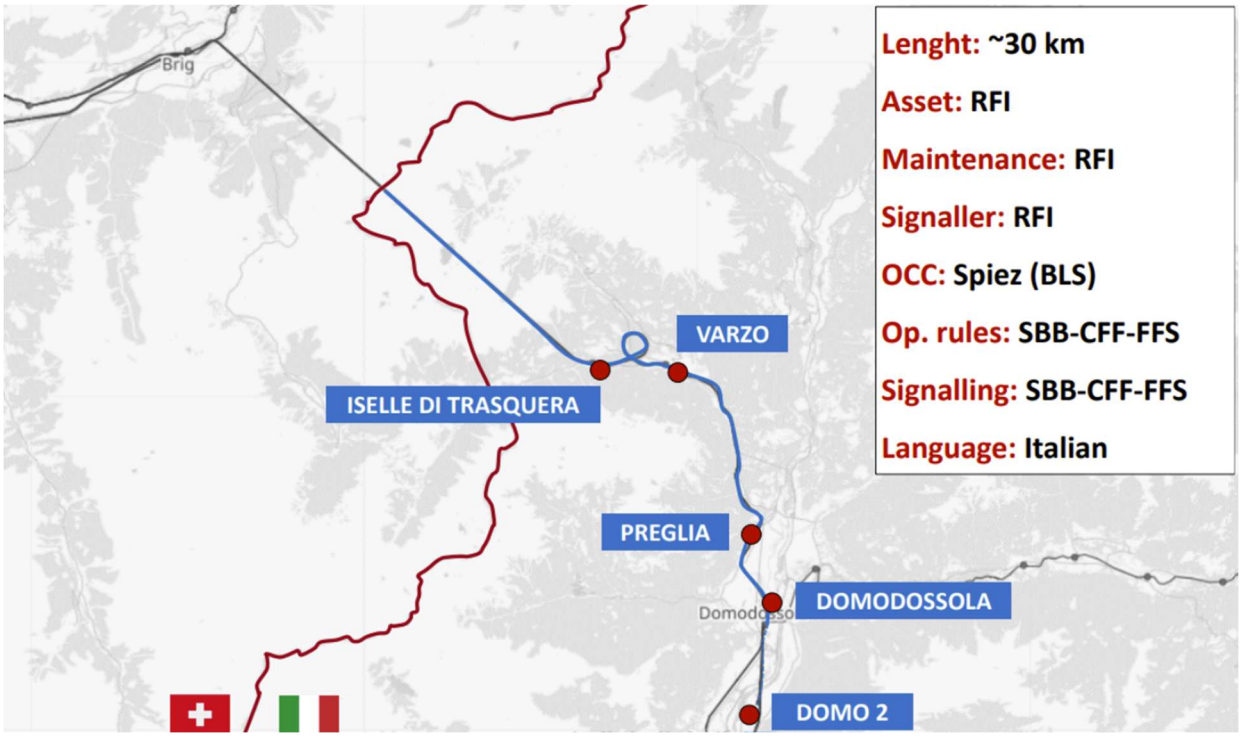
As example, in 2014 the Swiss Federal Office of Transport (FOT) and the Italian Railways Safety Agency signed an agreement[7] concerning lines between state borders and border stations between the Italian and Swiss railway networks and access to these lines. The agreement focuses on enhancing cross-border rail operations through harmonized vehicle authorization processes. It facilitates seamless access to rail networks by aligning technical standards and approval procedures. In the agreement, for the similar technical requirements, an examination by the authority of one of the two countries involved is sufficient, and the certificate is recognized even without additional documentation. By promoting mutual recognition of certifications, it seeks to eliminate redundant approval processes, thereby improving operational efficiency and reducing costs (up to 90%!).

The following geographical maps illustrate the Swiss Italian Border Section and pinpoint the locations of the border stations, Brig and Domodossola. This Border Section encompasses a 30-kilometer stretch within Italy, operating under a Swiss signalling system and adhering to Swiss operational rules. The infrastructure does not alter precisely at the national boundary nor at the first Italian station. This configuration offers flexibility to RUs, allowing for the change of traction units or staff at Domodossola—the first flat area where geographical conditions permit such operations.



