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EUROPEAN RESEARCH PROJECT //

Collecting and analysing data for the post-27 INTERREG (Core-IB)

Poland-Germany (Saxony)

Border profile

March 2026

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This delivery does not necessarily reflect the opinions of members of the ESPON 2030 Monitoring Committee.

Coordination
Andreea China, Laura Dimitriu, Martin Gauk, Nikos Lampropoulos, Nicolas Rossignol – ESPON EGTC

Lead authors
Tobias Chilla, Dominik Bertram, Elias Günther, Stefan Hippe – Friedrich-Alexander University Erlangen-Nürnberg
Irene McMaster, Heidi Vironen, Neli Georgieva, Stefan Kah, Virginia Arena – Stichting EPRC Strathclyde University
Roland Gaugitsch, Sabrina Mansutti, Helene Gorny, Michelle Wiest, Erich Dallhammer, Cristian Andronic, Manon Badouix, Chien-Hui Hsiung, Robert Badea – ÖIR GmbH
Vít Pászto, Radek Barvíř, Karel Macků, Jaroslav Burian, Zdena Dobešová, Oldřich Bittner – Palacký University Olomouc

Steering Committee
Jean-Pierre Halkin, Gaëlle Doleans, Simona Pohlová, Maria Sioliou, Robert Spisiak – Unit D2 Interreg, Cross-Border Cooperation, Internal Borders, Directorate-General for Regional and Urban Policy, European Commission (EC-DG Regio)
Milada Hronkova – Ministry of Regional Development, Department of European Territorial Cooperation (CZ)
Josiane Meier - Federal Ministry for Housing, Urban Development and Building, Division Spatial Planning, Spatial Planning Law and European Spatial Development Policy BMWSB (DE)
Margarita Golovko – Ministry of Regional Affairs and Agriculture (EE)
Olivier Bichel, Sébastien Keiffer– Ministry of Housing and Spatial Planning, Department of Spatial Planning (LU)

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Contact: info@espon.eu

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1 Introduction

1.1 Context and objective of the border profile

The ESPON Core-IB project (Collecting and analysing data for the post-27 INTERREG) provides evidence-based, non-binding analytical work to support the next generation of Interreg programmes post-2027. By collecting and analysing harmonised territorial data, the project highlights key socio-economic characteristics, cross-border interactions, and governance structures. Its spatial focus covers 48 cross-border cooperation areas (40 land and 8 maritime), including all EU internal border regions and those bordering Liechtenstein, Switzerland, and Norway. The findings are analytical and informative; they do not create regulatory or policy obligations for Member States, the European Commission, or programme authorities. Each border profile serves as a comparable knowledge base for policymakers at EU, national, and regional levels, supporting dialogue and reflection rather than prescribing policy choices. The profiles aim to provide consistent, data-driven territorial evidence that can inform strategic discussions about future cross-border cooperation and contribute to the preparation of Interreg programmes post-2027.

The Core-IB border profiles are designed to support the upcoming steps in the Interreg programming process with analyses based on data that is available at the European scale, including ESPON, Eurostat, DG REGIO, JRC, and Interreg databases. Their main purpose is to ensure comparability of data analyses and to provide programme areas with access to recent harmonised data at high geographical resolution (NUTS3 level or finer). Member States may hold additional or more detailed data which can further enrich or contextualise the findings beyond the Core-IB project. These national sources are essential for refining and validating territorial evidence in policymaking processes, including additional regional, fine-scale information and insights from political processes related to prioritisation and objective setting. All border profiles follow a systematic and methodologically robust approach. They provide territorial evidence, structured along 6 thematic dimensions, offering insights into the geographic, economic, environmental, socio-economic, border security and governance characteristics of the border region. Quantitative data and qualitative analyses are combined to ensure meaningful insights into all 48 border areas. Due to methodological constraints and limited resources, local studies and national datasets falling outside the European data framework could not be included. Visualisations, such as maps and charts based on descriptive statistics, facilitate understanding and support evidence-based policymaking. The profiles analyse the border region as a whole at NUTS3 (2021) level (corresponding to the current Interreg VI-A programme area)[1] and position it within a broader European context. For comparative purposes, several reference categories are applied:

- European averages (EU27 + Norway, Switzerland and Liechtenstein, depending on data availability)
- National averages
- National border region averages
- Aggregated border region averages

To complement the quantitative evidence, the profiles also draw on strategic and qualitative sources, including:

- Strategic documents from the Interreg Programme 2021-2027
- Border Orientation Papers from the 2021-2027 programming period
- Information from the keep.eu database on cross-border cooperation activities
- Information from the Cohesion Open Data platform
- Information from the b-solutions initiative
- Information from recent ESPON Projects (i.e., CROSSGOV, House4All, PROFECY Update, CPS 2.0)

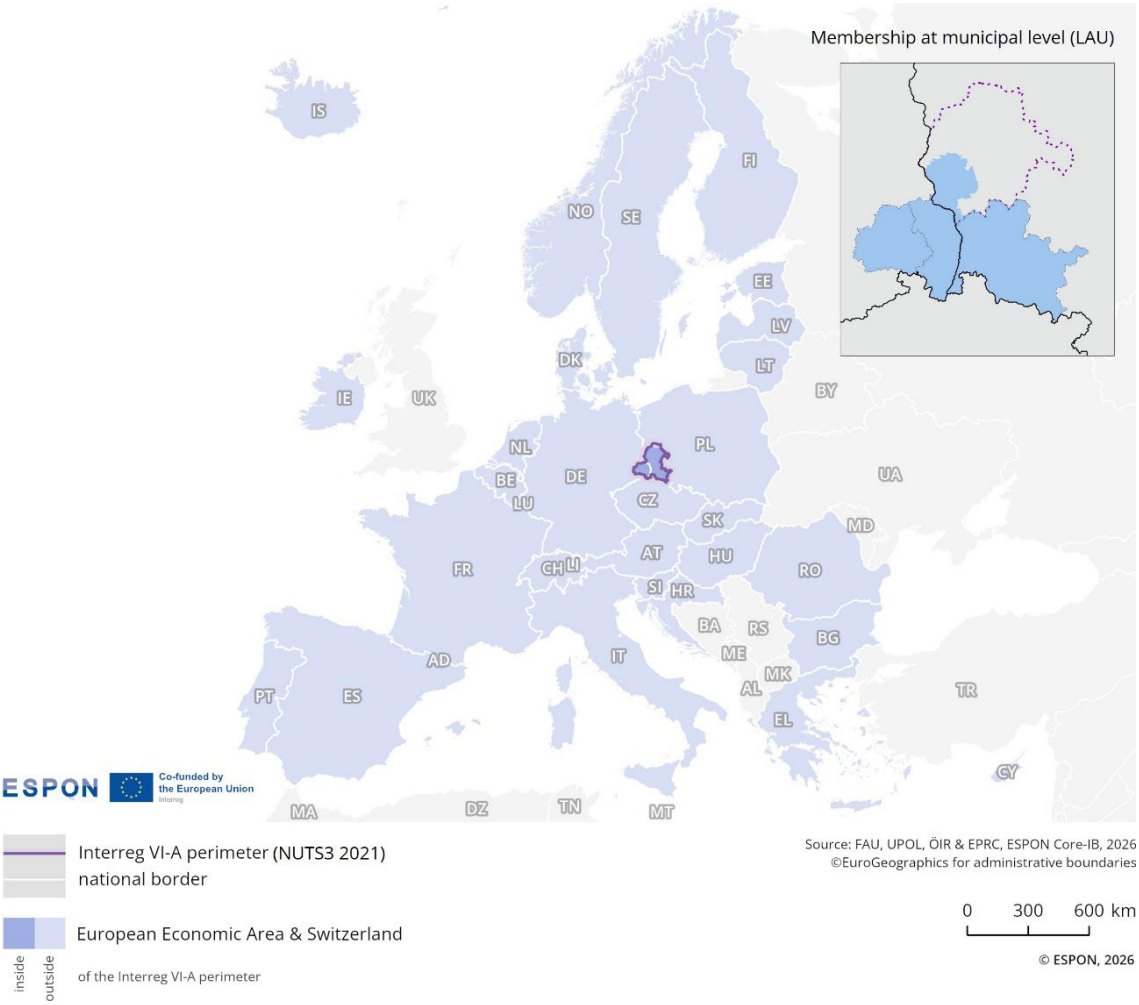
[1] As defined by Annex 1, Commission Implementing Decision (EU) 2022/74 of 17 January 2022, as amended by Commission Implementing Decision (EU) 2023/1638 of 14 August 2023 (OJ L204, 17.8.2023, p. 9): https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng

Within the ESPON framework, the CROSSGOV project (Governance mechanisms for cross-border functional areas) has been implemented in parallel to Core-IB. The CROSSGOV hub[2] provides a comprehensive platform for interactive data exploration, and selected data have been incorporated into this study. Additional project-related information can be explored separately in the Core-IB **Final Report**. Further technical information on this border profile can be found in a separate **Technical Annex** providing an overview of data and methods.

1.2 Presentation of the border area

The Interreg VI-A border region 'Poland–Germany/Saxony' covers the area between eastern Germany and western Poland (see Figure 1.1).

Figure 1.1: Overview map



[2] ESPON CROSSGOV Hub: https://gis-portal.espon.eu/arcgis/apps/experiencebuilder/experience/?id=27e3b86ef44441b08793a2239c370607

The geographical area covered by the programme has to be differentiated at 2 scales:

The programme area is defined in EU documents at the district level (NUTS3)[3], cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. In Germany, the programme area includes the districts of Bautzen and Görlitz. In Poland, the programme area includes the NUTS3 regions Jeleniogórski and Zielonogórski.

The municipal membership differs from this perimeter on the Polish side, as shown in the small map in the upper right part (dotted lines for the NUTS3 perimeter and the blue colour indicating the membership at municipal level). More specifically, in the Polish part of the border area, only the municipality of Żarski is a member, rather than the entire NUTS3 region of Zielonogórski. For the statistical analyses, the district level (NUTS3) is used as the reference level due to data availability. This should be taken into account when interpreting the results. To provide a general impression: the municipal members of this cooperation area account for approximately 1,17 million inhabitants out of 1,69 million within the NUTS3 perimeter (i.e., approximately 69%; values refer to 2023).

Figure 1.2 illustrates the region's geomorphological features and the perimeter of the current Interreg VI A programme area[4]. The landscape is predominantly flat and contains several large rivers, including the Oder and the Nysa. It is worth noting that the southern part of the border region is characterised by higher elevations (e.g., Saxon Switzerland).

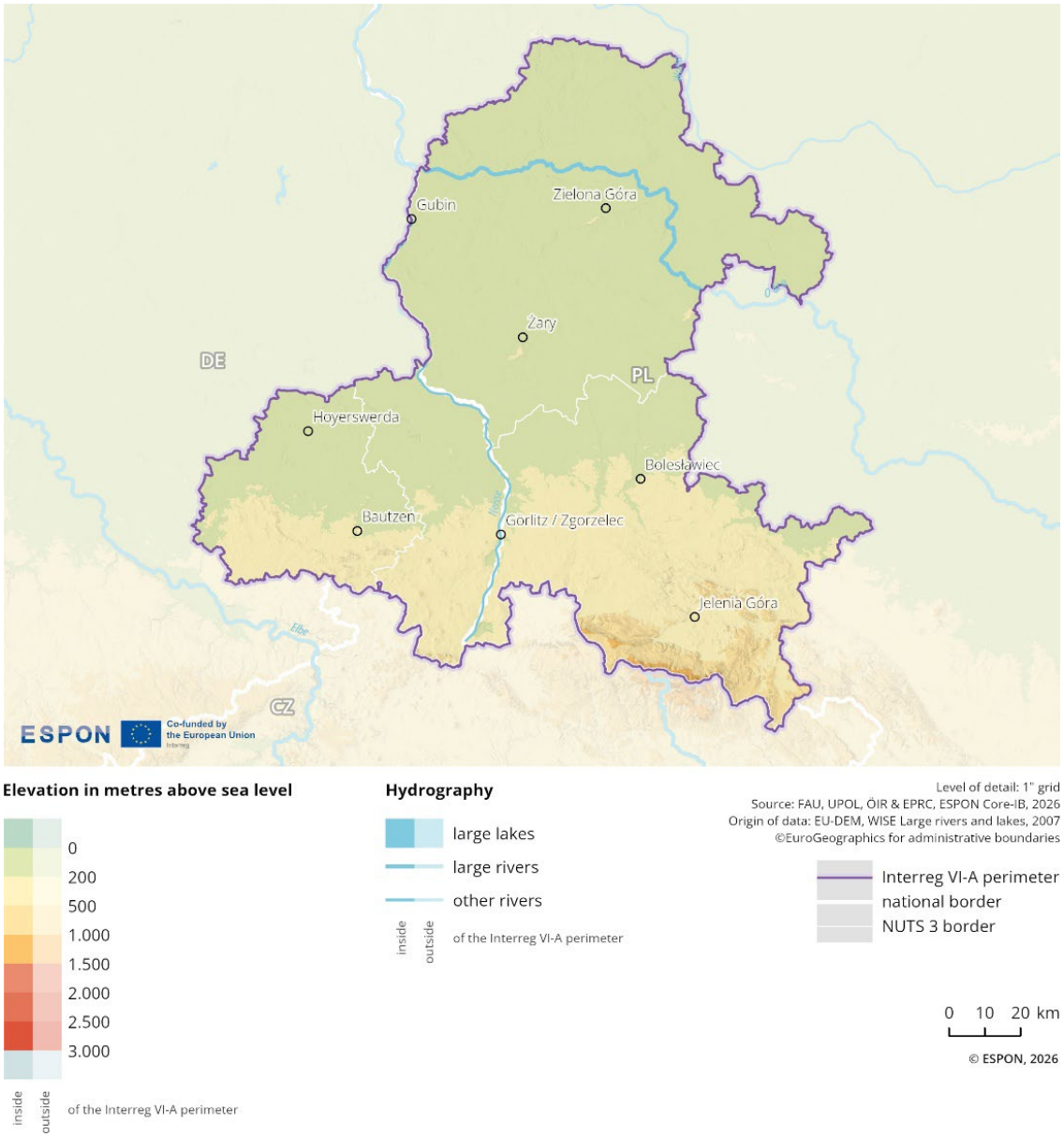
Key towns in the programme area include Görlitz, Hoyerswerda and Bautzen in Germany, and Jelenia Góra, Zielona Góra, and Gubin in Poland. The border region is characterised by diverse topography combining lowland plains with the foothills and mountain ranges of the Sudetes, including the Karkonosze Mountains. These mountains form part of the Krkonoše/Karkonosze National Park, a UNESCO Biosphere Reserve. These mountainous regions feature significant elevation differences and rugged terrain, which contrasts with the broad river valleys of the Oder and Neisse that dominate much of the border area. The Oder and Neisse not only shape the physical geography, but also form natural borders and ecological corridors.

The landscape comprises extensive wooded areas, agricultural land and several protected nature reserves that help to preserve the region’s biodiversity. Post-glacial landforms such as moraines, lakes, and river terraces are also evident in the border area, particularly in the northern lowlands. The Elbe Sandstone Mountains and Lusatian Highlands further add to the region’s geomorphological diversity.

[3] The use of NUTS3 geometries is of fundamental importance in this project, as the applied pan-European datasets as well as the newly developed indicators in the ESPON CROSSGOV project refer primarily to the NUTS3 level (in the 2021 version, see also the final report of the project).

[4] Please note that the spatial reference is the perimeter at district level, i.e., NUTS3. For the details see figure 1.1. This applies to all maps of this border profile.

Figure 1.2: Geographical features and characteristics[5]



[5] The selection of displayed settlements is based on factors such as size, administrative or cultural importance, transport links, regional coverage and cartographic clarity. This is part of a standard cartographic generalisation process with no pre-set thresholds, and the main aim is to provide orientation.

2 Cross-border analysis

2.1 Territorial dimension

The territorial dimension refers to the spatial characteristics and dynamics of a border region. It specifically depicts how factors such as population density, demographic trends, changes in settlement areas and accessibility influence and reflect cross-border integration.

2.1.1 Population and settlements

This sub-dimension illustrates the population characteristics and land use dynamics of the border region, based on analysed indicators. It examines population density, population development by age groups, and changes in settlement areas. The analysis highlights whether the border functions as a catalyst for integration or as a barrier. Comparisons with the respective countries and the EU average provide context for understanding the region's dynamics.

2.1.1.1 Population density

Indicator description

Population density refers to the number of residents per km². This indicator shows the number of inhabitants per square kilometre in a 1x1 km grid. It therefore provides information on the distribution and concentration of population across the region and allows to identify agglomerations of high density. In particular agglomerations at or close to the border area of key interest.

- **Source**: Eurostat
- **Temporal coverage**: 2021
- **Unit**: Inhabitants/km^2

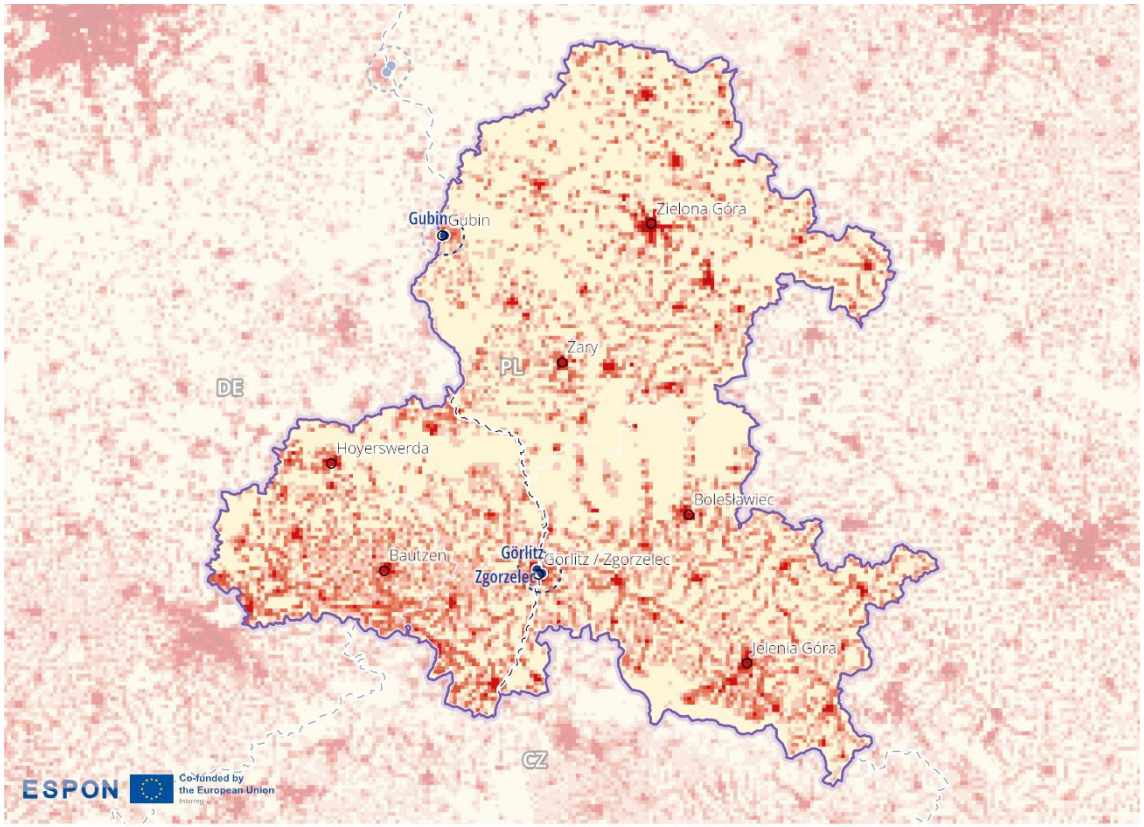
Please refer to the technical annex for more information.

The map indicates that the population density and distribution are more even in the southern part than in the northern part, which is located in Poland. The middle part has some areas with zero population density. The highest population density is in Bautzen (40,000), Hoyerswerda (31,000) in Germany, and the border twin cities of Görlitz (56,000) and Zgorzelec (29,000). On the Polish side of the border region, population is concentrated in Zielona Góra (140,000), Jelenia Góra (76,000), and smaller Zary and Boleślawiec.

The population density in this whole border region is 91 inhabitants/km², which is therefore lower than the EU average of 109 inhabitants/km² (according to EUROSTAT), and it is also lower than the aggregated average of all EU evaluated border regions, which is 125 inhabitants/km².

The part of the border region in Germany has an average population density of around 121 inhabitants/km². It is therefore lower than the national average population density in Germany (231 inhabitants/km²). The part of the border region in Poland has an average population density of around 82 inhabitants/km². It is therefore lower than the national average population density in Poland (118 inhabitants/km²).

Figure 2.1: Spatial patterns of population distribution[6]



[6] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.1.1.2 Population development (by age groups)

Indicator description

Population development refers to the percentage change in population at regional level between 2014 and 2024. The data reflects on the total population, as well as on the age groups 0-14, 15-64 and 65+.

- **Source**: Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2014-2024
- **Unit**: Change in %

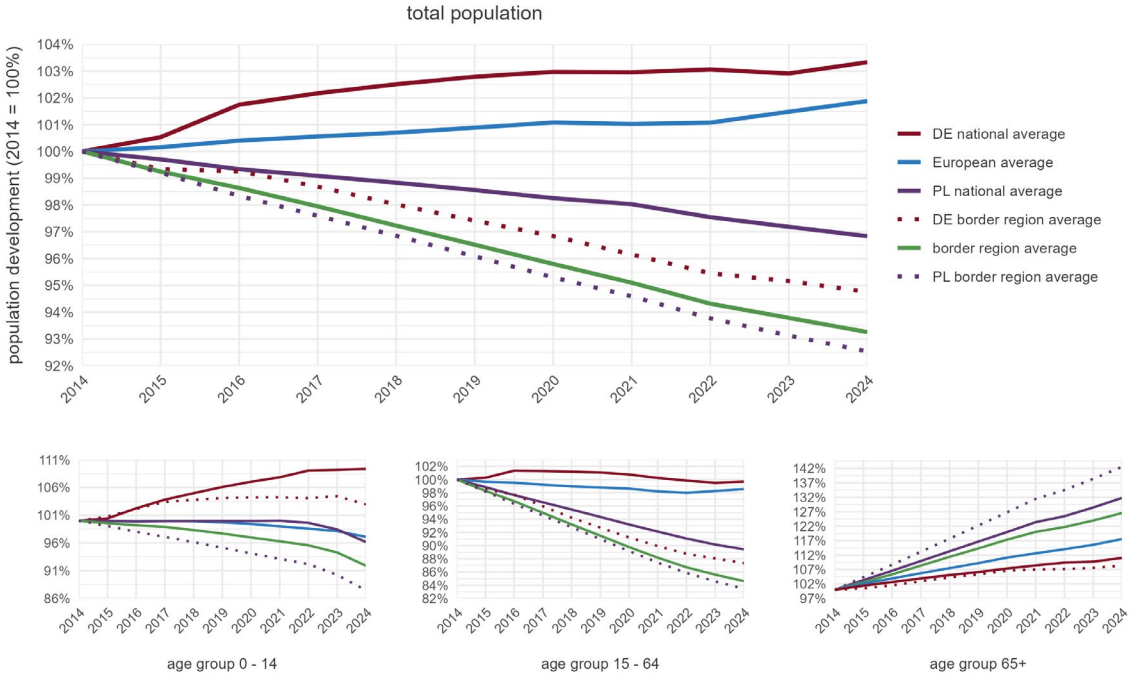
Please refer to the technical annex for more information.

Population in the Poland–Germany/Saxony region in 2024 (Eurostat): 1.6 million inhabitants, of which:

- 67.0% in the Polish border territory (1.1 million inhabitants)
- 33.0% in the German border territory (0.54 million inhabitants)
- Region within the border region with the highest population change since 2014: Jeleniogórski (PL515) at -9.6%

Figure 2.2 shows the population change in the Poland–Germany/Saxony region between 2014 and 2024. During this period, the region has experienced a noticeable decline of 6.7%, with the most pronounced decrease observed on the Polish side.

Figure 2.2: Population development (2014=100)[7]



[7] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Population development across the border region is substantially below the European average (-6.7% vs. 1.9%) and also substantially below the average development in all border regions (-6.7% vs 1.5%). While the Polish parts show a decline at both the regional and national averages (-7.5% vs. -3.2%), the German border area exhibits a decrease in comparison to the growth at the national level (-5.2% vs. 3.3%).

In terms of the development of individual age groups in the region, the population aged 0–14 experienced a marked decrease of -8.1%, while the working-age population (15–64) showed a sharp decrease of -15.4%. The population aged 65 and over underwent a substantial increase of 26.5%.

2.1.1.3 Change in settlement areas

Indicator description

The indicator shows the relative change in settlement areas per LAU in the border region. It considers changes in land cover, from non-artificial areas (such as agricultural, forest and seminatural areas, wetlands and water bodies) to artificial areas (such as urban, industrial, construction sites) between 2012 and 2018. This indicator has to be viewed alongside population development in particular.

- **Source/method of retrieval**: The indicator is retrieved via processing of raster data from CORINE Land cover. The raster information is crossed with Local Administrative Units (LAU) to calculate a change in %.
- **Temporal coverage**: 2012-2018
- **Unit**: Change in %

Please refer to the technical annex for more information.

Figure 2.3 illustrates the change in settlement areas at municipal level between 2012 and 2018. Overall, the map shows similar patterns of change in settlement areas on both sides of the Polish-German border. Changes are evident in particular around the urban centres of Hoyerswerda -Wojerecy, Zielona Góra, Żary, Bolesławiec, Jelenia Góra and Görlitz/Zgorzelec. Guben, Bautzen/Budyšin and the city Görlitz are exceptions, with no significant changes during the observed time period. High growth in settlement areas is particularly evident around the German municipalities Trebendorf and Rietschen as well as around the Polish cities Legnica and Jawor. In close proximity to the national borders, the settlement area increases mainly around Görlitz/Zgorzelec and Spremberg.

