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EUROPEAN RESEARCH PROJECT //

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

France-Switzerland

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 'France–Switzerland' covers the area between eastern France and western Switzerland (see Figure 1.1). In France, the programme area includes most of the regions of Rhône-Alpes and Franche-Comté, within the administrative regions of Auvergne-Rhône-Alpes and Bourgogne-Franche-Comté, comprising a total of 5 NUTS3 regions. In Switzerland, it covers In Switzerland, it covers 7 cantons (NUTS3 regions) in the Jura and around the Léman lake.

Figure 1.1: Overview map

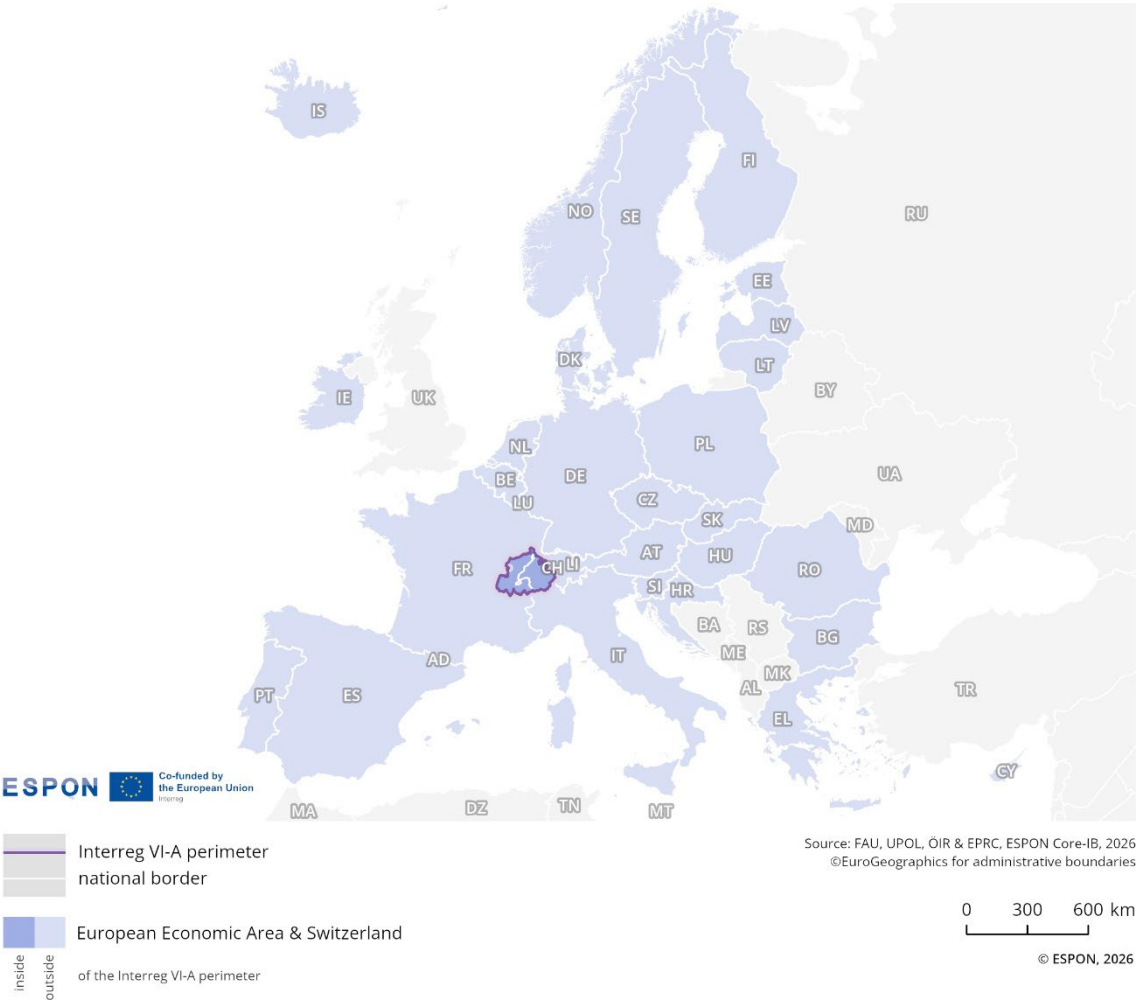
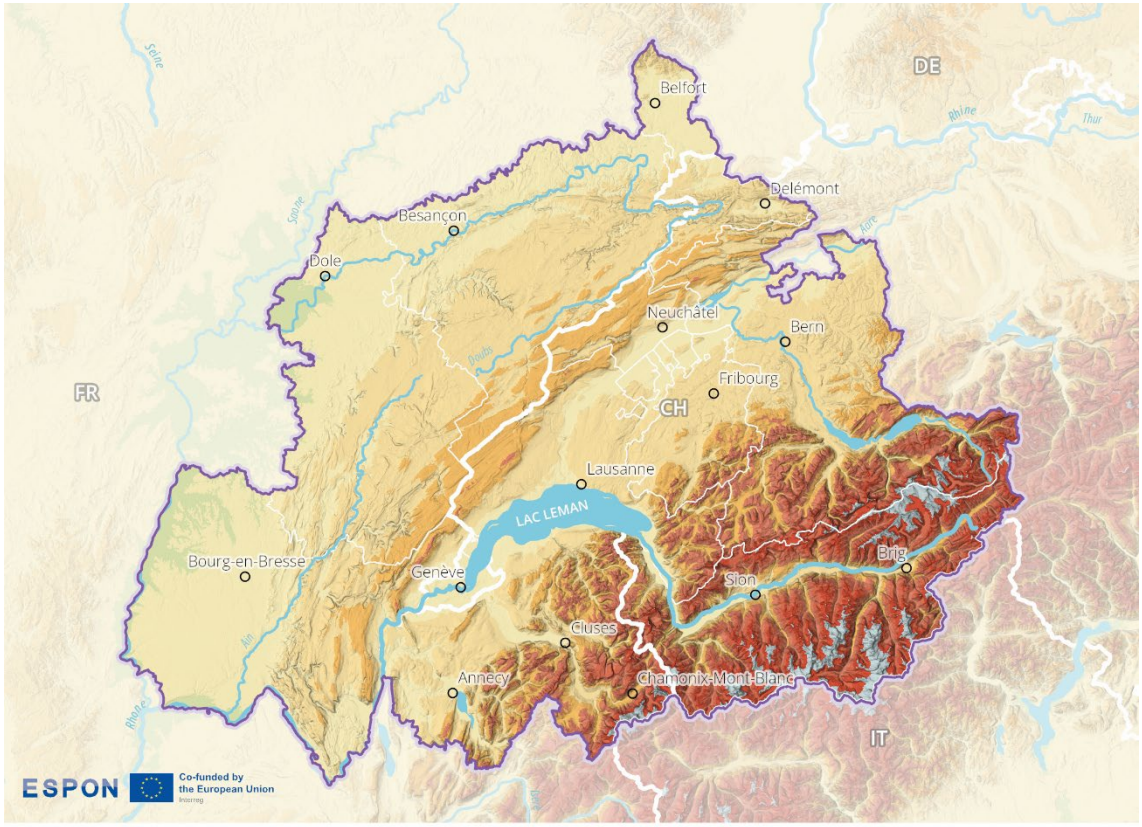


Figure 1.2 illustrates the region's geomorphological features and the perimeter of the current Interreg VI-A programme area. The border region extends along the Jura, around the Léman lake and in the

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

Alps (Valais). The region features notable elements of natural heritage, including the Alps and Jura mountain ranges, as well as Alpine peaks such as Mont Blanc and the Matterhorn. There are also numerous lakes, including Lake Geneva, Lake Neuchâtel, and Lake d'Annecy.

Figure 1.2: Geographical features and characteristics[3]



The cross-border region is characterised by a clear contrast between high mountain areas and mid-altitude plateaus on the one hand, and wide river valleys, especially along the Rhône and Arrve rivers, on the other. The region includes diverse landscapes such as glacial valleys, karst plateaus, and hilly vineyard zones. This geomorphological variety creates specific ecological zones and influences land use patterns and accessibility.

Key cities in the programme area include Geneva, Lausanne, Neuchâtel and Bern in Switzerland, and in France Besançon, the pôles urbains Belfort-Montbéliard-Héricourt as well as Annecy, Lons le Saunier, Pontarlier and Bourg-en-Bresse. In the southeast, the border largely follows mountainous

[3] 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.

terrain, whereas in the north, the landscape becomes increasingly flat. The map illustrates the topographical and functional differences, ranging from sub-areas of significant international importance to more peripheral regions.

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

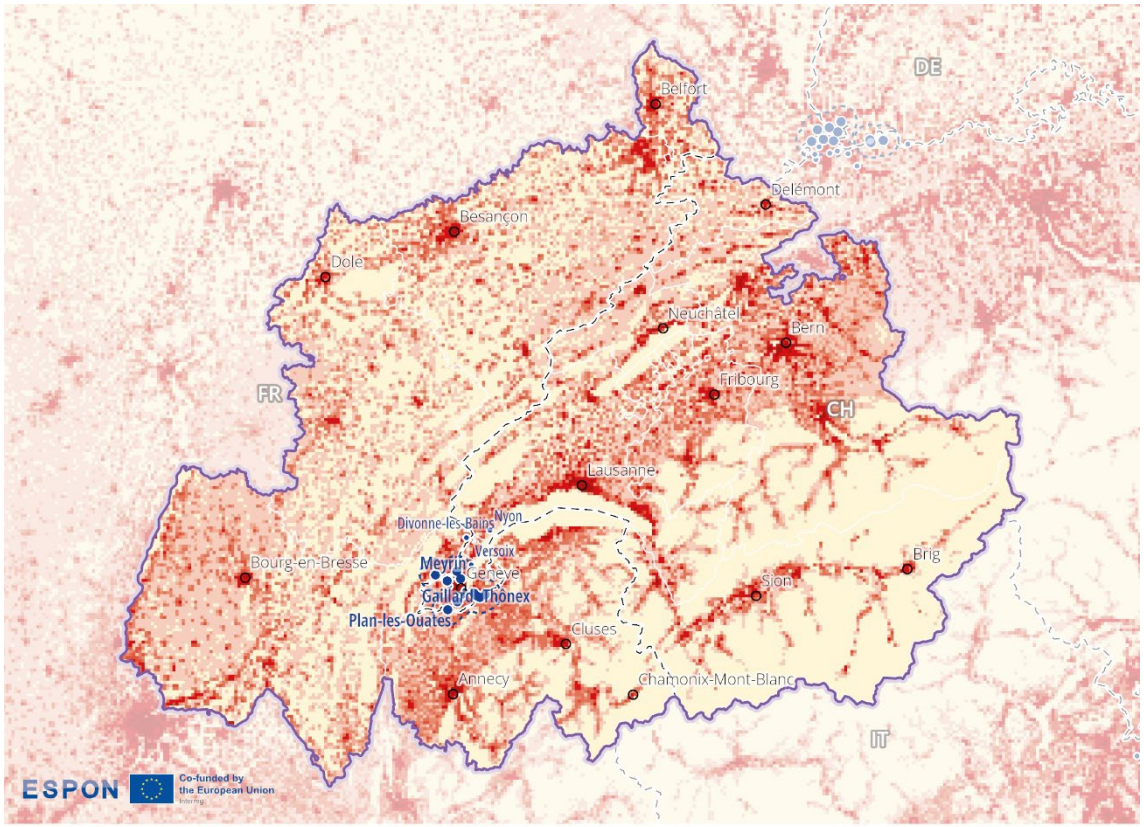
Please refer to the technical annex for more information.

The border region comprises 15 urban centres with a population exceeding 30,000 inhabitants (see Figure 2.1). The highest population density is in Geneva (205,000), where the whole metropolitan area has 645,000 inhabitants. The next cities are Lausanne (145,000), Besançon (122,000), and Bern (138,000). The French part has a more even population and a higher population density. Switzerland hosts a broad range of population density values in its border region, with the population concentrated in lower-lying areas below the mountains and the mountain valleys.

The population density in this whole border region is 144 inhabitants/km², which exceeds the EU average of 109 inhabitants/km² (according to EUROSTAT), and it also exceeds the aggregated average of all EU evaluated border regions, which is 125 inhabitants/km².

The part of the border region in France has an average population density of around 113 inhabitants/km². It exceeds the national average population density in France (102 inhabitants/km²). The part of the border region in Switzerland has an average population density of around 182 inhabitants/km². It is lower than the national average population density in Switzerland (211 inhabitants/km²).

Figure 2.1: Spatial patterns of population distribution



Number of inhabitants/km² (2021)

- 1–50
- 51–100
- 101–200
- 201–500
- 501–1,000
- 1,001–5,000
- 5,001–56,158
- no population

inside / outside of the Interreg VI-A perimeter

Twin cities (2025)

cities/towns with 10,000+ inhabitants not further than 5km from another one accross a country border

Border cities (2025)

other cities/towns with 10,000+ inhabitants not further than 10km from another one accross a country border

Level of detail: 1km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: GISCO Population Grid (version 1.3), 2021
OpenStreetMap, 2025
©EuroGeographics for administrative boundaries

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

0 20 40 km

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 %

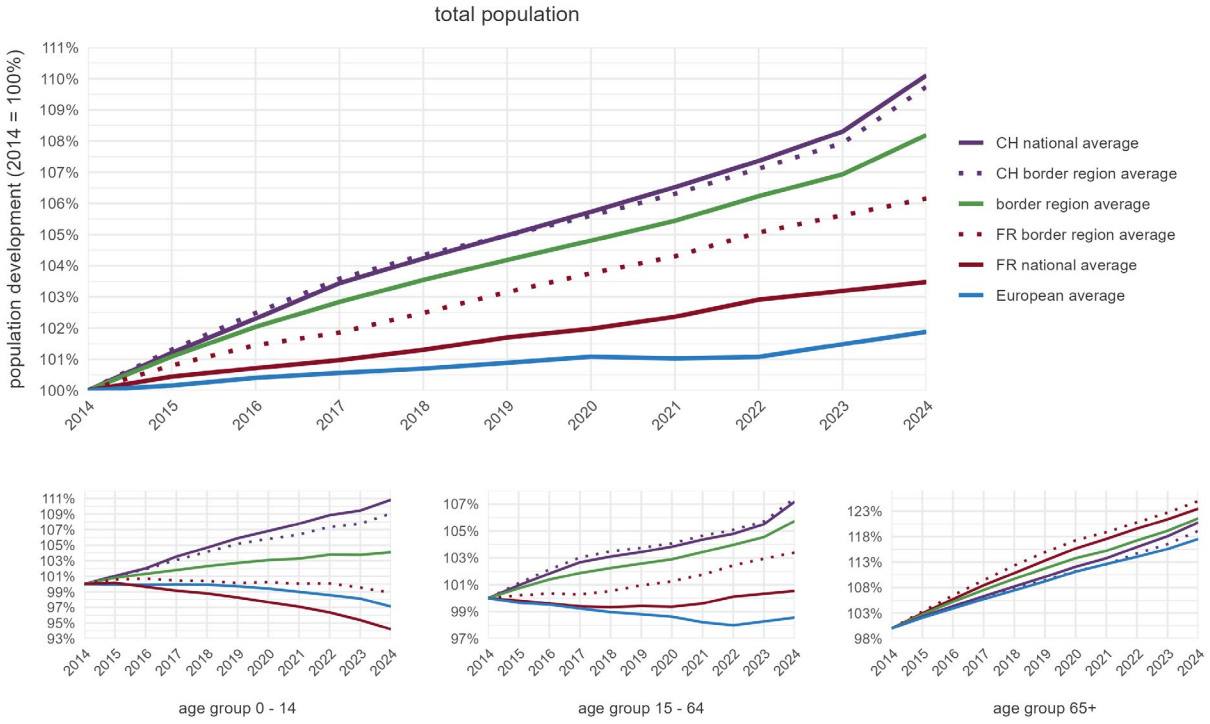
Please refer to the technical annex for more information.

