



# REALIZATION OF IMPROVED PASSENGER TRANSPORT TO TEN-T NODES

D.T2.3.6 Plannings for crossborder regions	Final
Görlitz/Zgorcelecz	05/2018





This report was developed by

# railistics

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# 1. Public transport between Görlitz and Zgorzelec

#### **1.1. Statistical situation**

#### 1.1.1. European City Görlitz / Zgorzelec

After the political opening between Western and Eastern Europe, the cities of Görlitz and Zgorzelec, which had been separated since World War II, began an intensive partnership. Since 1998, the two cities have referred to themselves as the European city of Görlitz / Zgorzelec.

The former Görlitz reached its historical peak of inhabitants in 1949, with just over 100,000 people. These numbers declined during the GDR period until 1988 to approximately 77,000 inhabitants. After the German reunification another emigration started. In 2011, the population was just under 55,000 inhabitants.

Due to favourable living conditions, and a largely undamaged historic downtown consisting of about 4,000 listed buildings following World War II, led to a reversal in the trend, with more than 57,000 inhabitants now living in the city. The largest proportionate increase in population is recorded in the historical city centre.





Görlitz forms together with Bautzen and Hoyerswerda a centralized urban network and is a member of the Euroregion Neisse.

Located on the opposite side of the river Neisse, Zgorzelec has been part of the Voivodeship of Lower Silesia since the administrative reform in 1998 and today has about 32,000 inhabitants. Thus, in the two neighbouring cities today about 89,000 inhabitants are living together.

In addition to the bridge over the highway Dresden - Wroclaw, three other bridges connect the two cities today. These are the railway bridge ("Neiße Viaduct"), the road bridge ("Bridge of Friendship") in the centre of the city, as well as the rebuilt historic Neisse crossing of the Via Regia - the old town bridge as a pedestrian and bicycle crossing.

<sup>&</sup>lt;sup>1</sup> Source: https://www.goerlitz.de/Statistische\_Zahlen.html (April 24th of 2018)



#### 1.1.2. Statistics of commuters

In addition to the existing analysis of the region<sup>2</sup>, a closer look is taken at the commuter statistics. In the region "Görlitz" 92,360 employees subject to social security contributions are living. Of them, 19,497 or 21.1% commute to work in another district (commuting out). At the same time, 11,502 employees who live in other districts commute to employment subject to social security contributions in the "Görlitz" region (commuting in). The balance of commuters in and commuters out amounts to -7,995 (commuter balance). Their place of work in the "Görlitz" region thus has 84,365 employees subject to social security contributions, of which 13.6% are commuters.

	commuting out	commuting in
Bautzen	6.826	4.654
Dresden, City	2.427	757
Spree-Neiße	1.729	859
Cottbus, City	638	177
Oberspreewald-Lausitz	420	101
Meißen	393	117
Sächs. Schweiz-Osterzgeb.	330	191
Chemnitz, City	166	>3
Mittelsachsen	143	75
Nordsachsen	94	111
Elbe-Elster	>3	39

#### Table 1: statistics of commuters Görlitz-region<sup>3</sup>

With regard to the city of Görlitz, the data is as follows<sup>4</sup>: 21,916 people work here, including 11,763 noncommuters and 10,153 commuters. Of these, a large part (7,445) comes from the district of Görlitz, the other 2,708 from elsewhere. On the other hand, 5,866 people from Görlitz commute to work outside, including 2,681 within the district and 3,185 elsewhere. According to information from the city administration of Görlitz, both the number of in and out commuters in the city of Görlitz increased year over year from 2012 to 2016.

Official statistical data on commuters between Görlitz and the Polish and Czech neighboring regions are not available. According to unconfirmed data, these are in the order of about 1,000 persons predominantly in the relation Poland - Germany. A continuous increase in these numbers is expected.

