

OUTPUT FACT SHEET

Strategies and action plans

Version 2

Project index number and acronym	CE886 - CONNECT2CE
Output number and title	O.T3.2 - Territorial Strategy for improving regional and cross-border accessibility in Berlin-Brandenburg
Responsible partner (PP name and number)	VBB - PP13
Project website	https://www.interreg-central.eu/Content.Node/CONNECT2CE.html
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Summary description of the strategy/action plan (developed and/or implemented), explaining its main objectives and transnational added value

Main challenge addressed by the strategy: The strategy addresses the improvement of connectivity of Berlin and Brandenburg with the neighbouring regions of the Western Pomeranian Voivodeship (PL) and the Lubuskie Voivodeship (PL). With this regard, the following cross-border connections were in particular focus of attention:

- Berlin <> Angermünde <> Szczecin (<> Świnoujście / Kołobrzeg / Gdańsk)
- (Berlin <>) Cottbus <> Forst (Lausitz) <> Żary <> Żagań (<> Legnica <> Wrocław)

Key objectives of the strategy: In the result of the **assessment of territorial needs**, for these connections the following needs for action have been identified:

- Electrification of the railway line Angermünde <> Szczecin (foreseen until 2026)
- Upgrade of the railway line Forst (Lausitz) <> Legnica, in order to reduce travel times
- Development and purchase of new interoperable railcars (electric / non-electric)
- Increase of frequency of services, introduction of additional direct services and development of attractive ticket offers

These needs are in line with interregional needs and priorities in the field of cross-border rail transport, which have been identified in the result of cooperation and exchange of German and Polish stakeholders at the “Transport Round Table” of the Oder Partnership:

- Revitalisation of cross-border long-distance transport
- Clarification of responsibilities and competences for the tendering of cross-border services
- Development of model solutions for cooperation in the tendering process and in the operation of cross-border transport services
- Facilitation of the reciprocal approval of railway vehicles, facilitation (and simplification) of railway operations between German and Polish border stations
- Specification of priorities for the development of infrastructure and offers along German-Polish cross-border railway connections

The Oder Partnership is an informal cooperation network of German federal states and Polish voivodeships. Its aim is to deepen political, economic and infrastructural links between the cities and regions in the German-Polish area of interactions. The “Transport Round Table” of the Oder Partnership has been involved in preparation of the territorial strategy during three meetings in 09/2018 in Wolsztyn (PL), 09/2019 in Szczecin (PL) and 11/2019 in Görlitz (DE).

During these meetings German and Polish stakeholders discussed and reflected the results and findings of pilot activities realised within the project, laying the ground for development of the territorial strategy. Subsequently, the **key objectives** of the territorial strategy have been identified:

- a) Establishment of a suitable framework for the deployment of vehicles with innovative propulsion systems on cross-border connections
- b) Improvement of offers between Berlin-Brandenburg and Western Pomerania through the introduction of attractive ticket offers between Berlin and the Baltic Sea and preparation of the extension of the planned Szczecin Metropolitan Railway to Brandenburg

The territorial strategy recommends to push forward pilot initiatives for the use of hydrogen, to promote the cross-border approval of dual-mode (diesel-electric) railcars and to enable the future replacement of diesel engines through battery storage. Related to offers between Berlin-Brandenburg and Western Pomerania, the strategy recommends to introduce additional attractive ticket offers and to promote alternative scenarios for the future design of offers between Angermünde and Szczecin.

How the strategy has been developed (and its transnational added value): The involvement of German and Polish stakeholders significantly increased the transnational added value of the territorial strategy, since substantial knowledge regarding development trends in the field of vehicles with innovative propulsion system could be exchanged, leading to better understanding of different approaches followed by German and Polish stakeholders. Regarding the improvement of offers, the example of the cross-border railway connection between Berlin-Szczecin could - in case of success - serve as model approach for the joint development and the integration of cross-border offers, accompanied by jointly agreed procedures for the tendering of services.

Adoption/implementation: The strategy has been acknowledged by the Heads of the Transport Department of the responsible Ministries of Transport of the federal states of Berlin and Brandenburg in a joint letter of support.