Population in the France–Switzerland region in 2024 (Eurostat): 5.9 million inhabitants, of which:

› 42.4% in the French border territory (2.5 million inhabitants)
› 57.6% in the Swiss border territory (3.4 million inhabitants)
› Region within the border region with the highest population increase since 2014: Fribourg / Freiburg (CH022) at 14.7%

Figure 2.2 shows the population growth in the France–Switzerland region between 2014 and 2024. During this period, the region has experienced substantial growth of 8.2%, with the highest growth rate observed on the Swiss side.

Figure 2.2: Population development (2014=100)



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Population growth across the border region is substantially above the European average (8.2% vs. 1.9%) and also substantially higher than the average development in all border regions (8.2% vs 1.5%). While

the French border area shows slightly higher growth than the national average (6.2% vs. 3.5%), the Swiss border area shows similar growth to the national average (9.7% vs. 10.1%).

The population aged 0–14 has experienced a slight increase of 4.1%, while the working-age population (15–64) has shown a notable increase of 5.7%. The population aged 65 and over has undergone a substantial increase of 21.6%.

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 French-Swiss border. Changes are evident in particular around the urban centres of Besançon, Delémont, Bern, Bourg-en-Bresse, Lausanne, Sion and Annecy. Belfort, Brig, Cluses and Genève are exceptions, with no significant changes during the observed time period. High growth in settlement areas is particularly evident in the valleys towards Lake Geneva as well as in the less steep regions around Bourg-en-Bresse and Besançon. In close proximity to the national borders, the settlement area increases mainly along the valleys towards Genève, mainly on the French side. The map also reflects the topographical characteristics of the border region, with hardly any changes in settlement areas visible in steep, high-altitude mountainous areas.

Figure 2.3: Settlement area dynamics

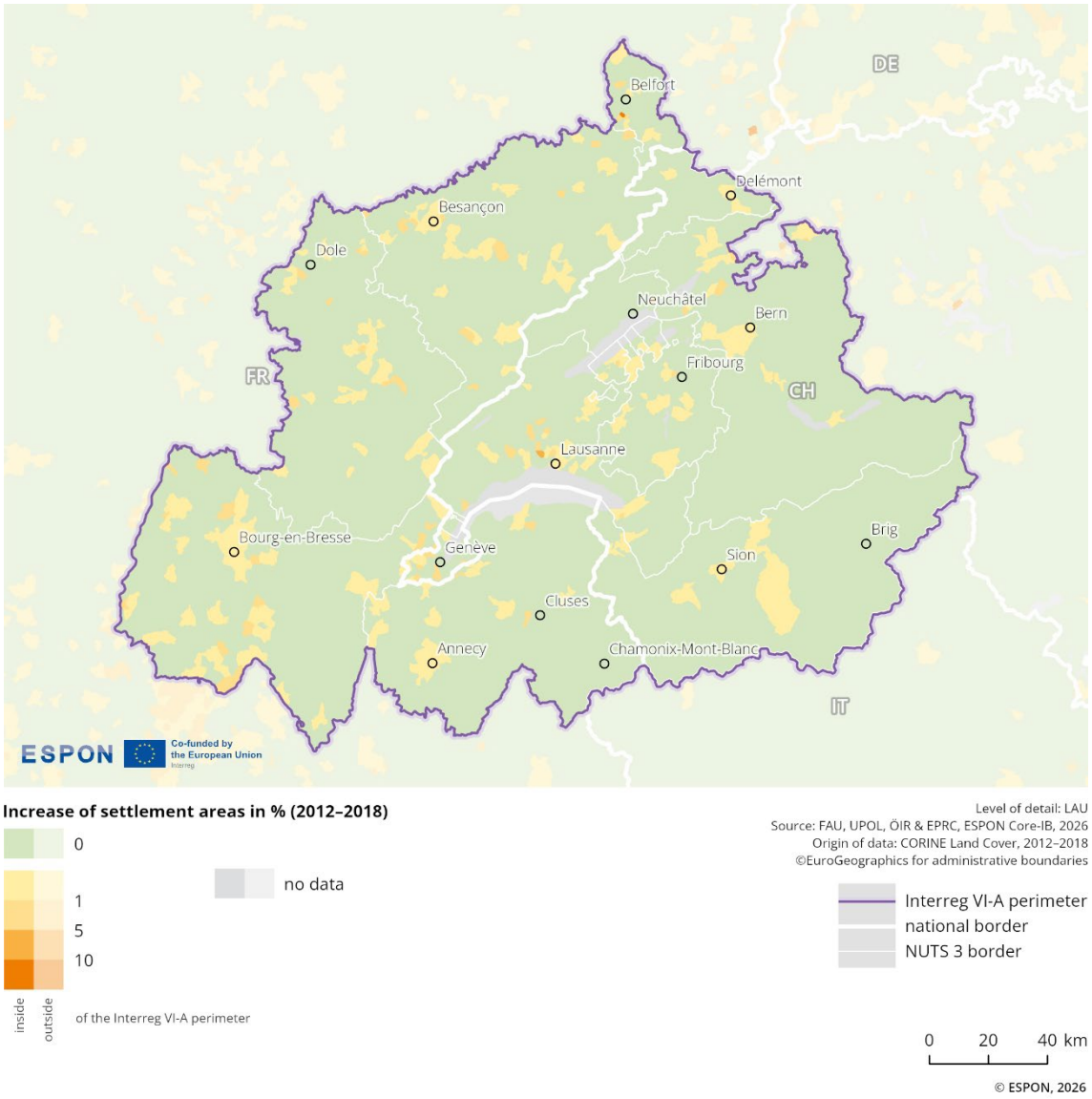
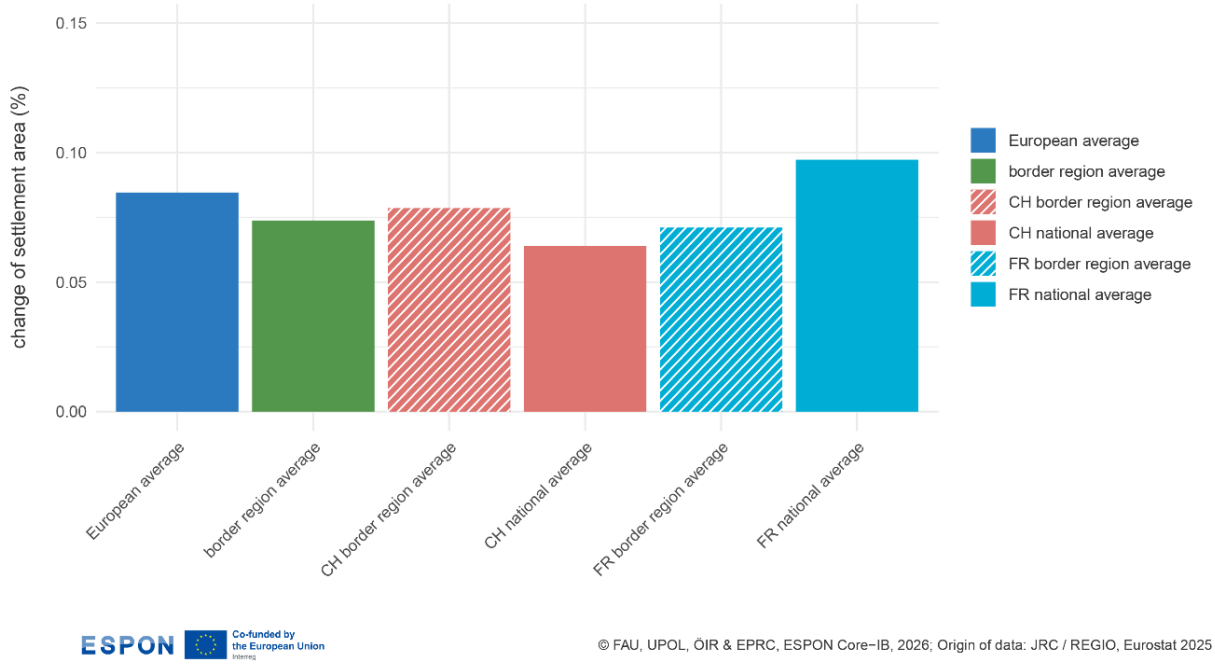


Figure 2.4 presents the change in settlement areas from a comparative perspective. The average for the France-Switzerland programme area is similar to the overall European average, which includes both EU member states and the EFTA (European Free Trade Association) countries Switzerland, Liechtenstein, and Norway. The French values are higher than the Swiss ones, which applies for the national average but not for the border regions. The Swiss border-regional average lies above the national Swiss average, whereas the French border-regional average is lower than the national French average.

In general, the programme area shows a relatively 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.

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



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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

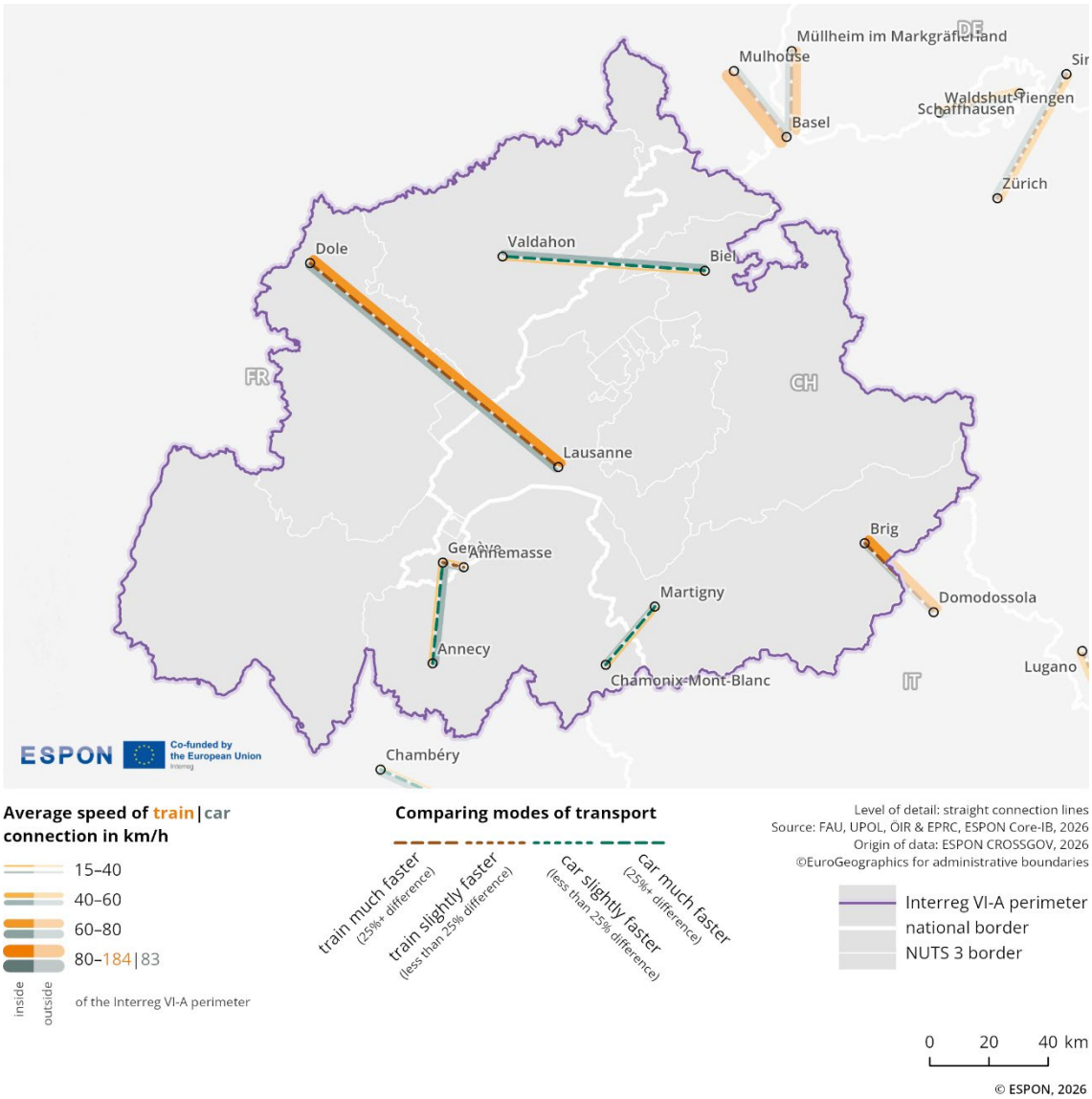
The indicator presents a comparative perspective for different modes of transport (public and private) and their average travel speed (so-called space-time-lines). As such it helps to understand and interpret accessibility patterns along the border and highlights the comparative quality of selected cross-border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

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 France-Switzerland border region. This visualisation 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



The selection of cities and connections covered is based on a set of criteria applied throughout Europe within the ESPON CROSSGOV project[4]. 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.

The selected connections within the programme area include Valdahon–Biel, Dole–Lausanne, Genève–Annemasse, Genève–Annecy, and Chamonix-Mont-Blanc–Martigny. For most of these routes, namely Valdahon–Biel, Genève–Annecy, and Chamonix-Mont-Blanc–Martigny, car travel is faster than train connections. Notably, the Dole–Lausanne connection offers a fast train option that outperforms the car connection. In contrast, the Chamonix-Mont-Blanc–Martigny and Genève–Annemasse routes are characterised by slow travel times for both train and car.

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

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.

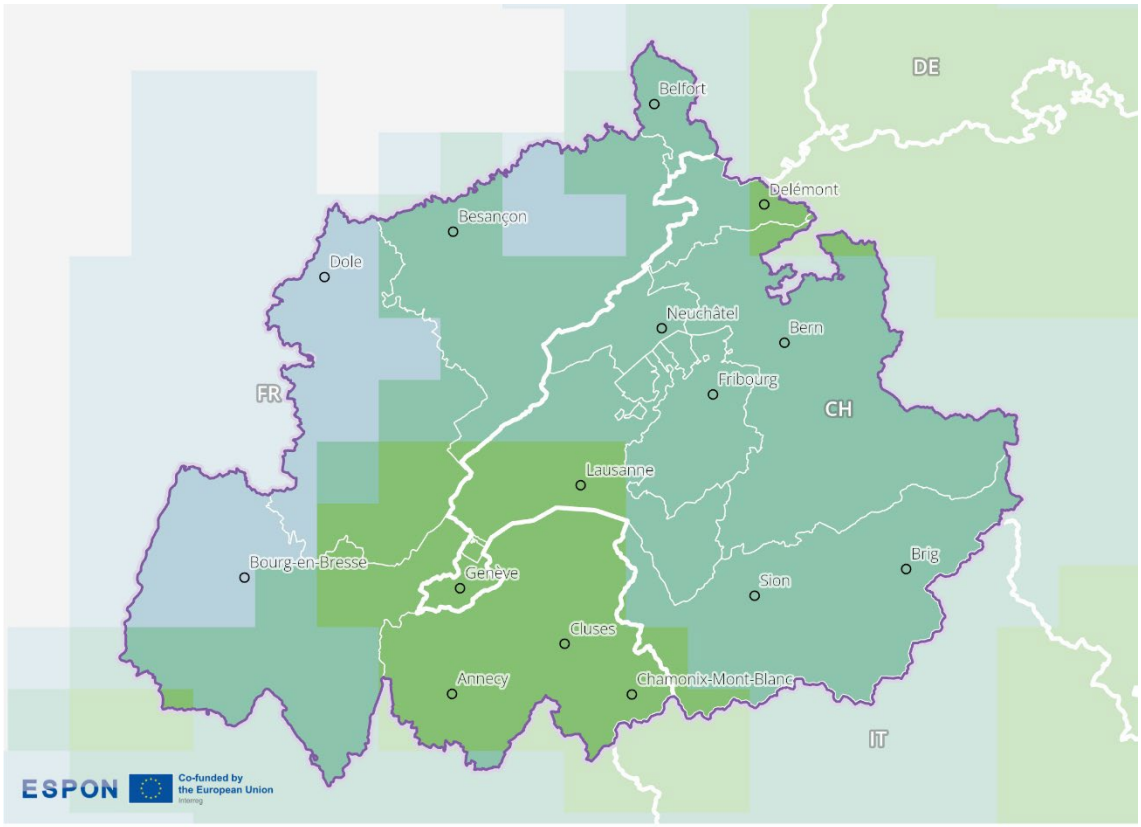
- **Source/method of retrieval**: The indicator is calculated based on Twitter (currently X) data. The digital footprint of individual users provides information about physical mobility flows and is used to calculate cross-border catchment areas of different intensity.
- **Temporal coverage**: 2013-2023
- **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. Medium levels of mobility intensity (25–50%) are recorded across most of the region. The highest intensity is observed around the cities of Delémont, Lausanne, Geneva, Annecy, and Cluses. Low intensity is found in the French part of the region, particularly in areas located further from the national borders.