Figure 2.3: Settlement area dynamics[8]

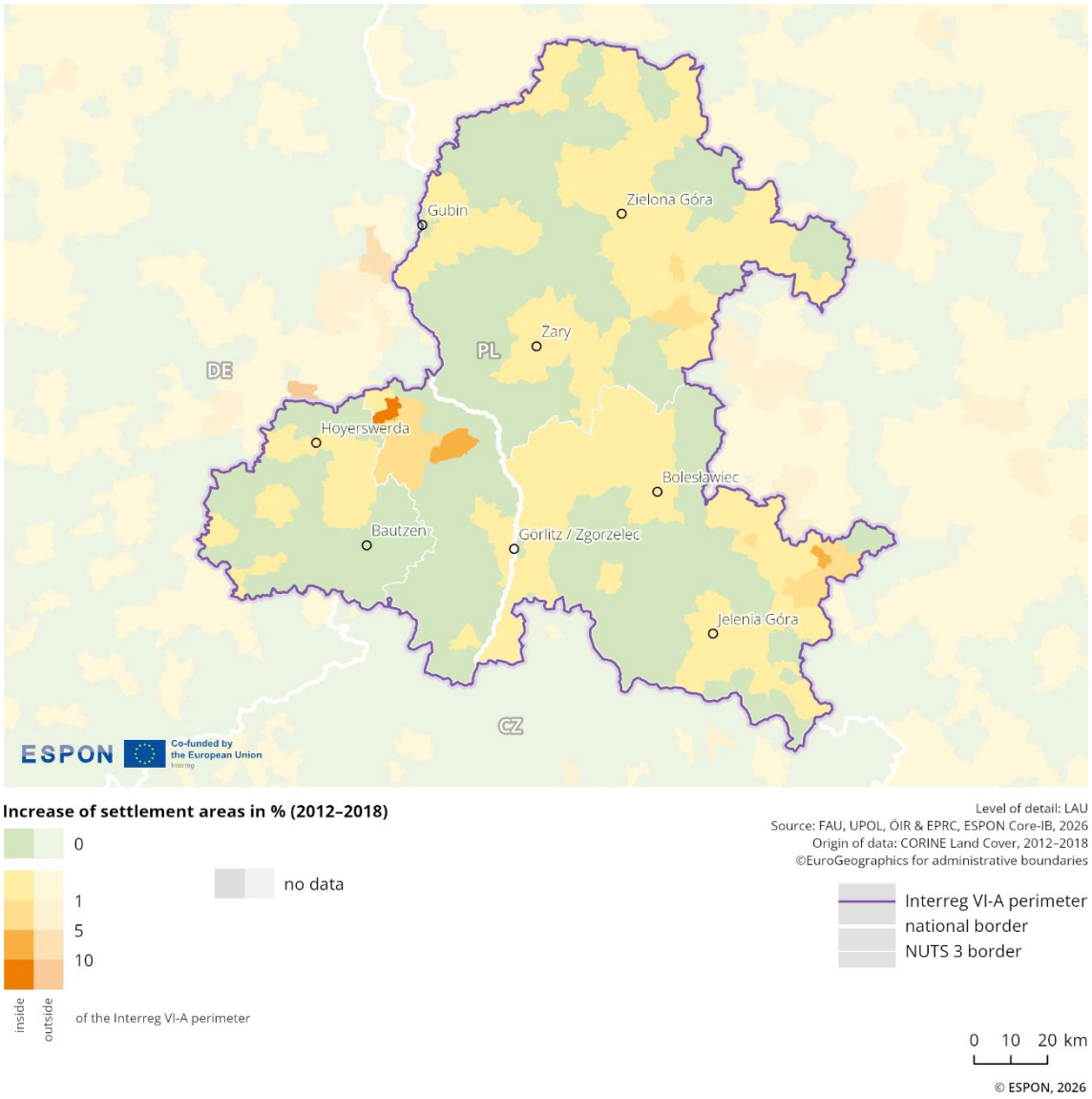
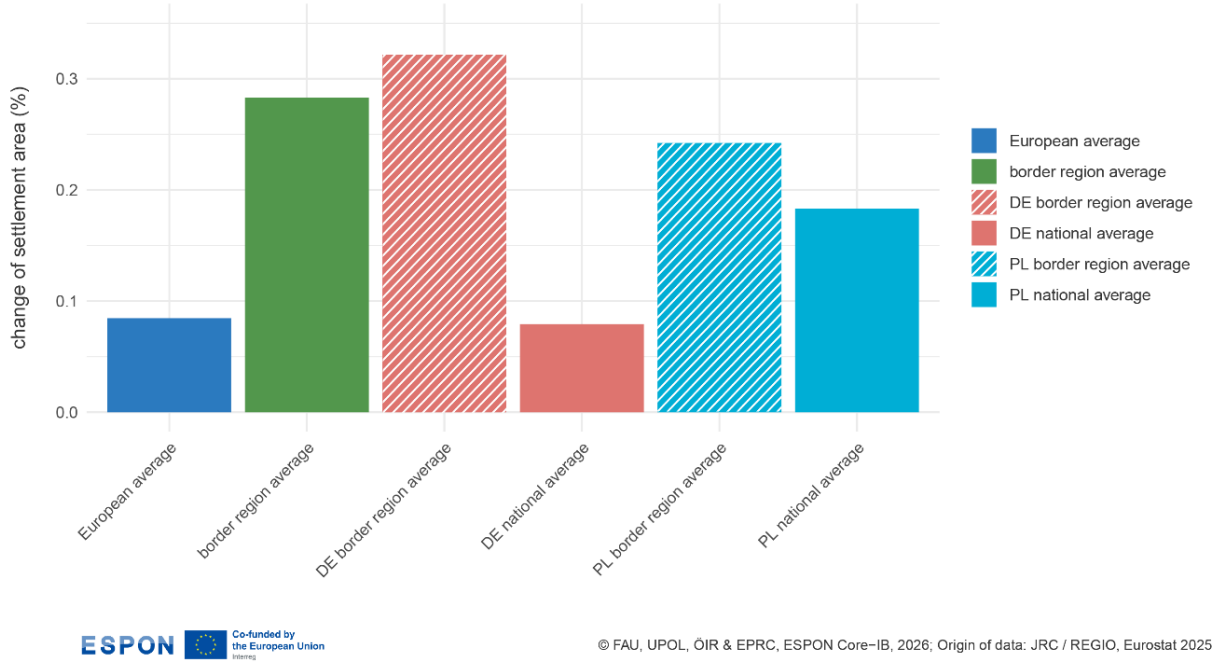


Figure 2.4 presents the change in settlement areas from a comparative perspective. The average for the Poland-Germany/Saxony programme area is higher than the overall European average, which includes both EU member states and the EFTA (European Free Trade Association) countries Switzerland, Liechtenstein, and Norway. The national Polish value is higher than the national German one. The German border-regional average lies above the Polish border-regional average. Both the border-regional averages are higher than the national averages.

In general, the programme area shows a dynamic settlement development. The need for an integrated approach to spatial development is obvious. Spatial development has to balance the various demands on land use (e.g., residential, commercial, tourism, transport, agriculture, and nature conservation), and this requires ongoing coordination and exchange, also across the border.

[8] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.4: Change in settlement areas (2012-2018) (comparison)[9]



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2.1.2 Accessibility of the border area

This sub-dimension illustrates the functional travel connections that already exist in the border region. It examines average cross-border travel times for different modes of transport and cross-border catchment areas based on mobility flows. It also considers travel times to and from border crossings. The analysis shows whether mobility flows are integrated between border regions or if the border hampers mobility.

2.1.2.1 Comparative quality of selected cross-border connections

Indicator description

The indicator presents a comparative perspective for different modes of transport (public and private) and their average travel speed (so-called space-time-lines). As such it helps to understand and interpret accessibility patterns along the border and highlights the comparative quality of selected cross-border connections.

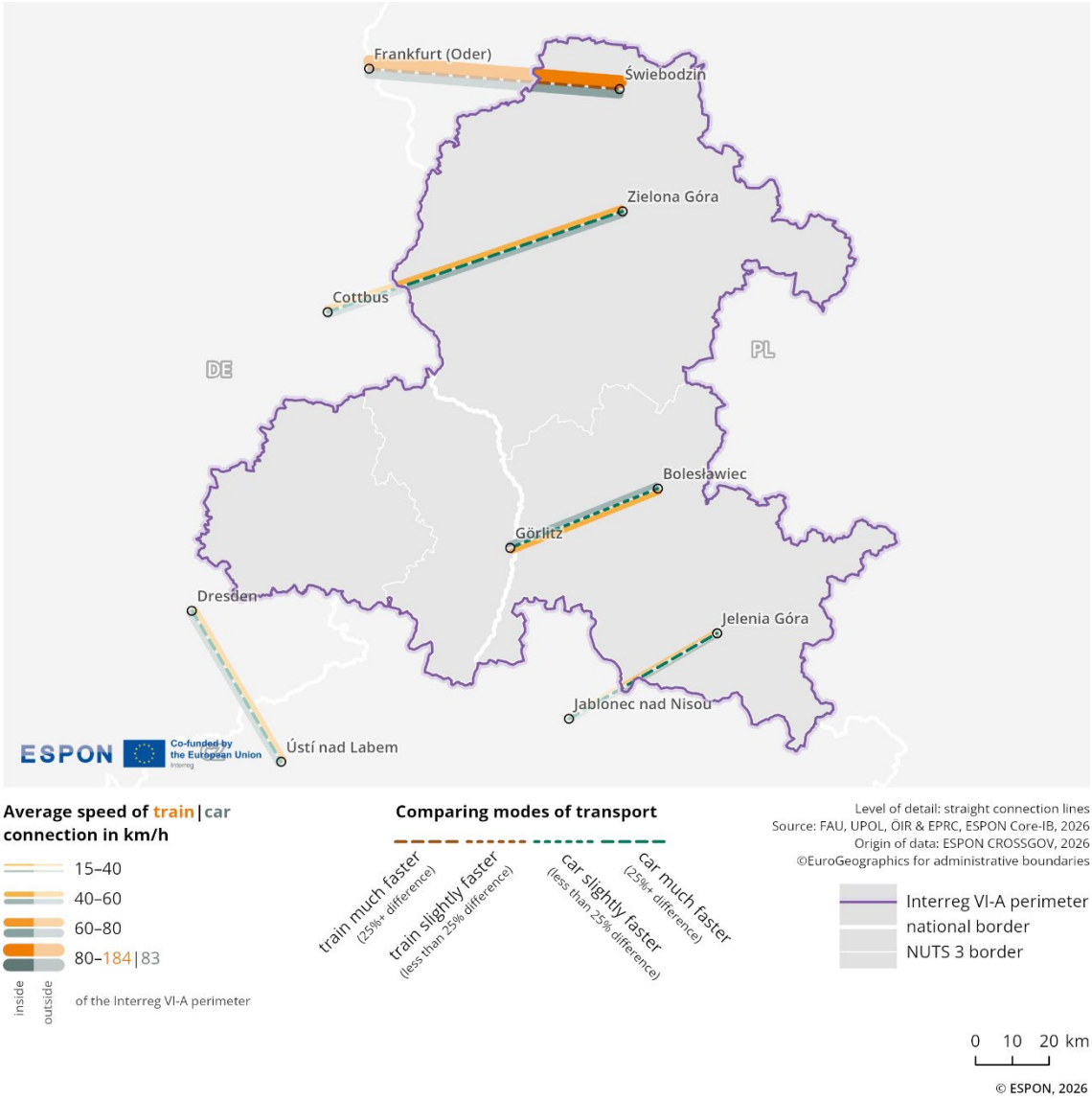
- **Source/method of retrieval**: Average number and speed of rail connections/ferries, average speed of car connections between selected cities and towns in border regions using Rail Travel Sites, Google Maps, luftlinie.org, Direct Ferries, local ferry companies
- **Temporal coverage**: 2025 (first quarter)
- **Unit**: km/h

Please refer to the technical annex for more information.

[9] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Cross-border accessibility shapes cross-border interactions. Figure 2.5 illustrates this using a "space-time-line" map, which shows parts of a European overview of car and train travel times in the Poland-Germany/Saxony border region. This visualization enables an assessment of transport quality by highlighting differences between public (train) and private (car) transport modes.

Figure 2.5: Comparative quality of selected cross-border connections[10]



The selection of cities and connections covered is based on a set of criteria applied throughout Europe within the ESPON CROSSGOV project[11]. These criteria include the presence of a railway station, population size, distance to the border, node hub and functionality. The thickness of the lines (orange for trains, grey for cars) indicates the average speed of connections in km/h, with thicker lines representing faster connections. Dotted lines in-between reflect the indexed ratio between train and car speeds. A brown colour scale (values below 100) denotes that trains are faster than cars along the specific route, while a green scale (values above 100) indicates the opposite.

[10] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

[11] ESPON CROSSGOV Atlas, see Storymap on 'Space-time-lines': https://gis-portal.espon.eu/arcgis/apps/storymaps/collections/345c978adf784ad-fac30c16b90219d35?item=4

The selected connection within the programme area is Görlitz–Bolesławiec. For this route, car travel outperforms the train connection in terms of speed. Notably, the Görlitz–Bolesławiec connection also offers a relatively fast train option.

2.1.2.2 Cross-border catchment area based on mobility flows

Indicator description

This indicator measures the movement of people across borders. The density of cross-border movements by Twitter/X users is displayed on a grid cell covering an area of 20x20 km. The indicator does not differentiate between reasons for movement.

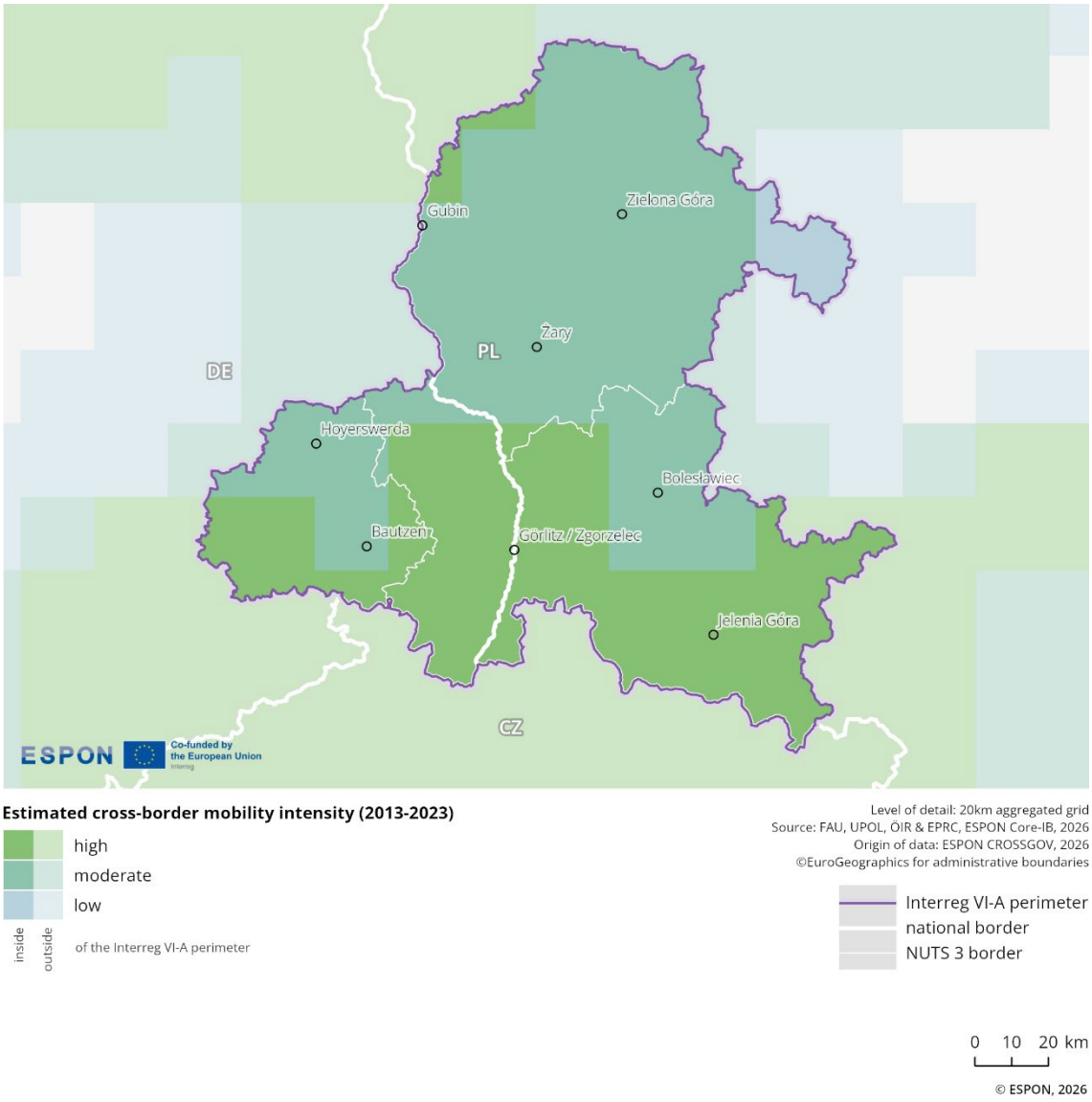
- **Source/method of retrieval**: The indicator is calculated based on Twitter (currently X) data. The digital footprint of individual users provides information about physical mobility flows and is used to calculate cross-border catchment areas of different intensity.
- **Temporal coverage**: 2013-2023
- **Unit**: n/a

Please refer to the technical annex for more information.

Figure 2.6 shows the cross-border catchment area in the border region based on mobility flows from 2013 to 2023, highlighting estimated cross-border mobility intensity across 3 different quartiles. The first quartile represents the 25% highest mobility intensity shown in dark green, the second quartile represents 25-50% coloured in green-blue, and the third quartile represents 50-75% in light blue.

The intensity of cross-border mobility of people within this cross-border region is relatively homogeneous. The highest mobility intensity is recorded in the southern part of the region, particularly around the cities of Zgorzelec and Jelenia Góra. Across the majority of the territory, mobility intensity is moderate (25–50%), encompassing cities such as Hoyerswerda, Bolesławiec, and Zielona Góra.

Figure 2.6: Cross-border mobility intensity[12]



[12] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.1.2.3 Cross-border travel-time accessibility

Indicator description

The indicator shows the time it takes to travel from any location within a region to the next border crossing, using grid data and subsequent categorisations into accessibility groups of 30, 60 and 90 minutes. It reflects the accessibility in cross-border areas, considering road transport. The indicator can describe the quality and speed of road connections and thus spatial reach of the cross-border services.

- **Source/method of retrieval**: Based on the OpenStreetMap road network, the travel time to the border is calculated for a grid of the border are. Based on this, areas are calculated within which border crossings can be reached below thresholds of 30, 60 and 90 minutes. As additional visual element, key services pharmacies, doctors, hospitals and shops (retrieved from the ESPON PROFECY project) are displayed and categorised into the accessibility groups.
- **Temporal coverage**: 2025 (first quarter, for accessibility data), 2021 (for service facility data)
- **Unit**: Minutes

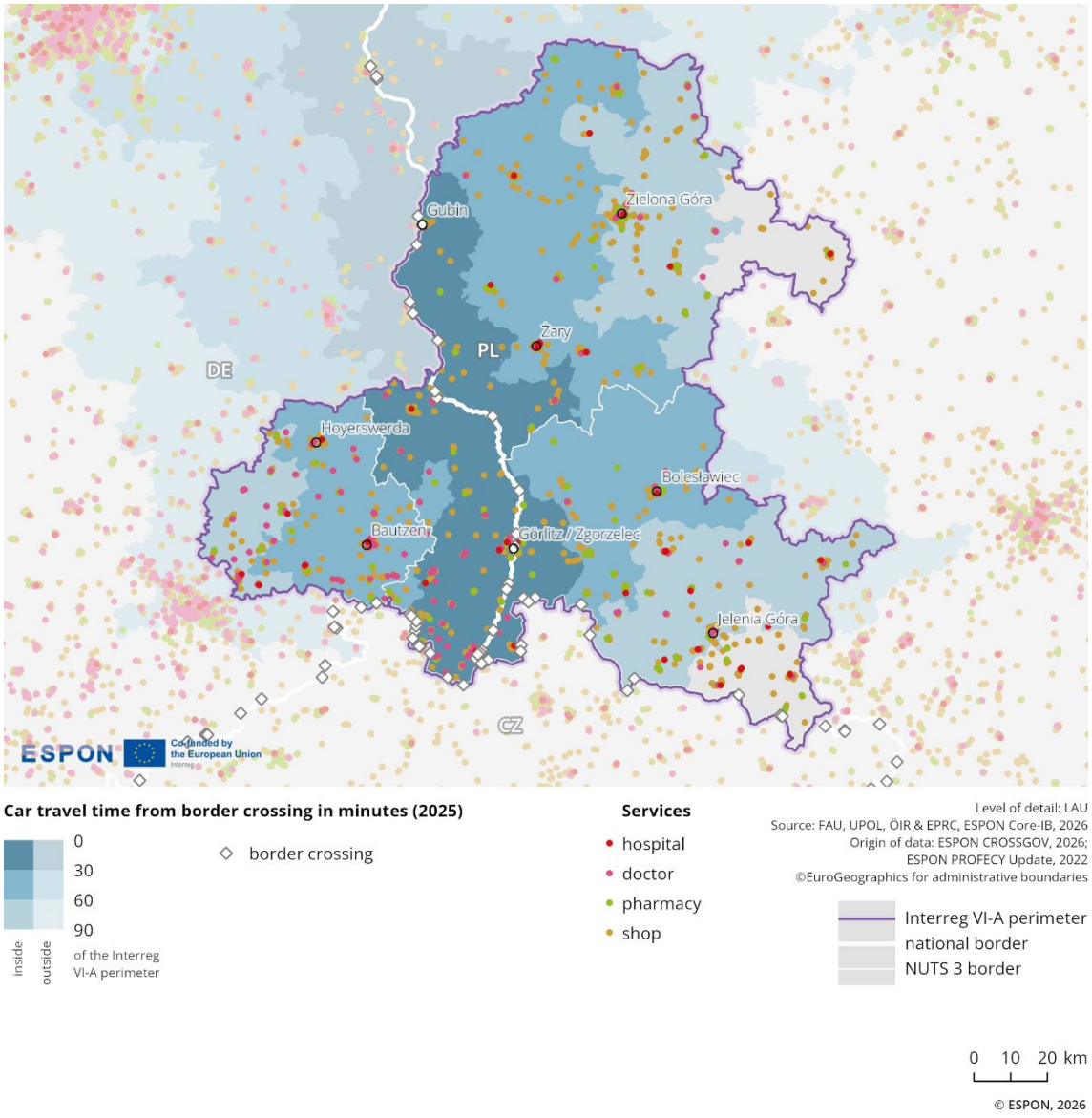
Please refer to the technical annex for more information.

Figure 2.7 illustrates cross-border travel time accessibility in the Interreg area, showing the time distance from the national border in 2025. The legend indicates 3 travel time categories in minutes (30, 60, 90) represented by different shades of blue. In addition, it marks the location of services, including hospitals, doctors (general practitioners), pharmacies, and shops (supermarkets and conventient stores), with distinct coloured symbols.

The map shows that along the entire cross-border, the travel-time accessibility is under 30 minutes without any interruptions. This indicates a good road network and accessibility in cross-border areas. The areas of travel time accessibility thresholds 30- and 60-minute form parallel belts on both sides of the border. Only one narrowing from Poland side exists in the middle of the cross-border. The 2 categories, 30 and 60 minutes, cover nearly all areas of the border regions. The more distant parts of the Poland region from the border fall into the accessibility category of under or above 90 minutes.

Services such as shops, hospitals, doctors' offices, and pharmacies are evenly distributed in both Poland and Germany. The central concentration of services exists in the twin cities of Görlitz and Zgorzelec. Local centres of services are in Zielona Góra and Bautzen, but they are more distant from the border.

Figure 2.7: Travel-time accessibility from border crossings[13]



2.1.3 Key messages on the territorial dimension

The Poland–Germany/Saxony border region is characterised by contrasting demographic and spatial dynamics. Population density within the border area is relatively low compared to the EU average and national figures in Poland and Germany. However, the population distribution is relatively uneven within the region: while towns such as Bautzen, Görlitz, Zgorzelec, Zielona Góra and Jelenia Góra are important centres, large areas are sparsely populated or even uninhabited. This spatial distribution creates a network of urban hubs surrounded by more rural areas.

Between 2014 and 2024, the border region's population declined by almost 7%, which is considerably higher than the overall European trend. This tendency is especially pronounced in Poland, but is also evident in Saxony despite Germany's overall population growth. The most significant decreases are among young and working-age groups, while the population aged 65 and over has increased sharply.

[13] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

At the same time, however, settlement development presents a somewhat paradoxical pattern. Despite population decline, settlement areas have expanded dynamically, particularly around Trebendorf and Rietschen on the German side as well as around the Polish cities Legnica and Jawor. This highlights the growing pressure on land use and the corresponding importance of integrated spatial planning approaches that balance residential, economic and environmental demands.

With regard to accessibility car travel generally outperforms train connections, indicating a structural potential in cross-border public mobility. Cross-border mobility flows are strongest in the southern part of the border region, around Zgorzelec and Jelenia Góra, but remain moderate elsewhere. Services are relatively evenly distributed.

2.2 Economic dimension

The economic dimension includes analyses of gross domestic product, labour market conditions, competitiveness, and key infrastructure and housing indicators. The aim is to illustrate the impact of the border on economic performance, whether it acts as a barrier or a bridge, and the extent to which integration is supported by labour mobility, remote working, and infrastructure connectivity.

2.2.1 Gross Domestic Product

This sub-dimension illustrates the economic situation of the border region by analysing gross domestic product (GDP). It shows economic development within the border region and how this has changed over time. Comparisons with the respective countries and the EU average provide important context for understanding the region's dynamics.

2.2.1.1 Gross domestic product per capita at current market prices

Indicator description

The indicator shows the regional GDP/capita in current prices and its development over the past years. It highlights structural differences and similarities between the border region and the respective national figures as well as the European average. Furthermore, it highlights patterns within the border region, although has to be interpreted with care in the case of a strong presence of commuters.

- **Source**: Eurostat, Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2010-2023
- **Unit**: Euro per capita

Please refer to the technical annex for more information.

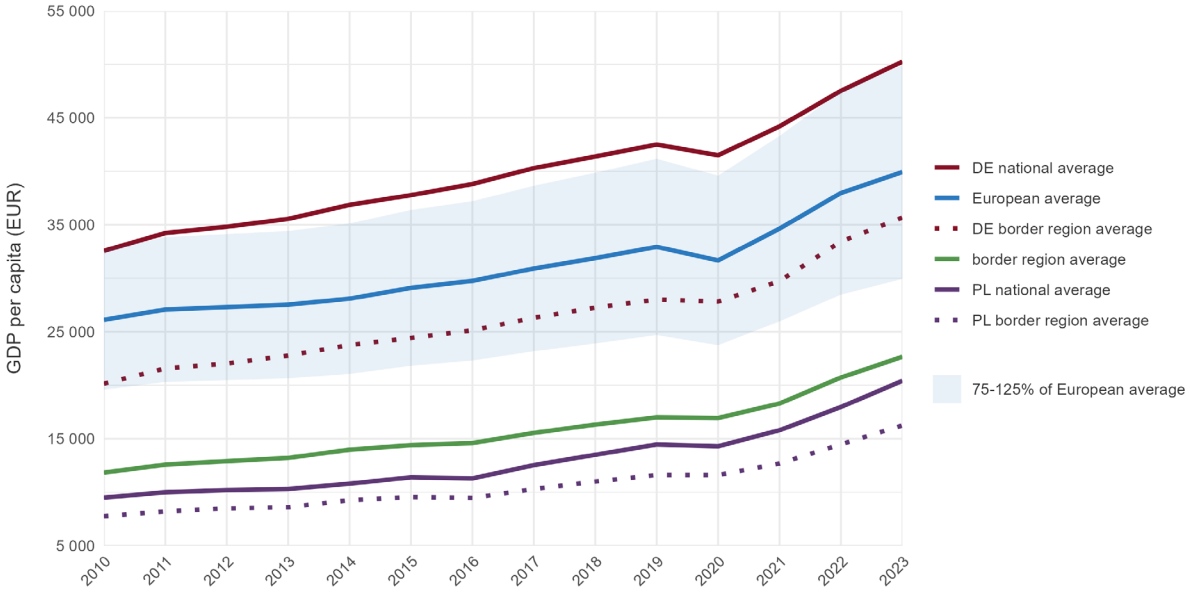
In 2022, the border region's GDP per capita was 57.1% of the EU average and 58.0% of the average for other European border regions. Between 2014 and 2022, it grew by 50.5%, an increase 14.8 percentage points higher than the EU average and 15.3 percentage points higher than the average for European border regions[14].

[14] Percentage changes are calculated using Eurostat data to ensure harmonised statistics from official sources. The latest year for which full coverage of all European regions is available on Eurostat is 2022. For visualisation purposes, ARDECO data has been used to enable longer time series to be visualised by filling the official dataset's existing gaps with model-based estimates. Therefore, slight deviations between the calculation and visualisation are possible.

Germany as a whole has a much higher GDP per capita than the EU average, but its border region remains well below that level. In 2022, GDP per capita in the German border region was 70.3% of the national average. Still, it grew 12.7 percentage points faster than the German average since 2014.

On the Polish side, GDP per capita grew by 57.0% between 2014 and 2022, which was slower than the national average of 66.9% (see Figure 2.8).

Figure 2.8: Gross domestic product at current market prices (per capita)[15]



ESPON Co-funded by the European Union Interreg

[15] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.2.2 Labour market and commuting

This sub-dimension highlights the existing and potential functional links within the labour market of the border region. It examines the employment situation and commuting patterns, as well as the role of telework agreements, and considers developments over time based on analysed indicators. The analysis identifies factors that facilitate or hamper cross-border labour market integration.[16]

2.2.2.1 Share of employment

Indicator description

This indicator shows the share of employees in the population aged 15 to 64. Although it does not fully capture entrepreneurs, marginal employees, or civil servants, this is an important statistic for understanding general labour market patterns. It covers 2 aspects: first, high values can result from a high proportion of the resident population being employed. Second, high values can result from a high number of incoming commuters (from other NUTS3 regions within the country or from neighbouring countries). The same arguments apply to low values: they may indicate low levels of employment, or they may result from high shares of outgoing commuters. Values of more than 100% are possible, since the number of incoming commuters can exceed the number of inhabitants aged 15 to 64 (including both domestic and cross-border commuters).