NUTS region(s) concerned by the strategy/action plan (relevant NUTS level)

Berlin (NUTS 1 region DE3) and Brandenburg (NUTS 1 region DE4) have been involved in the strategy. As neighbouring regions, the Western Pomeranian Voivodeship (NUTS 2 region PL42) and the Lubuskie Voivodeship (NUTS 2 region PL 43) are concerned by the strategy. All regions belong to the cross-border governance structure of the Oder Partnership.

Expected impact and benefits of the strategy/action plan for the concerned territories and target groups

Expected effect of this strategy: The strategy is expected to contribute to medium-term planning processes of passenger rail authorities for the improvement of cross-border public transport between Berlin-Brandenburg and neighbouring Polish voivodeships. The proposed interventions and concepts complement actions already planned (or ongoing) at federal state level, facilitating necessary agreements regarding the design of transport offers and the renewal of rolling stock.

Who benefits from the strategy: The main target groups of the strategy are passenger rail authorities, infrastructure operators and railway operators in the federal states of Berlin and Brandenburg and neighbouring Polish voivodeships. In the result of implementation, cross-border connectivity will be improved, serving the needs of cross-border commuters and travellers.

Policy of institution uptake: The strategy has been adopted at institutional level through the support letter. It is expected to directly influence the design of tendering procedures for regional and cross-border railway services realised by VBB on behalf of the federal states of Berlin and Brandenburg. Additionally, indirect effects on investment policies of infrastructure operators and railway operators are possible.

Sustainability of the developed and/or implemented strategy/action plan and its transferability to other territories and stakeholders

Sustainability of the output after the project end: As confirmed in the joint letter of support, the results of the project are already today influencing the cooperation with neighbouring Polish regions. Both federal states will incorporate the project results into their ongoing work. In practical terms this will take place through continued cooperation within the regional network of the Oder Partnership, pursuing actions recommended in the strategy and continuing the dialogue realised at the “Transport Round Table” of the Oder Partnership.

Transferability to other territories and stakeholders: The strategy might provide valuable inspiration for cross-border cooperation of passenger rail authorities, in particular with regard to the deployment of vehicles with innovative propulsion systems and the introduction of innovative ticket offers.

Transferable lesson(s) learned: With regard to lessons learned, the relevance of long-term processes of eye-level cooperation and exchange for the improvement of cross-border connectivity should be underlined. If sustainable improvements shall be achieved, long-term preparation works - leading to step-by-step harmonisation of regional transport strategies - are inevitable.

References to relevant deliverables and web-links
If applicable, pictures or images to be provided as annex

Relevant related project deliverables: Relevant project deliverables include the Territorial Needs Assessment for the pilot area (D.T1.2.9), the reports elaborated during implementation of the pilot action (D.T2.2.7), the territorial strategy (D.T3.3.12) and the report on cross-border governance structure involvement (D.T3.3.15).

Where to find them: The deliverables D.T1.2.9, D.T2.2.7 and D.T3.3.12 are published on the project website <https://www.interreg-central.eu/CONNECT2CE> (section “documentation”). The deliverable D.T3.3.15 is attached to this factsheet.

Images and materials of the output: The following materials are extracted from the strategy and reports elaborated during implementation of the pilot action. Further details and materials are available through related deliverables.

Table 1 - Proposals for future seasonal ticket prices between Berlin-Brandenburg and selected destinations in Western Pomerania

Cross-border connection		Distance (km)		Ticket price (proposal)
from	to	DE	PL	€
Berlin	Szczecin	140	15	12,00
	Goleniów	-	35	14,50
	Nowogard	-	59	15,50
	Gryfice	-	92	16,50
	Trzebiatów	-	110	17,00
	Kołobrzeg	-	135	17,50
	Wolin	-	80	16,00
	Międzyzdroje	-	97	16,50
	Świnoujście	-	111	17,00
	Kamień Pomorski	-	82	16,50

Figure 1 - Alternative proposals for the design of offers between Berlin, Angermünde and Szczecin