Figure 2.6: Cross-border mobility intensity



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.

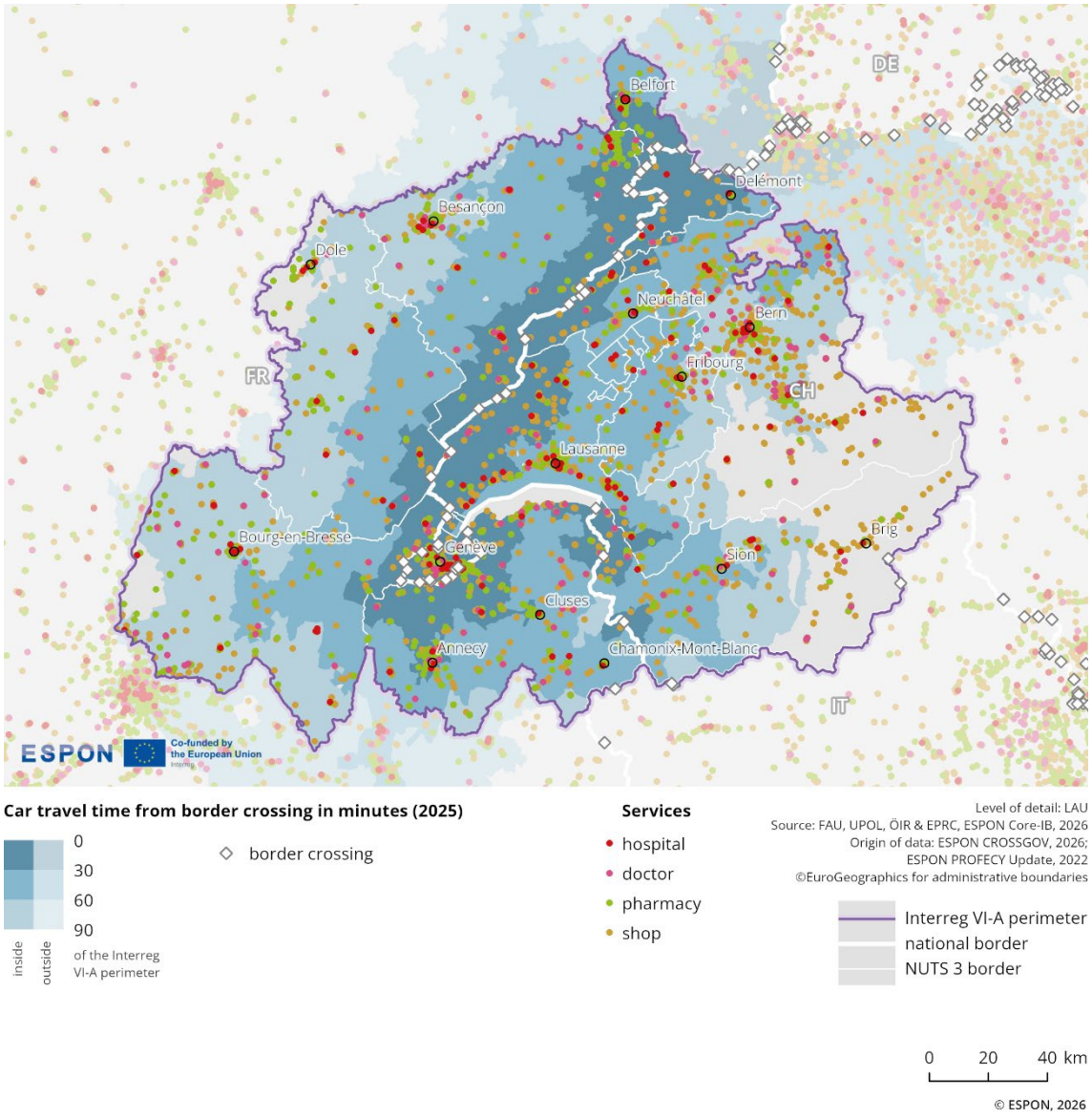
Figure 2.7 illustrates cross-border travel time accessibility in the Interreg area, showing the time distance from the national border in 2025. The legend indicates 3 travel time categories in minutes (30, 60, 90) represented by different shades of blue. In addition, it marks the location of services,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

The map shows that along nearly the entire cross-border area, the travel accessibility is under 30 minutes to the next border crossing. In the southern part of the border, some areas show values of up to 60 minutes (especially around Lake Geneva). The other parts of the border region of France have a travel time accessibility of 60 or 90 minutes. The eastern parts on the Swiss side show values of more than 90 minutes.

Services such as shops, hospitals, doctors' offices, and pharmacies are concentrated around cities near the border, including Geneva and Lausanne. Bern and Besançon show a strong concentratio of services. Otherwise, services are spread fairly evenly, mainly consisting of shops and pharmacies, with a slight predominance in the border regions of Switzerland.

More information and geographical scope can be found on the ESPON CROSSGOV hub online.

Figure 2.7: Travel-time accessibility from border crossings



2.1.3 Key messages on the territorial dimension

This border area is a region of topographic contrasts, with steep relief, particularly on the Swiss side. However, despite the fact that relief can hinder accessibility and regional development, the area has above-average population growth and relatively dynamic settlement development. The need for an integrated approach to spatial development is obvious. Spatial development has to balance various land use demands (e.g., residential, commercial, tourism, transport, agriculture and nature conservation), which requires ongoing coordination and exchange, including across the border.

Ensuring that transport infrastructure meets the demands of an increasing population presents obvious challenges for cross-border transport policy, particularly in the context of a transition to sustainable mobility. It is important to note that transport planning and infrastructure development in these areas depend on long-term cross-border cooperation and significant investment, particularly in the context of geomorphological constraints.

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

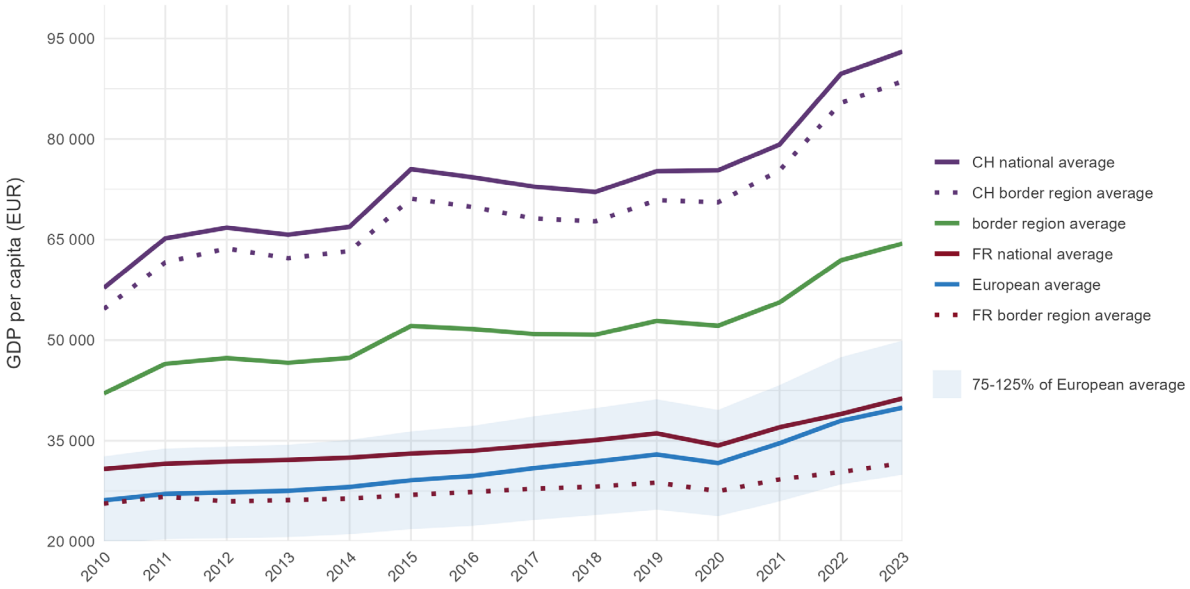
Please refer to the technical annex for more information.

The border region shows a GDP/capita value of 171.6% of the EU average in 2022 and 174.2% of the average in European border regions in general(see Figure 2.8). The region marks a 30.4% increase of GDP per capita in the border region between 2014 and 2022[5]. This corresponds to a 5.3 percentage points lower increase of GDP per capita in the border region compared to the EU average. Furthermore, this corresponds to 4.8 percentage points lower increase of GDP per capita in the border region compared to the average of European border regions.The GDP per capita of the Swiss border region is more than double of the EU average. France's border region trails slightly behind the national average. Due to moderate economic growth in the last 15 years, the French border region fell below the EU average. These numbers have to be seen against the background that cross-border commuting blurs the picture to a certain exstent, as GDP is calculated per inhabitant, not employee. As a result, the differences between the 2 parts of the region look larger than they are in per employee.

Cartographic illustrations on this theme can be found on the ESPON CROSSGOV hub online.

[5] 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.

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



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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.[6]

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 %

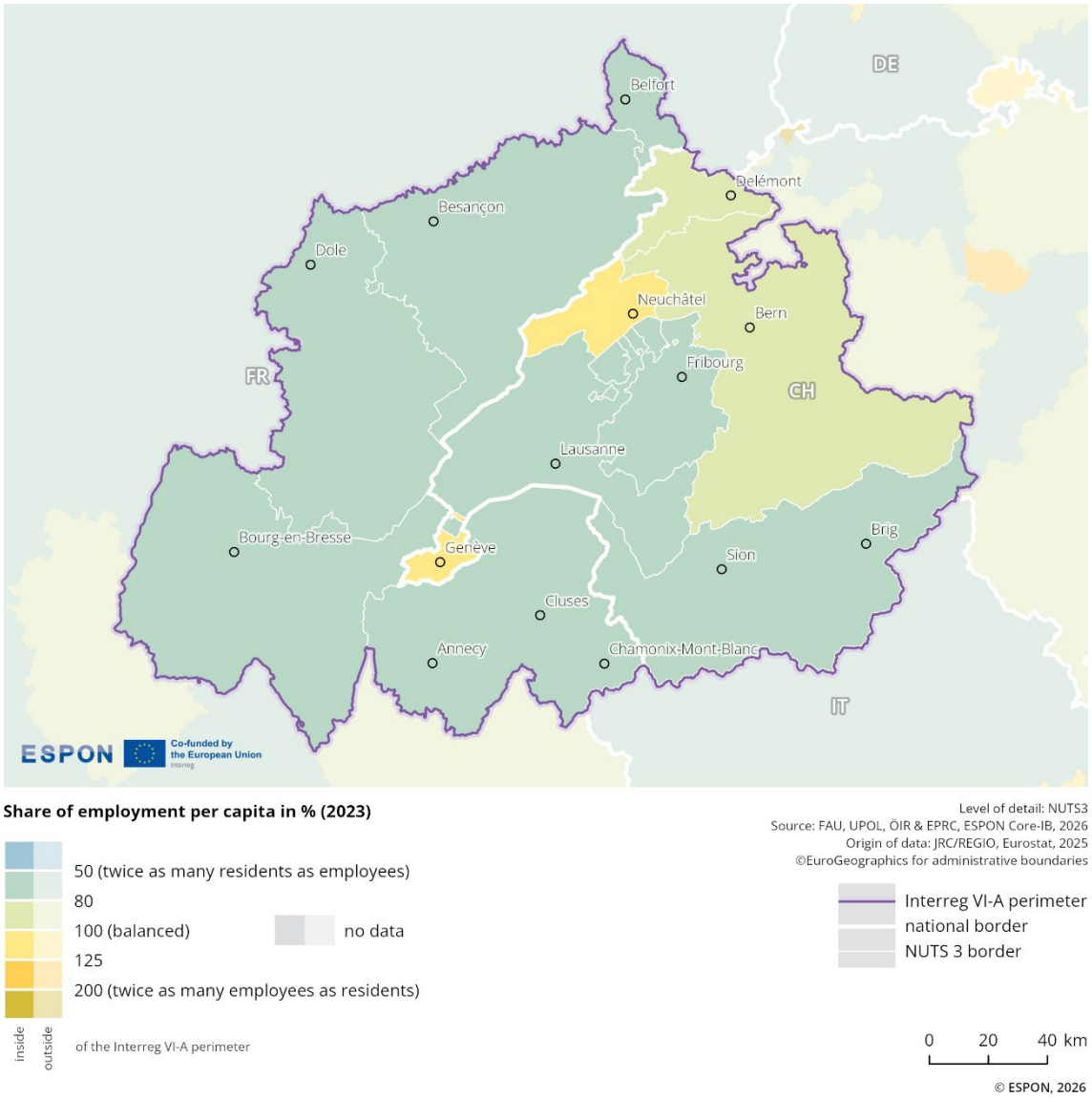
Please refer to the technical annex for more information.

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.

The share of employment in this border region is relatively stable, with the average for the entire region at 77.7% in 2023, having increased by 3.66 percentage points since 2014. Due to very similar indicator values, differences between the countries are not very pronounced. In the French part, all share of employment values fall within the 50% to 80% range. In the Swiss part, the majority of areas also have values between 50% and 80%, except for the areas around Bern and Delémont where values range from 80% to 100%, and around Geneva and west of Bern where values range from 100% to 125%.

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

Figure 2.9: Employment share[7]



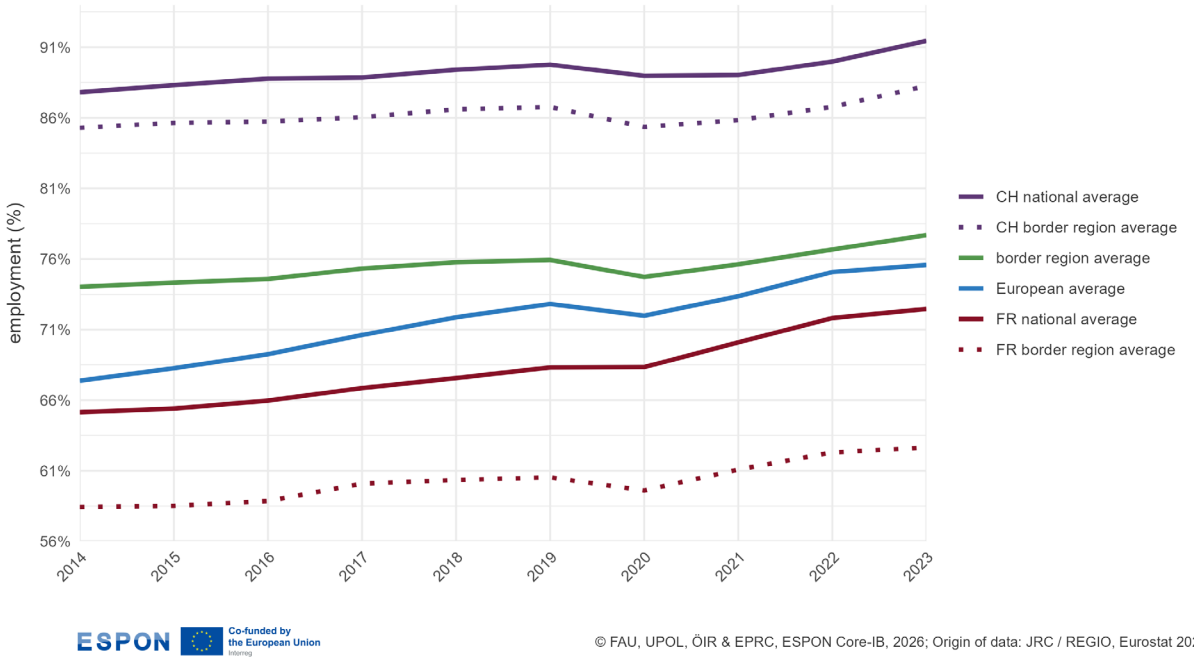
A comparison of the employment share in this border region with various reference averages reveals several key patterns (see Figure 2.10). Relative to the European average, the employment share in the cross-border region is higher by 2.1 percentage points, although this gap has narrowed considerably since 2014, when it stood at 6.7 percentage points. Compared with the French national average, the cross-border region records a higher employment share by 5.2 percentage points, down from a difference of 8.9 percentage points in 2014.