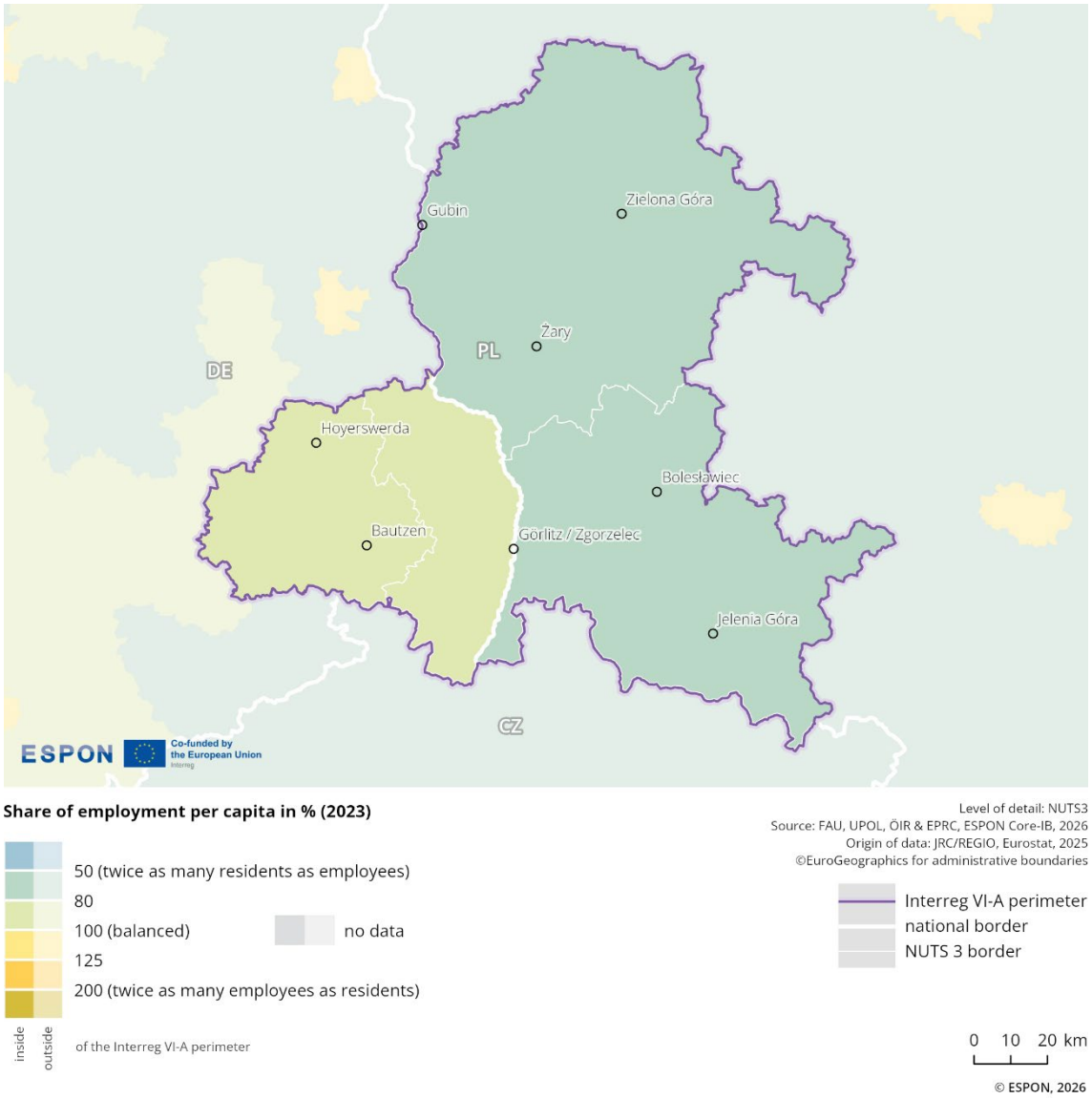
- **Source**: Eurostat, Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2014-2023
- **Unit**: Share in %

Please refer to the technical annex for more information.

Figure 2.9 illustrates the share of employment per capita in the population aged 15 to 64 in 2023. The data are categorised into ranges from below 50% (twice as many residents aged 15 to 64 as employees) to above 200% (twice as many employees as residents aged 15 to 64), with 100% representing a balanced ratio. Blue or green-coloured regions indicate more residents aged 15 to 64 than employees, while yellow regions indicate more employees than residents aged 15 to 64.

[16] See also: European Commission 2024: Cross-Border Regional Labour Market Analysis, https://op.europa.eu/s/AazM

Figure 2.9: Employment share[17]



The share of employment in this border region is relatively stable, with the average for the entire region at 69.71% in 2023, represeting an increase of 13.24 percentage points since 2014. Differences between the individual countries are apparent due to varying indicator values. In the Polish part of the border region, the share of employment lies within the range of 50% to 80%, while in the German part, the values range from 80% to 100% across the entire territory.

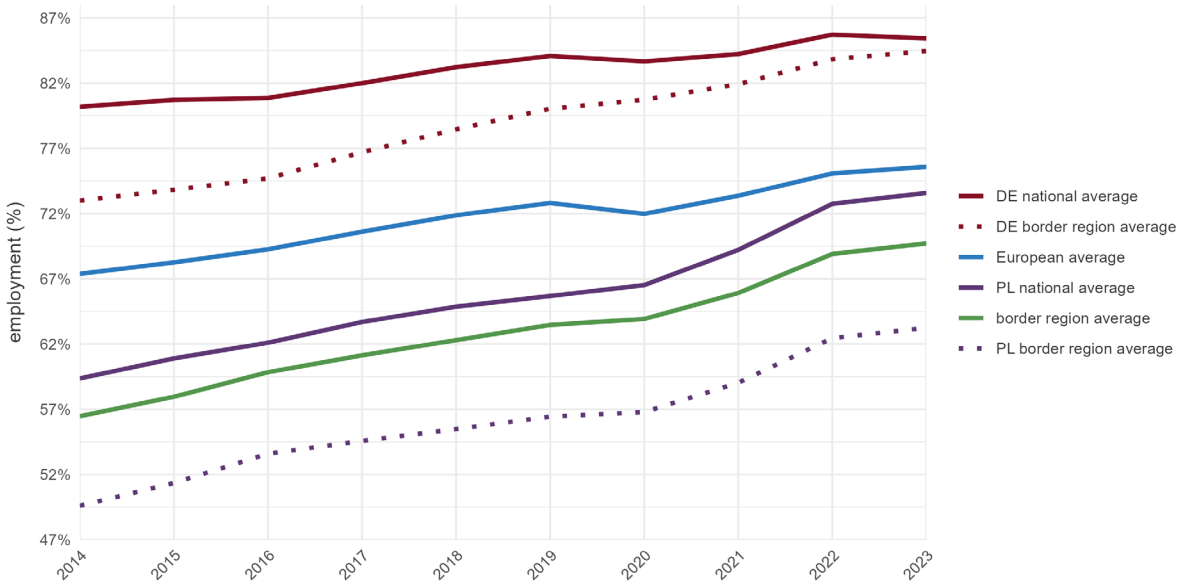
When comparing the share of employment in this border region with different averages, the following can be observed (see Figure 2.10):

- Compared to the European average, values in the cross-border region are lower by 5.9 percentage points; in 2014, they were lower by 10.9 percentage points.
- Compared to the Polish average, values in the cross-border region are lower by 3.9 percentage points; in 2014, the difference was 2.9 percentage points. Compared to the German average, values in the cross-border region are lower by 15.7 percentage points; in 2014, they were lower by 23.7 percentage points.

[17] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1. Note: In this map, 'residents' refers to the population aged 15 to 64.

- The Polish part of the border area reaches values 10.3 percentage points lower than the Polish national average, while the German part of border area has values 1 percentage point lower than the German national average.
- Compared to the average of all cross-border regions, values are lower by 4.7 percentage points; in 2014, they were lower by 9.8 percentage points.

Figure 2.10: Employment share over time (comparison)[18]



ESPON Co-funded by the European Union Interreg

2.2.2.2 Share of working-age population

Indicator description

This indicator shows the share of people aged 15 to 64 in the total population, reflecting the potential working-age population. The population counted includes all residents who live in the country permanently, excluding foreign students and military personnel. Using the 15–64 age range is a standard European statistical proxy, since differences in retirement age or labour participation across countries cannot be captured systematically. It allows for regional differentiation of potential workforce throughout the border region.

- **Source**: Eurostat, Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2014-2023
- **Unit**: Share in %

Please refer to the technical annex for more information.

[18] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

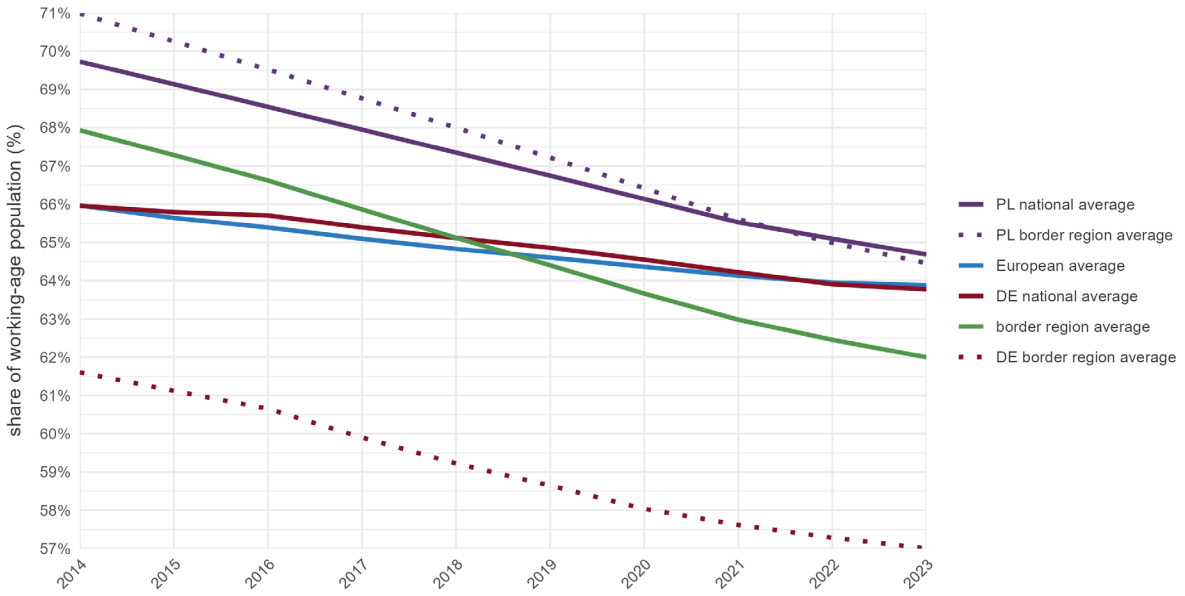
Figure 2.11 illustrates the evolution of the share of the working-age population in the Poland–Germany/Saxony cross-border region between 2014 and 2023. In 2023, the border region shows an average working-age population share of 62.0%, compared to the European average of 63.9% and 63.7% for the average of all cross-border regions.

The share of the working-age population in the whole cross-border region is slightly lower compared to both the Polish border average (64.5%) and the Polish national average (64.7%). In contrast, it is higher than the German border average (57.0%), but slightly lower than the German national average (63.8%).

The region experienced a strong 5.9 percentage point decrease in the share of the working-age population between 2014 (67.9%) and 2023 (62.0%). This decline contrasts with the European average, which decreased by 2.1 percentage points during the same period. While all areas in the region show a declining trend, the rate of decline has been more pronounced in the Polish parts (-6.5 percentage points at the border and -5.0 percentage points at the national level) than in the German parts (-4.6 percentage points at the border and -2.2 percentage points at the national level). This trend in both parts of the border area leads to a potentially smaller pool of people of working age and could exacerbate the shortage of skilled workers, meaning that competition for qualified labor becomes more intense.

This suggests a strong demographic ageing trend across the entire Poland–Germany/Saxony cross-border region, with particularly marked decreases in the Polish areas. The region now lies below both the EU and overall cross-border averages.

Figure 2.11: Share of working-age population over time (comparison)[19]



ESPON Co-funded by the European Union Interreg

[19] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.2.2.3 Employment by sector

Indicator description

The indicator differentiates the number of jobs in a region by sector. This indicator focuses on workplace-based employment, providing insight into the employment landscape of a region. The dataset can be disaggregated according to "10-sector" NACE (Nomenclature statistique des activités économiques dans la Communauté européenne) classifications, allowing for detailed analysis of employment distribution across various industries.

- **Source**: Eurostat, Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2014-2023
- **Unit**: Share in %

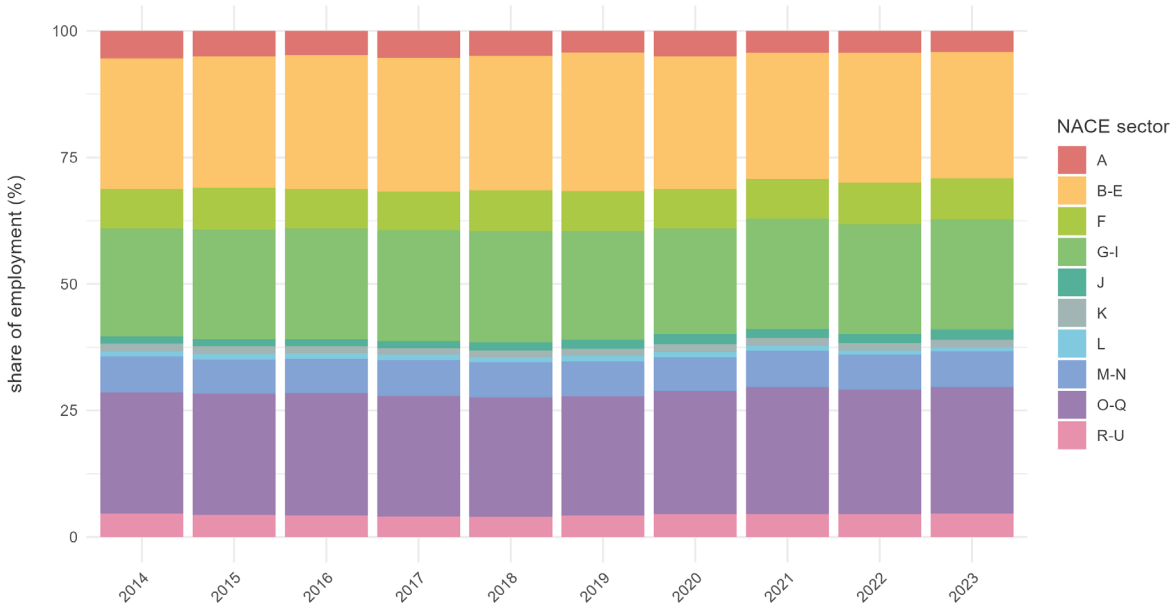
Please refer to the technical annex for more information.

Figure 2.12 illustrates the relative number of jobs in the border area differentiated by sectors. It shows where jobs are located (not where employed persons live). This workplace-based indicator offers insight into the employment structure of a region.

The dataset uses a '10-sector' classification based on NACE categories. The sectoral breakdown is as follows:

- A: Agriculture, forestry and fishing
- B-E: Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E)
- F: Construction
- G-I: Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I)
- J: Information and communication
- K: Financial and insurance activities
- L: Real estate activities
- M-N: Professional, scientific and technical activities (M), Administrative and support service activities (N)
- O-Q: Education (O), Human health and social work activities (Q)
- R-U: Arts, entertainment and recreation R), Other service activities (S), Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (T), Activities of extraterritorial organisations and bodies (U)

Figure 2.12: Employment by sector (comparison)[20]



A: Agriculture, forestry and fishing
B-E: Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E)
F: Construction
G-I: Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I)
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O-Q: Education (O), Human health and social work activities (Q)
R-U: Arts, entertainment and recreation (R), Other service activities (S), Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (T), Activities of extraterritorial organisations and bodies (U)

Between 2014 and 2023, the relative number of jobs in the different sectors remains fairly stable. There is a slight decline in the share employment in agriculture, forestry and fishing (A) and Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E). Conversely, there is a modest increase in the number of jobs in Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I), Education (O) and Human health and social work activities (Q).

Over the entire period, the sectors with the highest share of jobs are 'B-E' (mining, quarrying, manufacturing, electricity, gas, steam and air conditioning supply, water supply; sewerage, waste management and remediation activities, 'G-I' (wholesale and retail trade; repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities) and 'O-Q' (education, human health and social work activities).

[20] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.2.2.4 Outgoing cross-border commuters

Indicator description

The indicator shows outgoing cross-border commuting dynamics at NUTS3 level. Even though no origin-destination information can be provided, it is assumed that commuters primarily travel across the nearest border. Spatial, economic and population arguments are combined to calculate the number of outgoing cross-border commuters.

- **Source/method of retrieval**: Eurostat/LFS data on outgoing commuters currently available on NUTS2 level has been regionalised for NUTS3 by means of weighting by border length, NUTS3 population-weighted centroid distance to border, population per NUTS3 region (15–64 years old) and real compensation per employee
- **Temporal coverage**: 2015-2023
- **Unit**: Share in %

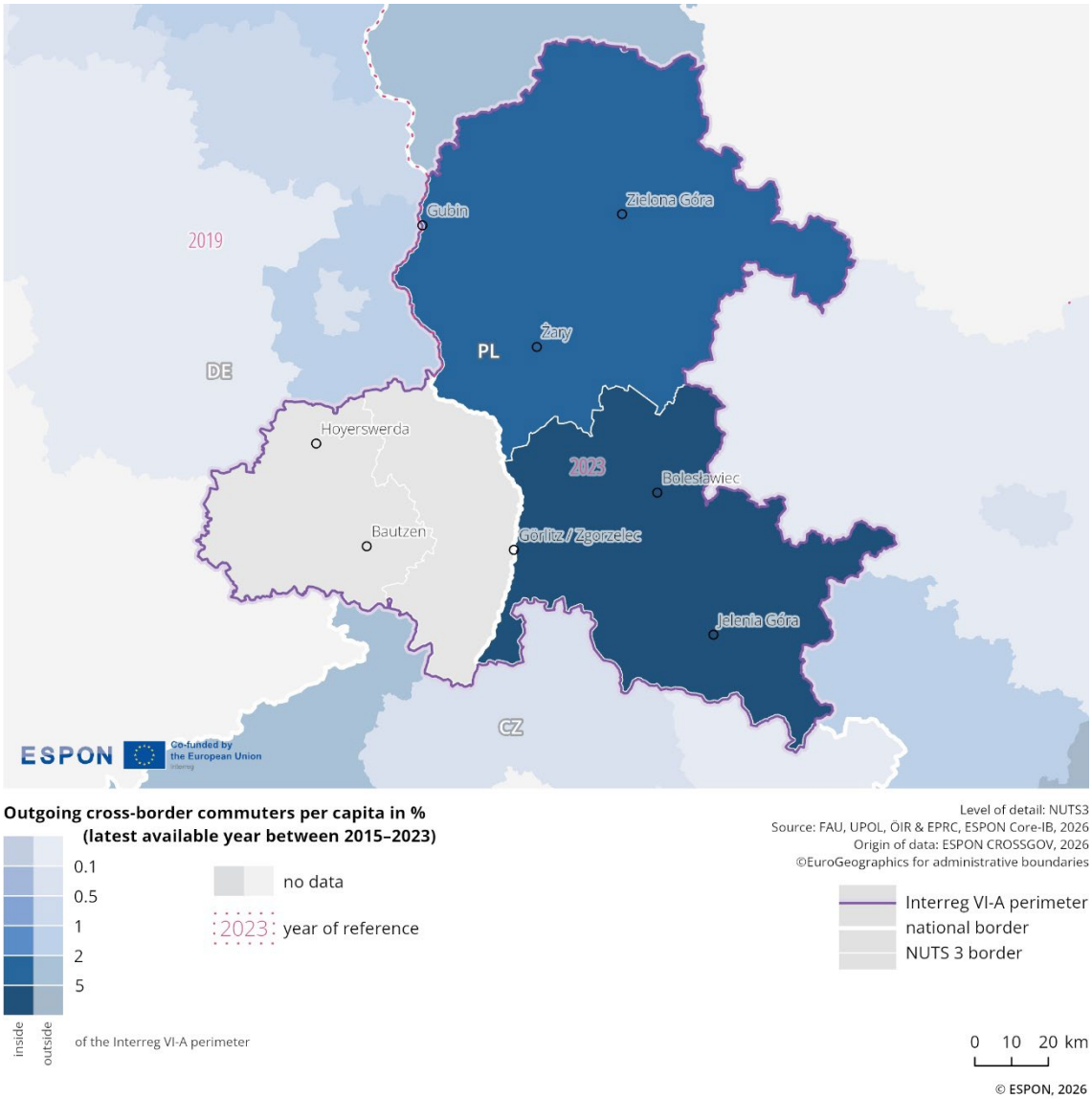
Please refer to the technical annex for more information.

Commuting is one of the most relevant cross-border flows to identify functional linkages. Figure 2.13 illustrates the share of outgoing commuters per capita for each NUTS3 region (more concretely speaking the share of outgoing commuters among the residential population of the age group 15-64 years old, resembling the potential labour force). Origin-destination information cannot be provided, but the share of outgoing commuters in regions close to the border indicates the relevance of commuting. It highlights functional relations in the labour market within the cross-border region.

The map illustrates the share of cross-border commuters, based on the most recent available data. People working across borders face difficulties due to differences in administrative procedures, taxation and social security systems, as well as language barriers. In this border area, the data show strong outgoing cross-border commuting activity in the Polish regions. For Saxony (Germany), no data are available. Both Polish regions, Zielonogórski and Jeleniogórski, can be considered outgoing 'hotspots', as they stand out with particularly high levels of outgoing commuters[21].

[21] See Eurostat Statistical Atlas for NUTS3 (2021) regions: https://ec.europa.eu/statistical-atlas/viewer/?config=typologies.json&ch=NUTS&mids=BKGCNT,NUTS2021L3,CNTOVL&o=1,1,0.7&center=49.69576,14.3332,4&lcis=NUTS2021L3&

Figure 2.13: Outgoing cross-border commuting patterns[22]



[22] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.2.2.5 Cross-border telework agreements

Indicator description

The indicator shows what kind of legal framework for cross-border telework is enacted.

- **Source/method of retrieval**: The indicator is based on information about the legal framework for social security regarding cross-border teleworking, categorised by border pair.
- **Temporal coverage**: Status as of March 2025
- **Unit**: n/a

Please refer to the technical annex for more information.

The 2 countries involved in the programme are signatories of the 2023 Framework Agreement on Cross-Border Telework. Under this agreement, cross-border workers can telework from their country of residence for up to 50% of their total working time without affecting their social security affiliation.

2.2.3 Competitiveness

This sub-dimension illustrates the competitiveness of the border region by analysing the main industry sectors that contribute to its economic development. It assesses gross value added (GVA) at basic prices by sector, as well as nominal compensation per hour worked, in order to understand productivity levels and sectoral strengths.

2.2.3.1 Gross value added at basic prices by sector

Indicator description

The indicator shows the gross value added (GVA), which is a measure of the contribution of a country or region to the economy. Regional GVA represents the value generated by all units involved in the production of goods and services within a specific area. This indicator can be disaggregated by industry and service sector, allowing for a detailed analysis of economic contributions across different fields. Additionally, the sum of GVA across all industries or sectors, combined with taxes on products and minus subsidies on products, yields the gross domestic product (GDP) of the region. The dataset is available in “10-sector” NACE classifications, facilitating comprehensive evaluations of the regional economy.

- **Source**: Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2014-2023
- **Unit**: Million purchasing power standards (PPS)

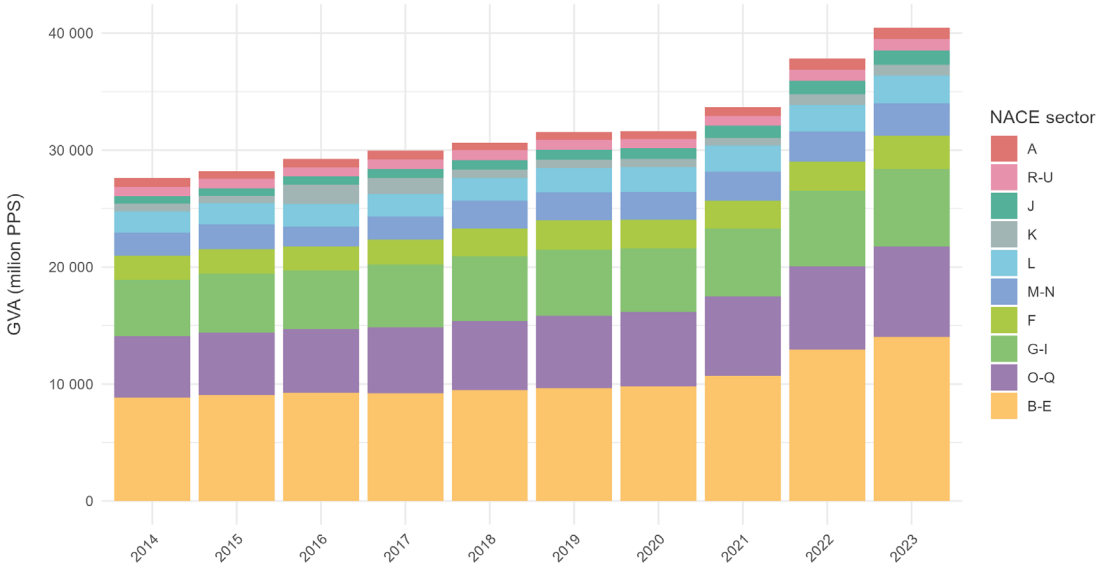
Please refer to the technical annex for more information.

Figure 2.14 visualises gross value added (GVA), which is an important indicator of economic activity. GVA measures the value created by all economic activities involved in producing goods and services in a specific area. It is differentiated by sectors to provide detailed insights into the economic contributions of different fields.

The dataset uses a '10-sector' classification based on NACE categories. The sectoral breakdown is as follows:

- A: Agriculture, forestry and fishing
- B-E: Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E)
- F: Construction
- G-I: Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I)
- J: Information and communication
- K: Financial and insurance activities
- L: Real estate activities
- M-N: Professional, scientific and technical activities (M), Administrative and support service activities (N)
- O-Q: Education (O), Human health and social work activities (Q)
- R-U: Arts, entertainment and recreation R), Other service activities (S), Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (T), Activities of extraterritorial organisations and bodies (U)

Figure 2.14: Gross value added at basic prices by sector (comparison)[23]



A: Agriculture, forestry and fishing
B-E: Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E)
F: Construction
G-I: Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H), Accommodation and food service activities (I)
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R-U: Arts, entertainment and recreation (R), Other service activities (S), Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (T), Activities of extraterritorial organisations and bodies (U)

Between 2014 and 2023, the GVA in the border area of Poland-Germany/Saxony increased from 27,618 million purchasing power standards (PPS) to 40,441 million PPS — a growth of 46%. Sector groups B–E and O–Q together make up over half of the total GVA, highlighting their significant contribution to the regional economy within the border area. The sector groups B–E contributed the largest share, with a total of 14,015 million PPS in 2023. This underlines the significance of sectors such as Mining and quarrying (B), Manufacturing (C), Electricity, gas, steam and air conditioning

[23] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

supply (D), Water supply; sewerage, waste management and remediation activities (E) in the Poland-Germany/Saxony border region.

2.2.3.2 Nominal compensation per hour worked

Indicator description

The indicator shows the average income paid for each hour worked, known as compensation per hour worked. This measure is calculated by dividing the "compensation of employees at current prices" by the total number of "hours worked (employees)." Employees, in this context, are defined as individuals engaged by contract in productive activities for a resident unit, receiving remuneration irrespective of their place of residence. The total hours worked is considered the most appropriate measure of labour input, representing the aggregate number of hours actually worked by employees. This indicator provides valuable insights into labour productivity and wage dynamics within the economy.

- **Source**: Annual Regional Database of the European Commission (ARDECO)
- **Temporal coverage**: 2023 (missing data from 2023 in Switzerland were supplemented by values from 2022)
- **Unit**: Euro

Please refer to the technical annex for more information.