<sup>&</sup>lt;sup>2</sup> Regional Analysis, Problems and need of cross border public transport Saxony (DE) - Lower Silesia (PL), D.T1.2.1, Final version May, 2018

<sup>&</sup>lt;sup>3</sup> Website of Bundesagentur für Arbeit, information dated from 27th of April 2018

<sup>&</sup>lt;sup>4</sup> Data based of information of Statistisches Landesamt des Freistaates Sachsen, November 2017

#### 1.2. Today's offers

#### 1.2.1. Rail

In Görlitz the railway lines from Cottbus, Dresden and Zittau meet. All routes are not electrified. The routes from Cottbus (single track) and Dresden (double track) are classified as main lines, the route to Zittau (single track) as a secondary line. The former route of the Görlitzer Kreisbahn was discontinued in 1949.

In addition to the main station, from where the connection from Dresden continues as double-track main line via the Neisse Viaduct to Zgorzelec, there are three more stations in the city. These are Weinhübel and Hagenwerder on the route to Zittau, and Rauschwalde on the route to Dresden.

Currently, the route to Dresden is operated by the railway company Trilex, the lines to Cottbus and Zittau by Ostdeutsche Eisenbahngesellschaft (ODEG). On 14/12/2019 on the route Dresden - Görlitz an operator change will take place. From this date DB Regio will take over the traffic.<sup>5</sup>

In Zgorzelec, a second railway station - Zgorzelec Miasto - exists, which is located closer to the city center on the double track main line from the border via Zgorzelec to Węgliniec. This route is currently being electrified. In Zgorzelec, the secondary line to Lubań is starting. Passenger traffic on the route to Lubań was discontinued in 2009 but was reopened again in December 2011 by the local railway company Koleje Dolnośląskie. This route is classified as a non-electrified secondary line , but electrification this railway is planned in 2019-2021.

Both railway lines as well as the cross-border railway line to Görlitz Central Station are operated by Koleje Dolnośląskie. From Zgorzelec there are direct connections to Węgliniec, and partly further to Legnica and Wroclaw as well as via Lubań to Jelenia Góra.

Since February 3, 2018, regional trains are running from Görlitz via Zgorzelec and Węgliniec to Zielona Góra under the label Polregio. The operator of these trains is the railway company Przewozy Regionalne (PR).<sup>6</sup>

While in the East-West-direction trains run from Zgorzelec to Görlitz every hour (with the exception of a two-hour timetable gap of 11:27 - 13:27), the offer in the opposite direction is very patchy, as the trains to Węgliniec respectively Lubań leave the Görlitz central station in quick succession.

 $<sup>^{\</sup>rm 5}$  Rail Business daily news, dated from April 27th of 2018

<sup>&</sup>lt;sup>6</sup> News Magazine "Der Schienenbus", 02/2018 (April/May)

time of departure	destination	via
06:02	Węgliniec	
07:33	Wroclaw	Węgliniec
07:39	Jelenia Góra	Lubań
09:07	Zielona Góra	Węgliniec, Zary
09:39	Jelenia Góra	Lubań
11:07 (only days 1-5)	Zielona Góra	Węgliniec, Zary
11:36	Węgliniec	
13:33	Wroclaw	Węgliniec
13:39	Jelenia Góra	Lubań
15:39	Jelenia Góra	Lubań
17:07	Zielona Góra	Węgliniec, Zary
17:39	Jelenia Góra	Lubań
19:33	Wroclaw	Węgliniec
19:39	Jelenia Góra	Lubań
21:36	Węgliniec	

#### Table 2: today's train departures from Görlitz Main Station to Zgorzelec

time of arrival	destination	via
05:48	Węgliniec	
07:31	Jelenia Gorá	Lubán
08:34	Wroclaw	Węgliniec
09:31	Jelenia Gorá	Lubán
10:15	Zielona Góra	Zary, Węgliniec
11:31	Jelenia Gorá	Lubán
13:31	Węgliniec	
14:34	Wroclaw	Węgliniec
15:31	Jelenia Góra	Lubań
16:15 (only days 1-5)	Zielona Góra	Zary, Węgliniec
17:31	Jelenia Góra	Lubań
18:15	Zielona Góra	Zary, Węgliniec
19:31	Jelenia Góra	Lubań
20:34	Wroclaw	Węgliniec
21:31	Jelenia Góra	Lubań