In contrast, when compared with the Swiss national average, the employment share in the cross-border region is lower by 13.8 percentage points, a gap that has remained unchanged since 2014. At the sub-national level, the French border area records employment shares that are 9.8 percentage points below the French national average, while the Swiss border area is 3.2 percentage points below the Swiss national average.

Relative to the average of all cross-border regions, the employment share in this border region is higher by 3.3 percentage points, although this advantage has declined from 7.7 percentage points in 2014.

[7] Note: In this map, 'residents' refers to the population aged 15 to 64.

Figure 2.10: Employment share over time (comparison)



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.

Figure 2.11 illustrates the evolution of the share of the working-age population in the France-Switzerland cross-border region between 2014 and 2023. In 2023, the border region shows an average working-age population share of 64.2%, compared to the European average of 63.9% and 63.7% for the average of all cross-border regions.

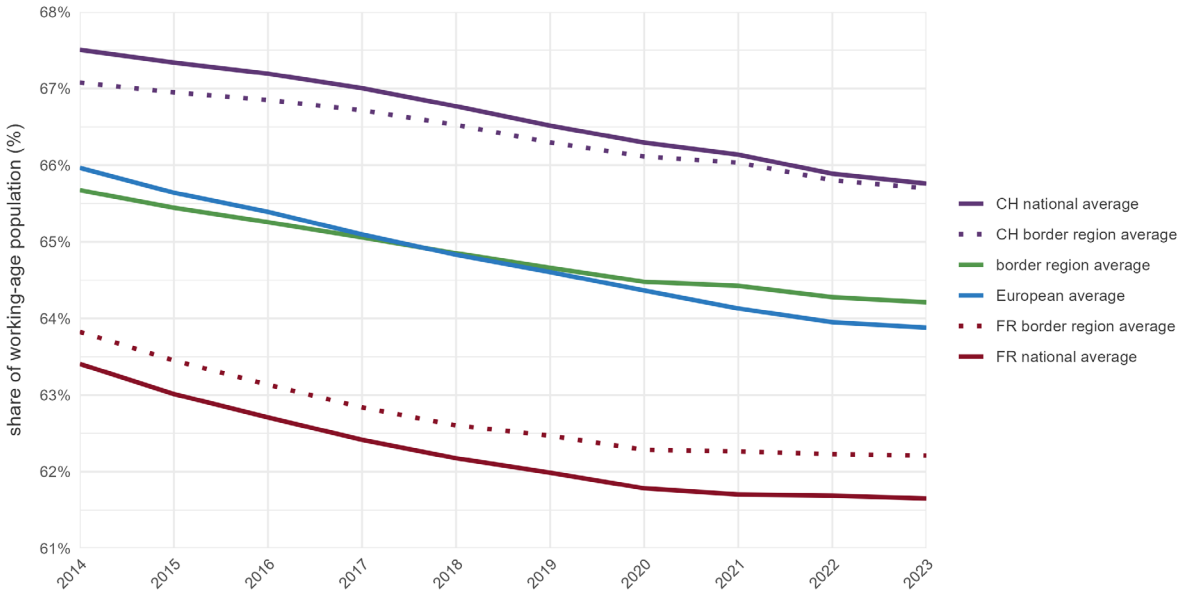
The share of the working-age population in the cross-border region is slightly higher than the French border average (62.2%) and lower than the Swiss border average (65.7%). Compared to national levels, the region exceeds the French national average (61.7%) but falls below the Swiss national average (65.8%).

The region experienced a 1.5 percentage point decrease in the share of working-age population between 2014 (65.7%) and 2023 (64.2%). This decline is less pronounced than that of the European

average, which dropped by 2.1 percentage points. The Swiss parts showed a slightly milder decline (-1.4 percentage points at the border, -1.7 percentage points nationally) as well as the French parts (-1.6 percentage points at the border, -1.7 percentage points nationally).

In summary, the France-Switzerland cross-border region experienced a gradual decrease in working-age population shares between 2014 and 2023, with Swiss values generally higher than French and European averages.

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



ESPON Co-funded by the European Union Interreg

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 %

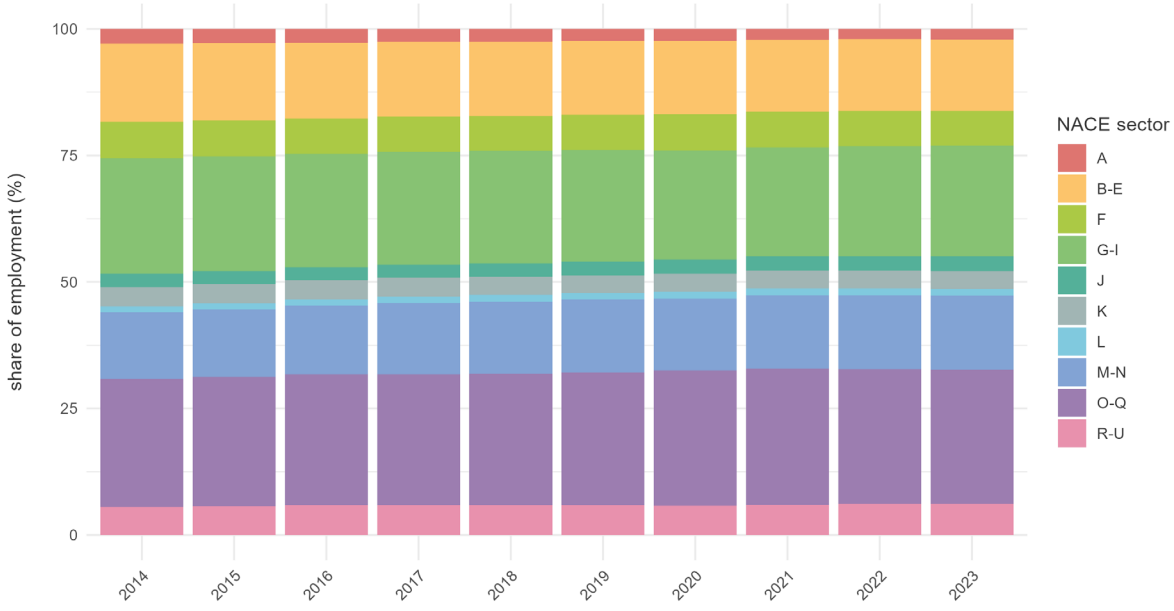
Please refer to the technical annex for more information.

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)



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)

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

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).

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. It shows relatively strong yet unevenly distributed cross-border commuting activity in areas directly adjacent to the border.

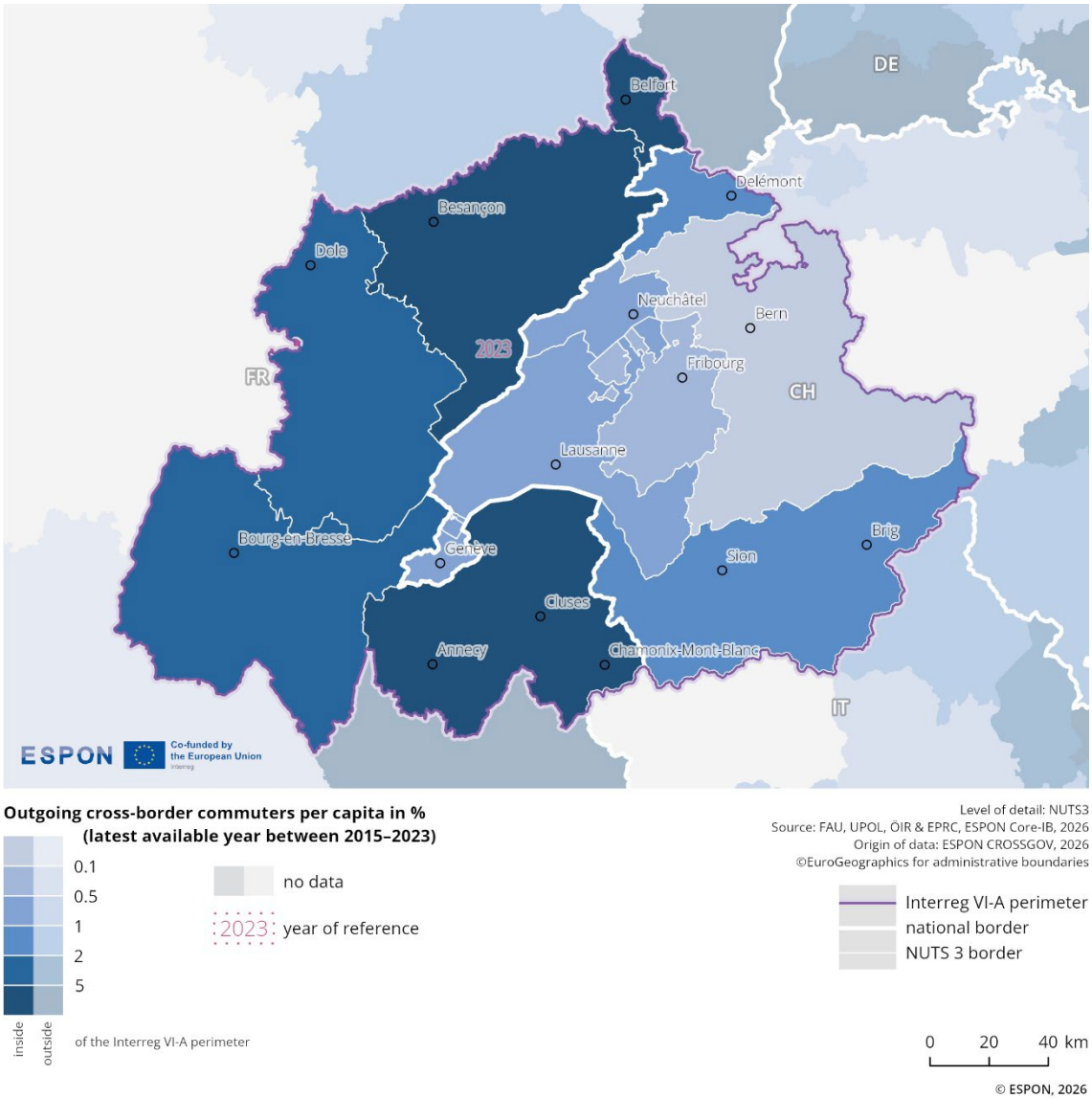
The French border area stands out in particular, with high levels of outgoing commuters in the regions of Territoire de Belfort, Doubs, Jura, Ain, and Haute-Savoie[8]. This highlights the significant role of this region as a commuting corridor.

In comaprison, the Swiss regions show lower values. The harmonised data at the European level can be detailed by domestic statistics, both on the French and the Swiss side[9]. This border region is – wordwide – amongst the most prominent cross-border commuting areas.

[8] 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&

[9] For the French side, https://www.insee.fr/fr/statistiques/8293897; for the Swiss side, https://www.bfs.admin.ch/bfs/fr/home/statistiques/travail-remuneration/activite-professionnelle-temps-travail/population-active/frontaliers.assetdetail.34087667.html

Figure 2.13: Outgoing cross-border commuting patterns



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.

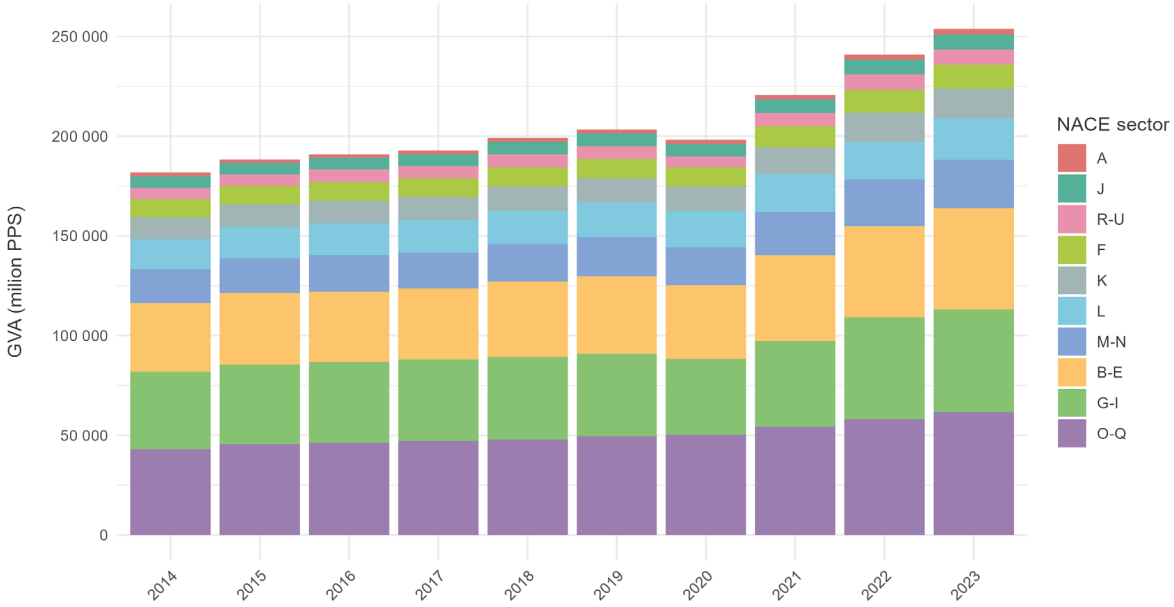
The dataset uses a '10-sector' classification based on NACE categories. The sectoral breakdown is as follows:

- 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)

Between 2014 and 2023, the GVA in the border area of France-Switzerland increased from 181,722 million purchasing power standards (PPS) to 253,778 million PPS — a growth of 40%. Sector groups B–E, G–I, 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 O–Q contributed the largest share, with a total of 61,627 million PPS in 2023. This underlines the significance of sectors such as Education (O), Human health and social work activities (Q) in the France-Switzerland border region.

It is worth mentioning that the underlying European data base does not to allow for very detailed information. The border region is known for its innovative mechanics and watch sector as well as for laboratory cooperation. This kind of activity is mostly covered by the rather large sector B (manufacturing).

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



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)

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.