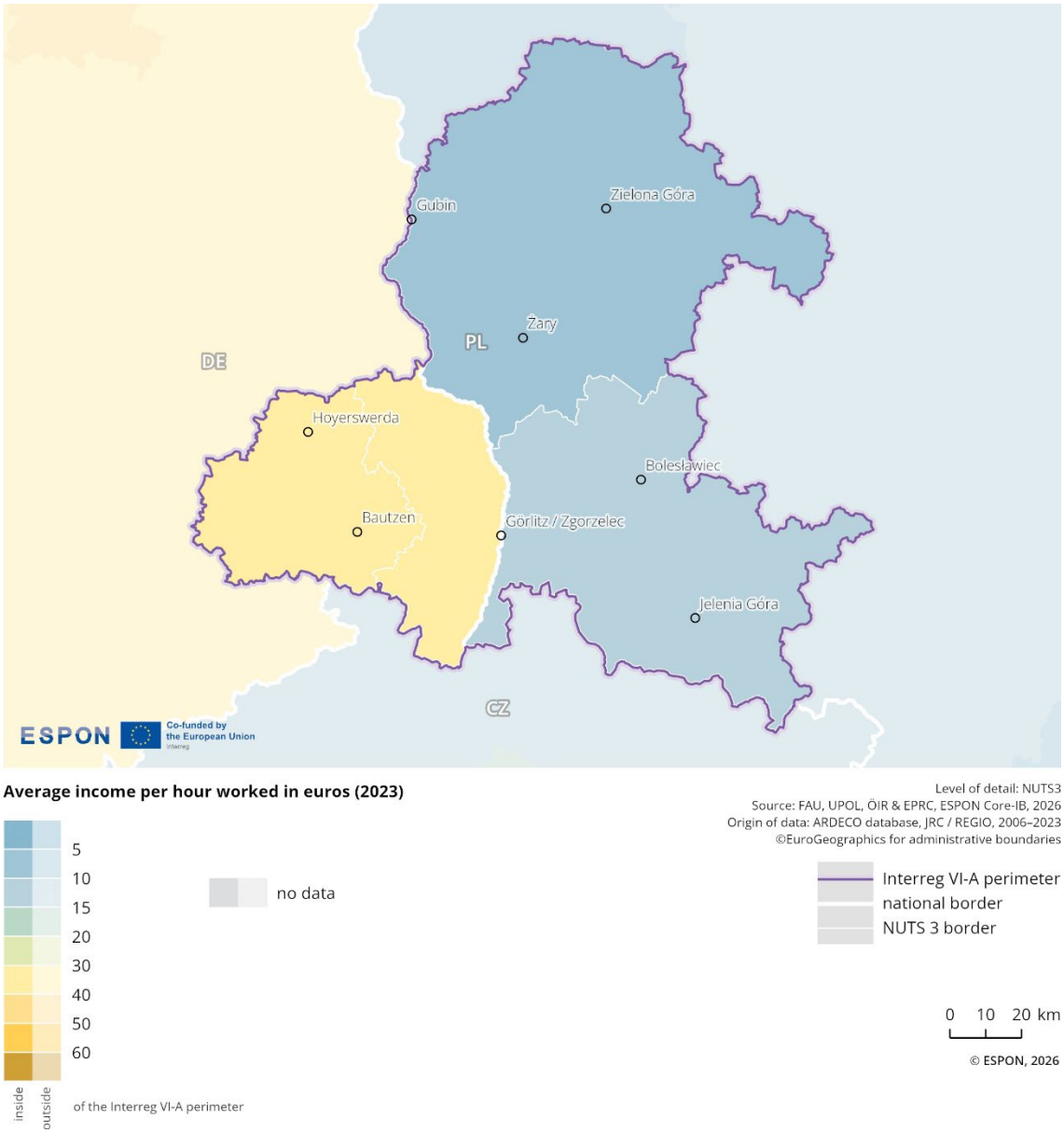
Figure 2.15 shows the average values for the 'compensation per hour worked'. This indicator is calculated by dividing the total compensation of employees (at current prices) by the total number of hours worked by those employees. In this context, 'employees' are defined as individuals engaged by contract in productive activities. The data is available for the place of work, regardless of the place of residence. Total hours worked represent the actual number of hours worked by employees and are considered the most accurate measure of labour input.

In 2023, nominal compensation per hour worked in the Poland–Germany/Saxony border region appears to be quite unevenly distributed. In the German areas, the average hourly income ranges between €30 and €40, with no region reporting values significantly above this range. In Poland, the Jeleniogórski region (€11.50) shows a slightly higher value than the Zielonogórski region (€8.40)[24]. To contextualize the regional pattern shown in the figure, it is noteworthy that the national average hourly compensation reaches €9.90 in Poland and €39.40 in Germany, which helps situate the border region within national labour productivity context.

Cross-border wage differences can encourage labour migration from lower-wage areas to more economically prosperous neighbouring regions, creating both opportunities and challenges for local labour markets and social systems.

[24] See Eurostat Statistical Atlas for NUTS3 (2021) regions: https://ec.europa.eu/statistical-atlas/viewer/?config=typologies.json&ch=NUTS&mids=BKGCNT,NUTS2021L3,CNTOVL&o=1,1,0.7&center=49.69576,14.3332,4&lcis=NUTS2021L3&

Figure 2.15: Average income per hour[25]



[25] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.2.4 Infrastructure and housing

This sub-dimension shows the impact of the border on infrastructure and housing in the region. It assesses housing prices and average internet speed in order to identify cross-border effects, including potential price spillovers and disparities. The analysis reveals whether infrastructure and housing markets facilitate integration or expose structural challenges that are specific to the border area.

2.2.4.1 Advertised sales prices

Indicator description

The indicator shows the advertised sales price per square meter for houses/appartements as retrieved from commercial real estate websites at national level. In the cross-border region, local differences between average sales prices are highlighted and the "cutting" effect of the border and its influence on price levels is visualised.

- **Source/method of retrieval**: Processed ESPON House4all data. The original data is collected via web-scraping of national listing websites over a one-year period.
- **Temporal coverage**: 2024/2025
- **Unit**: Average price per square meter (€/m^2)

Please refer to the technical annex for more information.

Figure 2.16 illustrates the advertised sales price of housing in 2025 across the border region. The data are categorised into ranges of average housing price per square metre, from below 250 €/m² up to more than 8,000 €/m², shown in colours ranging from purple and blue to green, yellow and orange.

Lower prices are found in the eastern part, where values drop below 1,000 €/m². The average advertised sales price in the German part of the border region is around 1,554 €/m², while in the Polish part it is about 1,094 €/m². The overall average for the entire border region is 1,328 €/m², which is lower than the average across all evaluated EU border regions (1,900 €/m²).

Figure 2.16: Advertised housing prices[26]

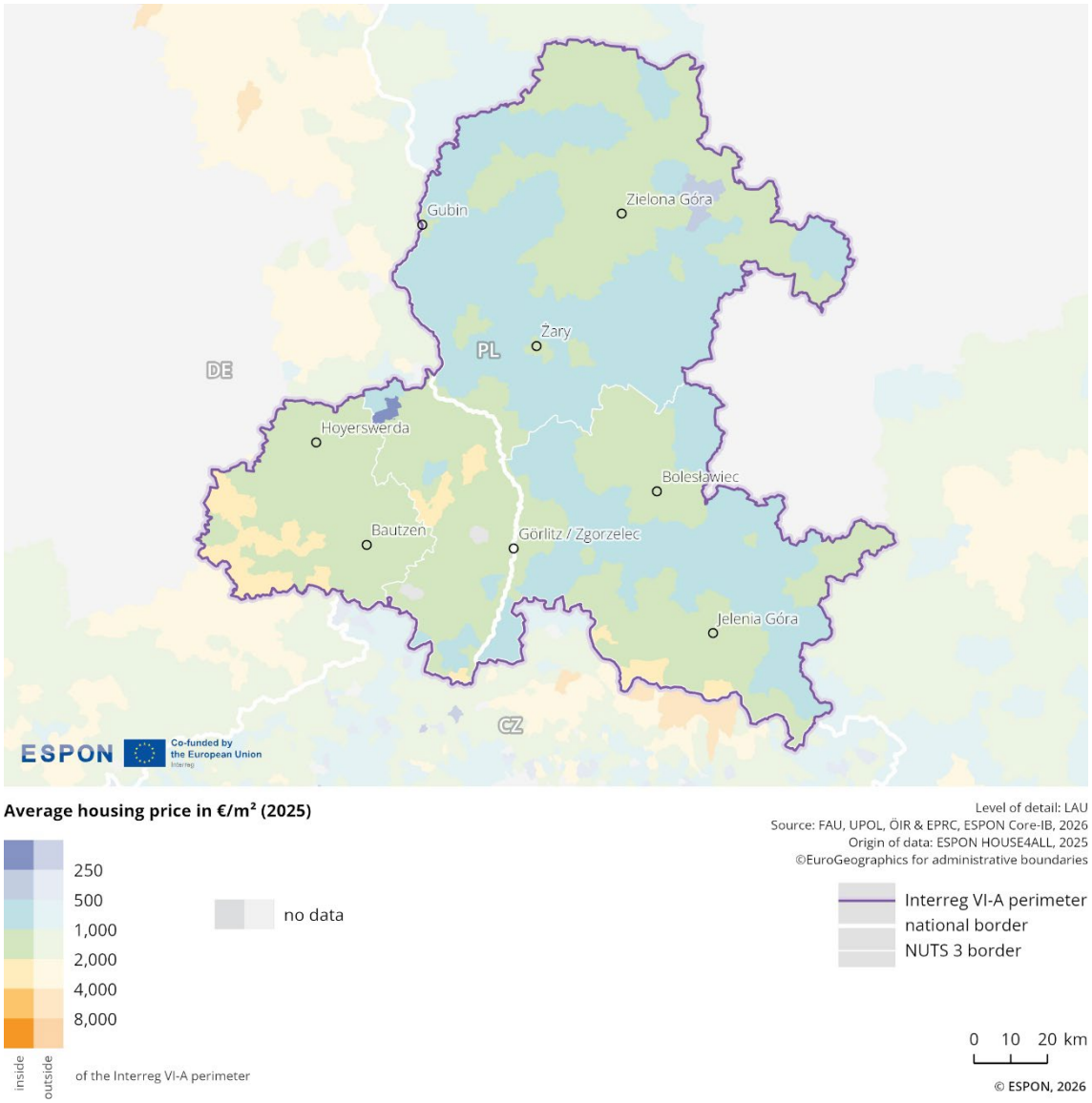
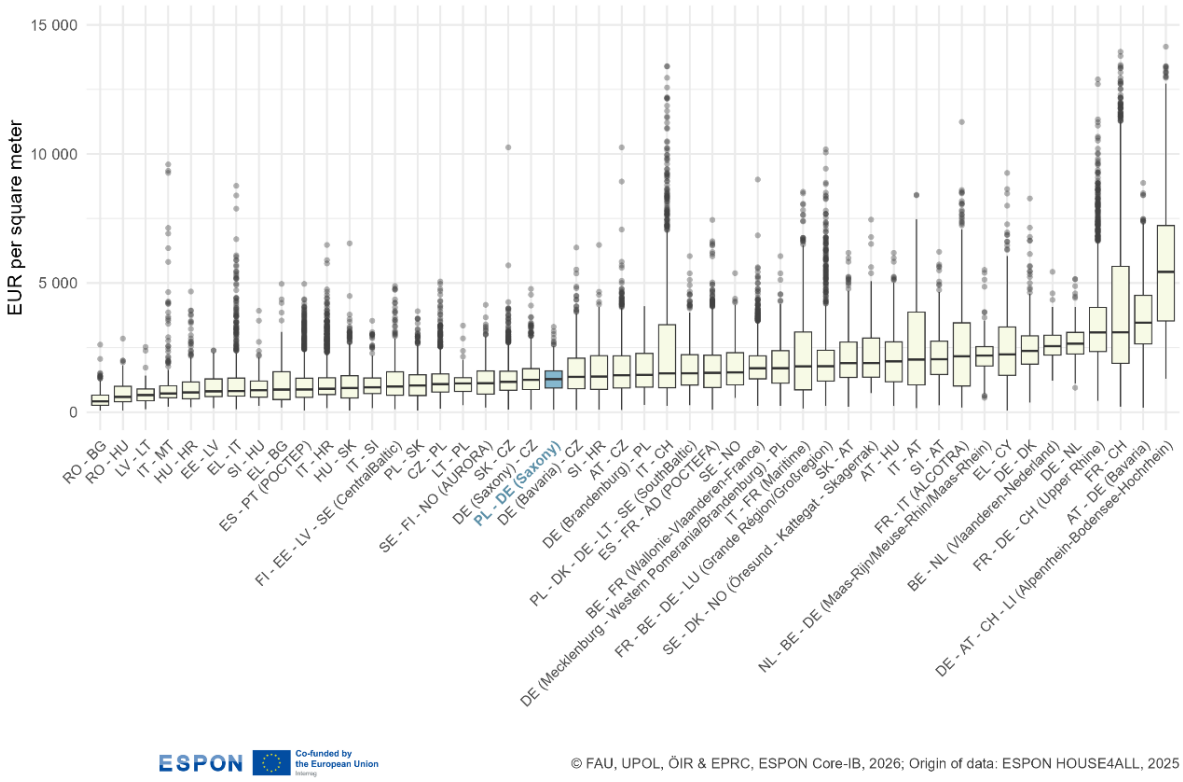


Figure 2.17 illustrates the distribution of sales prices across municipalities within the border area. The relatively small-sized interquartile range (IQR, represented by the box) indicates low variation, highlighting low spatial disparities in sales prices withing the border area. The boxplot also displays extreme values (shown as individual dots), with some municipalities recording prices of up to 3,000 €/m² which is significantly lower than the European average of 5,600 €/m².

[26] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.17: Advertised housing prices (comparison)[27]



2.2.4.2 Average internet speed

Indicator description

The indicator shows the population weighted average internet speed available at municipal level. It highlights differences in the "digital preparedness". In border regions, this indicator is particularly relevant for identifying digital infrastructure gaps that may hamper balanced development and cross-border integration.

- **Source/method of retrieval**: Processing of data provided by Speedtest by Ookla Global Fixed and Mobile Network Performance Maps, based on Ookla's analysis of Speedtest Intelligence data.
- **Temporal coverage**: 2022
- **Unit**: Download speed in Mbps

Please refer to the technical annex for more information.

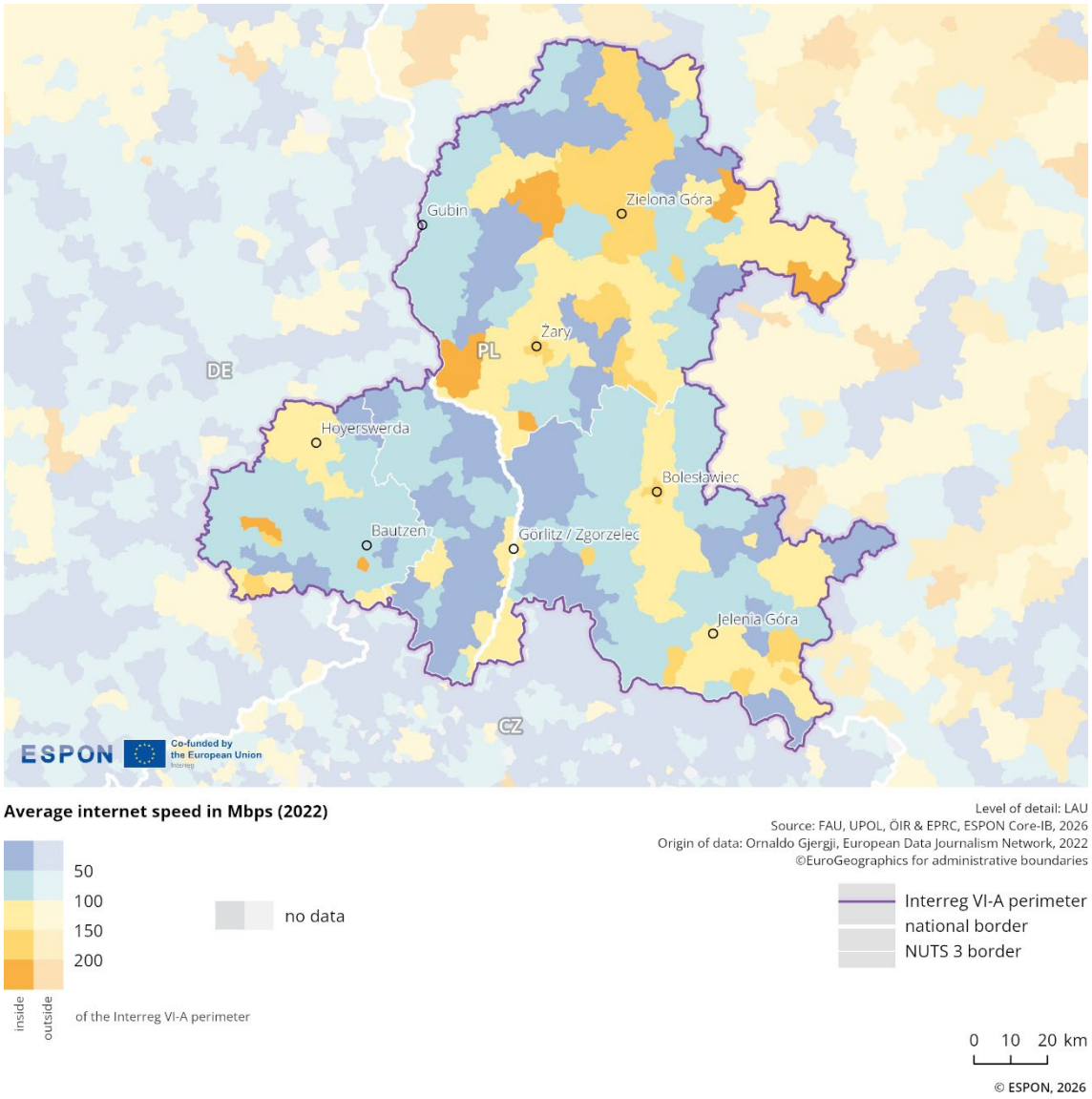
Digitalisation is a highly relevant issue in European border regions, with the overarching objective of ensuring appropriate digital access. It is widely recognised as a key precondition for successful regional and economic development. A major challenge in this process is preventing 'digital divides'— i.e., avoiding significant disparities in economic, social, and spatial terms.

[27] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Average internet speed is a telling indicator of such disparities, highlighting differences in 'digital preparedness' at the local level. Figure 2.18 shows the average download speed at the municipality level. The colour scheme ranges from dark blue (very slow speeds) to orange (very fast speeds). The data, prepared by OBC Transeuropa for EDJNet, is based on Speedtest Intelligence data from Speedtest/Ookla's Global Fixed and Mobile Network Performance Maps for the first quarter of 2022. The average download speeds are expressed in megabits per second (Mbps), not to be confused with megabytes per second (MBps).

The map reveals significant differences between urban and rural areas, with values ranging from under 50 Mbps to over 200 Mbps. Cities such as Zielona Góra, Żary, Bolesławiec, Jelenia Góra, Görlitz/Zgorzelec, and Hoyerswerda-Wojerecy report relatively high average speeds, while the surrounding areas tend to have significantly lower values. This may be due to the greater return on investment typically associated with digital infrastructure projects in urban areas compared to rural ones. However, not all urban areas in this border region have high download speeds—for example, Guben and Bautzen/Budyšin do not stand out in this regard.

Figure 2.18: Average internet download speed[28]



2.2.5 Key messages on the economic dimension

The border region exhibits both economic dynamism and structural challenges. On the one hand, GDP per capita has grown strongly in recent years. Between 2014 and 2022, the region's increase exceeded the EU average, suggesting a process of catching up. However, absolute levels remain comparatively low, particularly in Poland, and clear disparities persist between the 2 sides of the border. These disparities are accompanied by significant wage differences, making cross-border labour mobility an appealing prospect for many Polish workers. High levels of outgoing commuting in regions such as Zielonogórski and Jeleniogórski highlight this functional interdependence. Recent teleworking

[28] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

agreements between Poland and Germany create new opportunities for balancing commuting with digital working practices, although digital divides in rural areas remain an obstacle.[29]

Labour market indicators further reflect on these dynamics. While the overall employment rate of the border area has risen steadily since 2014, closing the gap to EU and cross-border averages, significant differences remain, with Germany showing much higher employment levels. At the same time, both sides are facing demographic pressure as the proportion of the working-age population has fallen more sharply than the European average. This trend is particularly pronounced in Poland, highlighting the impact of ageing and outmigration. Sectoral structures have remained fairly stable, with manufacturing, education, health and trade forming the backbone of employment and value added.

These spatial patterns can also be seen in the housing market. Prices in Poland are much lower than in Saxony, reflecting wage gaps and income levels. While these differences can create opportunities for households, they also highlight structural inequalities. Digital infrastructure adds another dimension: while cities often have fast internet, rural areas tend to have slower speeds, which reinforces uneven development.

2.3 Green dimension

The green dimension highlights the environmental characteristics, vulnerabilities and sustainability-related interactions within the border region. The analysis provides insight into the environmental interdependence of border regions. Additionally, the spatial distribution of renewable and conventional energy infrastructure, alongside indicators of resources and the circular economy, reveals whether the border facilitates collaborative transitions towards sustainability.

2.3.1 Nature protection and pollution

This sub-dimension investigates cross-border functional links in protected areas and areas affected by air and water pollution. It analyses the presence of protected areas in order to identify cross-border ecological links and conservation efforts. It also highlights the extent to which air and water pollution affects people living in border regions.

2.3.1.1 Protected areas

Indicator description

The indicator shows the presence and territorial coverage of protected areas based on the combination of 3 data sources, i.e., Nationally designated areas, Natura 2000 Network and Emerald Network.

- **Source/method of retrieval**: The indicator represents a combination of nationally designated areas, Natura 2000 and Emerald network provided by EEA (European Environment Agency) Geospatial data catalogue.
- **Temporal coverage**: 2024
- **Unit**: n/a

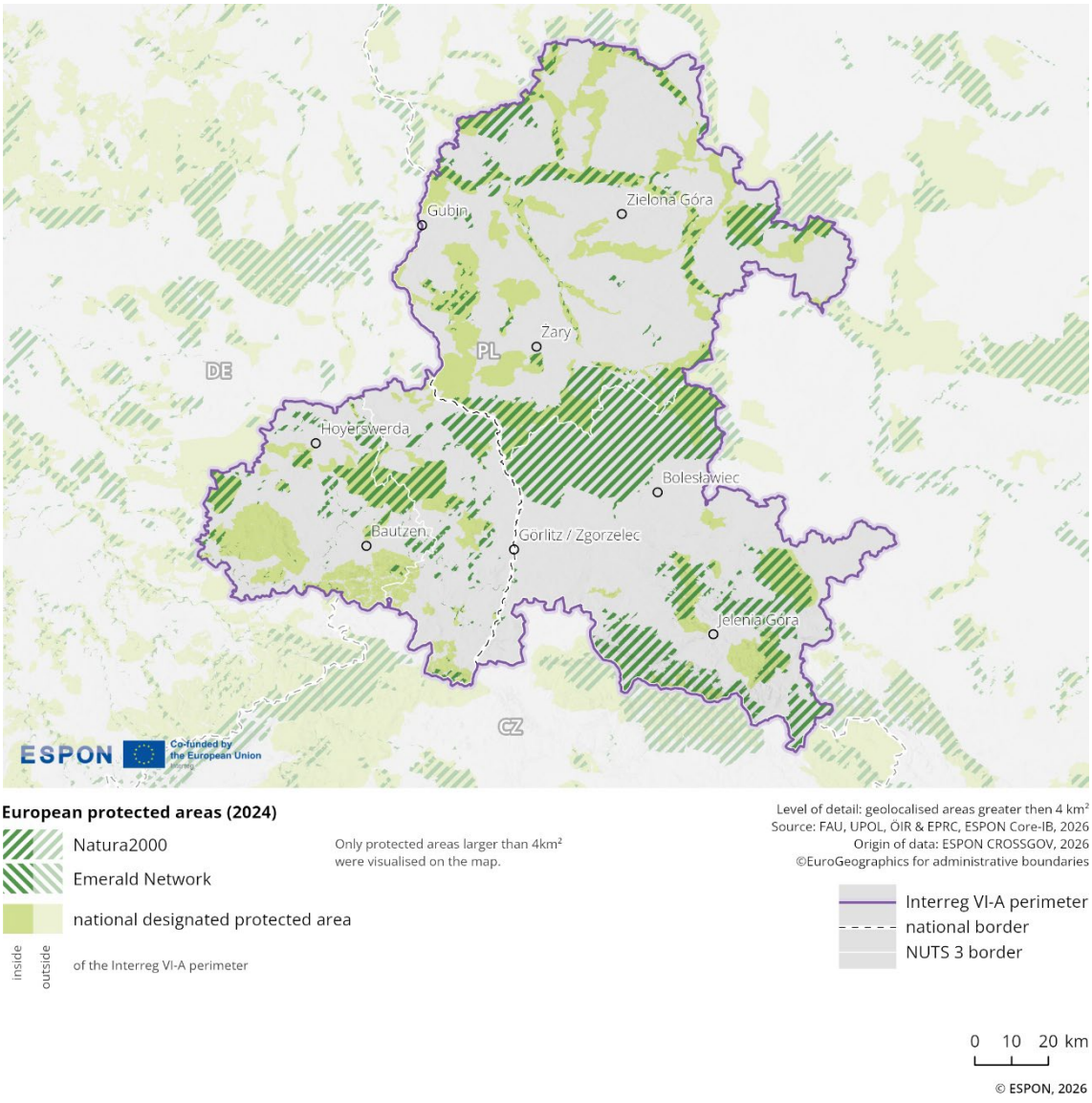
Please refer to the technical annex for more information.

[29] See also: European Commission 2024: Cross-Border Regional Labour Market Analysis, https://op.europa.eu/s/AazM

Figure 2.19 illustrates the distribution of protected areas in 2024 across the border region. The data differentiate between Natura 2000 sites, the Emerald Network, and nationally designated protected areas, with only protected areas larger than 4 km² displayed.

Protected areas within the Interreg region along the Germany–Poland–border are concentrated in the central part. The largest contiguous protected zones are located near Jelenia Góra and Boleslawiec in Poland and near Bautzen in Germany, where Natura 2000 and national designations often overlap. Cross-border continuity is visible north of Görlitz/Zgorzelec, while areas south of Görlitz/Zgorzelec appear more fragmented. Smaller patches are scattered across the central part of the region, with notable gaps around Hoyerswerda/Wojerecy and Zary.

Figure 2.19: Nature protected areas[30]



[30] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.3.1.2 Air pollution

Indicator description

The indicator shows the air pollution from fine particulates (PM2.5) at NUTS3 level. The data shows the population-weighted average air pollution level (µg/m³), providing an indication of the extent to which the regional population is affected by air pollution.

- **Source/method of retrieval**: Processing and analysis of European Environment Agency data
- **Temporal coverage**: 2022
- **Unit**: Population weighted average of µg/m^3

Please refer to the technical annex for more information.

Figure 2.20 illustrates PM2.5 concentrations (in µg/m³) across NUTS3 regions in Germany (Saxony) and Poland. Each small dot represents an individual measurement, while the black crosses indicate the average PM2.5 concentration for each NUTS3 region[31]. The regions are aligned along the x-axis, with German/Saxonian regions on the left (in red) and Polish regions on the right (in blue).

PM2.5 measurements in the Polish region show a wider range compared to those in the German regions, where values are more concentrated and rarely exceed 12.5 µg/m³.

The national average in Poland is higher than the average in the Polish border region. In contrast, the German border region average is higher than the German national average.

For both countries, the national and border region averages are significantly above the European average. The cross-border PM2.5 average lies between the 2 border region averages – higher than the German values, but lower than the Polish values.

[31] See Eurostat Statistical Atlas for NUTS3 (2021) regions: https://ec.europa.eu/statistical-atlas/viewer/?config=typologies.json&ch=NUTS&mids=BKGCNT,NUTS2021L3,CNTOVL&o=1,1,0.7&center=49.69576,14.3332,4&Icis=NUTS2021L3&

Figure 2.20: Air pollution[32]

2.3.1.3 Water pollution

Indicator description

The indicator shows the ecological status or potential for coastal and river water bodies. It is based on an assessment of biological, hydro-morphological, chemical and physico-chemical quality elements.

- **Source/method of retrieval**: Processing and analysis of European Environment Agency data
- **Temporal coverage**: 2022 (supplemented by 2016 data)
- **Unit**: n/a

Please refer to the technical annex for more information.

Figure 2.21 illustrates water pollution levels in the Saxony–Poland Interreg region in 2022. Water quality is represented using 6 colour-coded categories, ranging from "bad" to "high", including an "unknown" category[33].

