

REGIONAL ACTION PLAN FOR IMPROVING CROSSBORDER PUBLIC TRANSPORT

SAXONY - LIBEREC REGION

D. T 2.1.3

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1. Introduction

The focus of this study is on the region East Saxony (ZVON and VVO), especially the region Zittau (district Görlitz), on the German side and the region Liberec on the Czech side. In the Liberec region, KORID LK coordinates public passenger transport, similar to the Zweckverband Oberlausitz-Niederschlesien (ZVON) in Eastern Saxony. The railway line between Zittau and Liberec is single-track and not electrified. In April 2017 the long-distance bus operator Flixbus made new stops in Löbau and Zittau with two daily connections to Liberec. Presently, the connections no longer appear in the timetable of the long-distance bus operator, so that it must be assumed that service to the Zittau and Löbau stops have been discontinued.¹

In rail traffic, particularly on the section between Zittau and Hrádek nad Nisou, attractive travel times cannot be achieved due to the infrastructural conditions and the associated low speeds. The first progress report already pointed out the problems and limitations in the study region.

The action plan builds on the results of the current state analysis. Possible measures to improve and increase the attractiveness of cross-border connections in the areas of infrastructure, operation, vehicles, organisation and tariff model as well as the integration of tourist mobility in public transport are presented. In addition, possible legal restrictions are highlighted.



¹ <https://www.busliniensuche.de/suche/> (Status: 14.10.2018)

2. Action Plan

2.1. Infrastructure

The Zittau junction station is currently undergoing extensive modernisation. In addition to the adaptation of the platforms and the creation of accessibility, the track plan will be optimised. In future, the switches and signals will be controlled by an electronic signal box. These measures will create the prerequisites for the introduction of the "0"-node in Zittau. The following figure shows the target gauge plan at Zittau station.²

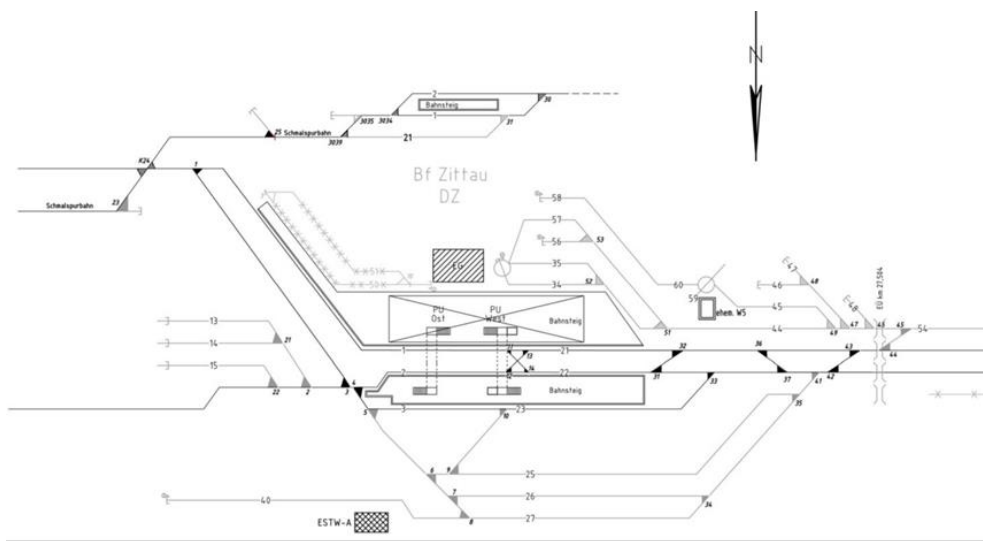


Figure 1: Future track plan: Zittau railway station

The access route from Bischofswerda to Zittau station will also be partially modernised so that higher speeds can be reached in future. In order to optimise the cross-border connection towards Liberec and to link the "0"-node Zittau with the "30"-node Liberec, the dilapidated section between Zittau and Hrádek nad Nisou has to be rehabilitated. The measures include the upgrading of the superstructure, bridges, culverts and dams. The aim is to increase the speed to at least 80 km/h. One challenge is to involve all relevant railway infrastructure operators in the project. The question of financing also remains unresolved. A special feature of the section between Zittau and Hrádek nad Nisou is that the section behind Zittau crosses Polish territory for almost three kilometres without stopping until Czech territory is reached. This section belongs to the Polish infrastructure company PKP PLK, which is also responsible for the operation, maintenance and repairs.