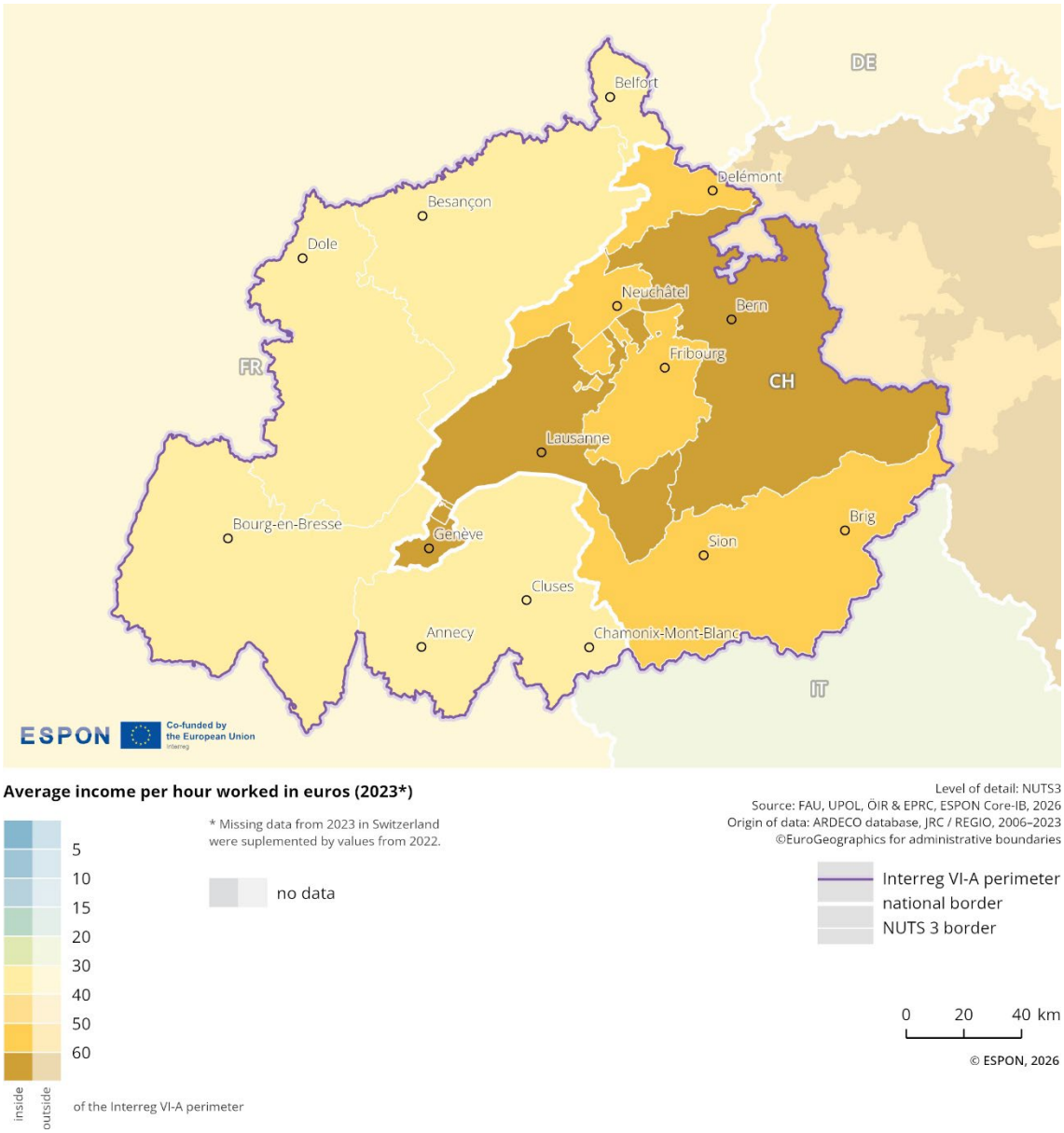
Figure 2.15 shows the average values for the 'compensation per hour worked'. This indicator is calculated by dividing the total compensation of employees (at current prices) by the total number of hours worked by those employees. In this context, 'employees' are defined as individuals engaged by contract 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 France–Switzerland border region appears to be quite unevenly distributed. In most the French part of the cross-border region, the average hourly income ranges between €30 and €40. The Swiss NUTS3 regions report higher values, ranging from €50 to more than €60[10]. To contextualize the regional pattern shown in the figure, it is noteworthy that the national average hourly compensation reaches €63.30 in Switzerland and €36.30 in France, 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.

[10] 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



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.

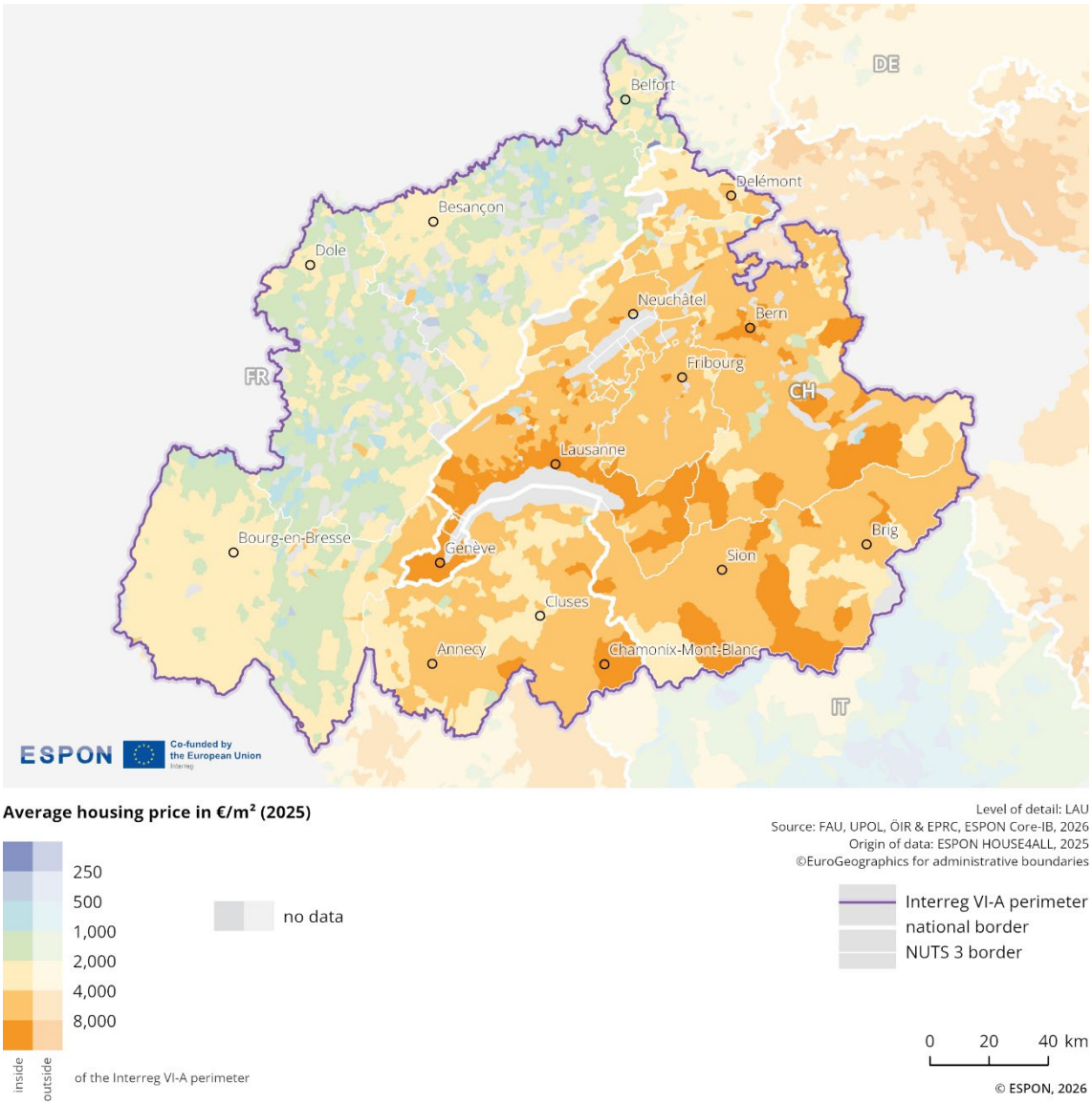
- **Source/method of retrieval**: Processed ESPON House4all data. The original data is collected via web-scraping of national listing websites over a one-year period.
- **Temporal coverage**: 2024/2025
- **Unit**: Average price per square meter (€/m^2)

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.

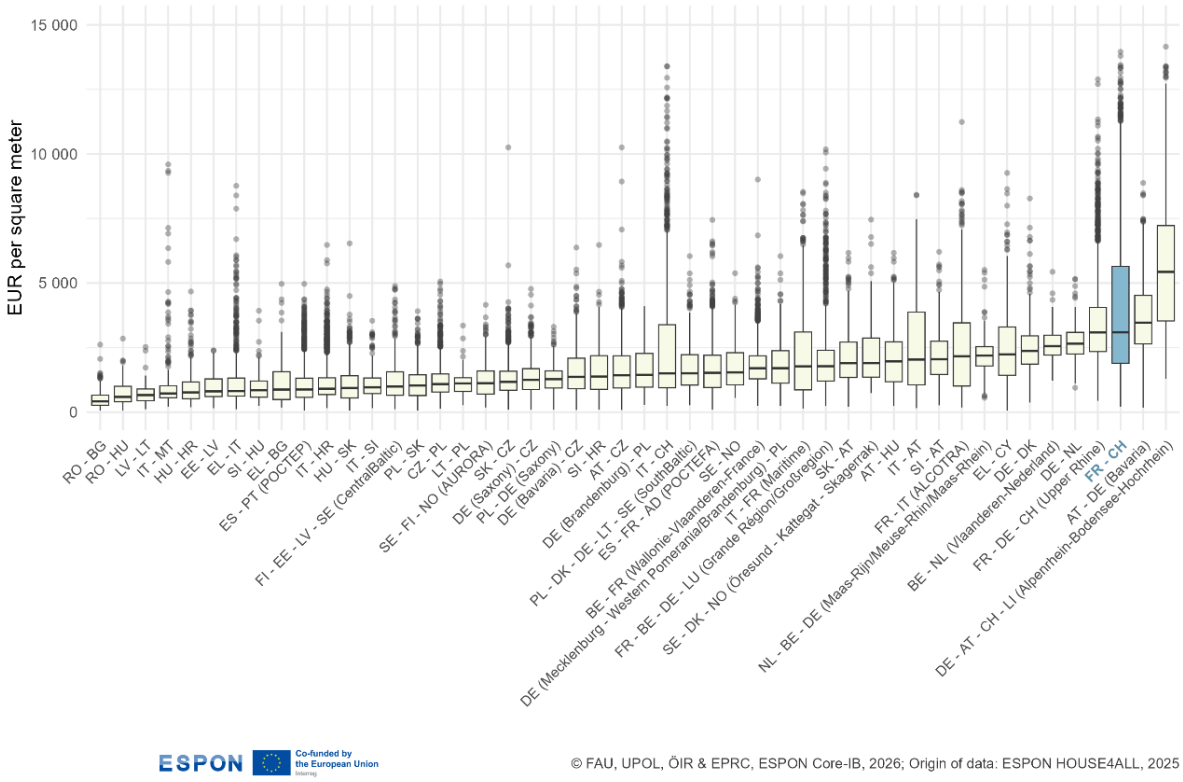
The average price ranges from 500 to a maximum of 4,000 €/m² in France. Parts of Switzerland have an average price higher than this, ranging from 4,000 to a maximum of 8,000 €/m². The border displays significant differences in average sales prices.

Figure 2.16: Advertised housing prices



The Swiss part of the border region has an average advertised sales price of around 6,484 €/m² and the French part around 2,452 €/m². The average advertised sales price in this entire border region is 3,984 €/m² (see Figure 2.17). It exceeds the average of all EU evaluated border regions, which is 1,900 €/m². The prices are below European average of 5,600 €/m² in France but above average in some parts in Switzerland.

Figure 2.17: Advertised housing prices (comparison)



ESPON Co-funded by the European Union

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

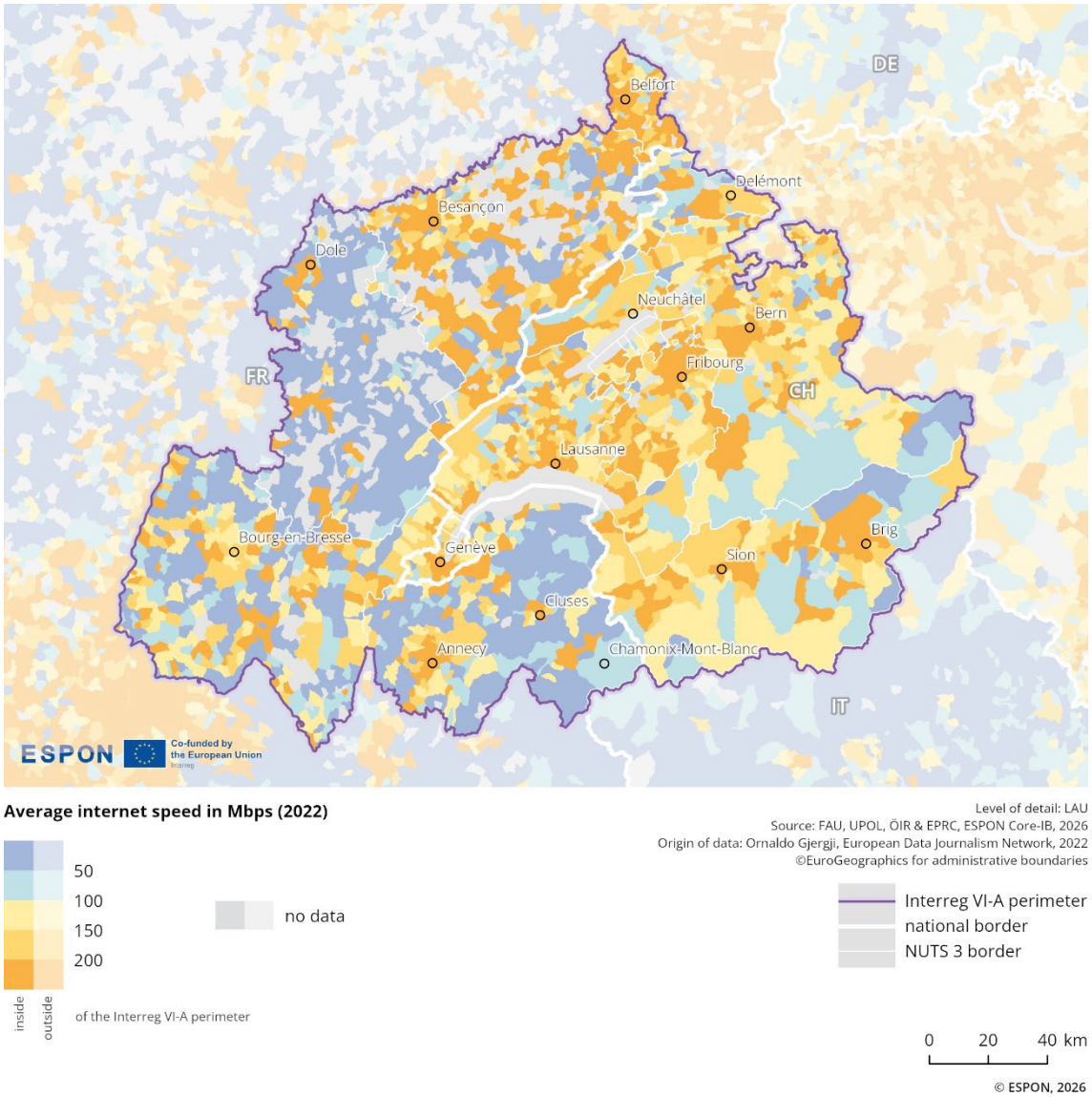
Please refer to the technical annex for more information.

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.

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).

Figure 2.18 reveals significant differences between urban and rural areas, with values ranging from under 50 Mbps to over 200 Mbps. Cities such as Belfort, Bourg-en-Bresse, Besançon, Annecy, Cluses, Genève, Lausanne, Sion, Brig, Bern, and Delémont 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.

Figure 2.18: Average internet download speed



2.2.5 Key messages on the economic dimension

The economic situation in the border region is unique. It tends to show much stronger values than the European average in terms of GDP, for example. However, the lead over European values has decreased in recent years. This is mainly due to an ageing population, despite an overall increase in population numbers. Additionally, there are significant differences between the French and Swiss parts of the border region. Both sides depend on cross-border integration, but cohesion is an issue. Safeguarding the strong economy despite ongoing demographic change will be a challenge in the coming years.[11]

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 – all data is provided by EEA (European Environment Agency) Geospatial data catalogue. As the EU Habitats' and Birds' directives do not apply for Switzerland, the Natura 2000 category is not relevant for the Swiss part of the territory.
- **Temporal coverage**: 2024
- **Unit**: n/a

Please refer to the technical annex for more information.