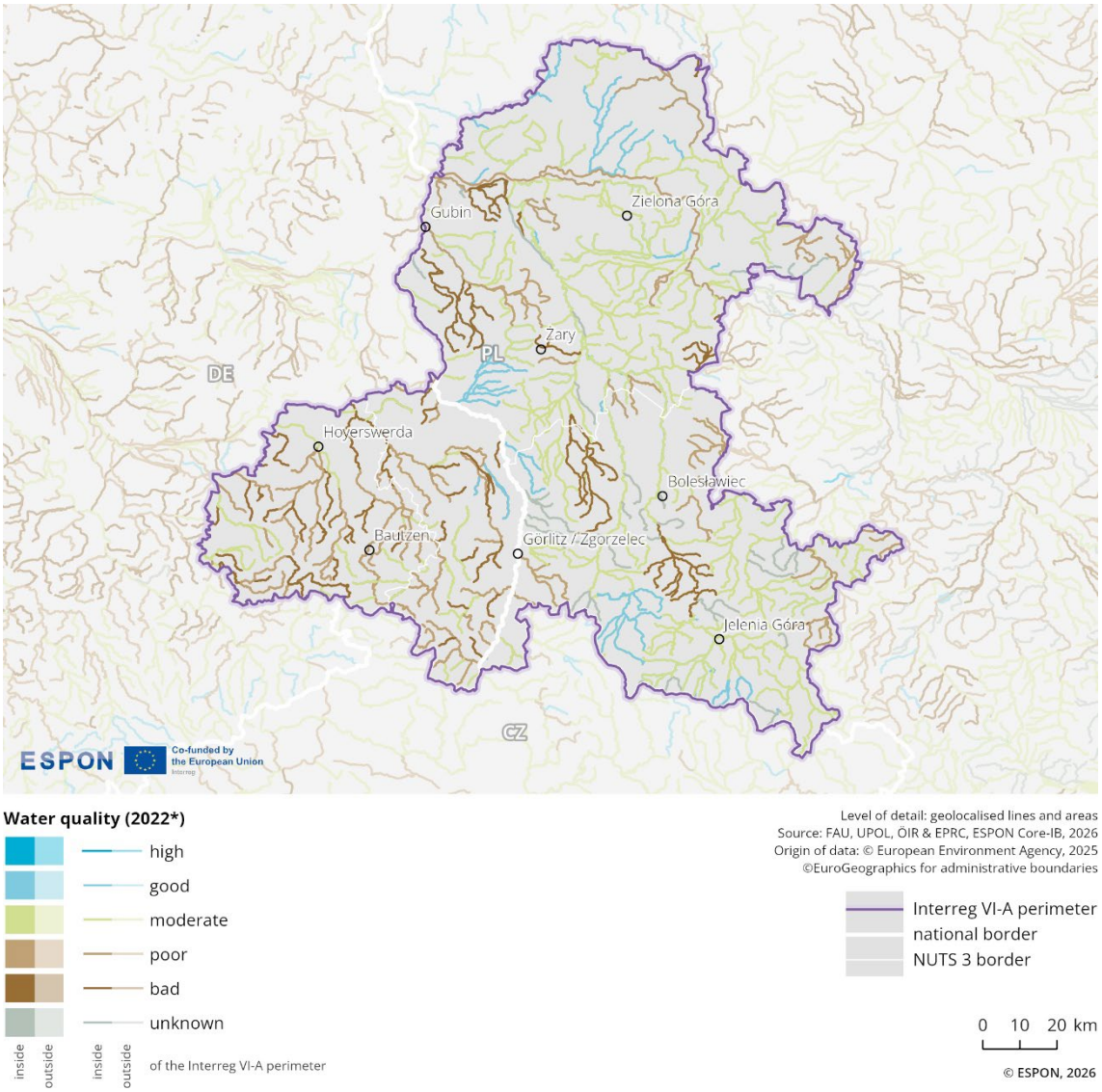
In the German part of the Interreg region, rivers are predominantly rated as “poor” and “bad”. A few stretches show a “moderate” water quality and only a small amount “good”.

[32] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

[33] For more information see the Water Framework Directive Reporting Guidance (2022): https://cdr.eionet.europa.eu/help/WFD/WFD_715_2022

In contrast, the Polish part of the Interreg region, is having a mix of water qualities from “bad” to “good”. Most of the water bodies are classified as “moderate”. Some rivers are largely classified as "poor" or "bad". Only limited sections are shown as "good".

Figure 2.21: Water quality patterns[34]



[34] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.3.2 Climate risks and resilience

This sub-dimension examines cross-border functional links relating to climate risks and resilience. It analyses exposure to natural hazards such as landslides, earthquakes, droughts and floods in order to identify vulnerabilities and risks.[35]

2.3.2.1 Natural hazard risks

Indicator description

The indicator shows the risk the border region is facing in relation to natural hazards (floods, droughts, landslides and earthquakes). The map highlights potential cross-border affectedness and allows to judge the relative relevance of each risk for the cross-border region.

- **Source/method of retrieval**: The indicator is based on geodata from the Disaster Management Risk Knowledge Centre/JRC. It provides the likelihood of specific natural hazard events at grid level.
- **Temporal coverage**: 2024
- **Unit**: n/a

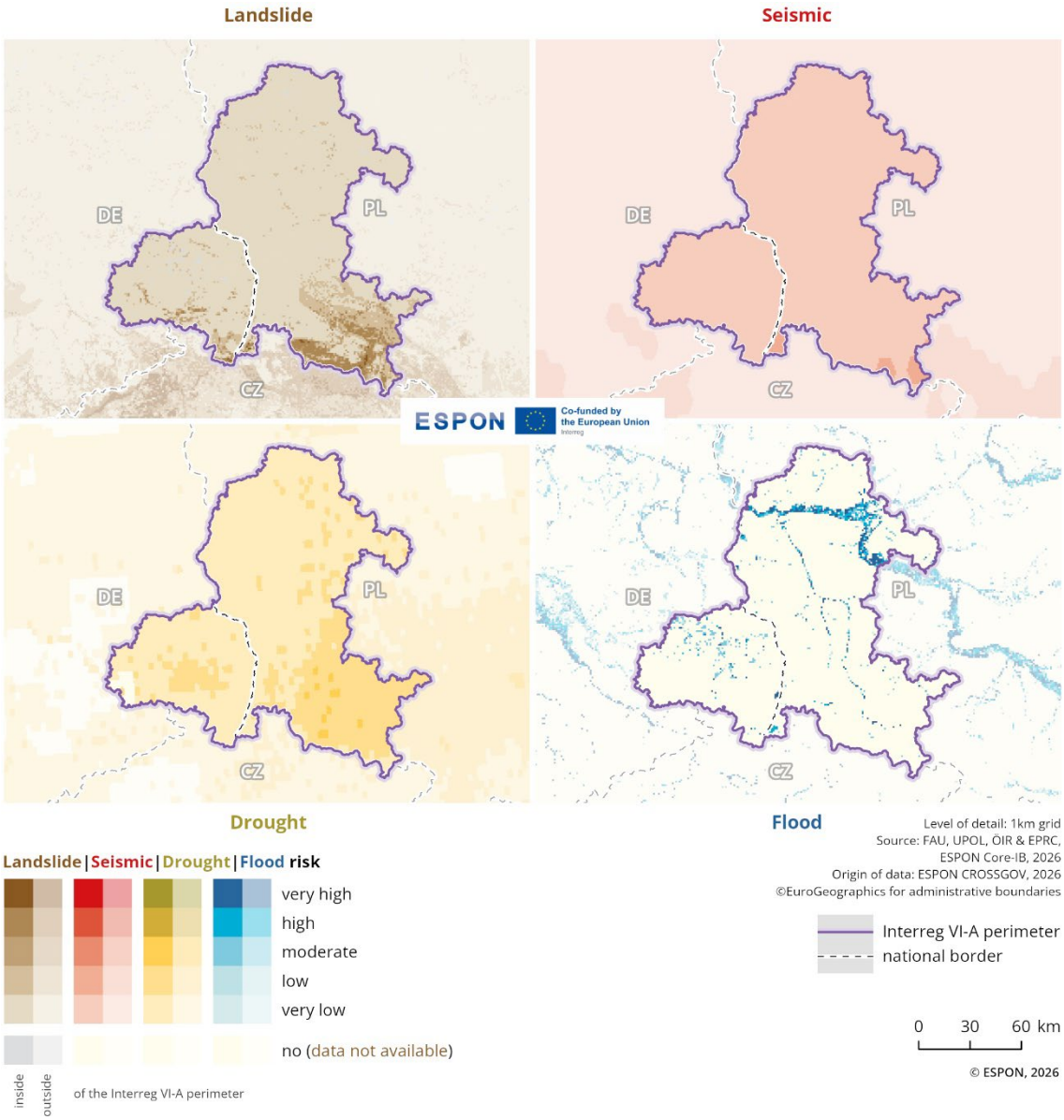
Please refer to the technical annex for more information.

Figure 2.22 illustrates the spatial distribution of natural hazards in the Poland-Germany/Saxony region, highlighting areas where risks are shared across national boundaries and where risks are not necessarily cross-border relevant.

A major risk are floodings caused by the Oder River, which only crosses the Polish part of the region. The risk of landslides is most present in the very south of the region, close to the Czech border, which itself is not part of the region. Most areas with a moderate to high risk of landslides are located on the Polish side, while alongside the border the risk is very low. Same is true for droughts, that are slightly more common on the Polish side. Seismic activities are very low across the entire region.

[35] See also: European Commission 2024: Strengthening the Resilience of EU Border Regions, https://ec.europa.eu/regional_policy/sources/studies/KN-02-24-586-2A-N.pdf

Figure 2.22: Natural hazard risks[36]



[36] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.3.3 (Renewable) Energy and energy infrastructure

This sub-dimension assesses cross-border functional links in energy supply and infrastructure, focusing on existing connections and missing links. The distribution of power lines, energy infrastructure and power stations is analysed to identify supply patterns and potential integration gaps. The analysis reveals whether the border facilitates energy cooperation and connectivity, or if infrastructural differences create barriers.[37]

2.3.3.1 Power lines and energy infrastructure

Indicator description

The indicator shows the distribution of power lines and energy infrastructures in the cross-border region. The geodata highlights the existing links and gaps in the cross-border interconnections of the energy transmission network.

- **Source/method of retrieval**: Geodata on high-voltage energy infrastructure (100 kV and above) has been collected and processed from OpenStreetMap.
- **Temporal coverage**: 2025
- **Unit**: kV

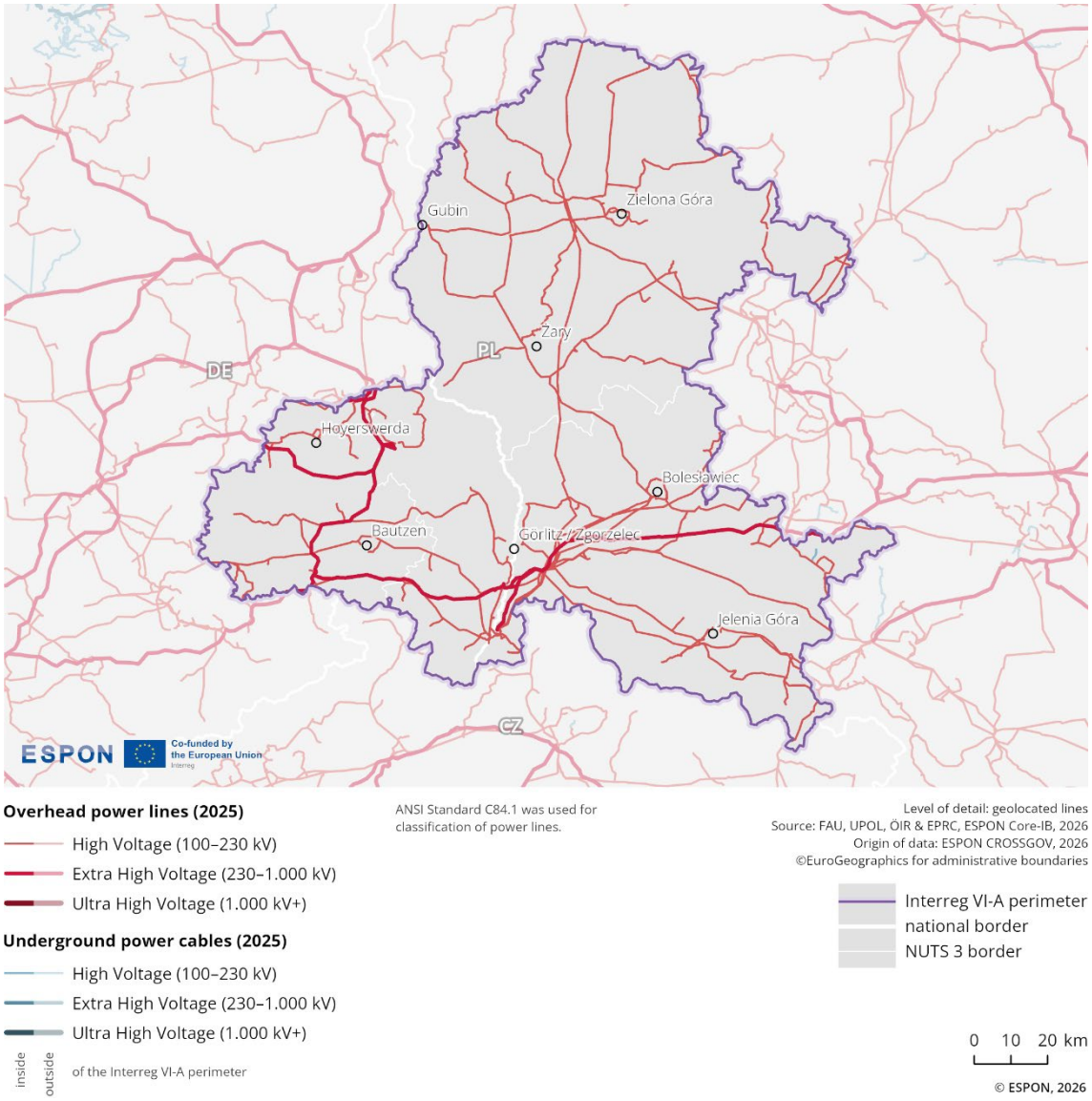
Please refer to the technical annex for more information.

Figure 2.23 illustrates the distribution of power lines and cables in 2025 across the border region. The data distinguish between overhead and underground power lies, further classified into high-voltage (100-230 kV), extra high-voltage (230-1,000 kV), and ultra-high voltage (above 1,000 kV).

The cross-border region Poland-Germany/Saxony shows relatively extensive high- and extra high-voltage transmission infrastructure, specifically in the southern part of the region. While the Polish part is crossed by more or less one extra high-voltage power line, the German territory has a more branched network. Both countries are directly connected through one spot with extra high-voltage line near the twin city of Görlitz-Zgorlzelec. The northern part of the region, which is entirely Polish, is criss-crossed by a high-voltage power grid. In the remaining territory, the high-voltage power infrastructure complements the higher voltage grid.

[37] See also: European Commission 2025: Handbook on Cross-border Energy Communities, https://ec.europa.eu/regional_policy/sources/studies/2025/Handbook_on_Cross-border_Energy_Communities.pdf

Figure 2.23: High-voltage transmission infrastructure[38]



[38] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.3.3.2 Power stations

Indicator description

The indicator shows the location of power stations by type and energy production levels (coal, gas and oil, nuclear, hydro). It can indicate differences and complementarities in the national energy supply systems as well as highlight potential supply-demand links when viewed in conjunction with power lines infrastructure.

- **Source**: OpenStreetMap, Global Energy Monitor, JRC Hydro-power plants database
- **Temporal coverage**: 2025
- **Unit**: MW

Please refer to the technical annex for more information.

In the Poland-Germany/Saxony cross-border region, in total, there are 6 power station locations, while 3 represent coal power, 2 gas and oil, and one hydroelectric source of energy (see Table 1).

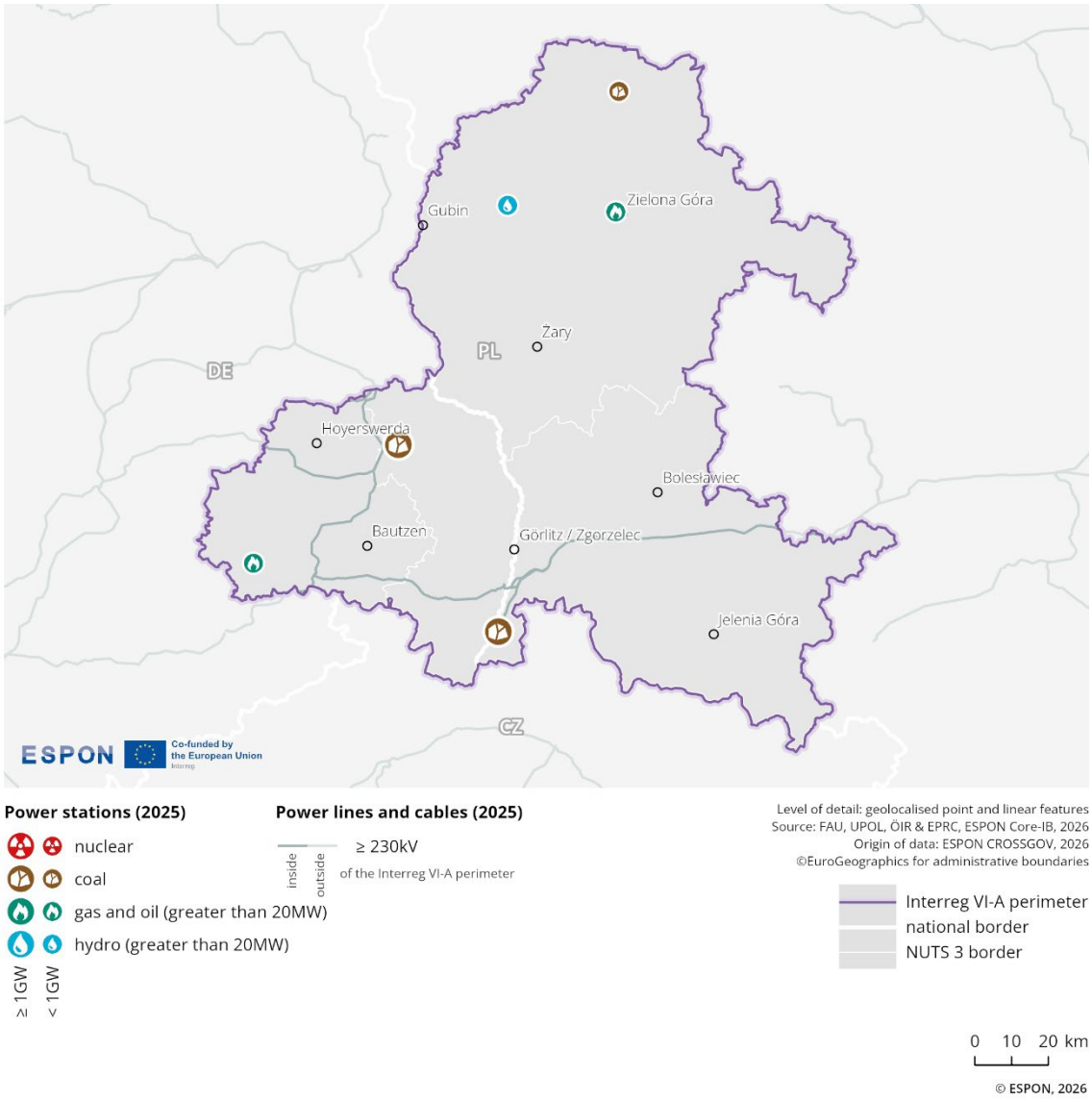
Table 1: Number and type of power stations[39]

Power stations/plants	Less than 1GW	1GW and up
Nuclear	/	/
Coal	1	2
Gas and oil	2	/
Hydro	1	/

There are 2 coal power stations with a capacity of more than one GW: one in Germany and another in the southernmost part of the border region, near the Czech-Polish-German border (see Figure 2.24). In addition, there is a coal power station with a capacity of less than one GW in the northern Polish part of the border region. There is one gas power station and one oil-fired power station in each country, and the only hydroelectric power station is located in the north of the region, on Polish territory. No nuclear power plant is present in the border region.

[39] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.24: Power stations infrastructure[40]



[40] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.3.4 Resources and circular economy

This sub-dimension focuses on resource use patterns in the border region and their implications for circular economy practices. It analyses resource productivity and waste generation in order to evaluate the efficiency and sustainability of resource utilisation across the border.

2.3.4.1 Resource productivity

Indicator description

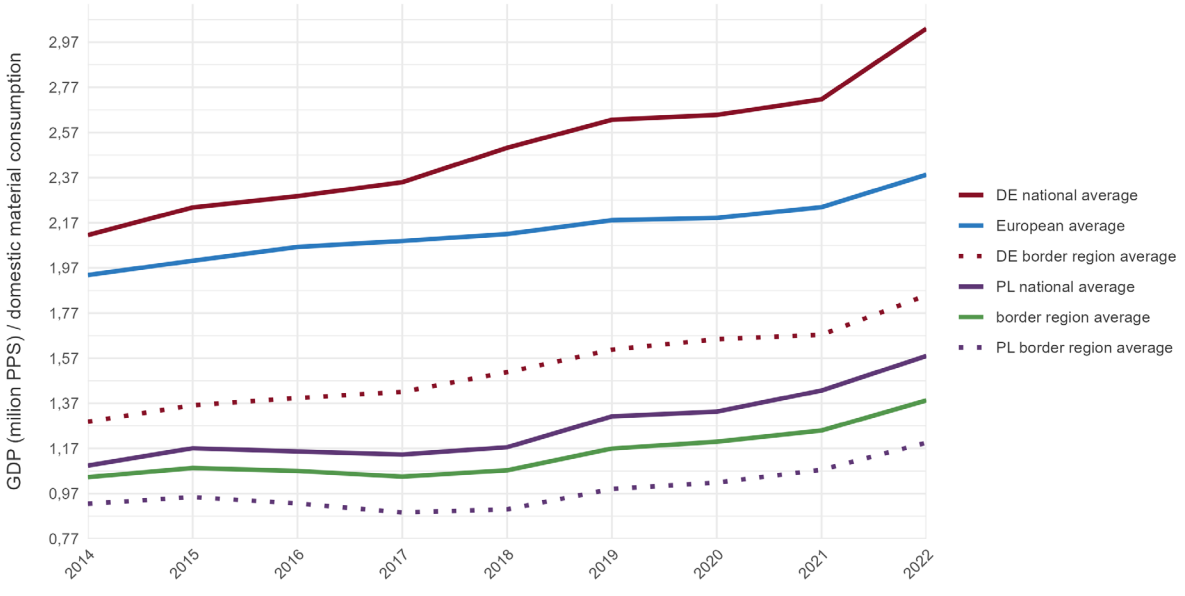
The indicator shows the economic value generated per unit of material consumed for each region within the cross-border area. Developments over time provide insights if the decoupling of productivity from resource use is progressing on regional level.

- **Source/method of retrieval**: Processing of Eurostat and ESPON CIRCTER (Circular Economy and Territorial Consequences) Update data
- **Temporal coverage**: 2014-2022
- **Unit**: PPS/tons

Please refer to the technical annex for more information.

Figure 2.25 illustrates the development of GDP per unit of domestic material consumption in million PPS/DMC (purchasing power standards per domestic material consumption) between 2014 and 2022. The data compare the national averages, the averages of their respective border regions, and the overall border regional average with the European average.

Figure 2.25: Resource productivity[41]



ESPON Co-funded by the European Union Interreg

[41] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

The German national average of resource productivity is represented by the highest line in the graph, showing an increase over the period from approximately 2.17 in 2014 to over 2.97 million PPS/DMC in 2022. The German border region average follows a similar trend but remains significantly lower, reaching around 1.87 million PPS/DMC in 2022. The Polish national average also shows an upward trend over the observed period, but remains significantly below both the German national average and the European average, while still being slightly higher than the border region average. The Polish border region average follows a similar pattern, but at lower levels.

The European average lies notably below the German national average, but is higher than the German border region average and the Polish values. The border region average represents the combined average of the higher German border region values and the lower Polish border region values, reaching approximately 1.37 million PPS/DMC in 2022. However, notable disparities exist within the border region itself.

2.3.4.2 Generation of waste per GDP

Indicator description

The indicator shows the regional distribution of waste creation in relation to the GDP development. Comparing waste generated to GDP reflects the waste intensity of the economy and provides a measure of "eco-efficiency". Observation of its change from year to year permits to assess whether the economy is able to produce more wealth while at same time generating less waste.

- **Source/method of retrieval**: Processing of Eurostat and ESPON CIRCTER Update data
- **Temporal coverage**: 2014-2022
- **Unit**: Tons/PPS

Please refer to the technical annex for more information.

Figure 2.26 illustrates the trend in waste generation relative to economic output, measured in tonnes of waste per million PPS (purchasing power standards) of GDP from 2014 to 2022 in Poland, Germany (Saxony) and their Interreg border region.

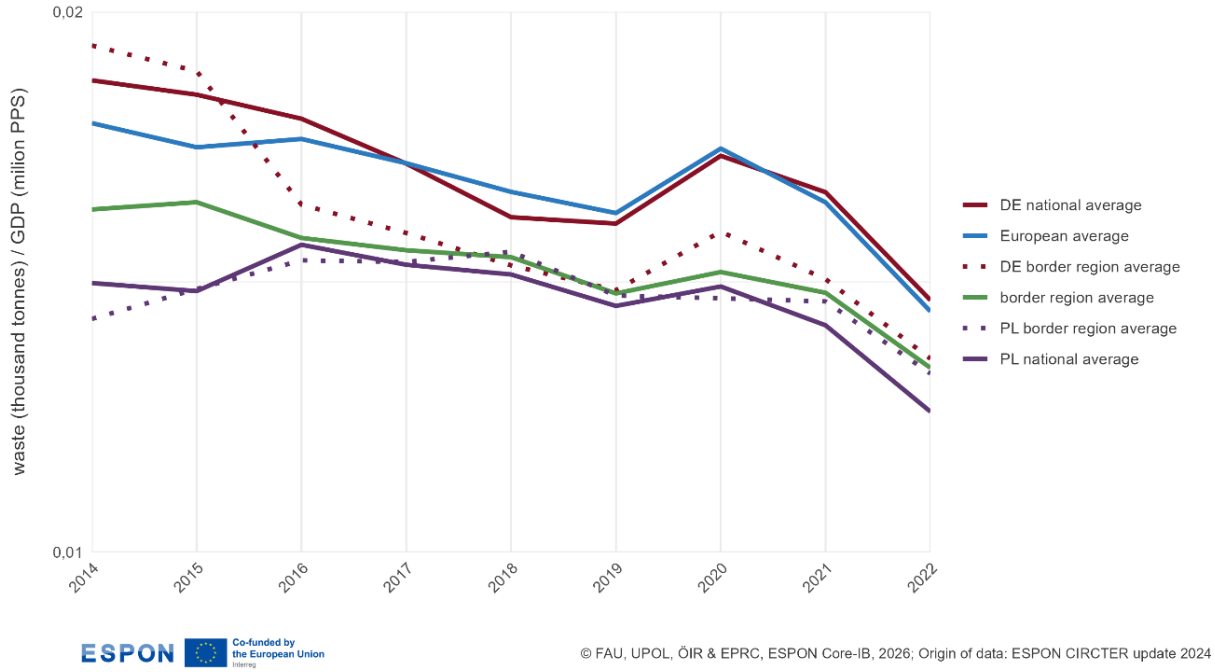
The German national and border averages show a steady decreasing trend from 2014 to 2022, with the exception of 2020. The German border average starts significantly higher than the national average but the gap narrows over time. The Polish national and border averages slightly increase from 2014 to around 2016, followed by a gradual downward trend.

By 2022, the Polish national average reaches approximately 0.012 tonnes of waste per million PPS, making it the lowest overall value among the compared regions.

The European average gradually decreases from around 0.018 in 2014 to approximately 0.015 tonnes of waste per million PPS in 2022, with the cross-border regional average largely following the same trend and staying closely aligned.

Since around 2016, the border region averages of both countries have also been closely aligned, and therefore remain at a similar level to both the cross-border average and the European average.

Figure 2.26: Waste generation per GDP[42]



ESPON Co-funded by the European Union Interreg

2.3.5 Key messages on the green dimension

The border region presents both, common environmental challenges and differing national approaches to resource use and energy. Protected natural areas are concentrated in the central and southern parts of the border region, where cross-border continuity is particularly evident north of Görlitz/Zgorzelec. However, the fragmented distribution of protected zones reveals gaps in ecological connectivity, particularly around Hoyerswerda and Żary. These patterns suggest that, although cross-border cooperation exists, nature protection is uneven and has potential for more integrated management.