- ➔ Further discussions with all parties involved to clarify the financing issues related to the line rehabilitation Zittau - Hrádek nad Nisou
- ➔ Improvement of the section Zittau - Görlitz
- ➔ Accessibility at the stations along the railway line on the German and Czech sides (some stations are already barrier-free)

² http://www.irfp.de/files/iRFP/Downloads/awt/090514_dbn-rothe-vortragregionalnetzostsachsen.pdf

2.2. Operation

2.2.1. Train Operation

Currently, there is an alternating service between Zittau and Dresden with regional trains (TL) and regional express trains (TLX) every two hours.

The future redesign of traffic and the establishment of the "0"-node in Zittau will result in changes to the general conditions. The "0"-node means that trains arrive shortly before the hour from any direction and depart shortly after the hour in any direction. Of particular importance is a good transition option with short transfer times in Zittau from Görlitz in the direction of Liberec. In Liberec, a "30"-node is planned.

The establishment of the "0"-node Zittau will also facilitate the general conditions for the introduction of the integral interval timetable with a "0"-node in Zittau and Dresden. To introduce this "Sachsen-Takt" in 2030, the edge times on the Zittau - Görlitz and Zittau - Dresden sections must be reduced. This is represented in the following figure.

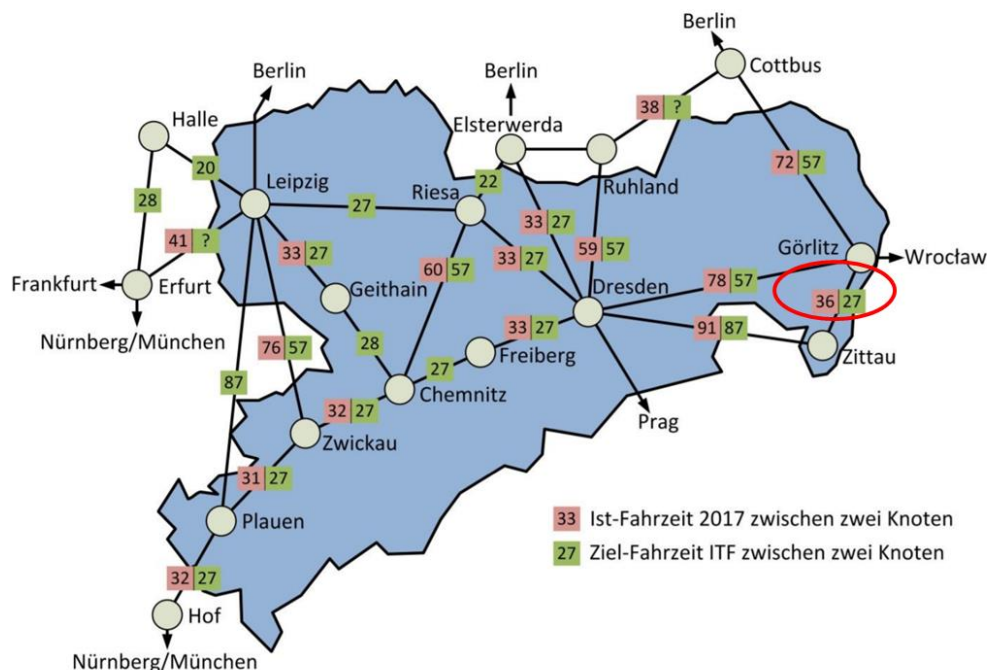


Figure 2: Necessary edge times in the „Sachsen-Takt“

In addition to upgrading the route section from Zittau to Hrádek nad Nisou, with the aim of shortening travel times, good transition possibilities and short transfer times must be created at the "0"-node Zittau from all directions. Coordinated connections between the "0"-node Zittau and the "30"-node in Liberec are of great importance for the attractiveness of the connection.