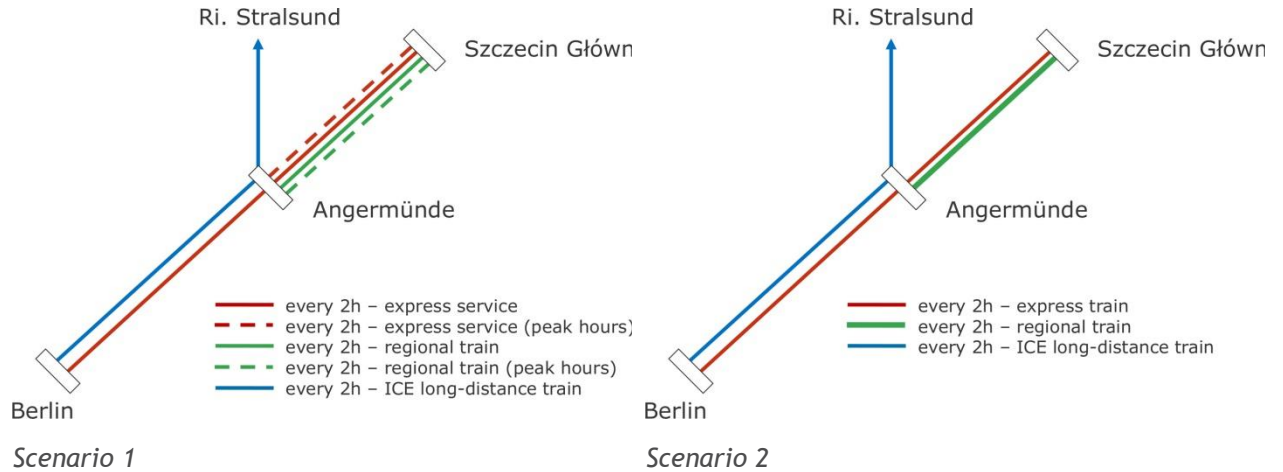


Figure 2 - Model timetables for the design of offers between Berlin, Angermünde and Szczecin

Scenario 1

km	Train No.	from	3019	221	66021	3021	923	3023	225	66025	3025	927	66027	3027	929	229	66029	3029	931	6603
			E 31a BB	FR 2	N 66 BB	E 32a BB	FR 1.2	E 31a BB	FR 2	N 66 BB	E 32a BB	FR 1.2	N 66 BB	E 31a BB	E 67 BB	FR 2	N 66 BB	E 32a BB	FR 1.2	N 66 BB
0,0	Szczecin Główny	Dep	...	...	11.37	...	12.30	...	...	13.37	...	14.30	14.37	...	15.15	...	15.37	...	16.30	16.
4,4	Szczecin Gumiencze	↓	...	...	11.43	...	...	...	...	13.43	...	...	14.43	...	15.23	...	15.43	...	...	16.
11,5	Kołbaskowo	↓	...	...	11.48	...	...	...	...	13.48	...	...	14.48	...	15.29	...	15.48	...	...	16.
23,1	Tantow	↓	...	...	11.56	...	...	...	...	13.56	...	...	14.56	...	15.36	...	15.56	...	...	16.
30,3	Petershagen	↓	...	...	12.01	...	...	...	...	14.01	...	...	15.01	...	15.36	...	16.01	...	...	17.
34,5	Casekow	↓	...	...	12.05	...	...	...	...	14.05	...	...	15.05	...	...	...	16.05	...	...	17.
39,4	Schönow	↓	...	...	12.09	...	...	...	...	14.09	...	...	15.09	...	...	...	16.09	...	...	17.
44,7	Passow	↓	...	...	12.14	...	...	...	...	14.14	...	...	15.14	...	...	...	16.14	...	...	17.
63,3	Angermünde	Arr	11.28	12.02	12.25	12.29	13.02	13.28	14.02	14.25	14.29	15.02	15.25	15.28	15.56	16.02	16.25	16.29	17.02	17.
76,5	Chorin	Dep	11.33	12.04	...	12.33	13.04	13.33	14.04	...	14.33	15.04	...	15.33	...	16.04	...	16.33	17.04	17.
84,0	Britz	↓	11.42	...	...	12.42	...	13.42	...	14.42	...	...	15.42	...	...	...	16.42	...	...	17.
88,8	Eberswalde	Arr	11.47	12.20	...	12.47	13.20	13.47	14.20	...	14.47	15.20	...	15.47	...	16.20	...	16.47	17.20	...
111,4	Bemau (bei Berlin)	Dep	11.53	12.21	...	12.53	13.21	13.53	14.21	...	14.53	15.21	...	15.53	...	16.21	...	16.53	17.21	...
124,2	Berlin Karower Kreuz	↓	12.06	12.35	...	13.06	13.34	14.06	14.35	...	15.06	15.34	...	16.06	...	16.35	...	17.06	17.34	...
131,9	Berlin-Gesundbrunnen	Dep	12.07	12.36	...	13.07	13.36	14.07	14.36	...	15.07	15.36	...	16.07	...	16.36	...	17.07	17.36	...
135,4	Berlin Hauptbahnhof	Arr	12.16	...	...	13.16	...	14.16	...	15.16	...	...	16.16	...	...	...	17.16	...	...	...
137,4	Berlin Potsdamer Platz	↓	12.21	12.48	...	13.21	13.49	14.21	14.48	...	15.21	15.49	...	16.21	...	16.48	...	17.21	17.49	...
141,1	Berlin Südkreuz	Arr	12.23	12.50	...	13.23	13.50	14.23	14.50	...	15.23	15.50	...	16.23	...	16.50	...	17.23	17.50	...
		Dep	12.28	12.53	...	13.28	13.54	14.28	14.53	...	15.28	15.54	...	16.28	...	16.53	...	17.28	17.54	...
		Arr	12.31	12.59	...	13.31	13.58	14.31	14.59	...	15.31	15.58	...	16.31	...	16.59	...	17.31	17.58	...
		↓	12.35	...	...	13.35	...	14.35	...	15.35	...	...	16.35	...	...	...	17.35	...	...	...
		Arr	12.38	13.04	...	13.38	14.03	14.38	15.04	...	15.38	16.03	...	16.38	...	17.04	...	17.38	18.03	...