Air quality adds another layer to this picture. PM2.5 levels (in µg/m³) are consistently higher in Polish areas than in Saxon ones, though both remain above the European average. This illustrates how industrial legacies and energy production affect the environment differently on either side of the border while posing a common concern for the wider region. Natural hazard risks also vary geographically: floods linked to the Oder affect mostly Polish areas, while landslides and drought risks are concentrated in the southern parts of the border area. These patterns demonstrate that some hazards are more national in scope, while others could benefit from cross-border risk management strategies.

The energy infrastructure highlights the strong interconnections of the border region. A dense high-voltage grid crosses both countries and a major high-voltage line connects the 2 countries directly at Görlitz/Zgorzelec. However, energy production remains dominated by fossil fuels, with coal power stations still playing a central role in the regional system. Renewable energy sources play a minor role.

Resource use and waste generation reveal contrasts. German regions demonstrate higher resource productivity, but also have historically higher waste levels, whereas Polish regions have lower

[42] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

productivity but have recently reached lower waste values. Overall, the border region reflects European trends, yet persistent disparities point to both opportunities and challenges in transitioning to a more circular economy.

2.4 Socio-economic dimension

The socio-economic dimension examines patterns of social integration, tourism, and access to public services in the border region. It identifies how socio-cultural links, visitor flows and essential services influence development in the cross-border area. By examining interpersonal interactions via social media, language similarities, tourism intensity, and the accessibility of facilities such as secondary schools, grocery shops, hospitals, doctors, pharmacies and cinemas this dimension highlights both functional integration and potential socio-spatial differences.

2.4.1 Social integration

This sub-dimension evaluates the level of social integration in the border region by identifying areas with low or high cross-border interactions. It analyses social interactions and language similarities across and along national borders to evaluate the potential for cultural and social integration.

2.4.1.1 Cross-border connectivity in social media

Indicator description

The indicator refers to the existing connections between users of META social media (in particular Facebook) across the border. It aims at giving an overview of the degree of personal connectivity between inhabitants of the border area. Even though not all these internet connections will relate to real communication exchanges but sometimes just "following" content from other users, they give an overview of interpersonal and cultural knowledge of the social media landscape from across the border.

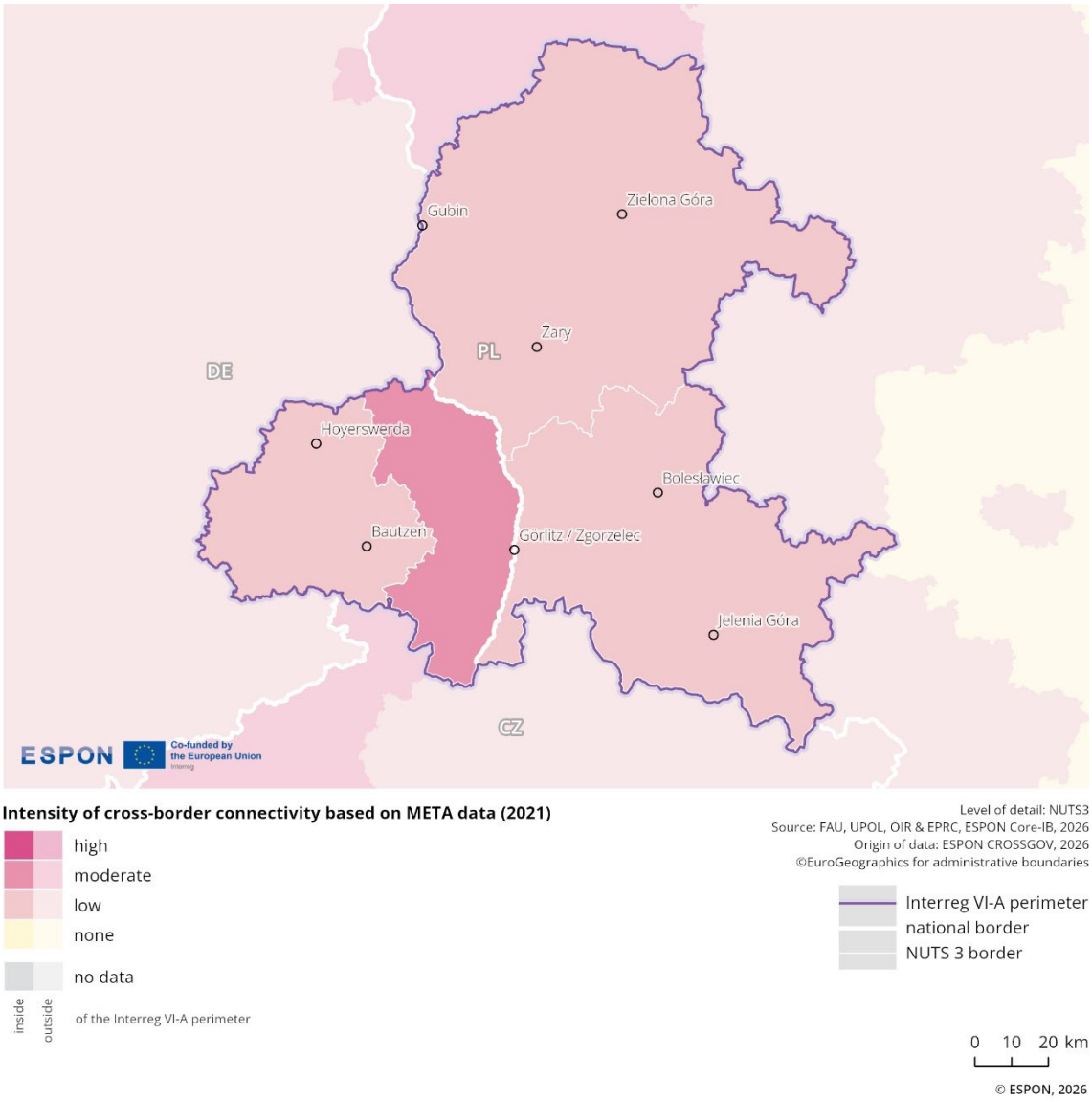
- **Source/method of retrieval**: Processing Facebook data on existing connections across the border (data for Good Meta)
- **Temporal coverage**: 2021
- **Unit**: n/a

Please refer to the technical annex for more information.

Figure 2.27 illustrates the spatial distribution of cross-border connectivity based on Facebook information in the border area. The different shades of pink indicate varying intensities of connectivity, ranging form low to high, with darker tones representing stronger intensity of cross-border connectivity in social media.

On the German side of the region, along the border with Poland, one NUTS3 unit (east of Bautzen and Hoyerswerda-Wojerecy) exhibits moderate connectivity intensity, while further from the border intensity decreases to low levels (around Bautzen and Hoyerswerda-Wojerecy). In contrast, on the entire Polish side, cross-border connectivity in social media remains at a low level (including cities such as Jelenia Góra, Bolesławiec, Guben, Żary, and Zielona Góra).

Figure 2.27: Cross-border connectivity in social media[43]



[43] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.4.1.2 Language similarities along national borders

Indicator description

The indicator specifies whether the language is the same across the border, whether the respective national languages have commonalities, whether while different, there are local linguistic commonalities, and whether the language is different.

- **Source/method of retrieval**: ESPON cross-border public services (CPS) 2.0 database along border segments
- **Temporal coverage**: 2022
- **Unit**: n/a

Please refer to the technical annex for more information.

The border region is characterised by 2 different languages, with no recorded similarities or widespread knowledge of the neighbouring region's language. However, German is commonly taught in the Polish part of the region, and both parts teach English.

2.4.2 Tourism

This sub-dimension identifies key tourism hotspots in the border region to highlight tourism dynamics. It analyses the number of nights spent in tourist accommodation establishments in order to evaluate the attractiveness of, and developments in, the tourism sector. Comparisons with the respective countries and the EU average provide context for understanding the region's dynamics.

2.4.2.1 Nights spent at tourist accommodation establishments

Indicator description

The indicator shows the number of nights a guest or tourist actually spends in a tourist accommodation establishment or non-rented accommodation (overnight stays). This may reveal the tourism attractiveness of a region and shed light on the role of tourism in the local economy, i.e., tourists/guests staying overnight may spend more in the region than one-day visitors.

- **Source**: Eurostat
- **Temporal coverage**: 2020-2023
- **Unit**: Nights per capita

Please refer to the technical annex for more information.

The spatial distribution of overnight stays highlights the importance of key tourist destinations in border areas. Tourism contributes significantly to regional income, infrastructure development and employment, and thereby supports regional prosperity. At the same time, it affects environmental and living conditions, which may reduce local acceptance despite its economic benefits. This is in particular the case in places of overtourism, seasonal pressures, and increasing land-use conflicts.

Figure 2.28 shows the number of overnight stays per capita at tourist accommodation establishments in 2023. It includes hotels, holiday and other short-stay accommodation, as well as campsites, caravan and trailer parks. The map uses a colour gradient, with darker shades indicating a higher number of

nights spent per capita in 2023. It also shows the cumulative number of overnight stays from 2020 to 2023.

In Poland, the NUTS3 region Jeleniogórski exceeds 5 nights per capita in 2023[44]. In the other regions of the programme area, the per capita figures are lower than 5 nights per capita. In terms of total overnight stays over the 3-year period, the leading tourism regions are located in Jeleniogórski (approx. 4.7 million) and Görlitz (approx. 1.2 million).

Figure 2.28: Overnight stays in tourism[45]

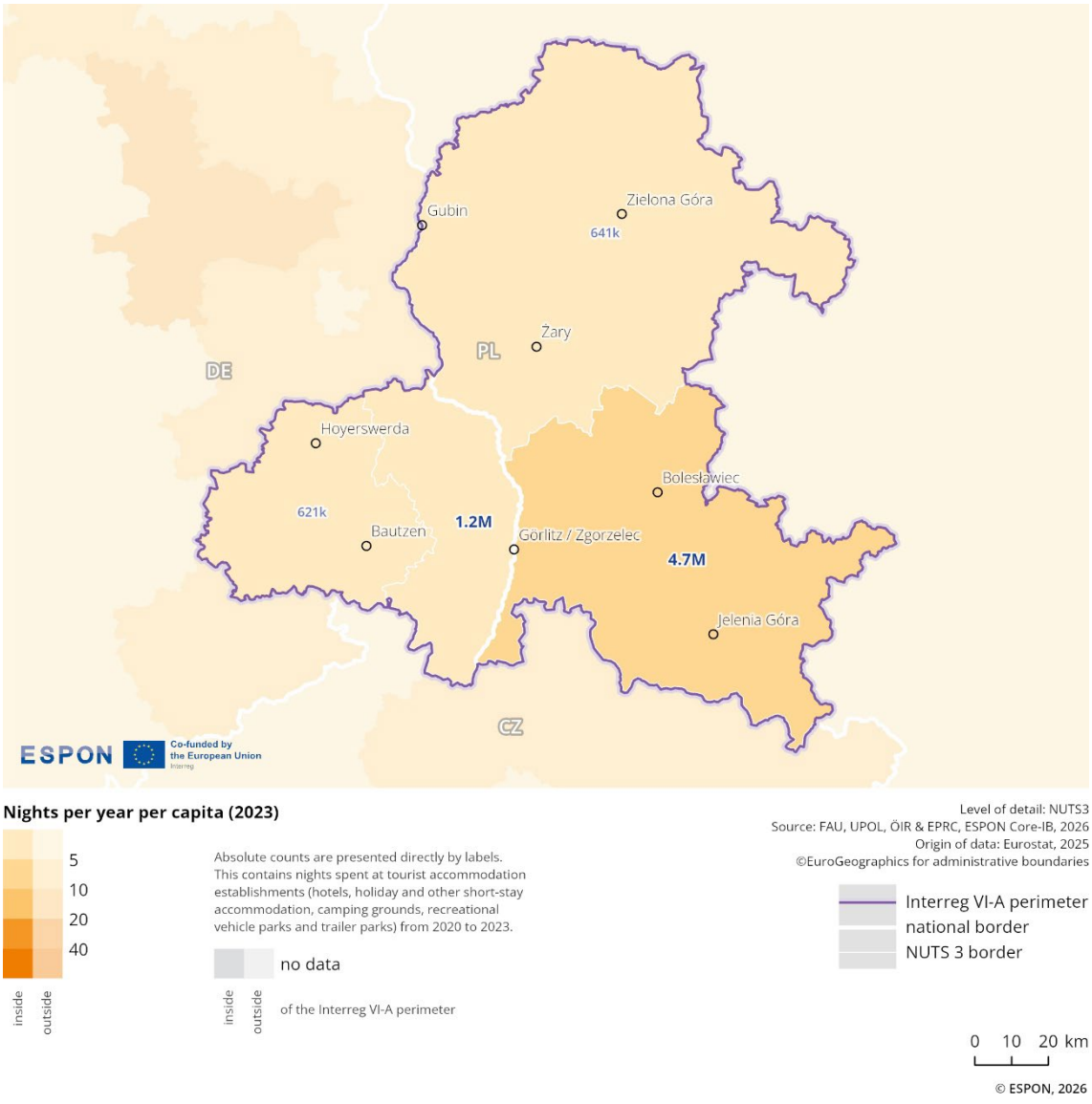


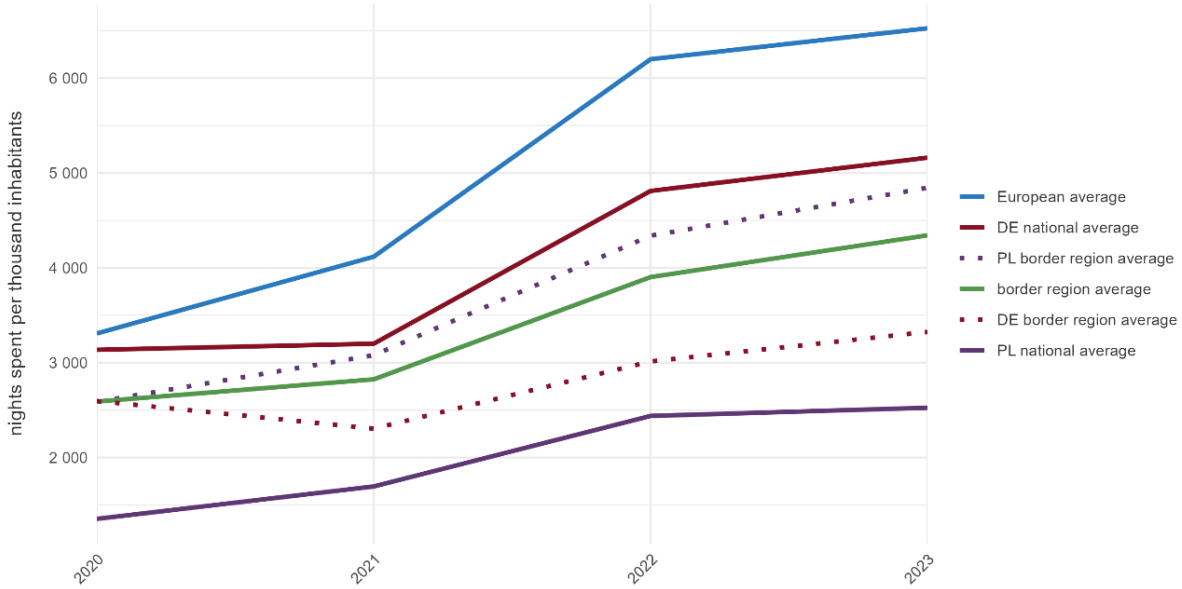
Figure 2.29 illustrates the development of nights spent at tourist establishments per thousand inhabitants from 2020 to 2023. Over the entire period, the average for the Poland-Germany/Saxony programme area is lower than the overall European average, which includes EU member states and the EFTA countries Iceland, Liechtenstein, Switzerland and Norway. While the border regional average in Poland is higher than the national average for all 4 years, the German border regional average is

[44] See Eurostat Statistical Atlas for NUTS3 (2021) regions: https://ec.europa.eu/statistical-atlas/viewer/?config=typologies.json&ch=NUTS&mids=BKGCNT,NUTS2021L3,CNTOVL&o=1,1,0.7&center=49.69576,14.3332,4&lcis=NUTS2021L3&

[45] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

lower than the national average. Additionally, since 2021, the regional average for the Polish border area is significantly higher than that for the German.

Figure 2.29: Overnight stays in tourism (comparison)[46]



ESPON Co-funded by the European Union Interreg

[46] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.4.3 Services of general interest

This sub-dimension looks at how accessible services of general interest (SGIs) are in the border region, identifying areas that are well-served and those that are more difficult to access. It analyses access to essential services such as secondary schools, grocery shops, hospitals, doctors, pharmacies and cinemas.

2.4.3.1 Accessibility to services of general interest

Indicator description

The indicator shows, for the below listed facilities and services, the average driving time to the nearest facility of a series of services of general interest.

- **Source/method of retrieval**: Processing and analysis of standardised travel-time accessibility to secondary schools, grocery shops, hospitals, doctors, pharmacies and cinemas available in the ESPON PROFECY Update (2022)
- **Temporal coverage**: 2021
- **Unit**: Minutes (in 2.5 x 2.5 km grid)

Please refer to the technical annex for more information.

Figures 2.30 to 2.35 visualise average car travel times to services of general interest within the programme area. The maps display accessibility to:

- Secondary schools (Figure 2.30)
- Grocery shops (Figure 2.31)
- Hospitals (Figure 2.32)
- Doctors (Figure 2.33)
- Pharmacies (Figure 2.34)
- Cinemas (Figure 2.35)

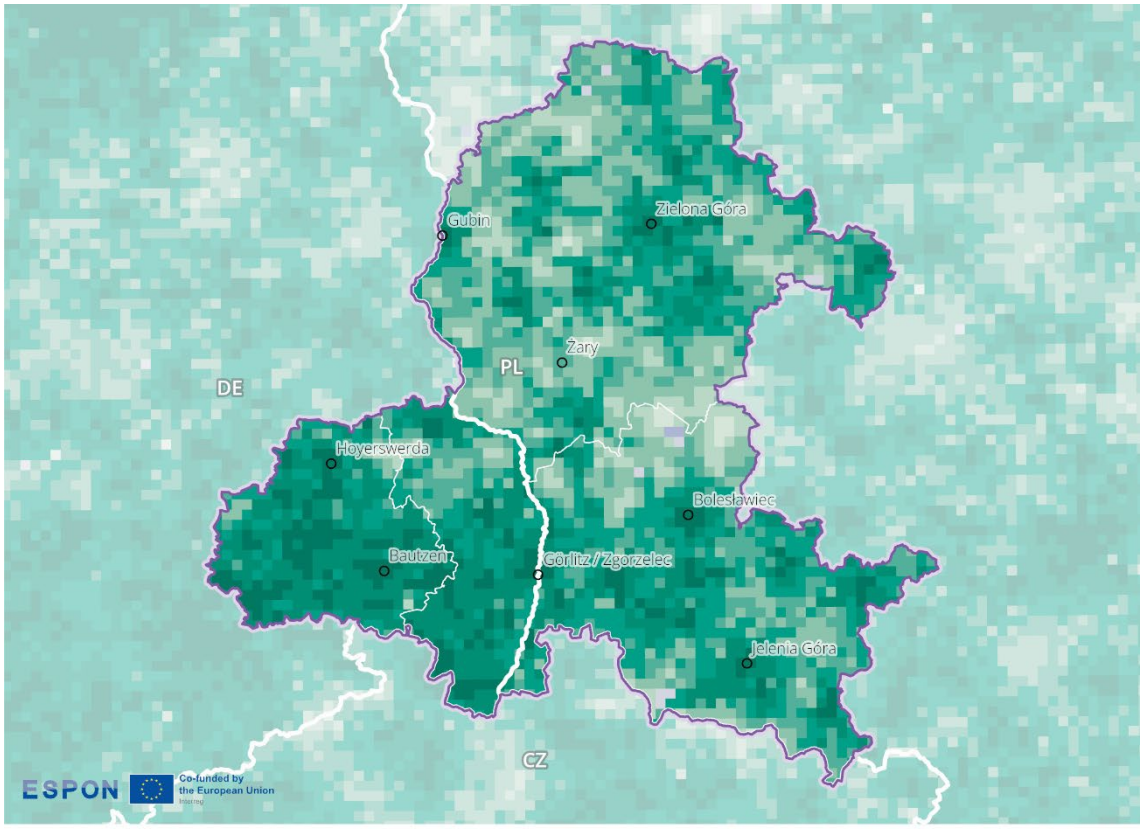
These indicators show how long, on average, it takes to reach the nearest facility by car. The data comes from the ESPON PROFECY Update project (2022) and is visualised based on a 2.5-kilometer grid.

In the Poland–Germany/Saxony border area, essential services such as hospitals, doctors, pharmacies, schools, and grocery shops are not evenly distributed across most areas in either country. Travel times are generally shorter in the southern regions and longest in the central regions, with some areas experiencing travel times of more than one hour.

Near the national border, travel times to schools, doctors, and pharmacies tend to be somewhat longer in the Polish regions compared to the German ones.

Hospitals, as medical services, are primarily located in cities and more densely populated areas. This creates an urban–rural gradient, with shorter travel times in and around urban centres and longer travel times in rural or remote regions. The same pattern applies to cinemas as a cultural service.

Figure 2.30: Travel time to secondary schools[47]



Car travel time to the nearest secondary school (2021)

5min
10min
15min
20min
30min
45min
1h
2h
3h
4h
6h
12h

inside outside of the Interreg VI-A perimeter

Level of detail: 2.5km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON PROFECY Update, 2022
©EuroGeographics for administrative boundaries

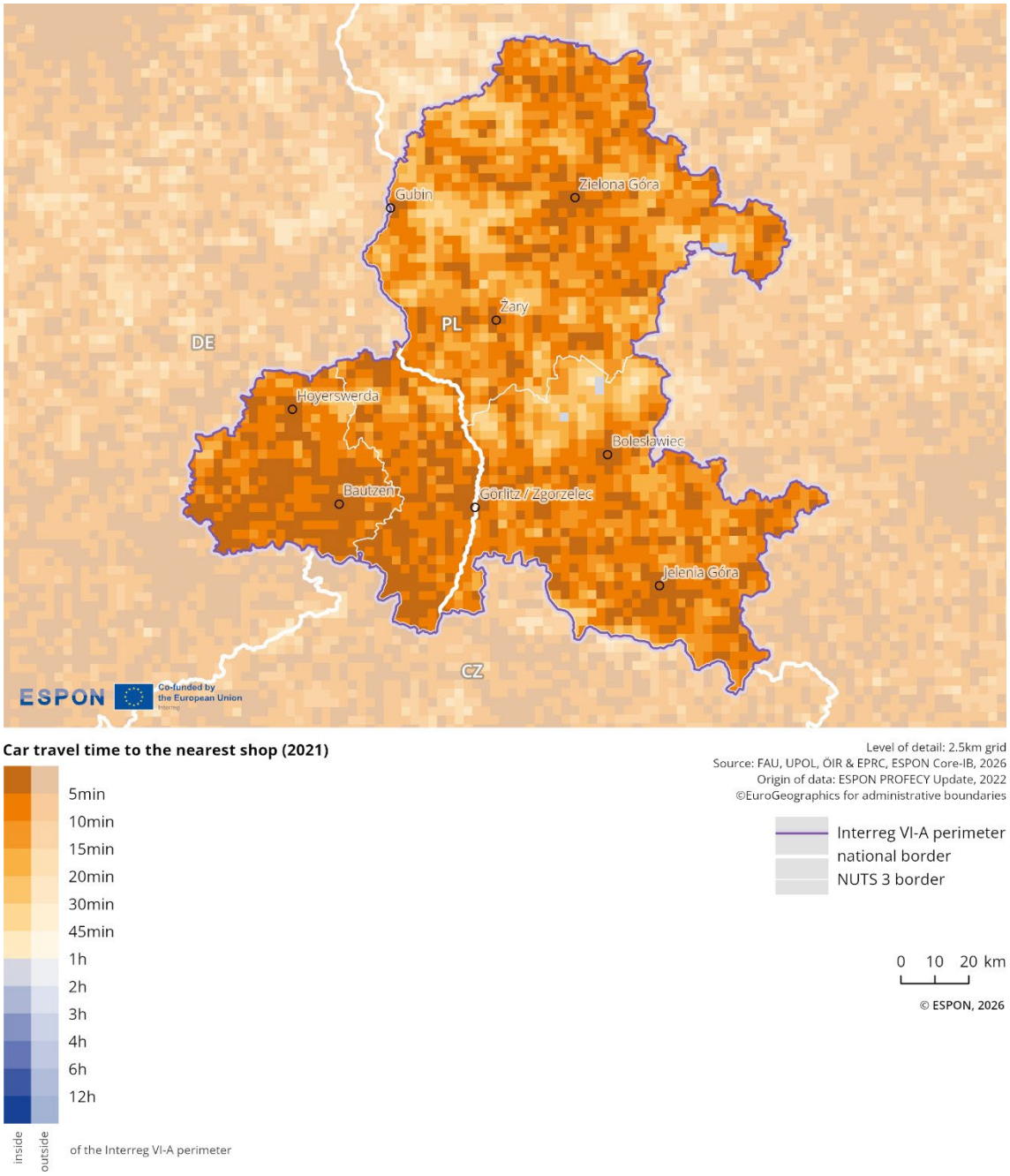
Interreg VI-A perimeter
national border
NUTS 3 border

0 10 20 km

© ESPON, 2026

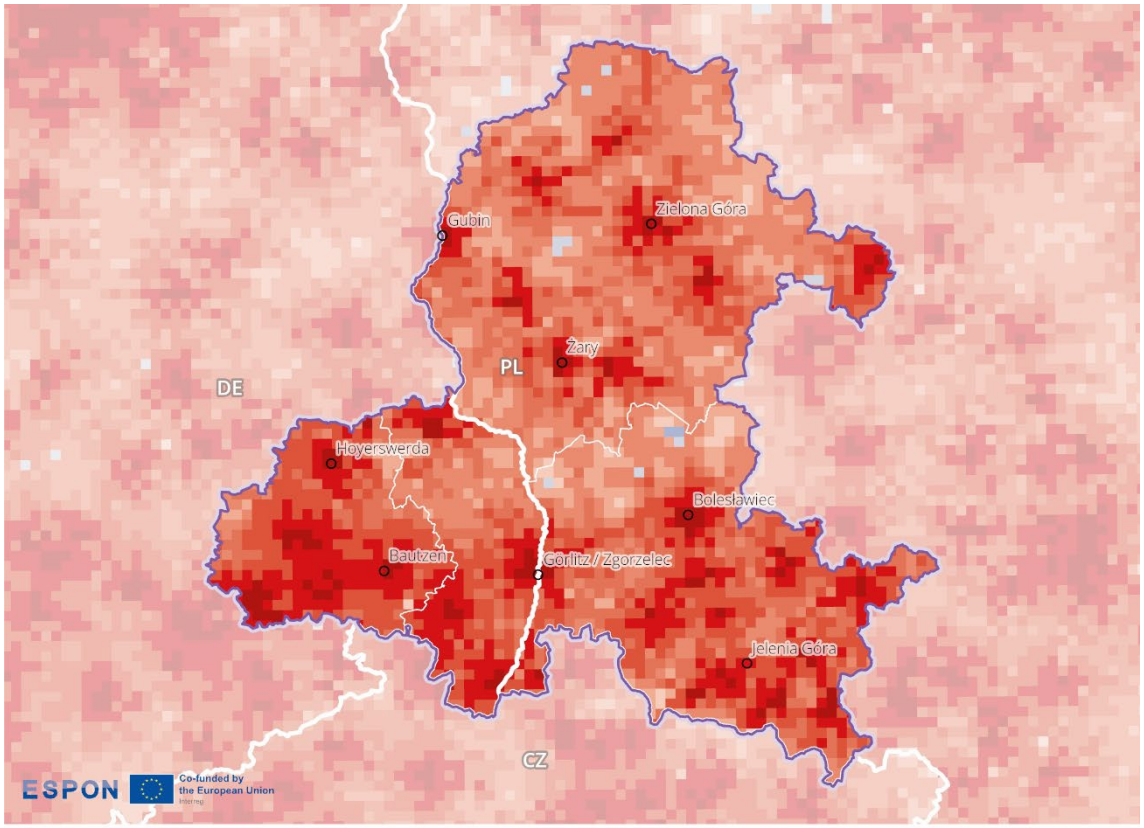
[47] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.31: Travel time to grocery shops[48]