- ➔ Coordinated connections and links between the Liberec and Zittau region and the associated necessary infrastructure adaptations



2.2.2. Bus Operation

Currently, there are two border-crossing bus connections between Ebersbach and Chřibská (line 401) and between Varnsdorf and Dolní Poustevna (line 409). Both lines run approximately every hour on weekdays, and every two hours on weekends, making them an attractive option for travellers. The buses of line 409 (Varnsdorf - Seifhennersdorf - Rumburk - Dolní Poustevna) currently cannot be used for domestic journeys.

There is a connection between Liberec and Zgorzelec by bus line 669 in the cross-border traffic between the Liberec region and Poland. Within the framework of the project, it should be examined whether an expansion of the bus line 669 to Görlitz would make sense from an operational and economic point of view.

As already mentioned, there is currently no cross-border bus connection between Zittau and the Liberec region. The introduction of a new bus line between Zittau, Frýdlant v Čechách and Bogatynia could make sense. Both possibilities will be considered from an operational point of view within the framework of the D.T 2.3.7 Work Package. In addition, possible implementation concepts are developed.

- Examination of the feasibility of the introduction of a bus line Zittau - Bogatynia - Frýdlant v Čechách
- Examination of the possibility of extending bus line 669 to Görlitz

2.3. Rolling Stock

In the coming years, the purchase of new railway vehicles is unlikely, due to the current transport contract. Nevertheless, an eye should be kept on the future development of the rail vehicle market and develop coordinated concepts at an early stage. In addition to developments in the field of rail vehicles, significant progress has been made in the development of sustainable, innovative buses.

The French manufacturer Alstom presented the "Aptis" electric bus at InnoTrans 2018. Thanks to the four steerable wheels, the vehicle is very manoeuvrable and can also be used in very tight curve radii. The Polish manufacturer Solaris also presented a new model, the "Urbino 12 electric". The bus is powered purely electrically by a battery so that no direct emissions are emitted. The range of electric buses is currently around 200 kilometres, depending on the manufacturer and the battery capacity.³

- Early planning of rolling stock to enable joint cross-border allocation after the expiry of the transport contracts.

³ https://busfahrt.com/images/stories/testberichte/elektrobusse_vergleich_0317.pdf



2.4. Tariff model and financing

A clear and understandable fare structure makes travelling by public transport attractive and reduces barriers to entry into the transport system. At present, cross-border travellers experience a tariff jungle. It is often not possible to buy a continuous ticket for an international journey.

In addition to the lack of cooperation between the players involved and the sometimes different objectives, there are further hurdles with regard to the introduction of a uniform fare system. Important topics are, for example, the exchange of target and actual timetable data and passenger figures, for which no valid figures are available, especially in cross-border traffic. In the present case, the target and actual timetable data are already exchanged. For example, when using the DB-App (and others), it can be seen whether the train is scheduled or delayed.

Often there are still many domestic hurdles for traffic across the borders of a network. In the Czech Republic, regional trains and buses are ordered by the district administration of Liberec (Kraj), but transport across Kraj borders must be self-economical. This also makes it difficult to introduce cross-border connections. Another obstacle is the ban on cabotage. The legal hurdles will be discussed again in the context of the action plan. Due to the different currencies in the countries and, in particular, the significant differences in income levels, fares are calculated differently and vary widely.