Table 3: today's train arrivals in Görlitz Main Station from Zgorzelec





#### 1.2.2. Tram/Bus

In public transport, the Görlitz transport company operates two tram lines with a total length of 13.6 km and seven city bus routes. In 2001, the city transferred the majority of shares to Veolia Environment. As of this date the transport companies belong to the subsidiary Connex Verkehr, which was renamed in 2006 to Veolia Verkehr, and finally in March 2015 to Transdev. Today the tram connects the areas Königshufen in the north, Weinhübel in the south and Biesnitz in the west. Both lines cross the city center and touch the historic old town. The central station is the stop Demianiplatz.



Here, as well as the at the main station, several regional bus lines have their starting point.

Figure 2: Public transport-network in Görlitz





Görlitz and Zgorzelec are connected with the city bus line "P". This line has a length of 4.8 km and connects the central station as well as the inner city of Görlitz with the bus station of Zgorzelec and with some hypermarkets. In Zgorzelec this line does not lead to one of the railway stations.

Course of line "P"
Görlitz, Busbahnhof
Görlitz, Demianiplatz
Zgorzelec, Granica PLD
Zgorzelec, Dom Kultury
Zgorzelec, d.a. (Busbahnhof)
Zgorzelec, ul. Langiewicza
Zgorzelec, PKP ul. Tuwima
Zgorzelec, Plaza
Zgorzelec, Auchan ul. Slowianska

 Table 4: course of line "P" Görlitz – Zgorzelec

The cross-border line "P", like the second Zgorzelec city bus line, is operated by the regional bus company F.H.U. Bielawa. Line 50 runs from the bus depot at Elizy Orzeszkowej Street in the Ujazd district through downtown Zgorzelec to the village of Jędrzychowice north of the city.

The departure point of all regional buses on the Polish side is the local bus station. A link with the railway stations only partly exist.

The line "P" is not integrated in the ZVON tariff (with the exception of the Euro-Neisse tickets), as a separate ticket has to be bought. In addition, the number of trips offered compared to the 89,000 people who live in both cities, is comparatively low. On weekdays, 12 pairs of trips are offered, running from 06:00 to 18:00. On weekends, there are 6 pairs of trips between 9:00 am and 4:00 pm, so that there is virtually no offer in the relevant times for evening activities.



	® P	Görl	itz	Busb	ahn	hof -	Zgo	rzele	c d.a	. (Bu	ısbal	nnho	f) - Z	gorz	elec	AUCHAN	Bleccy
	•	Alle Anga	ben oh	ne Gewähr.													Card I
		Gültig 10.	12.201	7 - 08.12.2	018												
-		-						Mo	-Fr ohne	Feiertage							
	Fahrtnummer			2302	2304	2306	2345	2355	2365	2375	2385	2395	2405	2415	2510		
	von Cottbus Zug		an	06.14	07.14	08.14	09.14	10.14	11.14	12.14	13.14	14.14	15.14	16.14	17.14		
	von Dresden Zug		an	00.11	07.26	08.12	09.26	10.09	11.26	12.09	13.26	14.09	15.26	16.09	17.26		
1a	Görlitz Busbahnhof		ab	06.34	07.34	08.34	09.34	10.34	11.34	12.34	13.34	14.34	15.34	16.34	17.34		
Г	von Landeskrone Tra	am 2	an	06.20	07.20	08.20	09.20	10.20	11.20	12.20	13.20	14.20	15.20	16.20	17.20		
	von Am Wiesengrun	nd Tram 2	an	06.20	07.20	08.20	09.20	10.20	11.20	12.20	13.20	14.20	15.20	16.20	17.20		
	von Landeskronsied	lung Bus A	an	06.39	07.39	08.39	09.39	10.39	11.39	12.39	13.39	14.39	15.39	16.39	17.39		
	Görlitz Demianiplatz			06.40	07.40	08.40	09.40	10.40	11.40	12.40	13.40	14.40	15.40	16.40	17.40		
	Zgorzelec, Granica PLD			06.45	07.45	08.45	09.45	10.45	11.45	12.45	13.45	14.45	15.45	16.45	17.45		
_	Zgorzelec, d.a. (Busbah	nhof)		06.47	07.47	08.47	09.47	10.47	11.47	12.47	13.47	14.47	15.47	16.47	17.47		
1	Zgorzelec, ul. Langiewig	cza		06.48	07.48	08.48	09.48	10.48	11.48	12.48	13.48	14.48	15.48	16.48	17.48		
-	Zgorzelec, PKP ul. Tuwi	ma		06.50	07.50	08.50	09.50	10.50	11.50	12.50	13.50	14.50	15.50	16.50	17.50		
	Zgorzelec, Plaza			06.53	07.53	08.53	09.53	10.53	11.53	12.53	13.53	14.53	15.53	16.53	17.53		
	Zgorzelec, Auchan ul. Sl	lowianska	an	06.57	07.57	08.57	09.57	10.57	11.57	12.57	13.57	14.57	15.57	16.57	17.57		