[48] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.32: Travel time to hospitals[49]



Car travel time to the nearest hospital (2021)

5min
10min
15min
20min
30min
45min
1h
2h
3h
4h
6h
12h

inside outside of the Interreg VI-A perimeter

Level of detail: 2.5km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON PROFECY Update, 2022
©EuroGeographics for administrative boundaries

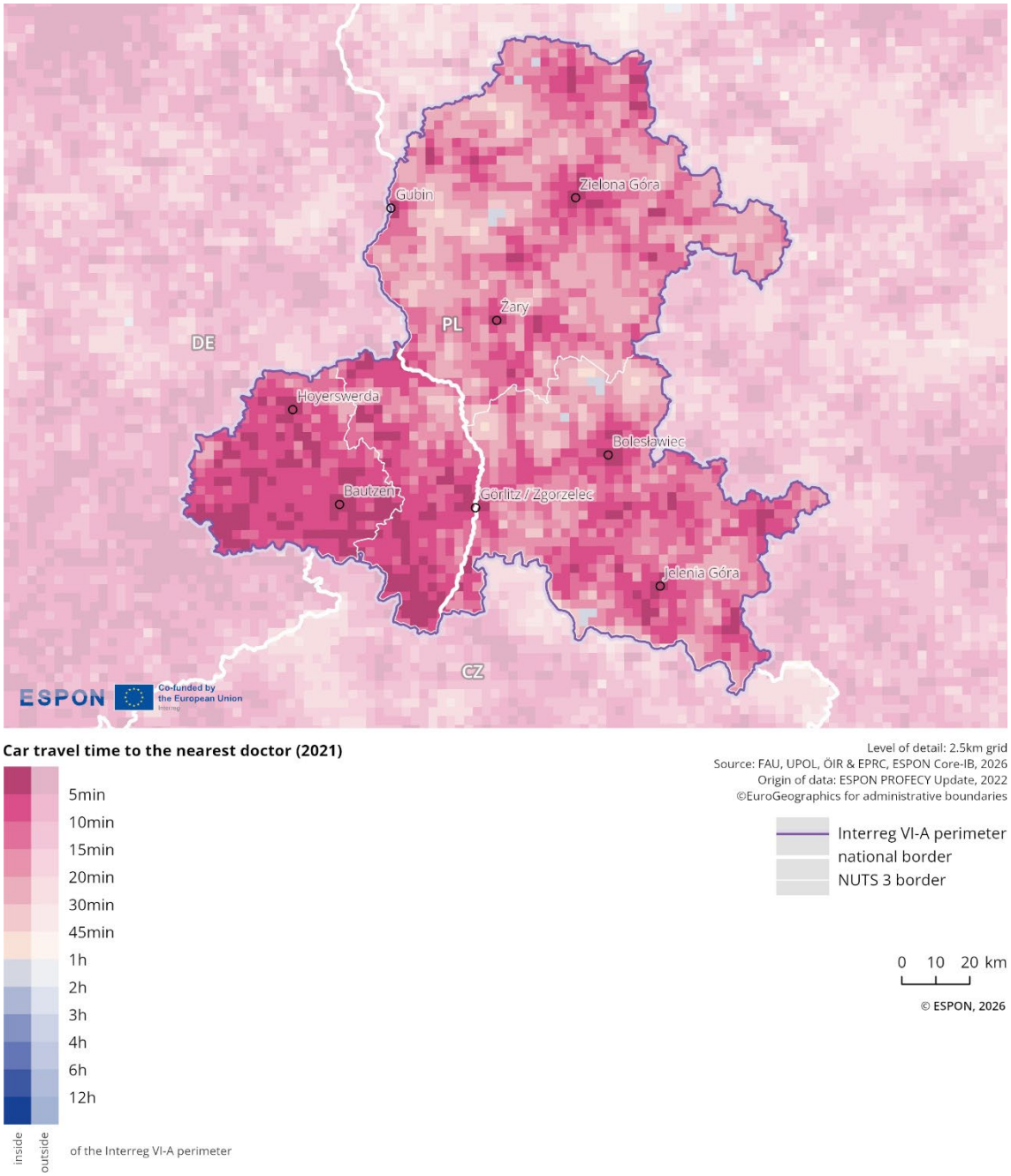
Interreg VI-A perimeter
national border
NUTS 3 border

0 10 20 km

© ESPON, 2026

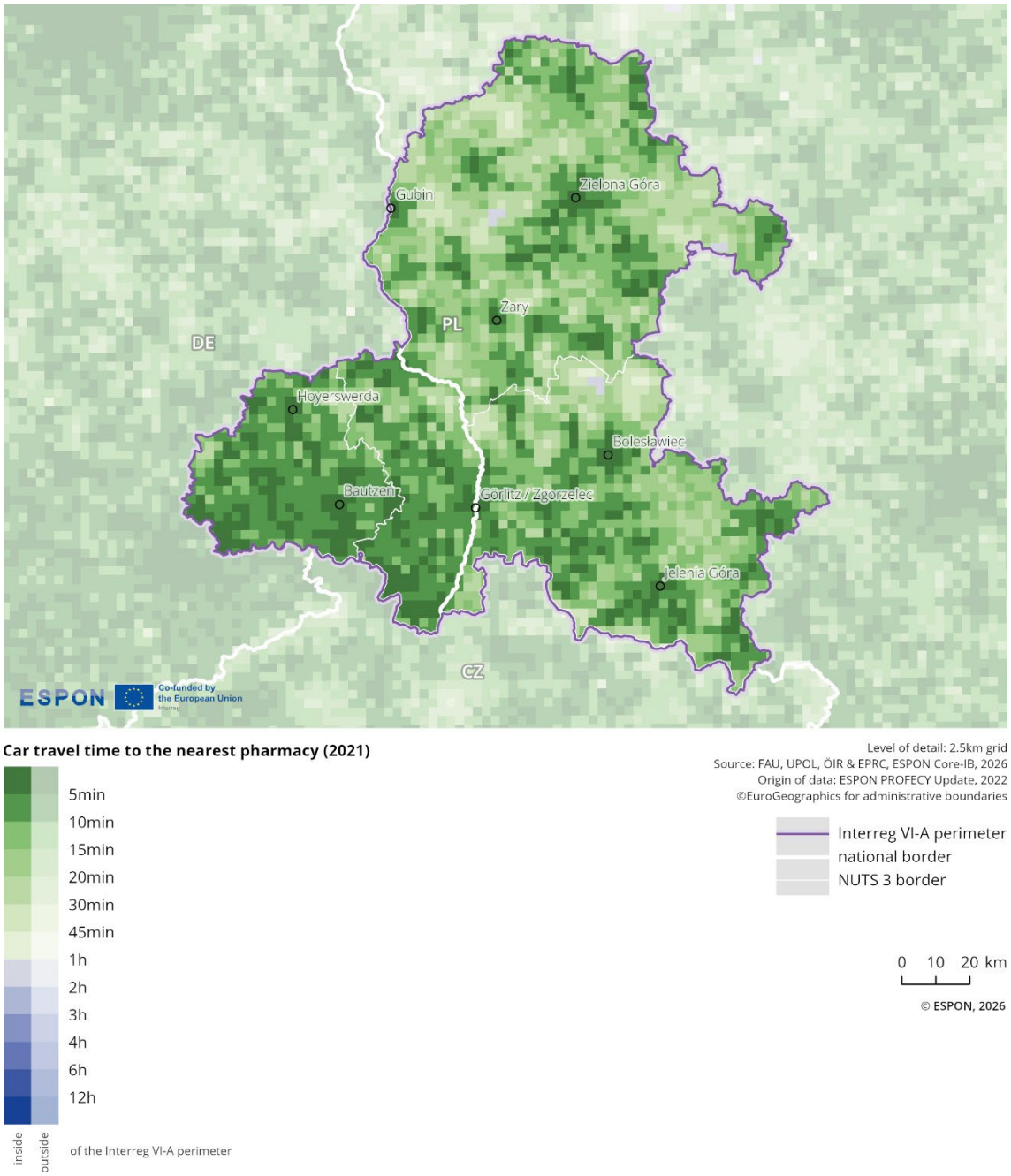
[49] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.33: Travel time to doctors[50]



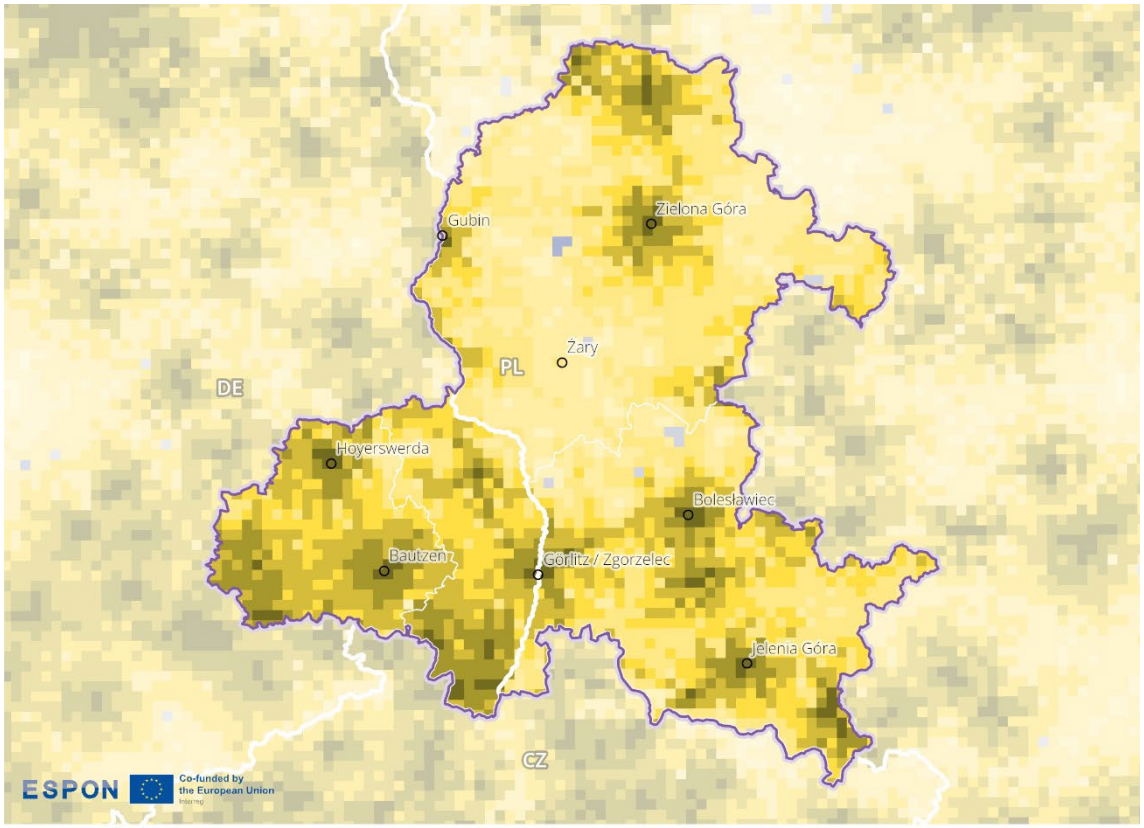
[50] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.34: Travel time to pharmacies[51]



[51] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.35: Travel time to cinemas[52]



Car travel time to the nearest cinema (2021)

5min
10min
15min
20min
30min
45min
1h
2h
3h
4h
6h
12h

inside outside of the Interreg VI-A perimeter

Level of detail: 2.5km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON PROFECY Update, 2022
©EuroGeographics for administrative boundaries

Interreg VI-A perimeter
national border
NUTS 3 border

0 10 20 km

© ESPON, 2026

2.4.4 Key messages on the socio-economic dimension

The border region presents a complex mix of opportunities and challenges with regard to social life, tourism, and access to services. Overall, patterns of social cross-border interaction, as determined by social media analysis, remain low. One explanation for this lies in language barriers: The German and Polish languages are not mutually intelligible. This reduces everyday exchanges for work, education or leisure, and can explain the uneven intensity of social interaction.

[52] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

However, tourism presents a contrasting dynamic. Certain areas, such as Jelenia Góra in Poland and Görlitz in Germany, attract large numbers of visitors. This generates income and supports employment. However, these benefits are not without challenges: over-tourism, seasonal peaks and rising housing demand may strain local tolerance.

Urban areas on both sides of the border, particularly in the south, have relatively short travel times to schools, shops and hospitals. In more rural and central parts of the border region, however, access can take over an hour, highlighting a persistent urban-rural divide. Polish regions near the border often face longer travel times to basic services than their German neighbours.

2.5 Border security and safety

This dimension shows the security and safety conditions in border regions. It analyses the number of days on which border control is temporarily reintroduced at internal borders, using this as an indicator of security concerns and restrictions on cross-border movement.

2.5.1 Temporary reintroduction of border controls at internal borders

Indicator description

The indicator shows the number of days of temporary reintroduction of border control at internal borders, including the official reasons behind. The reintroduction of border control at the internal borders must be applied as a last resort measure, in exceptional situations, and must respect the principle of proportionality. The scope and duration of reintroduced border control should be restricted to the bare minimum needed to respond to the threat in question.

- **Source/method of retrieval**: Processing and analysis data of European Commission information pursuant to Article 25 and 28 et seq. of the Schengen Borders Code
- **Temporal coverage**: 2006-2025 (cut-off: 08 May 2025, in order to allow data treatment before work package completion)
- **Unit**: Days per year

Please refer to the technical annex for more information.

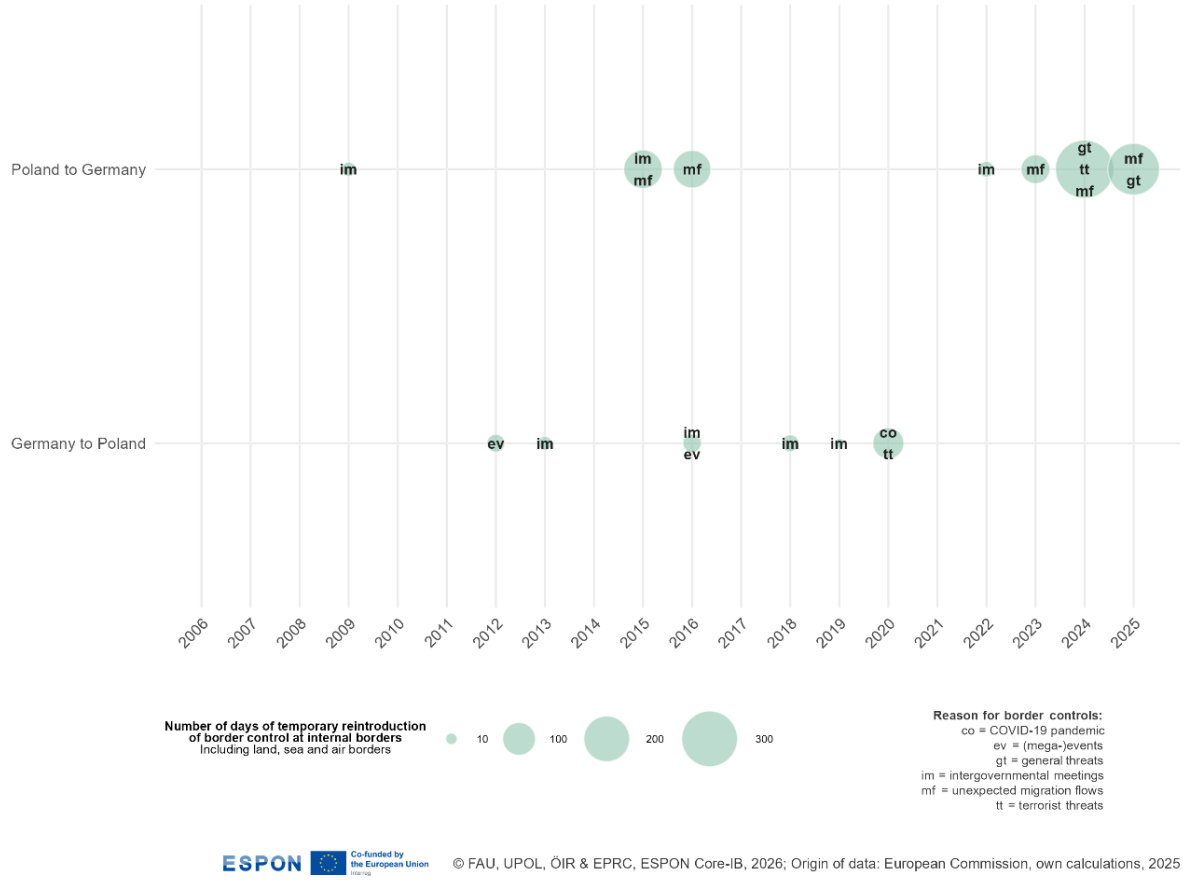
Figure 2.36 illustrates the number of days during which temporary border controls were reintroduced at internal borders within the Schengen Area. Each bubble represents a specific year with bubble sizes indicating the number of days the respective border was under control. The categories of reasons for reintroducing controls include:

- co – COVID-19 pandemic
- ev – (Mega-)events
- gt – General threats
- im – Intergovernmental meetings
- mf – Unexpected migration flows
- tt – Terrorist threats

The data spans from 2006 to 2025 (cut-off: 08 May 2025) and is based on notifications from the European Commission information pursuant to Article 25 and 28 et seq. of the Schengen Borders Code. In line with Schengen rules, the reintroduction of controls is to be used only as a last resort, for exceptional circumstances, and with strict adherence to the principle of proportionality—both in duration and scope.

Germany had already been part of the Schengen Area by 2006, while Poland joined in 2007.

Figure 2.36: Temporary reintroduction of border controls



The Poland-Germany/Saxony border area is characterised by an asymmetric pattern:

- Crossing the border from Poland to Germany: Temporary border control occurred in 7 out of 20 years, mainly driven by intergovernmental meetings like G7/G8 summits (2015, 2022) and unexpected migration flows (2015-2025) but also by threats such as Russia's ongoing war of aggression against Ukraine or human smuggling (2023-2025).
- Crossing the border from Germany to Poland: Temporary border controls occurred in 6 out of 20 years, most of them due to intergovernmental meetings such as the NATO summit (2016).

From a comparative perspective, Germany has implemented controls for significantly more days than Poland, indicating an unequal impact on cross-border movement in one direction.

These controls tend to have a tangible effect on the smooth functioning of cross-border flows, especially commuting and logistics, as they introduce delays and unpredictability.

2.5.2 Key messages on the border security dimension

The Germany–Poland border within the Schengen Area demonstrates how temporary border controls can disrupt cross-border life, despite the principle of free movement. Between 2006 and 2025, controls were reintroduced at various times, though unevenly. Germany applied controls for significantly more days than Poland, creating an asymmetric pattern of impact.

Examining the reasons behind these controls more closely reveals that they reflect broader European challenges. Short-term controls were implemented in response to intergovernmental meetings such as G7, G8 or NATO summits, demonstrating the impact of global political events on regional borderlands. Unexpected migration flows, especially since 2015, have also been a key reason for controls, highlighting the role of this border in wider European migration management. More recently,

concerns around public security and human smuggling have led to more frequent reintroductions. By contrast, Poland's use of border controls has been more limited, mainly occurring during major events or in response to specific security concerns.

These dynamics directly affect the main characteristics of the border region. On the one hand, the Schengen framework provides a foundation for cross-border commuting, trade and everyday interaction. However, the repeated reintroduction of controls undermines predictability for residents and businesses. Even temporary checks can delay logistics chains, complicate daily commuting and reduce trust in the stability of open borders.

2.6 Governance dimension

This section covers the cross-border governance of the Germany (Saxony) Poland programme area. Since the early 1990s, many cross-border cooperation structures have emerged particularly in relation to the economy and culture. More generally, a German Polish Intergovernmental Commission for Regional and Cross-border cooperation convened for the first time in Görlitz in April 1991 and meets once a year. The Intergovernmental Commission has 3 focal areas: (a) fostering cooperation between regional, municipal and other institutions, associations and facilities, (b) sparking initiatives by making recommendations and (c) communicating information. Germany and Poland also work closely together in expanded formats. For example, Germany, Poland and France consult regularly on foreign and European policy issues within the framework of the Weimar Triangle, which was founded in August 1991 by the 3 countries' Foreign Ministers.

2.6.1 Cross-border cooperation

This sub-dimension identifies the extent of cross-border cooperation in the border region. It illustrates areas of high cooperation intensity and identifies functional links in governance structures across borders. It also identifies areas with high awareness of obstacles and the willingness and support services to overcome them, as well as areas where Interreg cooperation intensity is already strong.

2.6.1.1 Cross-border governance structures

Indicator description

The indicator shows active institutionalised cooperation that act as cross-border entities. It includes cooperation formats such as Eurocities, Euroregions, EGTC, cross-border associations, cross-border councils, etc.

- **Source/method of retrieval**: Localisation and categorising of cross-border cooperation formats (Eurocities, Euroregions, EGTC, cross-border associations, cross-border councils, conferences, working communities), based on desktop research.
- **Temporal coverage**: Status as of October 2025
- **Unit**: n/a

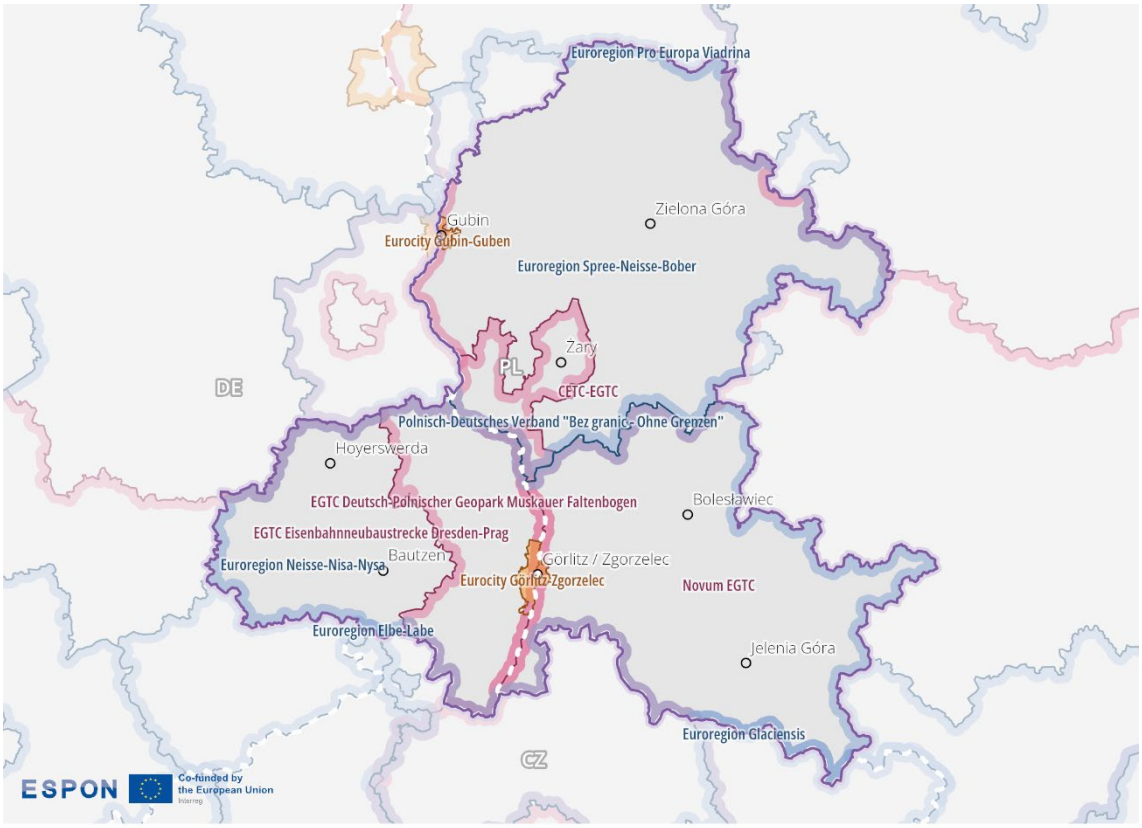
Please refer to the technical annex for more information.

Figure 2.37 shows the different types of institutionalised cooperation. These governance structures either function as cross-border entities or bring together stakeholders from the cross-border region around shared topics. The governance structures covered include Eurocities, Euroregions, European Groupings of Territorial Cooperation (EGTCs), cross-border associations and councils. Project-based cooperation is not included.

The coloured markings on the map indicate different types of institutionalisation: EGTCs are shown in red, Eurocities in yellow, Euroregions/Euregios/Europaregions/Eurodistricts in blue, and other formats in grey.

The multi-level governance structure in this programme area displays broad spatial coverage along the borders. Overall, the region demonstrates a high level of institutionalised cross-border cooperation. EGTCs and Euroregional formats are the most prevalent. Cross-border cooperation at city level (Görlitz-Zgorzelec) is also highly relevant in this border area.

Figure 2.37: Cross-border governance structures[53]



[53] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.6.1.2 Cross-border public services

Indicator description

The indicator shows different services specialised on cross-border challenges and development potential, including their domain of operation. As a specific form of services of general interest, cross-border public services (CPS) address joint problems or development potentials of border regions that are located on different sides of one or more national borders.

- **Source**: ESPON cross-border public services (CPS) 2.0 database
- **Temporal coverage**: 2022
- **Unit**: n/a

Please refer to the technical annex for more information.

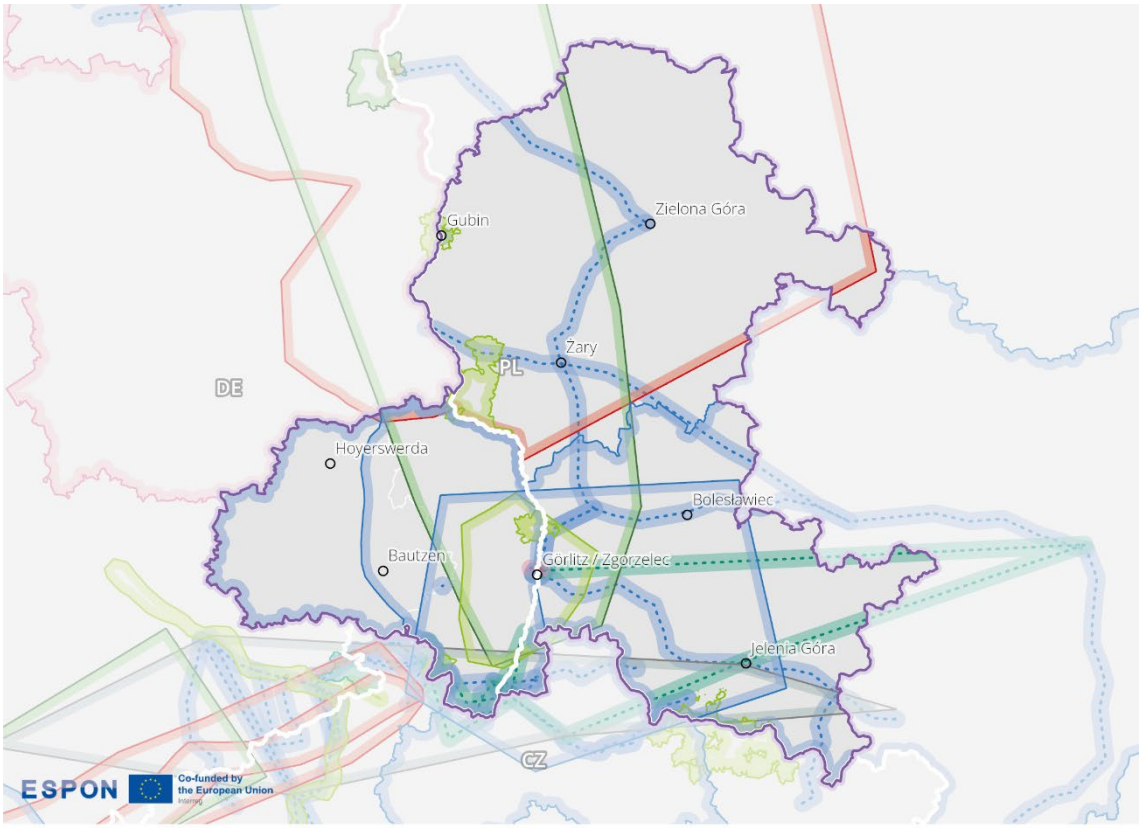
Figure 2.38 depicts the geographical extent of cross-border public services in the border area in 2022. Different thematic areas are represented by distinct symbols and colours, indicating services such as disaster management, health care, transportation, education, environment, energy, job placement, and culture. The visualisation highlights where these services operate across the national boundary.