- Main tunnel:
  - Simplon
- Freight terminals (Italian site)
  - Domo 2
  - Gallarate
  - Novara
  - Milano Sm.
- Border station
  - Domodossola (passenger; freight *passing trains*)
  - Domo 2 (freight *stopping trains*)

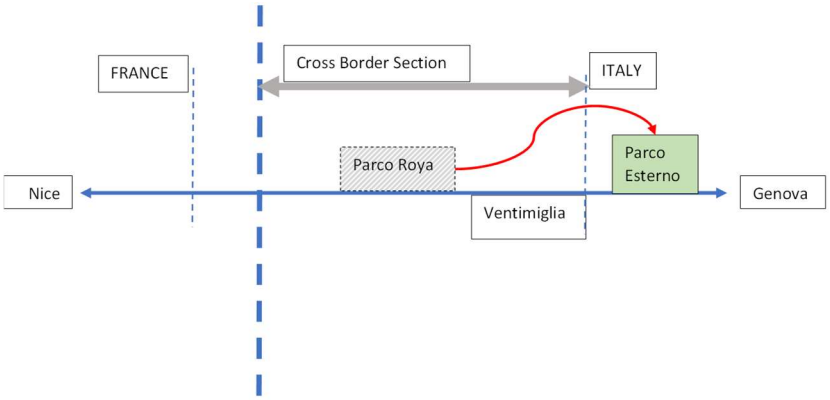
[7] https://www.ansfisa.gov.it/normativa



b) France – Evolution of Border Sections

On the border section between France (Menton) and Italy (Ventimiglia) some modifications happened in 2021 in Ventimiglia:

- In 2017, the legacy shunting yard (Parco Roya) was replaced by Parco Esterno which is 800m further.
- In 2023, ETCS L1LS was deployed (mainline and both yards)



For ETCS trains, there is no technical difference between Ventimiglia station and Parco Esterno (same electrification, same signalling system, …).

In parallel, many French locomotives are equipped with ETCS and can work with L1LS.

Parco Esterno is out of the scope of the current cross-border agreement between the NSAs.

In order to cross the border until Parco Esterno, the locomotives require a **nationwide authorization**. Parco Esterno is the last 1500V installation, the line after being under 3000V to Genova, which is not compatible for some locomotives.

An administrative extension is required for an efficient exploitation. The existing Cross-Border Agreement should be updated to take into account the new situation while maintaining the flexibility it offered.

c) Germany – Extension of the area of use

An example on the extension of area of use (AoU) to stations in neighbouring states with similar network characteristics (without ETCS): In 2019 cargo locomotives without ETCS equipment and authorised under the 3rd Railway Package by German NSA were intended also to be used to the neighbouring countries' border stations in Poland and Czech Republic in order to enable cross-border transports at an acceptable cost level. Although these locomotives were technically able to operate to and within these stations even without ETCS, the request for official permission was rejected by all involved NSAs referring to the lack of proper Cross-Border Agreements and indicating that a full AoU extension (including a necessary ETCS retrofit) is the only alternative. The project was cancelled due to disproportionately high costs. The planned transports were not realised.

d) Germany / Belgium – Different Infrastructure Characteristics

An example of a border section where the power supply and the train protection system of another Member State are used, is the section between Aachen Main Station (Aachen Hbf) via Aachen South (Aachen Süd) in Germany to "Hammerbrücke" in Belgium on the line between Liège and Aachen.