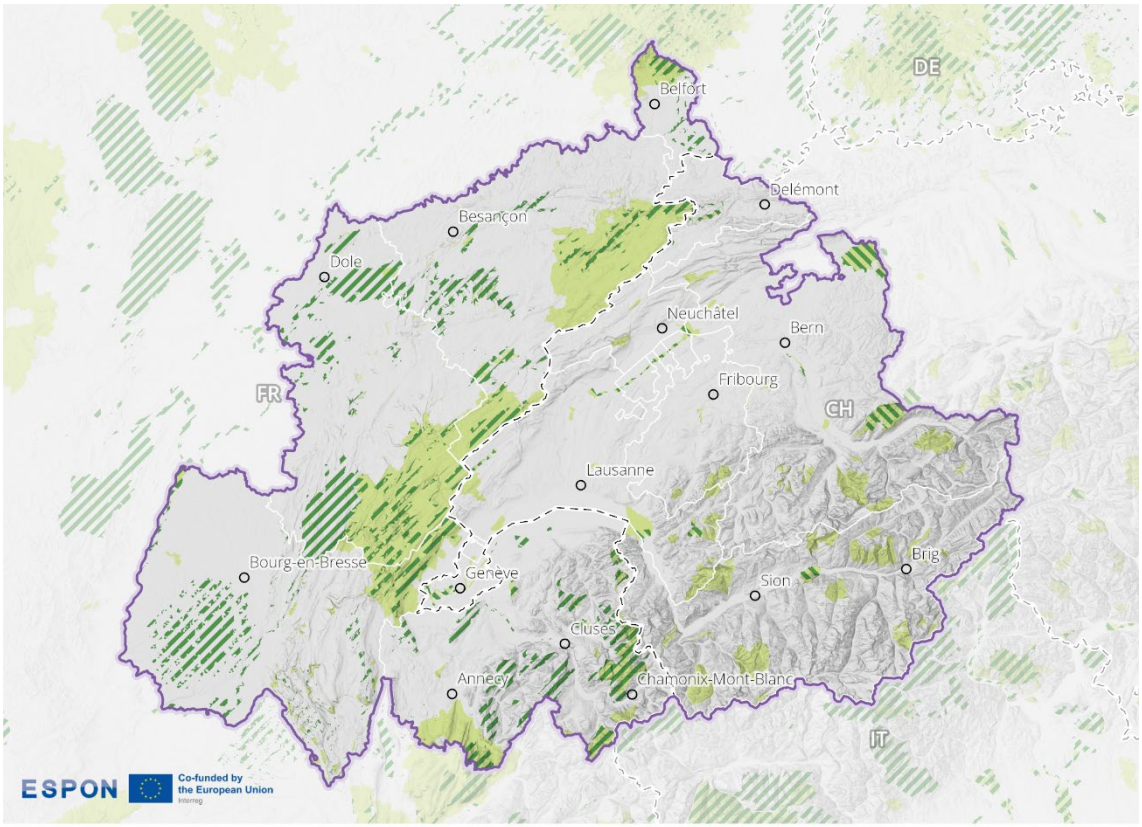
Figure 2.19 illustrates the distribution of protected areas in 2024 across the border region. The data differentiate between Natura 2000 sites, the Emerald Network, and nationally designated protected areas, with only protected areas larger than 4 km² displayed. The following website allows to identify the individual areas and names, if more detail is wanted: https://natura2000.eea.europa.eu/

Protected areas in the France–Switzerland border region are concentrated in the western and southern parts of the Interreg area. The largest contiguous zones are located near Geneva, on the French side along the Jura mountains, only rarely connecting between the French and Swiss areas, having most

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

parts on the French side. This is also due to the fact that the INTERREG programme area covers both, the Jura massif and parts of the Alpine relief. Several protected areas are dispersed over a considerable area, comparable to those in proximity to the communes of Cluses, Annecy, Bourg-en-Bresse and Besançon, all on the French side. Some smaller patches in France are found around Belfort, and Besançon, as well as close to Brig and Sion on the Swiss side. Larger protected areas also extend just outside the Interreg region, especially into France to the west and Italy to the south. Overall, a considerably higher number of protected areas is on the French side, which mostly miss counterparts on the Swiss side.

Figure 2.19: Nature protected areas



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.

This graph illustrates PM2.5 concentrations (in µg/m³) across NUTS3 regions in France and Switzerland (see Figure 2.20). Each small dot represents an individual measurement, while the black crosses indicate the average PM2.5 concentration for each NUTS3 region[12]. The regions are aligned along the x-axis, with French regions on the left (in blue) and Swiss regions on the right (in red).

Figure 2.20: Air pollution

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France shows higher PM2.5 levels overall compared to Switzerland, both nationally and in the border regions. While PM2.5 levels in the French regions are relatively consistent, there is a much greater variation in PM2.5 concentrations across the Swiss regions.

[12] 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&

The French border average lies below both the national and European averages. A similar pattern is seen in the Swiss national and border averages, although the difference is less pronounced.

The French national average lies slightly above the European average, while the Swiss national average is clearly below it. The cross-border average is also below the European average and lies between the French and Swiss both national and border region averages. The patterns show a clear urban-rural gradient, with particularily high values for Geneva (CH013) and parts of Haute-Savoie (FRK28).

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

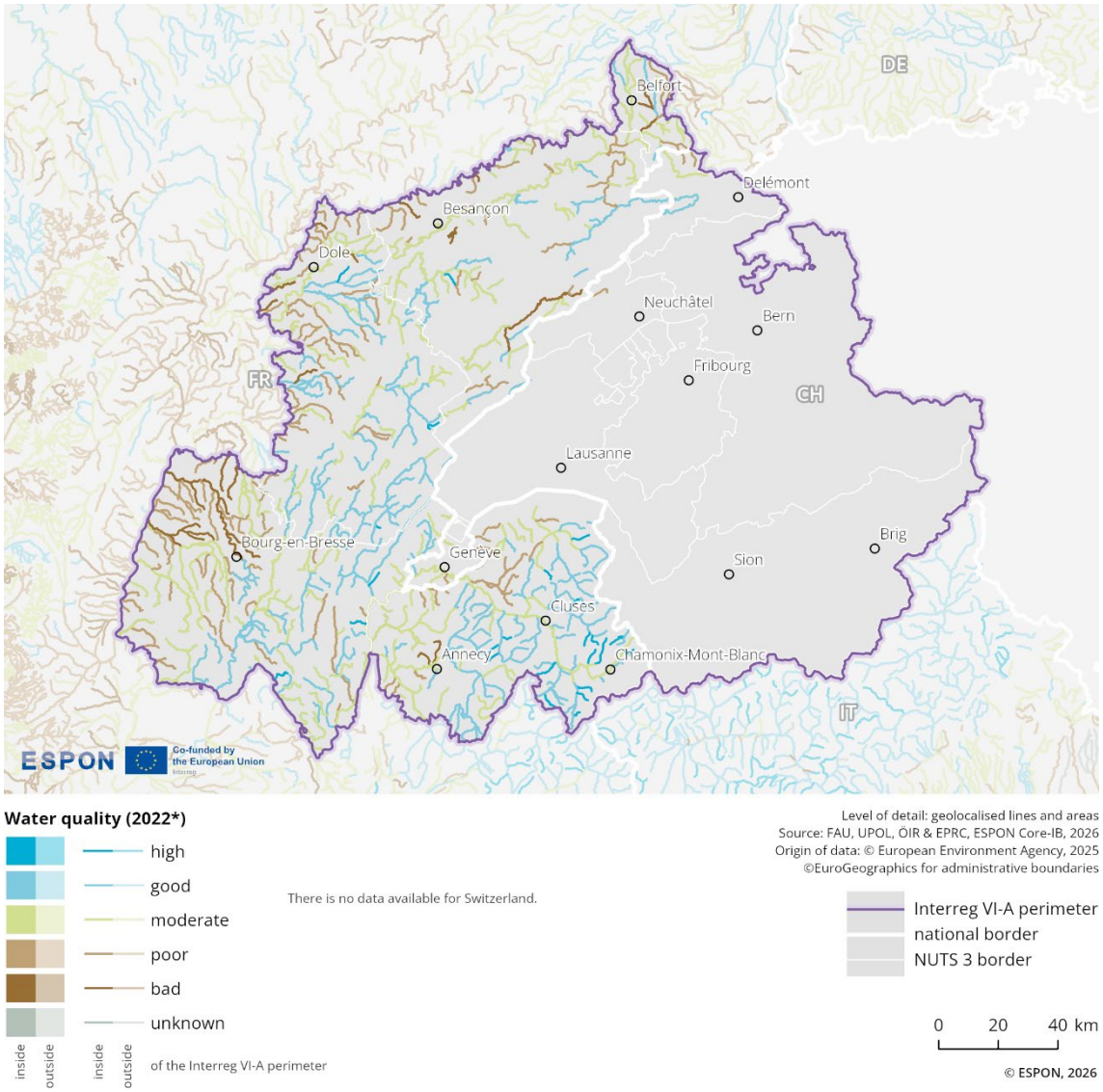
Please refer to the technical annex for more information.

In the Swiss part of the Interreg region the rivers are classified as "unknown", which limits the reliability of the data due to missing information (see Figure 2.21)[13].

In the French part of the Interreg region, rivers show a varied picture. Around the west several stretches are classified as "moderate" or "poor", with some short sections rated as "bad" around the region of Bourg-en-Bresse. In contrast, rivers in the area towards the east are mostly rated as "high" or "good".

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

Figure 2.21: Water quality patterns



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.[14]

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

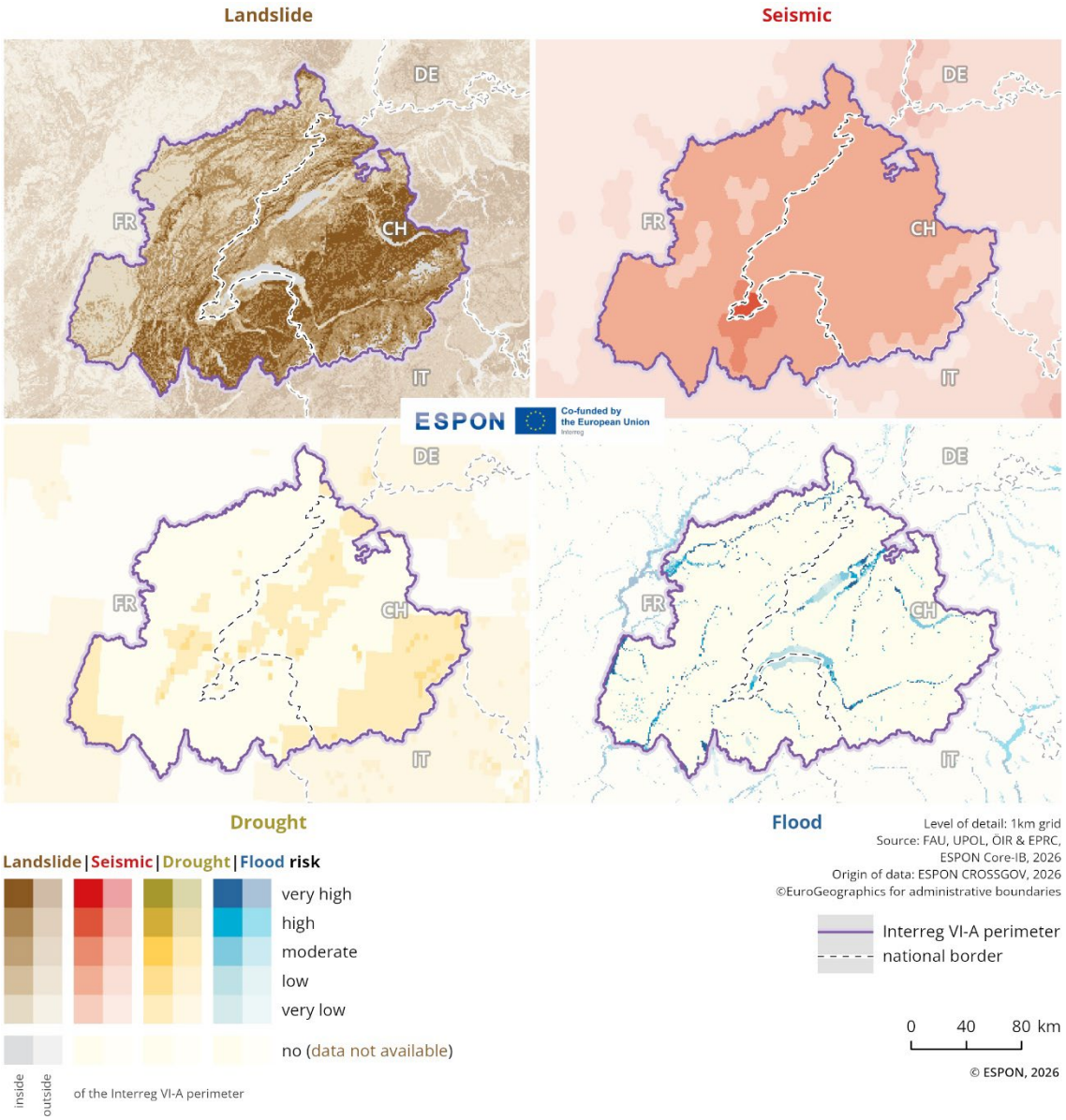
Please refer to the technical annex for more information.

Figure 2.22 illustrates the spatial distribution of natural hazard risks in the France-Switzerland region, highlighting areas where risks are shared across national boundaries and where risks are not necessarily cross-border relevant.

Landslides are a major concern for the region, as large parts are located within the Alpine topography. The issue is most pressing in the southeast, spanning across the border, and decreases in the northwest. Seismic activities are centred across Geneva, which is situated at the French-Swiss border as well as central within the region. The drought risk can be described as low and equally distributed across the region. Risks of flooding are centred around Lake Neuchâtel and Lake Geneva, with the latter one being a border between the 2 countries. The rivers Rhône, the tributary of Lake Geneva, and the Doubs are also a concern in terms of flooding, but have less cross-border relevance.

[14] 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



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.[15]

[15] 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

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.