Ultimately, this means that passengers from the economically stronger country (Germany) buy their tickets cheaper abroad, but the (in this case German) companies have less revenue as a result. In terms of revenue distribution, these interrelationships are a crucial issue that needs to be resolved.

In view of the possible introduction of the Zittau - Bogatynia - Frýdlant bus line (see Chapter 2.2.2), two national borders will be crossed. In addition to the legal question concerning the ban on cabotage, the question of revenue distribution should be clarified in advance.

The basis for organisational cooperation is a common tariff system,

- 1) which can map all traffic independently of the responsible customer and knows where which operating programs have been ordered and financed.
- 2) which can allocate revenue from fares to the route sections driven and transport companies and thus territories (relation-related revenue distribution), calculate taxes correctly and, if necessary, make commercial corrections.
- 3) which can take into account the different price structures of the transport companies and allocate them correctly on a territorial basis.

Only then is it guaranteed for each sub-region (territory) and thus each orderer that he receives the revenues to which he is entitled and can correctly account for the traffic.

There are various revenue sharing procedures, which differ in terms of complexity. In the EgroNet umbrella tariff, for example, the revenues of each company remain with it.



Another example, three-country region in the Basel area (triiregio), shows that tariff cooperation between three countries is also possible at a different level. Various tariff products are possible, ranging from individual tickets today passes and season tickets, which can be purchased in euros or Swiss francs, via apps, at vending machines or in customer centres. In the Basel region, not only timetables and fares are networked across national borders, but also marketing and customer service.

Due to the greater differences in price and income levels between Germany and the Czech Republic, the introduction of a cross-border tariff model is associated with greater hurdles in comparison with the DE-CH-FR countries. The day ticket in the triiregio network area for the use of public transport in the border triangle Germany, France and Switzerland costs 18.80 € and 22.00 CHF respectively. Two children up to the age of 15 can be taken with them.⁴ The Euro-Neiße-Ticket costs 13 € at German sales points and the equivalent of 6 € at Polish sales points.

- ➔ Better cooperation between transport associations and transport companies
- ➔ Pilot development of a cross-border tariff model

2.5. Marketing and Communication

In addition to a good internet presence, well-equipped and clearly-arranged service centres and clean and comfortable vehicles, other factors contribute to passenger satisfaction. Through the efforts of the ZVON in recent years, significant improvements have been achieved. One example is the clearly arranged website, which is available in five languages. The KORID website in Liberec is in the limited version available in three other languages. Joint marketing activities would strengthen public transport in the region. Individual, step-by-step measures, such as free public transport in Zittau or Görlitz on Saturdays, would also bring public transport into the public focus. The question of financing must be clarified in advance.

A good example is the marketing campaign by Tübingen's city transport authority. By converting a multi-storey car park in the city centre, an alternative had to be created with the aim of reducing car traffic in the city centre. This is why Tübingen's city traffic has been free on Saturdays since the beginning of 2018. The Tübingen municipal council provided 200,000 € for this purpose. In addition to the good regional and supra-regional external impact, more passengers can be expected in the long term through such campaigns, which will compensate for the lost revenue, at least in the medium term.

- ➔ Joint, coordinated marketing activities (e.g. free public transport on Saturdays or on public holidays, even once)

2.6. Organisation

The European Union supports the tendering of cross-border transport services. So far, there are few practical examples due to the complexity and the enormous coordination effort between the parties involved.

⁴ <https://triiregio.info/#/tickettriiregio>



Initially, the framework conditions (tendering period, order volume, timetable frame data if applicable, qualitative specifications [vehicles, availability of train attendants, etc.] as well as the duration of the transport contract to be awarded) must be jointly discussed and determined bilaterally. The financing issues must also be taken into account. Often the transport volumes vary in duration and deadline between the countries so that a uniform invitation to tender for cross-border transport services is difficult. In order to strengthen cooperation, it would make sense to establish a European grouping for territorial cooperation. An EGTC is an association of partners who cooperate on the basis of common cross-border objectives and interests. There are currently a total of nine EGTCs with German participation. Two of them are based in Germany. Consideration should be given to a joint EGTC DE-CZ-PL. The seat of the European grouping for territorial cooperation in the three-country region DE-CZ-PL could be Görlitz due to its geographical location.