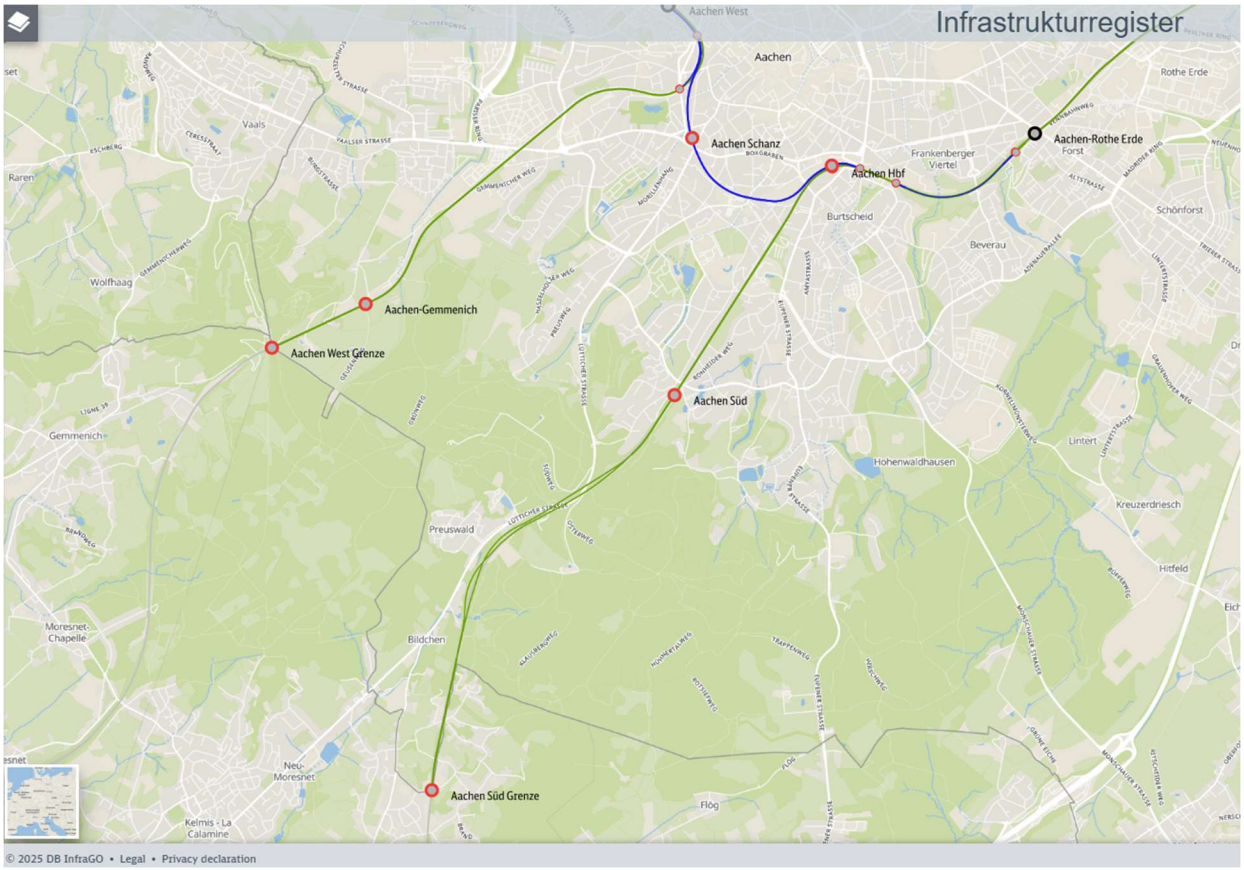
The section of the line is equipped with the Belgian traction current at 3000 Volt DC from Belgium up to the passenger railway station of Aachen Main Station. In the German railway station, the traction current can be changed to the German current at 15.000 Volt AC on several tracks. This allows locomotives that can only use the Belgian traction current to enter the first railway station on the German side of the border. No multi-system train sets are required to cross the border.

The line is equipped with the German signalling system PZB 90 and with the Belgian signalling system TBL 1+. Signals on the German side are equipped with the Belgium system "Crocodile-Memor" on top of the German PZB 90 trackside equipment.

This allows Belgian SNCB locomotives of series 18/19 that are equipped for three traction currents (1,5kV / 3kV and 25kV) but not for the German system at 15kV, with ETCS and the Belgian train protection system (TBL1 / TBL1+ / TBL2 / Crocodile) and others but not with the German PZB to enter Aachen Main Station. According to publicly available information, these locomotives are currently used on the euregioAIXpress and the ÖBB Nightjet.

The example shows how solutions for switching between different specific national technical requirements have been found in the past, allowing for a smooth transition of national

borders. Where this is required for railway operations, this kind of solutions should be maintained to keep flexibility and reduce cost of Cross-Border railway operations.



Source: https://geoviewer.deutschebahn.com/maps/#/context/ISR/275618 (10/06/2025)

Aachen South border profile	
Land	**Belgium**
Border stations	Aachen Hbf/- Süd - Abzw. Hammerbrücke, Hergenrath
Transport profile	Regional passenger transport
System changeover station	Aachen Hbf
Rail Freight Corridor	No
Train radio/network change	GSM-R; between GSM-R(D) and GSM-R(B) on the free route (locally signposted)
Train protection system	TBL1+ (B – until Aachen Hbf) + ETCS (B – until Border-point) und PZB 90 (DB InfraGO AG)
Operating language	German, French
Train number assignment	DB InfraGO AG
Responsible for timetable planning	Infrabel
Optimization through Quality Circle Operation?	No
Supplementary agreement on particular local conditions	See Guideline 302.8001Z98
Contact details for general questions	oss@deutschebahn.com

Source: www.trassenfinder.de (10/06/2025)

About CER

The Community of European Railway and Infrastructure Companies (CER) brings together railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 78% of the rail network length, 81% of the rail freight business and about 94% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policy makers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow us on Twitter @CER_railways or LinkedIn.

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