Cross-border public services in the Germany–Poland area are concentrated around Görlitz/Zgorzelec and the Bautzen/Budyšin–Jelenia Góra corridor, forming a compact polycentric cluster. Services extend northward to Zielona Góra, westward toward Hoyerswerda and Guben, and southeast to Liberec, connecting multiple regional centres.

The dominant theme is transportation, forming a dense network linking the whole Interreg area, linking cities such as Zielona Góra, Bolesławiec, and Jelenia Góra. This is complemented by education & research services around Görlitz/Zgorzelec and Jelenia Góra, overlapping with other public services.

Disaster management is visible along the Żary–Zielona Góra axis. Smaller zones near Görlitz/Zgorzelec and Guben provide fragmented environment & water links.

Figure 2.38: Cross-border public services[54]



Geographical extent of cross-border public service themes (2022)

areal linear character of the service

- Disaster management
- Health care
- Transportation
- Tourism & information
- Education & research
- Environment & water
- Heating & energy
- Job placement
- Culture

inside outside inside outside of the Interreg VI-A perimeter

Cross-border public services covering more than one theme have been assigned only to one. Furthermore, some polygons have been excluded because they were only approximately and not accurately spatially defined.

Level of detail: geolocalised lines and areas
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON CPS, 2022
©EuroGeographics for administrative boundaries

- Interreg VI-A perimeter
- national border
- NUTS 3 border

0 10 20 km

© ESPON, 2026

[54] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.6.1.3 Perceived cross-border obstacles in b-solutions

Indicator description

The indicator shows cases of legal or administrative obstacles selected in the framework of the b-solutions initiative. This indicator lists the number, location and nature of suggested solution of cases in the b-solutions initiative, including the topic and parties involved.

- **Source/method of retrieval**: Processing and analysis of the b-solutions initiative data
- **Temporal coverage**: 2018-2025 (first quarter)
- **Unit**: n/a

Please refer to the technical annex for more information.

The b-solutions initiative is a European Union project that supports the resolution of legal, operational and administrative cross-border obstacles. It offers funding for pilot actions and legal expert advice in border regions. A high level of cross-border integration often reveals strong barriers of cross-border functioning. In order to exploit the cross-border potentials, these obstacles have to be overcome or at least addressed. Both the number of reported obstacles and the general interest in solutions serve as important indicators of cross-border interaction.

As part of the ESPON CROSSGOV project, all b-solutions initiatives were analysed to deepen the understanding of the thematic focus of the perceived cross-border obstacles across different border regions and the suggested solution, in particular from the European perspective.

In the border area of Poland–Germany/Saxony, one b-solution pilot action was identified. This initiative focuses on the construction of a trilateral bridge in the Euroregion Neisse-Nisa-Nysa, involving cultural cooperation, infrastructure development, and skill recognition among the participating countries (CZ, DE, PL). The application for this pilot was submitted by an Euroregion.

In this border area, in the field of transport, issues relate to infrastructure development, urban mobility networks, and cultural cooperation between Poland, Germany and also Czechia. Governance and institutional cooperation pertain to the establishment of legal agreements that facilitate collaborative infrastructure projects and the coordination of administrative procedures. There are challenges regarding the recognition of skills across borders, which can affect effective workforce integration and project execution.

The solutions proposed in the pilot action are predominantly hybrid in nature. For example, the trilateral bridge project involves proposals such as legal measures to conclude a trilateral intergovernmental agreement, aiming to expedite the overall progress of the project. Additionally, operational measures are suggested to enlarge the team of civil engineers and to involve both Czech and German professionals in the planning and development processes. This collaborative approach is expected to enhance project efficiency and ensure that expertise from all 3 countries contributes to the successful completion of the bridge.

2.6.1.4 Institutionalised advice centres for cross-border issues

Indicator description

The indicator shows where institutionalised advice centres on cross-border issues are located, including their thematic focus and geographical perimeter.

- **Source/method of retrieval**: Localisation and thematic focus of advice centres for cross-border issues are identified via desktop research.
- **Temporal coverage**: Status as of February 2025
- **Unit**: n/a

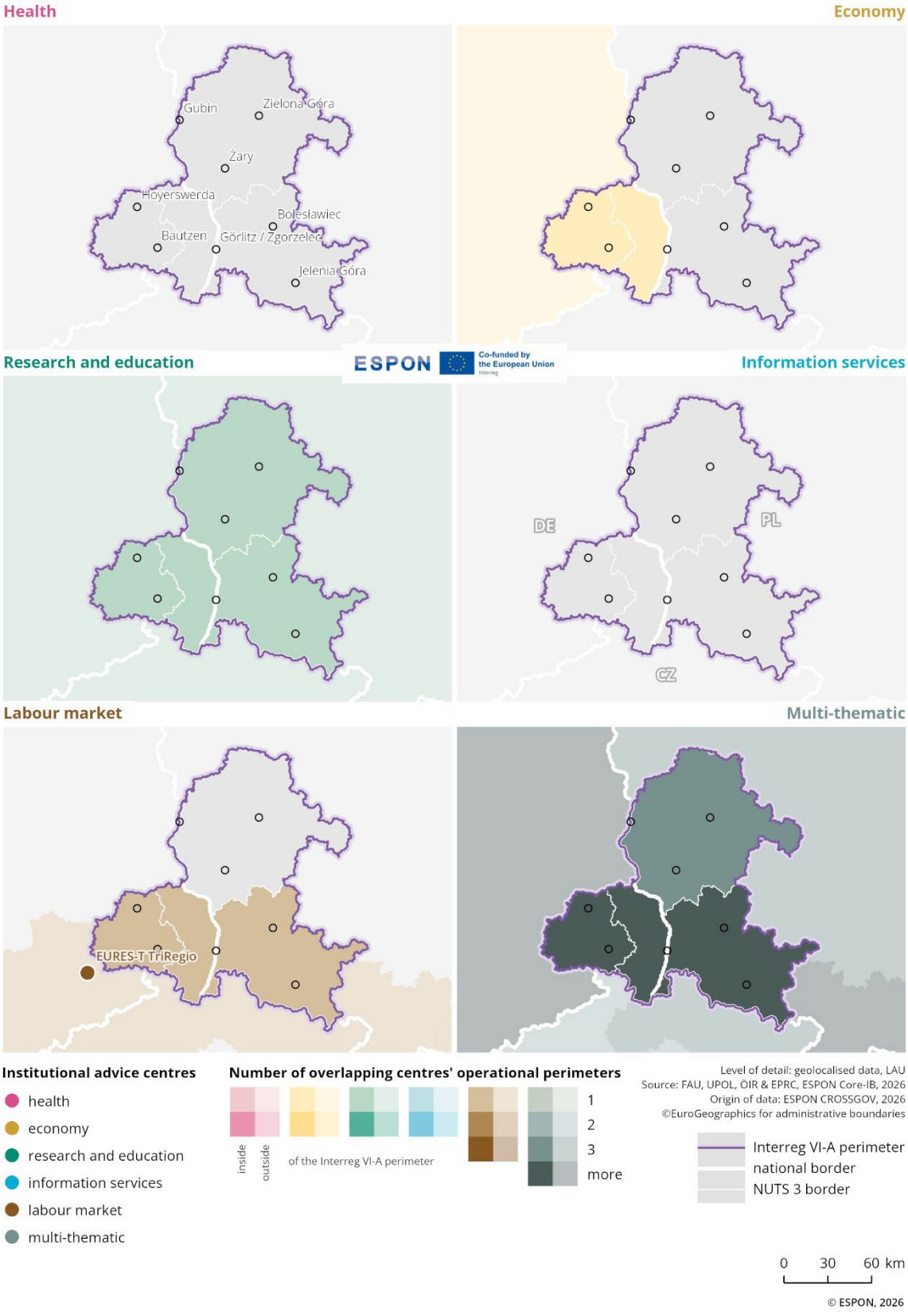
Please refer to the technical annex for more information.

Figure 2.39 shows the locations and types of institutionalised advice centres, along with their operational domains, in the cross-border Interreg region between Poland and Germany/Saxony. These centres throughout Europe provide support in various fields such as health, economy, research & education, information services, the labour market, and multi-thematic issues. The operational domains of these centres are also indicated by coloured shading on the map. The more intense the colour, the stronger the influence of that specific domain in the corresponding area.

There are no institutionalised advice centres in the Interreg region displayed on the map. However, near the Interreg border in Germany, there is the economic institutionalised advice centre EURES-T TriRegio.

Within the Interreg region, centres with a multi-thematic, as well as research and education operational domains, are represented in both countries, but there are regional differences in their intensity: the northern Polish part is more pronounced in this regard compared to the rest of the Interreg region. Labour market operational domains are located in the southern part of the Interreg region, in both the German and Polish part. Additionally, economic operational domains are also present in the German part.

Figure 2.39: Institutionalised cross-border advice centres[55]



2.6.2 Outline of Interreg activities

The following section outlines the key Interreg activities in the 2021-2027 programming period. The aspects included concern the development opportunities and challenges identified (see Table 2), the budget available and split of allocation (Figure 2.40), overlapping Interreg programmes and the key aspects drawn from the programme.

Table 2: Interreg VI (2021-2027): Opportunities and challenges

Topic	Key development opportunities and challenges identified for Interreg 2021-27
Territory	▪ Diverse landscape and variety of natural habitats ▪ Uneven distribution of settlements and cities
Economy	▪ Need promote green and innovative energy technologies. ▪ Fostering cooperation between universities and business
Labour and population	▪ Areas experiencing population decline ▪ Cooperation on vocational training and labour markets
Environment	▪ Protection, valorisation and promotion of natural and cultural asset ▪ Increased risks from flooding and fires ▪ Cooperation on waste management ▪ Management of legacy of heavy industry and mining
Transport	▪ Area is well connected to the large-scale transport networks in an east-west direction ▪ Limited rail and public transport capacity and cross-border links

Total Budget: EUR 75,343,751.00

[55] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Figure 2.40: Split of Interreg allocation

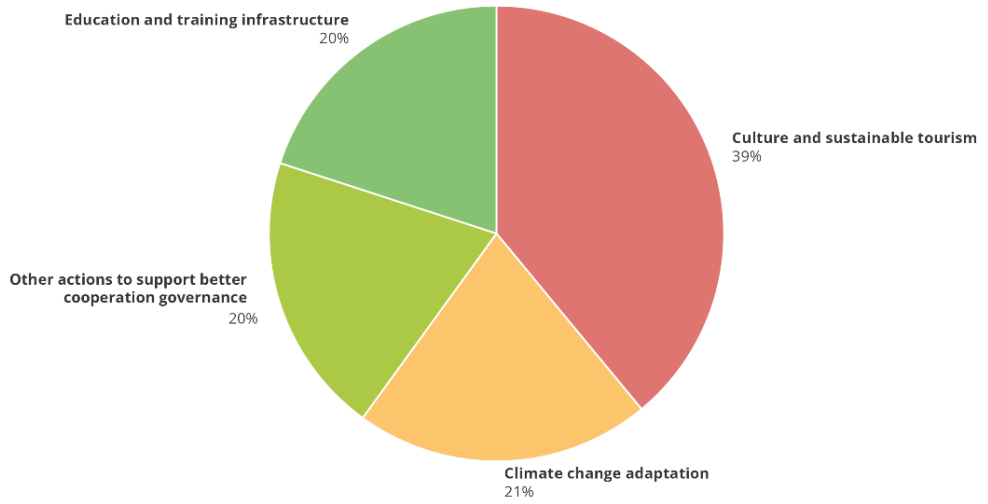


Table 3 shows the number of Interreg 2021-2027 cross-border and transnational programmes which share at least one NUTS3 region with the border area. Each programme has its own distinct rationale, value and territorial focus. However, for the purposes of, for example, planning and capitalisation activities it is potentially helpful for programmes and programme stakeholders to be aware of and connected to other Interreg programmes with which they share a direct territorial link.[56] The 4 Interreg C programmes Interreg ESPON, Interact, Interreg Europe and URBACT (Urban Action) cover the whole EU territory and provide a range of joint services and initiatives.

Table 3: Shared geographies with other cross-border and transnational programmes[57]

Interreg A (cross-border)	Interreg B (transnational)
3	2

Key aspects

- Strong focus on disaster and risk prevention and climate change adaptation
- Collaboration on labour markets and training, e.g. linked to digital skills
- Collaboration with other Interreg A programmes on, e.g. climate challenges and common strategies.
- Some regions in the programme area also participate in other Interreg programmes. These include the Baltic Sea and Central Europe Interreg B programmes and the Czechia-Poland, Germany/Brandenburg-Poland and Germany/Saxony-Czechia Interreg A programmes.

[56] It is noted that synergies and links with a wide range of other territorial cooperation and sectoral programmes and initiatives are also valuable and this is reflected in the wider analyses presented in this border profile, but not specifically covered in this table.

[57] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

2.6.2.1 Interreg cooperation

Indicator description

Based on the keep.eu database, this indicator illustrates the network density of Interreg V-A (2014–2020). It is derived from the geographical location of all partners within a project consortium and reflects the intensity of cooperation between them. For the analysis, project networks were visualised by drawing lines between the locations of partners within a consortium. These connections were subsequently aggregated and spatially abstracted by calculating line density using GIS software. Dark red areas indicate a high density of connections between project partners, while yellow areas represent a lower density of cooperation links.

An additional element in this section is the development of project partner numbers between Interreg IV-A (2007–2013) and Interreg V-A (2014–2020), based on data from the keep.eu database. The datasets were cleaned to remove duplicates, using the partner names as reported in keep.eu. For both programming periods, keep.eu indicates a high level of data completeness[58]. Nevertheless, this development should be interpreted as indicative, as variations in partner name reporting and general limitations regarding the representativeness of the dataset affect the robustness of the results.

- **Source/method of retrieval**: Processing and analysis of the keep.eu database
- **Temporal coverage**: 2007-2013 (Interreg IV-A), 2014-2020 (Interreg V-A)
- **Unit**: n/a

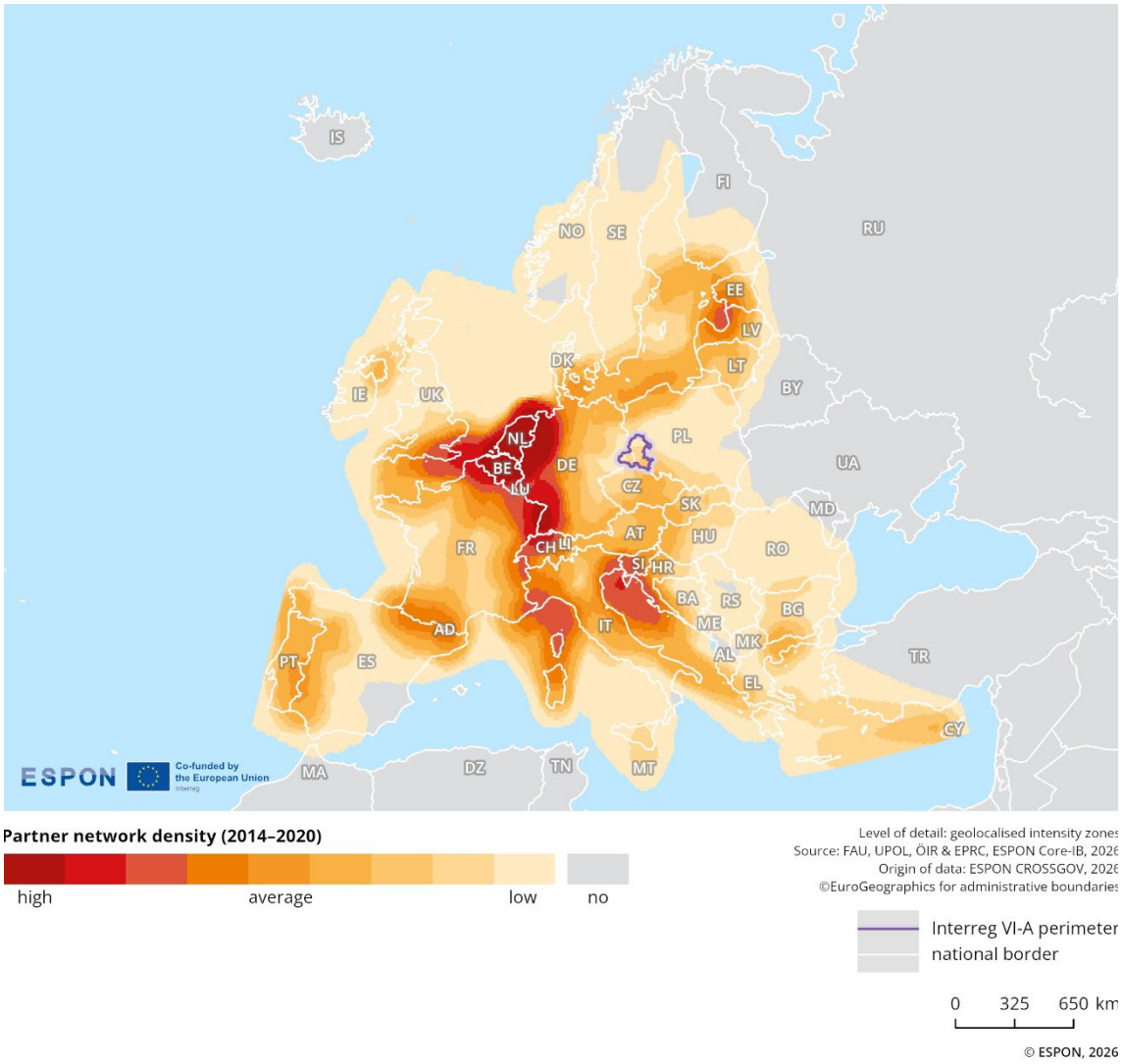
Please refer to the technical annex for more information.

Cooperation activities and networks are among the most meaningful types of information for delineating cross-border functional areas. As such, the indicator on cooperation through Interreg can help to identify networks among cross-border actors and highlight the density of cooperation in specific border segments.

Figure 2.41 shows the density of Interreg V A (2014–2020) partner networks. The indicator includes the location of, and links between, Interreg project partners within a project consortium. From a European perspective, partner network density in the Poland–Germany/Saxony border area appears quite evenly spread. No specific border segments within the programme area show significantly higher or lower network levels than others. Overall, the partner network density in this border area is slightly lower than the European average. It should be noted that comparisons with other European cross-border regions need to take historical aspects into account: cross-border cooperation in Eastern Europe is much younger than in the Western part. Based on the keep.eu database and excluding duplicates, the number of project partners decreased from 138 in Interreg IV-A (2007–2013) to 107 in Interreg V-A (2014–2020), a decrease of about 22%. It is important that these changes are considered in the context of factors such as change in programme budgets between 2007-2013 and 2014-2020, emphasis on targeting impact, and numbers of strategic projects.

[58] see Keep.eu representativeness: Interreg, Interreg-IPA and ENI cross-border

Figure 2.41: Interreg V-A partner network density[59]



2.6.3 Key messages on the governance dimension

The Poland–Germany/Saxony border region is characterised by a high degree of institutionalised cooperation. There are well-established governance structures, including Euroregions, EGTCs and cross-border twin city initiatives such as Görlitz–Zgorzelec, which provide institutionalised platforms for collaboration. This demonstrates the willingness of local and regional actors to collaborate across the border. However, despite the presence of many forms of cooperation, the density of Interreg project networks remains slightly below the European average, and the number of partners has decreased in recent programming periods.

Cross-border public services are an important area in which cooperation becomes evident. Transport cooperation, educational initiatives, research activities and disaster management efforts illustrate how the border region is progressing towards functional integration, particularly in the Görlitz-Zgorzelec area and along the Bautzen–Jelenia Góra axis.

[59] Please consider the particular spatial reference in this border profile: The statistical analysis refers to the programme area as defined at EU level at the district level (NUTS3), cp. https://eur-lex.europa.eu/eli/dec_impl/2022/75/oj/eng. The municipal membership differs from this perimeter on the Polish side, as shown in Figure 1.1.

Institutionalised advice centres are another important part of the overall picture. The absence of such centres within the Interreg area, apart from nearby initiatives such as EURES-T TriRegio, leaves a potential in the provision of direct support to citizens on cross-border issues.

3 Summary and key observations

To support the strategic dialogue on cross-border cooperation beyond 2027, this territorial analysis provides harmonised and comparable information. Its data-driven evidence helps to inform the future direction of cross-border cooperation by facilitating alignment with EU priorities and the evolving regulatory framework. The Core-IB border profiles adopt a harmonised methodology and provide programme areas with access to recent European data. As this approach comes along with limitations, member states may hold additional or more detailed data which can further enrich or contextualise the findings beyond the Core-IB project (see final report and technical annex of this project). These national sources are essential for refining and validating territorial evidence in policymaking processes, including: a) regional, fine-scale data and b) insights from political processes related to prioritisation and objective setting. The study's findings are analytical and are intended to support reflection and discussion. They do not create regulatory or policy obligations for Member States, the European Commission, or programme authorities.

Table 4 provides 2 types of information. Firstly, it summarises the key analytical findings for the border region, as discussed earlier in this profile. Secondly, it suggests policy options based on the analytical findings. These options are intended to provide a practical and informative basis for the strategic dialogue among programme bodies, managing authorities and the European Commission.

Generally speaking, the aim of cohesion policy is to promote harmonious territorial development (also) across borders. The objective is to mitigate the impact of borders and achieve 360° functionality, thereby enhancing the quality of life and fostering prosperous development on both sides of the border. The upcoming Interreg period offers an opportunity to address these objectives and potentials through targeted cooperation projects.

Table 4: Evidence-based conclusions

Territorial dimension	
Key analytical findings	• The Poland–Germany/Saxony border region faces steep demographic decline, with strong outmigration, ageing populations, and uneven settlement patterns creating a network of urban nodes amid sparsely populated areas; • Despite shrinking populations, settlement areas have expanded, increasing land-use pressures and underlining the need for integrated planning across residential, economic, and environmental demands; • Accessibility and service provision are relatively strong, especially around hubs like Görlitz-Zgorzelec, but weaknesses in sustainable mobility and uneven cross-border flows highlight the need for strategic cooperation in transport and regional cohesion.

Territorial dimension	
Policy options	**Population and settlement related aspects** • Cross-border projects may address in particular service provision, housing, and labour market access as being affected by population decline and ageing; • A focus could be on stabilising services and strenghtening urban nodes such as Görlitz, Zgorzelec, Hoyerswerda, Bautzen, and Jelenia Góra; • Polycentric development could be supported in sparsely populated areas to coordinate land-use planning an limit environomental ressures form expanding settlement areas, aprticularely around Trebendorf and Rietschen on the German side of the border, as well as around the Polish cities Legnica and Jawor. **Accessibility related aspects** • Joint strategy development, pilot actions and knowledge exchange could be pursued to improve cross-border public transport, cycling and rail connectivity. Priority areas include the Görlitz–Zgorzelec axis and the surrounding are of the twin-city, where cross-border flows are strong. These measures would help reduce car dependency and strengthen cross-border integration.

Economic dimension	
Key analytical findings	• The border regional economy is catching up, with GDP growth outpacing EU averages, but income, wage, and employment gaps persist between the Polish and German sides, driving strong cross-border labour mobility; • Demographic decline, ageing, and outmigration, particularly in Poland, undermine labour markets despite rising employment rates and stable sectoral structures; • Housing affordability differences and rural digital divides further reinforce inequalities, showing a region in transition where integration offers opportunities but structural challenges remain.

Economic dimension	
Policy options	**Labour market related aspect** • The alignment of the economic catching-up processes with a balanced labour market integration, supporting employment opportunities and reducing asymmetric dependencies across the border region. **Competetiveness related aspects** • A focus could be on the demographic decline as a common economic challenge, addressing safeguarding labour supply, strengthening economic resilience and supporting long-term competitiveness in the border region; • Cooperation projects could strengthen the border-regional digitalisation, including broadband connectivity, as a basis for enhancing innovation capacities, research and development activities and overall economic competitiveness. **Cross-cutting aspect** • Integrated cross-border frameworks could be explored to coordinate affordable housing provision and digital infrastructure development, with the aim of reducing the spatial inequalities, bridging rural digital divides and supporting more cohesive economic development across the border region.

Green dimension	
Key analytical findings	• The cross-border region shows cross-border ecological links through protected areas, but fragmented coverage and uneven air quality highlight differing national approaches and environmental pressures; • Climate risks and energy systems reveal asymmetries: floods in Poland, landslides and droughts in the south, and continued reliance on coal despite strong grid interconnections; • Resource use patterns diverge, with Germany showing higher productivity but more waste and Poland lower productivity but declining waste, reflecting shared challenges in achieving a circular economy.

Green dimension	
Policy options	**Climate risks and resilience related aspects** • Cross-border cooperation could focus on more coordinated management of fragmented ecological systems and the asymmetries in air and water quality, contributing to coherent environmental governance across the border region; • Strategy development and pilot actions could support the establishment of cross-border risk management approaches, including early warning systems and coordinated adaptation planning, to strengthen regional resilience to floods, landslides and droughts. **Energy related aspect** • Cooperation initiatives could address the establishment and integration of cross-border energy communities as a means to frame the energy transition as a shared regional priority and to enhance sustainable and resilient energy security. Energy communities are groups of citizens, businesses, or local authorities that jointly produce, store, share, or consume renewable energy in order to achieve environmental, economic, or social benefits.[60] **Cross-cutting aspect** • Policy learning, benchmarking and joint initiatives could build on Germany's higher levels of resource productivity and Poland's declining waste generation to improve resource efficiency and advance more sustainable cross-border practices.

[60] See https://ec.europa.eu/regional_policy/information-sources/publications/studies/2025/handbook-on-cross-border-energy-communities_en

Socio-economic dimension	
Key analytical findings	• Social connectivity across the border is generally weak, largely due to language barriers, limiting everyday interactions for work, education, and leisure; • Tourism generates income and employment in hotspots like Jeleniogórski and Görlitz, but seasonal pressures and overtourism create spatial inequalities; • Access to services varies strongly: urban areas enjoy good provision, while rural and central zones, especially on the Polish side, face longer travel times, reinforcing an urban-rural divide.
Policy options	**Cross-cutting aspects** • Targeted cross-border initiatives could address the persistent language barriers through coordinated service provision, institutional cooperation and people-to-people measures, thereby strengthening social integration across the border region; • Coordinated cross-border tourism strategies could aim to balance economic benefits with the reduction of seasonal pressures and overtourism in hotspot locations; • A focus could be on cooperation in healthcare, education and digital services to enhance territorial cohesion, with particular attention to improving service provision in rural and central areas with limited access, notably on the Polish side.

Border security and safety dimension	
Key analytical findings	• Temporary border controls have been used asymmetrically, with Germany reintroducing them far more frequently than Poland, often linked to events, migration, or security concerns; • These controls disrupt cross-border flows, affecting commuters, logistics, and daily mobility, and can temporarily undermine trust in open-border stability; • Differences in national priorities and risk perceptions shape border management, highlighting how exceptional measures can become a recurring feature in regional life.

Border security and safety dimension	
Policy options	**Cross-cutting aspects** • The impacts of border controls on cross-border commuting and logistics can be mitigated through coordinated and institutionalised cross-border policy dialogue; • The mitigation of border control effects can form part of cross-border cooperation projects in various sectors. Economic networks, transport infrastructure initiatives and tourism-related actions can incorporate considerations related to the impacts of border controls.

Governance dimension	
Key analytical findings	• The region has extensive institutionalised cooperation through Euroregions, EGTCs, and city-level initiatives, showing strong cross-border engagement; • Functional integration is visible in transport, education, research, and disaster management, but legal and administrative barriers limit tangible results and everyday citizen support; • Despite structured frameworks, Interreg network density is slightly below the European average, and sustained or expanding cooperation remains a challenge.
Policy options	**Cross-cutting aspect** • Cross-border governance frameworks could focus on developing integrated solutions to persistent legal and administrative barriers, building on existing Euroregion and EGTC cooperation to address challenges in areas such as healthcare, labour markets and housing.

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ESPON 2030

ESPON EGTC
11 Avenue John F. Kennedy
L-1855 Luxembourg
Grand Duchy of Luxembourg
Phone: +352 20 600 280
Email: info@espon.eu
www.espon.eu

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