Auf dieser Linie gilt ein Sondertarif. Fahrscheine erhalten Sie beim Busfahrer. Die Linie wird durch die polnische Gesellschaft FHU Bielawa bedient. EURO-NEISSE-Tickets werden anerkannt.

	Alle Angaben of Gültig 10.12.20							elec AUCHAN
	oung fortizizo			tägli	ch			
Fahrtnummer		2345	2355	2365	2385	2395	2405	
von Cottbus Zug	an	09.14	10.14	11.14	13.14	14.14	15.14	
von Dresden Zug	an	09.26	10.09	11.26	13.26	14.09	15.26	
Görlitz Busbahnhof	ab	09.34	10.34	11.34	13.34	14.34	15.34	
von Landeskrone Tra		09.23	10.23	11.23	13.23	14.26	15.26	
von Am Wiesengrun		09.23	10.23	11.23	13.26	14.17	15.17	
von Landeskronsied		09.22	10.22	11.22	13.22	14.16	15.16	
Görlitz Demianiplatz		09.40	10.40	11.40	13.40	14.40	15.40	
Zgorzelec, Granica PLD		09.45	10.45	11.45	13.45	14.45	15.45	
Zgorzelec, d.a. (Busbahi	nhof)	09.47	10.47	11.47	13.47	14.47	15.47	
Zgorzelec, ul. Langiewio	228	09.48	10.48	11.48	13.48	14.48	15.48	
Zgorzelec, PKP ul. Tuwi	ma	09.50	10.50	11.50	13.50	14.50	15.50	
Zgorzelec, Plaza		09.53	10.53	11.53	13.53	14.53	15.53	
Zgorzelec, Auchan ul. Sl	lowianska an	09.57	10.57	11.57	13.57	14.57	15.57	

Figure 3: time table line "P"<sup>7</sup>

 $<sup>^{\</sup>rm 7}$  Source: website of VGG Görlitz





# 2. Optimization of cross border traffic Görlitz / Zgorzelec

As already stated, today's offer in public transport between Görlitz and Zgorzelec offers a clear potential for optimization. Certainly, in the inner-city area through the old town bridge short distances for pedestrians and cyclists are possible, however, for all longer distances a public traffic network is necessary.

For the connection of both cities, the train is only partially suitable. Although the train station in Görlitz is still within an acceptable inner-city proximity, it can only offer a part of the connection points since there is a second locally significant traffic junction in Görlitz with Demianiplatz.

The train station in Zgorzelec is relatively far away from the city center. The walk to the center of the city is about 15 to 20 minutes.

In addition, due to timetable characteristics of the trains in the superregional network, the times cannot be adjusted in particular in the West-East-direction so that a uniform timetable can exist. Although a satisfactory offer is made available for regional traffic, this is not enough for the needs in the cities itself.

Today's line "P" connects Görlitz with the Zgorzelec bus station in addition to various supermarkets. Based on the 2014 ZVON traffic survey, 168 passengers use this line on a normal working day<sup>8</sup>. This corresponds to a use of 7 passengers per trip.