- Establishment of a working group to define and work out the necessary steps for a cross-border tender for transport services at an early stage
- Establishment of an EGTC DE-CZ-PL to strengthen cooperation and cooperation

2.7. Legal framework conditions

Cabotage is the commercial carriage of goods or passengers with a place of loading or unloading in a State, the so-called host Member State, by an operator who has neither a registered office nor a place of business in that State.

As practical examples show, the ban on cabotage can be circumvented from the passenger's point of view. Lines 360 and 398 from Dresden via Altenberg to Teplice should be mentioned here. Line 360 between Dresden and Altenberg has been ordered by the responsible authority Z-VOE (VVO). Some journeys will continue as line 398 directly to Teplice (no transfer required for passengers) but will be operated by the operator Regionalverkehr Dresden GmbH (RVD).⁵ The different line names of the route sections between Dresden and the health resort Altenberg (line 360) as well as the health resort Altenberg and Teplice (line 398) have licensing reasons resulting from the ban on cabotage.⁶

Another possibility would be the joint cross-border award for bus transport services. This would give the bus operator the necessary national licences to provide the transport services. Financing is provided in the form of subsidies as a public transport service. This would make it possible to integrate cross-border services into national networks and avoid double journeys.

In rail transport, harmonisation of operational rules would make things easier. An important step towards simplifying processes in the future is the amendment of the regulations governing the approval of rolling stock. From June 2019, vehicle approval for all EU countries will be the responsibility of the European Union Agency for Railways. This agency will process the approval documents submitted by the vehicle manufacturer and then issue an approval ("placing into the market"). A final inspection by the operator

⁵ http://www.rvd.de/rvd/view/fahrplan/oe_360.shtml

⁶ Molter, Uli: Der ÖPNV überwindet Grenzen, TU Chemnitz, 2012



(RU) ensures that the vehicle is ready for use on the relevant routes ("placing into service"). The Federal Railway Authority (EBA) in Germany and Drážní úřad in the Czech Republic will continue to be involved in the approval procedure, but only by providing qualified personnel.

→ Cross-border tendering of transport services

2.8. Tourist Offers

The border regions Zittau, Görlitz and Liberec have beautiful scenery. In the district of Liberec, there are 892 accommodations with about 43,700 beds. The average length of stay of the guests is 4.1 days. The share of Czech guests is 79.8 %. The average occupancy rate of beds in accommodation in the Liberec region was 26 % in 2014.⁷

The average bed occupancy rate in Görlitz was 36.2 % in 2017. It should be noted here that the survey only includes accommodation with 25 beds or more.⁸ The region around Zittau (including the surrounding area) has around 566 guest beds, of which 42 % are occupied on average.⁹ The average length of stay of overnight guests was 2.6 days (as of 2015).

For the border regions, comprehensive tourism concepts that take public transport into account would represent added value and increase the attractiveness of the region. There is already the first example: With the "Nisa/Neiße: GO" project a clear added value for tourists could be created in the region. Through the interactive planning system, trips within the Euroregion Neisse can be arranged simply and versatily. In addition to information on the use of public transport in the region, the portal also offers information on the tourist hiking and cycle path network as well as on nature reserves. It is up to the district authorities in the region to bring all those involved together. The linking of tourism with public transport is conceivable in different dimensions. Financing could take place via a solidarity model.

Due to the complexity and the different framework conditions such as purchasing power and income levels in the two regions, an international orientation of the project is likely to be very difficult to implement right from the start.

For this reason, the first step should be to implement national solutions, which should then be further developed. Here it would make sense to involve experts with project experience in the development of the model.