Scenario 2

km	Train No.	from	66019	3019	221	66021	3021	923	66023	3023	225	66025	3025	927	66027	3027	229	66029	3029	931	
			N 66 BB	E 31a BB	FR 2	N 66 BB	E 32a BB	FR 1.2	N 66 BB	E 31a BB	FR 2	N 66 BB	E 32a BB	FR 1.2	N 66 BB	E 31a BB	FR 2	N 66 BB	E 32a BB	FR 1.2	
0,0	Szczecin Główny	Dep	10.37	...	...	11.37	...	12.30	12.37	...	...	13.37	...	14.30	14.37	...	...	15.37	...	16.
4,4	Szczecin Gumiencze	↓	10.43	...	...	11.43	...	...	12.43	...	...	13.43	...	...	14.43	...	...	15.43	...	16.
11,5	Kołbaskowo	↓	10.48	...	...	11.48	...	...	12.48	...	...	13.48	...	...	14.48	...	...	15.48	...	16.
23,1	Tantow	↓	10.56	...	...	11.56	...	...	12.56	...	...	13.56	...	...	14.56	...	...	15.56	...	16.
30,3	Petershagen	↓	11.01	...	...	12.01	...	...	13.01	...	...	14.01	...	...	15.01	...	...	16.01	...	17.
34,5	Casekow	↓	11.05	...	...	12.05	...	...	13.05	...	...	14.05	...	...	15.05	...	...	16.05	...	17.
39,4	Schönow	↓	11.09	...	...	12.09	...	...	13.09	...	...	14.09	...	...	15.09	...	...	16.09	...	17.
44,7	Passow	↓	11.14	...	...	12.14	...	...	13.14	...	...	14.14	...	...	15.14	...	...	16.14	...	17.
63,3	Angermünde	Arr	11.25	11.28	12.02	12.25	12.29	13.02	13.25	13.28	14.02	14.25	14.29	15.02	15.25	15.28	15.56	16.02	16.25	16.29	17.
76,5	Chorin	Dep	11.33	12.04	...	12.33	13.04	13.33	14.04	...	14.33	15.04	...	15.33	...	16.04	...	16.33	17.04	17.	
84,0	Britz	↓	11.42	...	...	12.42	...	...	13.42	...	...	14.42	...	...	15.42	...	...	16.42	...	...
88,8	Eberswalde	Arr	11.47	12.20	...	12.47	13.20	13.47	14.20	...	14.47	15.20	...	15.47	...	16.20	...	16.47	17.20	...	
111,4	Bemau (bei Berlin)	Dep	11.53	12.21	...	12.53	13.21	13.53	14.21	...	14.53	15.21	...	15.53	...	16.21	...	16.53	17.21	...	
124,2	Berlin Karower Kreuz	↓	12.06	12.35	...	13.06	13.34	14.06	14.35	...	15.06	15.34	...	16.06	...	16.35	...	17.06	17.34	...	
131,9	Berlin-Gesundbrunnen	Dep	12.07	12.36	...	13.07	13.36	14.07	14.36	...	15.07	15.36	...	16.07	...	16.36	...	17.07	17.36	...	
135,4	Berlin Hauptbahnhof	Arr	12.16	...	...	13.16	...	...	14.16	...	...	15.16	...	...	16.16	...	...	17.16	...	...
137,4	Berlin Potsdamer Platz	↓	12.21	12.48	...	13.21	13.49	14.21	14.48	...	15.21	15.49	...	16.21	...	16.48	...	17.21	17.49	...	
141,1	Berlin Südkreuz	Arr	12.23	12.50	...	13.23	13.50	14.23	14.50	...	15.23	15.50	...	16.23	...	16.50	...	17.23	17.50	...	
		Dep	12.28	12.53	...	13.28	13.54	14.28	14.53	...	15.28	15.54	...	16.28	...	16.53	...	17.28	17.54	...	
		Arr	12.31	12.59	...	13.31	13.58	14.31	14.59	...	15.31	15.58	...	16.31	...	16.59	...	17.31	17.58	...	
		↓	12.35	...	...	13.35	...	...	14.35	...	...	15.35	...	...	16.35	...	...	17.35	...	...
		Arr	12.38	13.04	...	13.38	14.03	14.38	15.04	...	15.38	16.03	...	16.38	...	17.04	...	17.38	18.03	...	