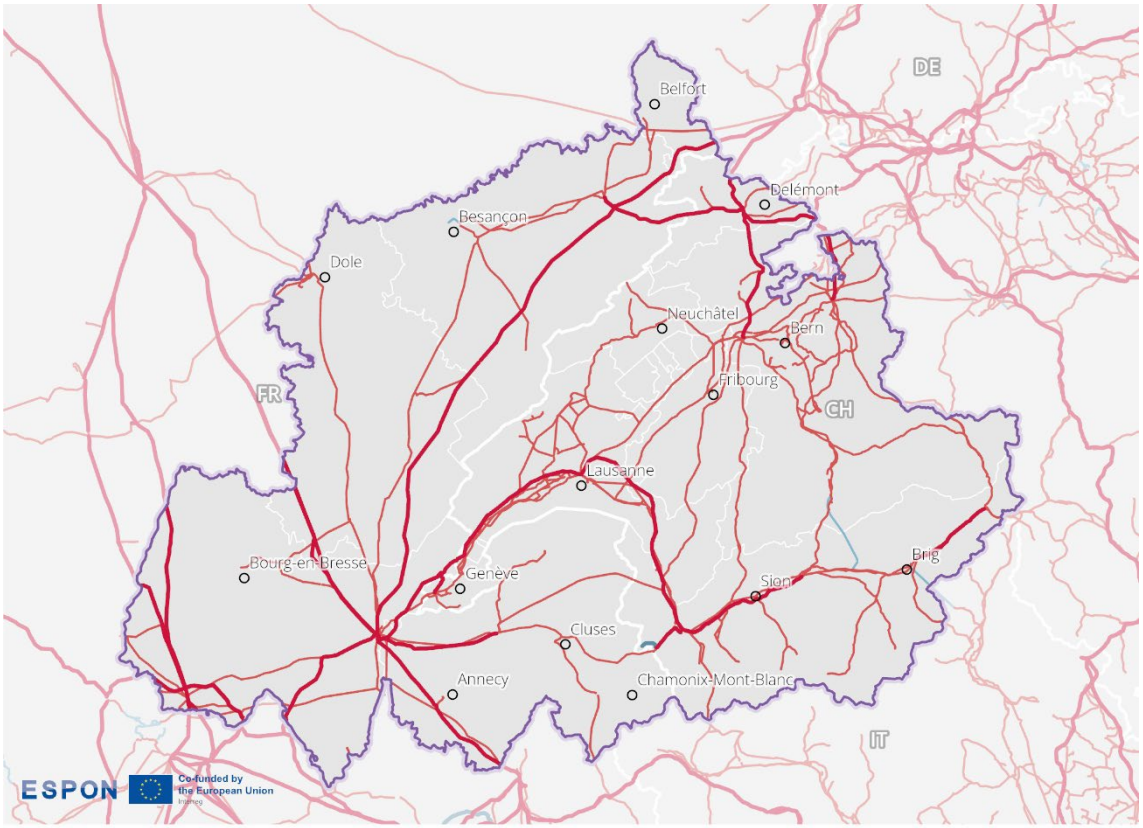
- **Source/method of retrieval**: Geodata on high-voltage energy infrastructure (100 kV and above) has been collected and processed from OpenStreetMap.
- **Temporal coverage**: 2025
- **Unit**: kV

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 France-Switzerland cross-border region exhibits dense extra- and high-voltage infrastructure mainly in the middle and eastern part of the area, connecting larger cities and settlements (such as Genève, Lausanne, Bern, Delémont, and Lyon right accross the region's area). The extra high-voltage line branches out in a star pattern across the rest of the territory northwest of Annecy in France, due to the location of the Genissiat Hydroelectric Power Station. There are 2 direct cross-border connections via extra high-voltage lines – in the northern part of the territory east of the Swiss town of Delémont, and then seamlessly at several locations around Genève. In the south of the region, on Swiss territory, the extra high-voltage line follows a mountain valley, while on the French side of the region, in its northwestern part, the line runs almost parallel to the state border towards Germany.

Figure 2.23: High-voltage transmission infrastructure



Overhead power lines (2025)

- High Voltage (100–230 kV)
- Extra High Voltage (230–1.000 kV)
- Ultra High Voltage (1.000 kV+)

Underground power cables (2025)

- High Voltage (100–230 kV)
- Extra High Voltage (230–1.000 kV)
- Ultra High Voltage (1.000 kV+)

inside / outside of the Interreg VI-A perimeter

ANSI Standard C84.1 was used for classification of power lines.

Level of detail: geolocated lines
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON CROSSGOV, 2026
©EuroGeographics for administrative boundaries

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

0 20 40 km

© ESPON, 2026

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.

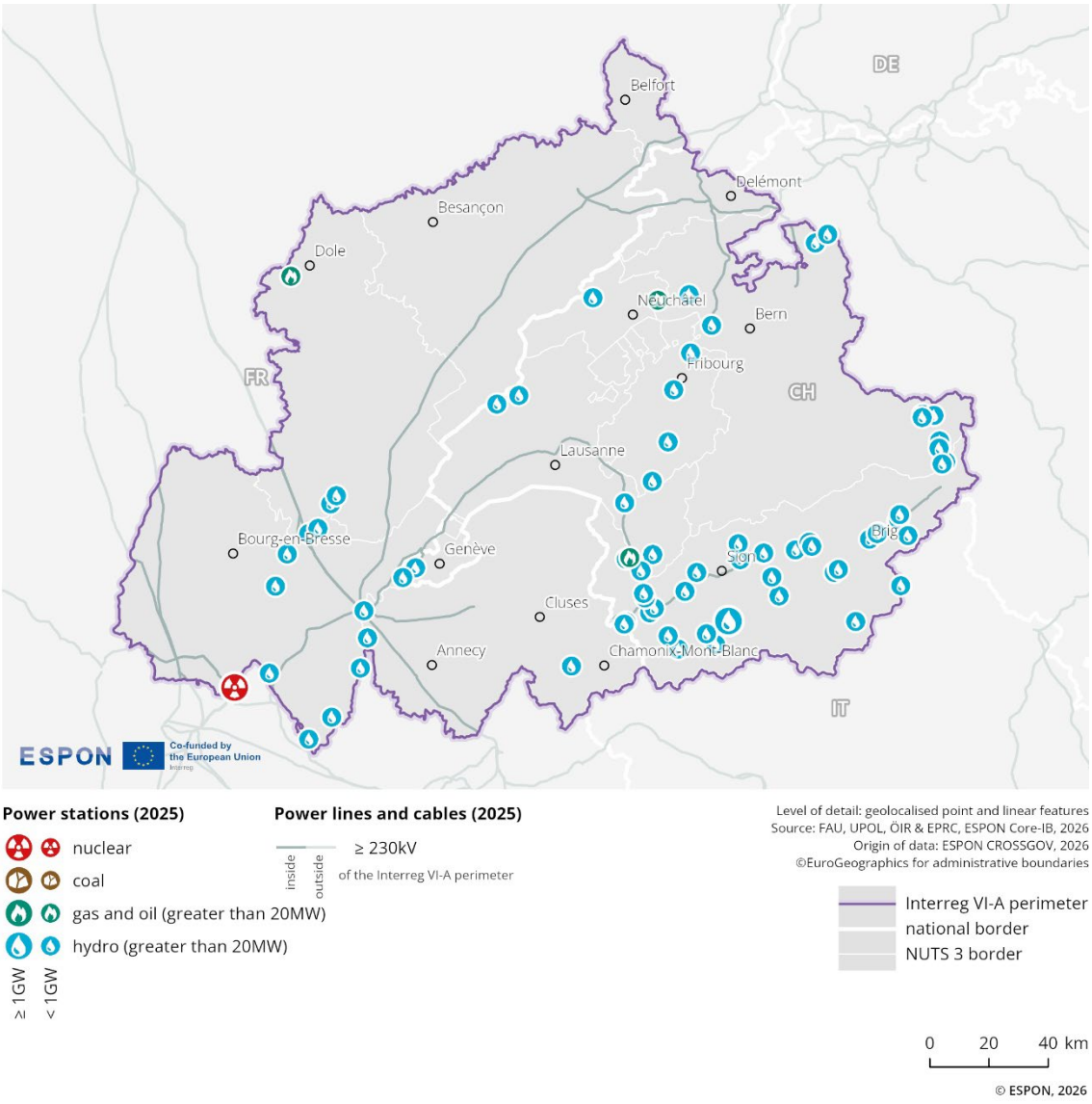
The France-Switzerland cross-border region, in total, hosts 77 locations with power stations and the majority is hydroelectric (see Table 1).

Table 1: Number and type of power stations

Power stations/plants	Less than 1GW	1GW and up
Nuclear	/	1
Coal	/	/
Gas and oil	3	/
Hydro	72	1

Thirteen out of 73 hydroelectric stations are located in France (in the southeastern part of the region), the rest in Switzerland mostly in mountains, with one high-power hydroelectric station south of Sion (see Figure 2.24). There are 3 locations with oil and gas power stations, while one of them, in Tavaux (France), operates 2 distinct technologies (steam turbine and ICCC). The other 2 gas and oil power stations are located in Switzerland. There is one large nuclear power plant in operation in the region, namely Bugey in France on the southwestern border of the area. No coal power stations are located in the whole region.

Figure 2.24: Power stations infrastructure



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

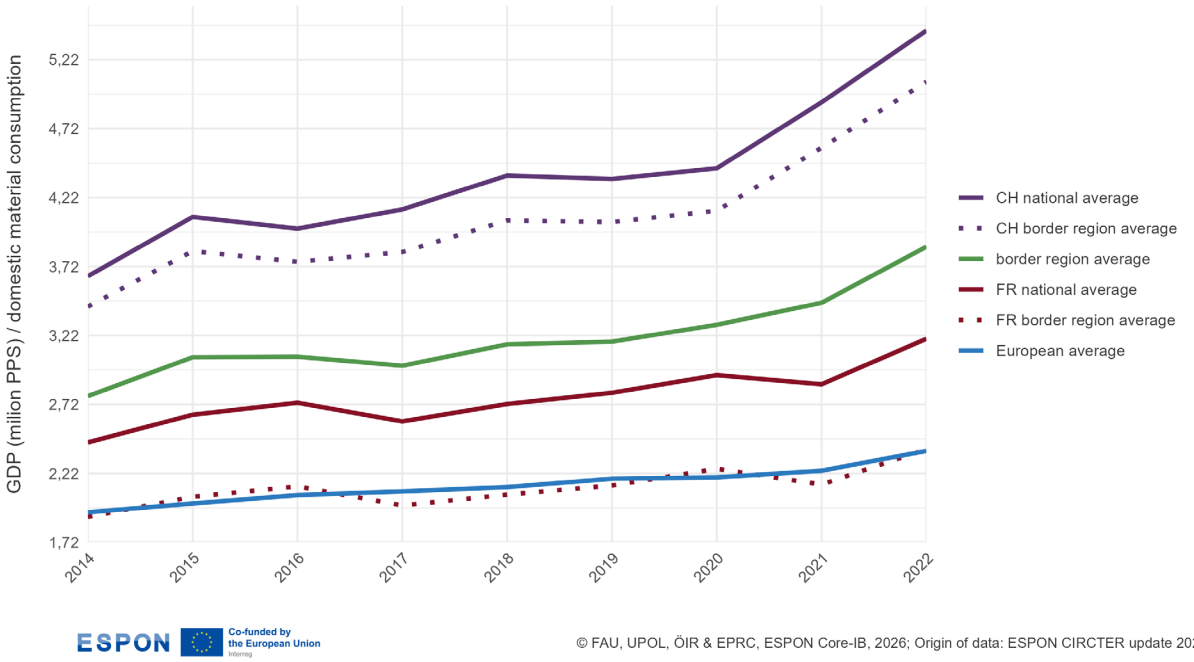
The indicator shows the economic value generated per unit of material consumed for each region within the cross-border area. Developments over time provide insights if the decoupling of productivity from resource use is progressing on regional level.

- **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



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The Swiss national average of resource productivity is represented by the highest line in the graph, showing an increase over the period from approximately 3.72 in 2014 to over 5.22 million PPS/DMC in 2022. The Swiss border region average follows a similar trend but is slightly lower.

The French national average also shows a general increase from 2014 to 2022, reaching a final value of around 3.22 million PPS/DMC. The French border average remained consistently lower than the national average and is closely aligned with the European average.

The European average lies notably below the national averages of Switzerland and France, as well as the Swiss border regional average. The border region average, representing the combined average of the Swiss and French border regions, is significantly lower than the Swiss value but higher than the French value. However, notable disparities exist within the border region itself.

2.3.4.2 Generation of waste per GDP

Indicator description

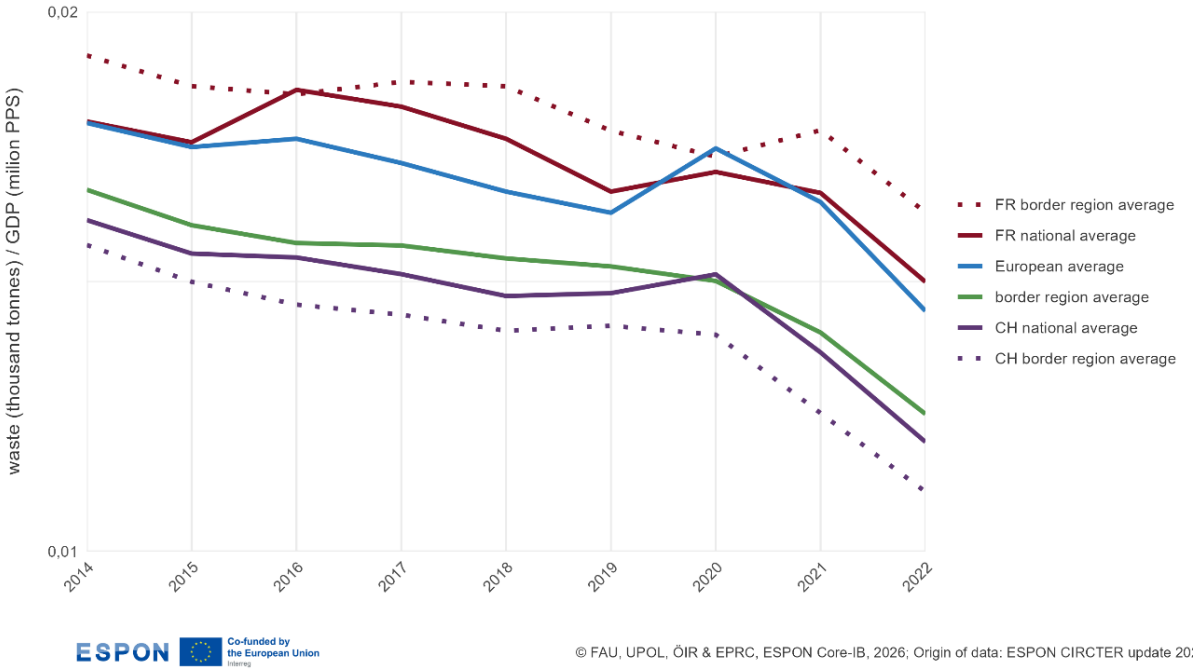
The indicator shows the regional distribution of waste creation in relation to the GDP development. Comparing waste generated to GDP reflects the waste intensity of the economy and provides a measure of "eco-efficiency". Observation of its change from year to year permits to assess whether the economy 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 Standard) of GDP from 2014 to 2022 in France, Switzerland and their Interreg border region.

Figure 2.26: Waste generation per GDP



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The French national average slightly decreases from around 0.018 in 2014 to 0.016 tonnes of waste per million PPS in 2022, with a small peak around 2016. The French border average consistently remains above the national average, starting at around 0.019 and gradually decreasing. In 2022, it drops significantly but still stays above the national line. The Swiss national average steadily decreases to below 0.013 tonnes of waste per million PPS in 2022. The Swiss border average follows a similar downward trend and remains slightly below the national average. Both Swiss lines show the lowest levels of waste per GDP in the graph.

The European average decreases gradually from around 0.018 in 2014 to about 0.015 tonnes of waste per million PPS in 2022. France's national and border region values remain slightly above the European average throughout the period. Switzerland's national and border values are consistently below the EU average. The combined border regional average for France–Switzerland steadily decreases to a value of approximately 0.013 tonnes of waste per million PPS in 2022.

2.3.5 Key messages on the green dimension

The border region faces a number of sustainability-related challenges. Considerable efforts towards sustainable development are underway on both sides of the border. Natural risks mainly take the form of landslides, given the Alpine topography of much of the area. Both sides have increased resource efficiency and reduced waste production, even if the final objectives have not yet been achieved. However, the proportion of cross-border linkages in protection regimes appears to be rather low.

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.