In contrast, the weekend use is much better, taking into account that only 6, rather than 12 round trips are offered as it is on weekdays. On Saturdays the count is an average of 19 passengers per trip, on Sundays 10.

Irrespective of the fact that the ZVON-tariff is not valid on this line, the question arises as to the correct alignment. According to ZVON, the supermarkets on the Polish side are not that important in comparison to a few years ago.

On the other hand, there are different requirements for the future development of this line:

- Rerouting of the line "P" in Zgorzelec from the central bus station to the railway station instead of the end point "Real". As a result, a better connection of Görlitz city center to trains to Poland is achieved. Although now 15 pairs of trips are offered on the train, these do not run in a regular cycle. The upcoming completion of electrification in January 2019 will see more departures from Zgorzelec than today.
- Population growth in Görlitz is particularly evident in the city center. With a direct bus line, this area can be better connected to the railway (for Polish destinations), for journeys via Görlitz Central Station a further transfer is necessary.
- Today's tariff structure is unfavorable for the inhabitants of both cities. From Görlitz two tickets have to be bought, unless users have a direct link along the line.
   For the residents of Zgorzelec, the bus fares are very expensive compared to the usual tariffs. Thinking about a city tariff ("Europe City Ticket"), as well as the further integration into the ZVON tariff seems to be necessary.

This consideration is also based on the corresponding passages currently in the valid local transport plan.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> Verkehrserhebung im Nahverkehrsraum Oberlausitz, Niederschlesien, PTV-Group, Dresden, 2014

<sup>&</sup>lt;sup>9</sup> Nahverkehrsplan ZVON, Fortschreibung 2018 in der Beschlussfassung vom 22.03.2018





To make the line more attractive, an attractiveness increase has to be realized. This applies both to the number of journeys (at least 30-minute-intervals), as well as the service hours (extension of the trips in the evening and on weekends/holidays).

The local transport plan of ZVON suggests the check of the opening of further border crossings for public transport. In the plan the following potential crossings are mentioned:<sup>10</sup>

border crossing	bus connection between	remarks
Porajów/Zittau and Sieniawka/Zittau	Zittau, Porajów and Bogtaynia	Connection of Bogatynia with Zittau makes sense due to the location in the border area. There may be restrictions due to construction and tonnage limitations
Hagenwerder	Hagenwerder and Zawidów	Possibly interesting for the tourist traffic to Berzdorfer See
Podrosche	Podrosche and Przewóz	Probably hardly any potential. There may be restrictions due to construction and tonnage limitations
Bad Muskau	Bad Muskau and Łęknica	Downgraded to a local road
Krauschwitz (S127)	Bad Muskau/Krauschwitz and Łęknica	Relevant for touristic traffic and connection of Łęknica with Weißwasser (shopping, railway station)

 Table 5: potential border crossings for public transport between Germany and Poland in the ZVON-region

In the immediate vicinity of the cities of Görlitz and Zgorzelec there is located only the border crossing Hagenwerder - Radomierzyce. Here is the possibility to connect the Berzdorfer See, which is visited also from many Polish guests, with a bus connection to Radomierzyce. At the same time a link with Hagenwerder station could be developed.

The bus line 890 (Bogatynia - Zgorzelec) which is operated daily nearly every 30 minutes, could be affected by this change. A seasonal offer should be discussed here.

<sup>&</sup>lt;sup>10</sup> Nahverkehrsplan ZVON, Fortschreibung 2018 in der Beschlussfassung vom 22.03.2018, Seite 145 f.



und Endhaltestelle

Nahverkehrslinie der Elsenbahn

visdorf

OTH

SCHLAUF

148

130 Reichenba 136 Kodersdorf 137 Deutsch Pi

RE1 / RB60 Dresden DE60V Bischo

Schlauroth Mitte

Schlauroth Gut

Pfaffendorf Ortseingang

> Pfaffendo FW Gerät

Pfaffendorf Teich Pfaffendorf Wendeschle

Pfaffendorf Feidha

Jauernick Schwarzer Berg

Pfaffendorf

46 Frieder 47 Herrnh



Koźmin

669 890

Osiek Łużyck

Radomierzyce skrz.