In addition to the spatial delimitation, the financing and the later conception, the determination of requirements and potential is a decisive building block. It is important to identify public transport users

⁷ Liberec region by numbers

⁸ https://www.statistik.sachsen.de/download/100_Berichte-G/G_IV_4_j17_SN.pdf

⁹ <https://www.zittau.de/de/wirtschaft/schl%C3%BCsselbranchen/tourismus>



among the overnight guests. In addition, the proportion of journeys in inland, source and destination traffic is of importance. This gives rise to the possible development of demand. Financing could be based on the KONUS system in the Black Forest. In the Black Forest, the ticket is financed by means of a contribution financing via the visitor's tax according to the solidarity principle. In general, there are supply-side and demand-side financing possibilities. The following figure provides an orientation on the contribution amounts that are retained daily for public transport use.



Figure 3: Overview of Public Transport Guest Cards

The basis for introducing such concepts is good local public transport in the regions. In addition, the holiday regions should also have good connections to long-distance rail passenger transport. These efforts may well pay off. In Bad Hindelang, in the Allgäu region, the use of public transport increased by 206 %¹⁰ between 2009 and 2012 following the introduction of the Bad Hindelang PLUS guest card.

The three-country region offers very attractive leisure activities. Examples include the city of Görlitz with its historic old town, the Berzdorf Lake on the southern city border of Görlitz, the Zittau Mountains or the Zittau narrow-gauge railway. The Jizerské Mountains are on the Czech and Polish sides. In addition to extensive hiking possibilities, there are around 40 kilometres of pistes for alpine winter sports.

→ Introduction of a guest ticket for free public transport in the region



¹⁰ https://www.tvsh.de/fileadmin/content/Interessenvertretung/Verkehr/Modellprojekt_zur_kostenlosen_Nutzung_des_OEPNV_fuer_Touristen_Karsten_Heinsohn.pdf



3. Evaluation of the measures

The possible measures to strengthen cross-border traffic between Germany and the Czech Republic have already been described in the previous chapters. For a better classification, the measures are classified in the following according to their timeliness and priority. An evaluation matrix was created for this purpose. In particular, measures on the infrastructure cannot be implemented in the short term due to the planning effort involved. With regard to the time horizon, the measures were classified as short-term (1-3 years), medium-term (4-10 years) and long-term (11-20 years).

	short-term	medium-term	long-term
Infrastructure	Improvement of the section Zittau - Hrádek nad Nisou	Accessibility / platform heights	
	Strengthening of the section Zittau - Görlitz		
Operation	Coordinated connections/links between 0-node Zittau and 30-node Liberec	Examination of the possibility of introducing the bus line Zittau - Bogatynia - Frydlant	
	Examination of the possibility of extending bus line 669 to Görlitz (pilot project)		
Tariff model and financing	Improving cooperation between transport undertakings and transport associations	Development of revenue distribution models prior to the introduction of cross-border lines	
Orga/Marketing/Communication	Establishment of an EGTC DE-CZ-PL	Jointly coordinated marketing activities (e.g. free public transport on Saturdays) as a pilot project	
Legal framework		Joint invitation to tender for international transport services	
Tourism		Step-by-step introduction of a guest ticket for free use of public transport	
Legend	Highest Priority	Medium Priority	Relatively lower priority

Table 1: Evaluation matrix



4. Next steps

In addition to coordinating the measures with the stakeholders involved, best practice examples are collected and presented for the various areas. It is important to describe which steps were necessary to achieve the objectives and which prerequisites must be observed. The next appointments will be with “eurekarail” in the Belgian-Dutch-German border region and the Stadtverkehrsgesellschaft Frankfurt (Oder). The latter is scheduled for the beginning of November 2018.

After the vote the measures can be identified, which can be converted also in the practical enterprise in the border region Zittau - Görlitz - Liberec and receive from the German, Czech and Polish side encouragement.