Table 2 - Scenarios for efficient application of innovative propulsion systems on cross-border connections between Germany and Poland

Cross-border connection	Power supply (km)			Suitability of propulsion systems							Electrification (planned)	
	15 kV 16,7 Hz	Diesel	3 kV	Dual-mode			BEMU			FCMU		
				15 kV 16,7 Hz	3 kV	2- system	15 kV 16,7 Hz	3 kV	2- system			
Züssow-Wolgast-Świnoujście	-	60,6	-								1)	
Pasewalk-Szczecin	-	37,1	4,8		2)				2) 3)		1)	
Berlin-Angermünde-Szczecin	89,3	40,4	4,8	4)	5)	2) 4)	3)	2) 3) 5)	2)			Passow-Szczecin Gumieńce (40,4 km, until 2026)
Berlin-Kostrzyn-Gorzów Wlkp.-Krzyż	-	184,4	-		6)				3) 6)		1)	Kostrzyn-Krzyż (102,5 km, possibly 2021-2027)
Berlin-Frankfurt (Oder)-Poznań	90	-	173,1						7)			
Berlin-Frankfurt (Oder)-Zielona Góra	90	-	86						7)			
Cottbus-Guben-Zielona Góra	38,4	52,1	12,7				3)				1)	
Leipzig-Cottbus-Guben-Poznań	187,2	52,1	121,8									Guben-Czerwieńsk (52,1 km, possibly 2021-2027)
Cottbus-Forst (Lausitz)-Żary-Żagań-Legnica-Wrocław	-	124,9	74,6								1)	Cottbus-Forst (Lausitz) (22,6 km, until 2038)
Görlitz-Węgliniec-Żary-Zielona Góra	-	94,2	27								1)	
Berlin-Cottbus-Horka-Wrocław	122,4	73	150,8			4)						Cottbus-Horka (73 km, until 2038)
Dresden-Görlitz-Wrocław	7,5	95,4	163,3						8)			Görlitz-Zgorzelec (0,8 km, until 2026), Zgorzelec-Lubań (23,6 km, possibly 2021-2027), Dresden-Görlitz (94,6 km, until 2038)
Dresden-Görlitz-Jelenia Góra	7,5	119	52						8)		1)	

1) Need for hydrogen infrastructure 2) If operated from/to further destinations in Poland 3) Additional charging infrastructure needed (due to limited battery capacity) 4) Operation in tunnels in Berlin (main station, BER airport) not possible 5) If operated between Szczecin and Angermünde only 6) Possible option after electrification Kostrzyn-Krzyż 7) Possible alternative to 2-system EMU if operated between Frankfurt (Oder) and Poznań / Zielona Góra 8) If operated between Görlitz and Wrocław / Jelenia Góra (until electrification Görlitz-Zgorzelec)



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