Figure 4: overview cross-border bus connections Görlitz / Zgorzelec

OE65 Z

Hagenwerder

E Steint

Tauchritz 42

Tauchritz West

TAUCHRITZ

E 21 42

Hage

Hagenwerder
 Sportzentrum

Hagenwerder Ort HAGENWERDER

werder

Deutsch Os

KLEIN NEUNDORF

nick Ortseingang

Tauchritz Blaue Lagune C

Bediesung 01.05.2018 -30.09.2018

Jauemick-Buschbach





# 3. Pilot details

#### 3.1. General remarks

Within the project "TRANS-BORDERS", the prerequisites for an increase in attractiveness in the networking of the cities of Görlitz and Zgorzelec with public transport will be created. This is in particular a significant increase in attractiveness of the cross-border line "P".

Regarding the timeframe, the timetable changes resulting from the electrification of the Węgliniec - Zgorzelec line in 2019 should be taken into account. Another goal is the tariff integration of the line in the ZVON-tariff, or the creation of a uniformed city tariff between the two cities.

Based on the local transport plan of ZVON, the seasonal link between Radomierzyce and Hagenwerder will be examined.

#### 3.2. Line "P" Görlitz - Zgorzelec

#### 3.2.1. Concept timetable

The next processing steps within the framework of the TRANS-BORDERS project are:

- Creation of a timetable and circulation concept for the line "P" with the route Görlitz Central Station -Görlitz Demianiplatz - Zgorzelec bus station - Zgorzelec station
- Consideration of important train connections with priority at the Zgorzelec railway station
- Definition of further important connections at the other interfaces (Görlitz Central Station, Görlitz Demianiplatz, Görlitz bus station)
- If possible align the line "P" to these connection relationships

#### 3.2.2. Tariff

 Proposals for the further procedure to standardize the tariff (city tariff "Europe-City-Ticket" or integration ZVON-tariff)

#### 3.2.3. Concept for use of bus-types

 Based on the specifications of the local transport plan ZVON elaboration of further proposals regarding innovative drive energies<sup>11</sup>

#### 3.2.4. Marketing Concept

Development of proposals for a marketing concept / marketing campaigns

<sup>&</sup>lt;sup>11</sup> Nahverkehrsplan ZVON, Fortschreibung 2018 in der Beschlussfassung vom 22.03.2018, Seite 153 ff.





## 3.3. Link Radomierzyce - Hagenwerder

- Creation of a concept linking Radomierzyce and Berzdorfer See as well as Hagenwerder station (line 890)
- Development of proposals for a marketing concept / marketing campaigns





# 4. Public involvement

#### 4.1. Stakeholders involved

For realization of he above mentioned steps the following stakeholders must be involved:

- ZVON (Zweckverband Verkehrsverbund Oberlausitz Niederschlesien), Bautzen
- Województwo Dolnośląskie, Wroclaw
- City council of Görlitz
- City council of Zgorzelec
- Licensing authorities in Saxonia and Lower Silesia
- F.H.U. Bielawa (Operator of relevant bus-lines)

#### 4.2. Target groups reached

- Commuters between the cities of Görlitz and Zgorzelec
- Travellers which need train connections at Zgorzelec station
- Tourists visiting both cities
- Leisure traffic to Berzdorfer See coming from Polish neighbour ship
- Travellers for all other occasional reasons between the two cities





# 5. Timetable

#### 5.1. Internal schedule

After the approval of the client, Railistics will immediately start processing the individual steps. It is planned to complete the conceptual development as a first step until the presentation of the next interim reports in Autumn 2018 (timetable and circulation concept for line "P" Görlitz - Zgorzelec, concept for link Radomierzyce - Hagenwerder, specification for bus types).

#### 5.2. External schedule

The overall project has to be seen as in conjunction with the electrification of the railway line Węgliniec - Zgorzelec. The planned completion is expected to be in January 2019, so it is desirable to put the modified line "P" into operation at the timetable change in December 2019.