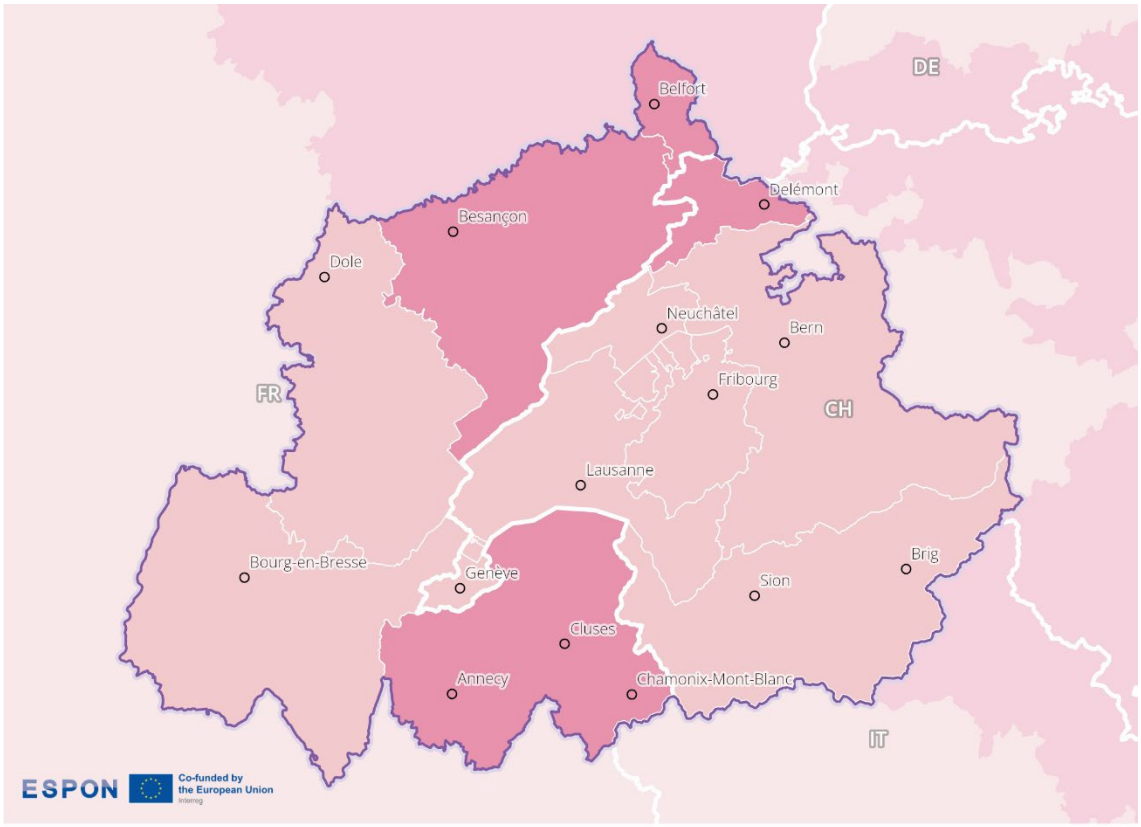
- **Source/method of retrieval**: Processing Facebook data on existing connections across the border (data for Good Meta)
- **Temporal coverage**: 2021
- **Unit**: n/a

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.

Differences between the countries are not striking. On the French side of the region, moderate values are observed in the northern and southern parts, while cross-border connectivity in social media is low in the central part. A very similar situation is found in the Swiss part of the region, where a moderate connectivity value is recorded around the city of Delémont.

Figure 2.27: Cross-border connectivity in social media



Intensity of cross-border connectivity based on META data (2021)

- high
- moderate
- low
- none
- no data

inside / outside of the Interreg VI-A perimeter

Level of detail: NUTS3
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON CROSSGOV, 2026
©EuroGeographics for administrative boundaries

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

0 20 40 km

© ESPON, 2026

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.

Parts of the programme area do not exhibit any language barrier, namely the French-speaking Cantons of Switzerland and the French regions of the programme. However, 3 of the Cantons involved (Bern, Wallis and Freiburg) have German as official language and the majority is German speaking in the case of Bern. Thus, a certain degree of language barriers persists for parts of the programme area, even if most of the Swiss inhabitants can communicate (also) in French.

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.

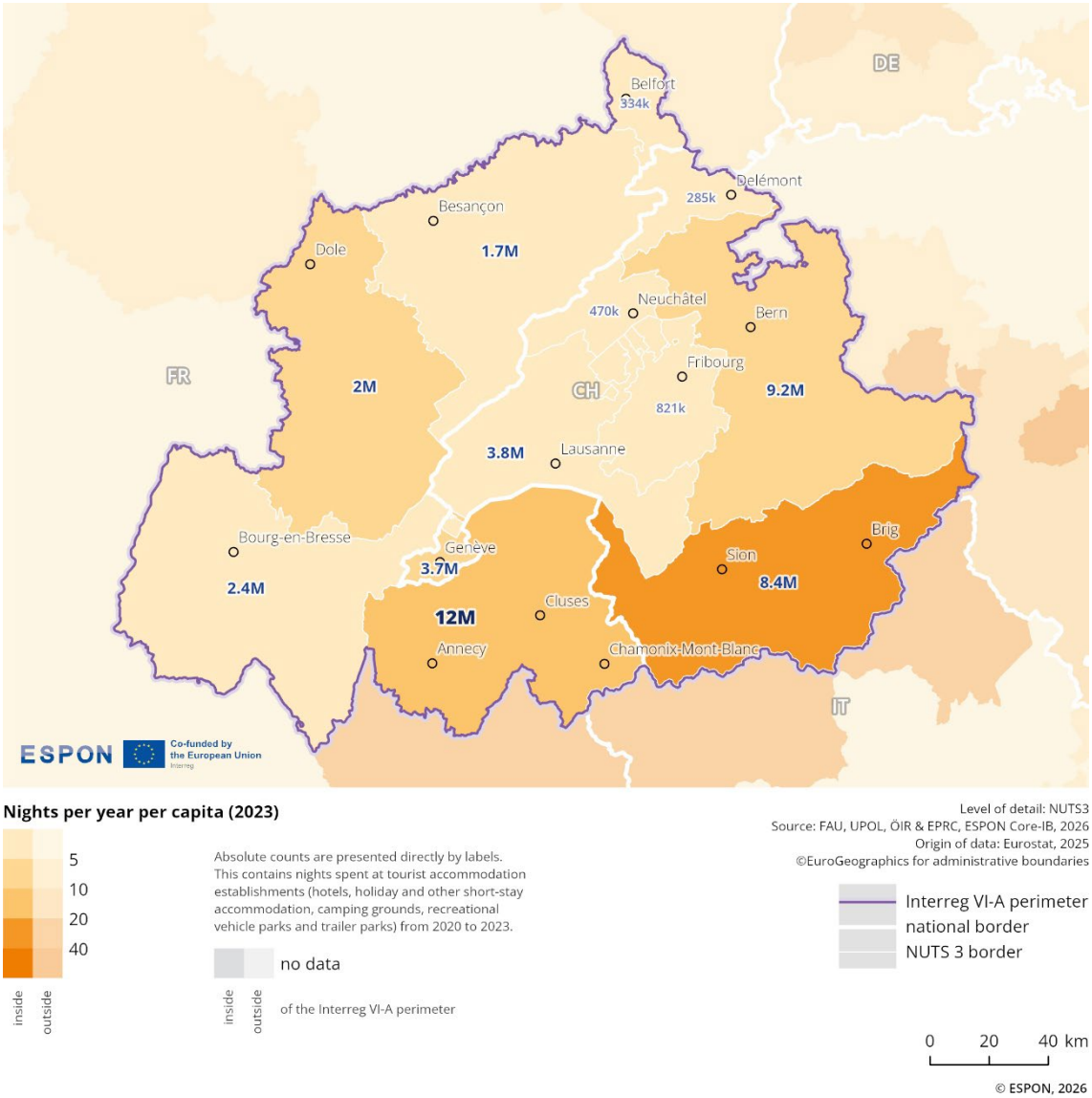
Figure 2.28 shows the number of overnight stays per capita at tourist accommodation establishments in 2023. It includes hotels, holiday and other short-stay accommodation, as well as campsites, caravan

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.

A particularly high intensity of overnight stays is evident on the Swiss side of the border. The NUTS3 region Wallis exceeds 20 nights per capita in 2023[16]. On the French side, the per capita figures are somewhat lower, with the highest value between 10 and 20 nights per capita in Haute-Savoie.

In terms of total overnight stays over the 3-year period, the leading tourism regions are located on both sides of the border: Haute-Savoie (approx. 12 million), Bern (approx. 9.2 million) and Wallis (approx. 8.4 million). By contrast, the north-western Swiss and French regions have lower absolute and per capita figures. A more detailed analysis might consider that some of the tourism activities are of concrete cross-border character, whilst others just happen close to a border – which can still be considered as potential.

Figure 2.28: Overnight stays in tourism

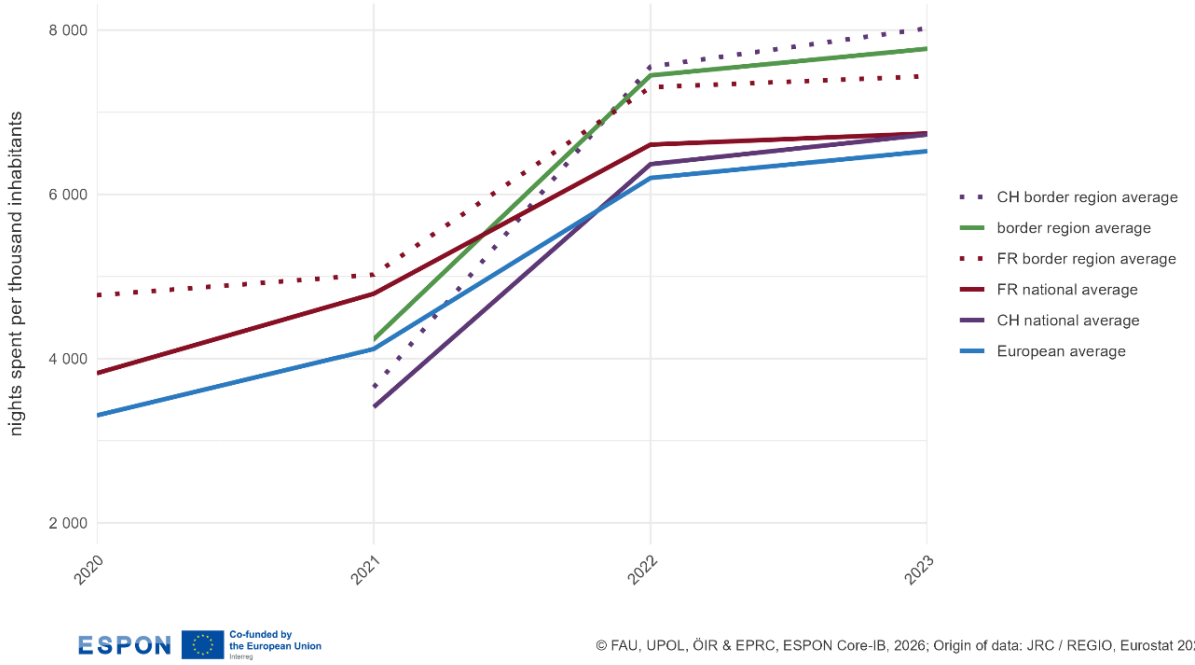


[16] See Eurostat Statistical Atlas for NUTS3 (2021) regions: https://ec.europa.eu/statistical-atlas/viewer/?config=typologies.json&ch=NUTS&mids=BKGCNT,NUTS2021L3,CNTOVL&o=1,1,0.7&center=49.69576,14.3332,4&lcis=NUTS2021L3&

Figure 2.29 illustrates the development of nights spent at tourist establishments per thousand inhabitants from 2020 to 2023. This time span is the most recent data set available, and it includes the exceptional period of 2020/21 with exceptionally low numbers due to the pandemic period. Since 2021, the average for the France-Switzerland programme area is higher than the overall European average, which includes EU member states and the EFTA countries Iceland, Liechtenstein, Switzerland and Norway. In all years, the border regional averages of both countries are higher than their respective national averages. Additionally, the regional average for the French border area is higher than that for the Swiss before 2022. In 2023, the border regional average of Switzerland is higher than that for France.

Touristic patterns have a series of implications for spatial development on either side of the border. Transport infrastructure has to consider peak volumes and balancing recreating activities with socio-cultural as well as environmental heritage can be a challenge.

Figure 2.29: Overnight stays in tourism (comparison)



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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)

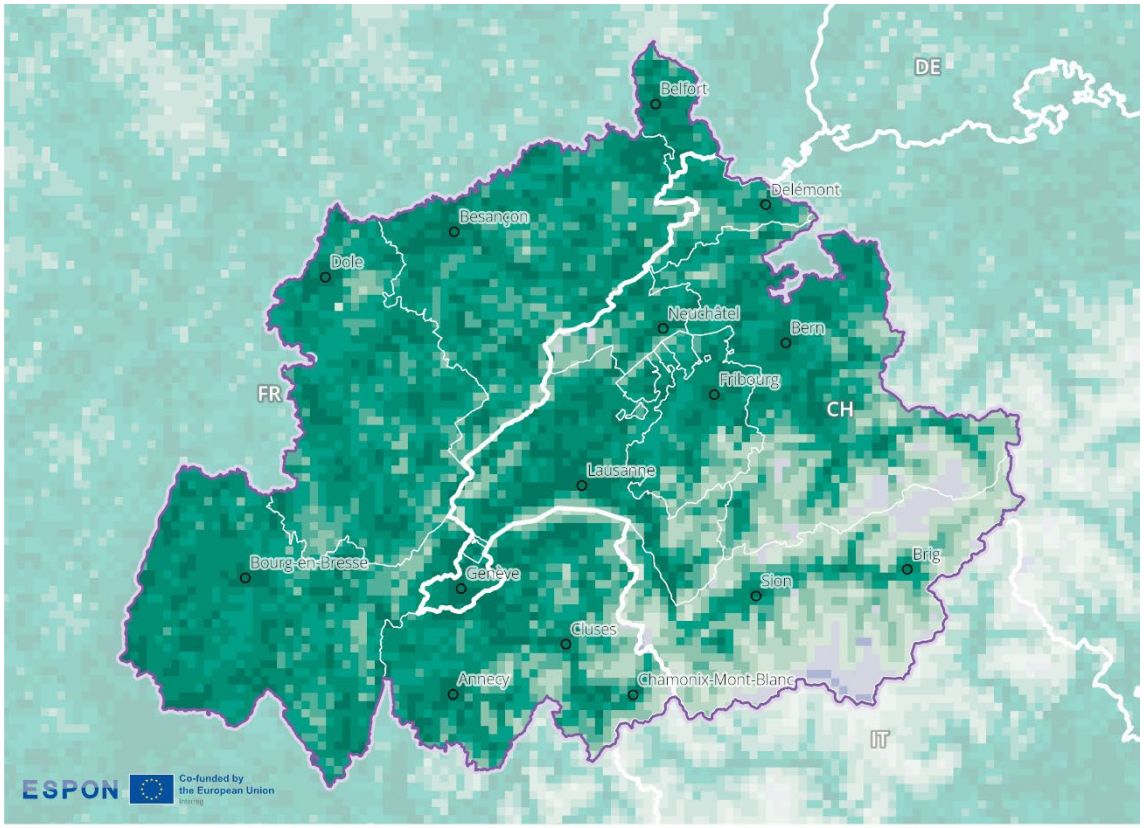
These indicators show how long, on average, it takes to reach the nearest facility by car. The data comes from the ESPON PROFECY Update project (2022) and is visualised based on a 2.5-kilometer grid. The values are purely based on travel time calculations, regardless if the cross-border dimension is currently a de-facto barrier (as e.g. the use of hospitals on the other side mostly comes along with problems of insurance, or high retail prices might be an argument against cross-border shopping).

In the France–Switzerland border area, essential services such as hospitals, doctors, pharmacies, schools, and grocery shops are evenly distributed across most French areas, resulting in generally good accessibility. Exceptions include longer travel times to doctors, pharmacies, and hospitals in the midwestern parts. In the Swiss regions, these services are largely concentrated north of the Alps and in the main valleys, which are also relatively well accessible.

However, the mountainous terrain along the border presents accessibility challenges. Some areas directly at the border, such as the region between Cluses and Sion, are harder to reach. The same holds true for the southern, inner-Alpine parts of the programme area. Steep mountains complicate the development and upkeep of transport infrastructure, contributing to longer travel times in these regions. For some of the indicators, also the sparsely populated parts of the Jura massiv show low values.

As a cultural service, cinemas are mostly located in cities and more densely populated areas. This creates a clear urban–rural gradient, with better accessibility in urban centres and longer travel times in rural or remote locations.

Figure 2.30: Travel time to secondary schools



Car travel time to the nearest secondary school (2021)

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

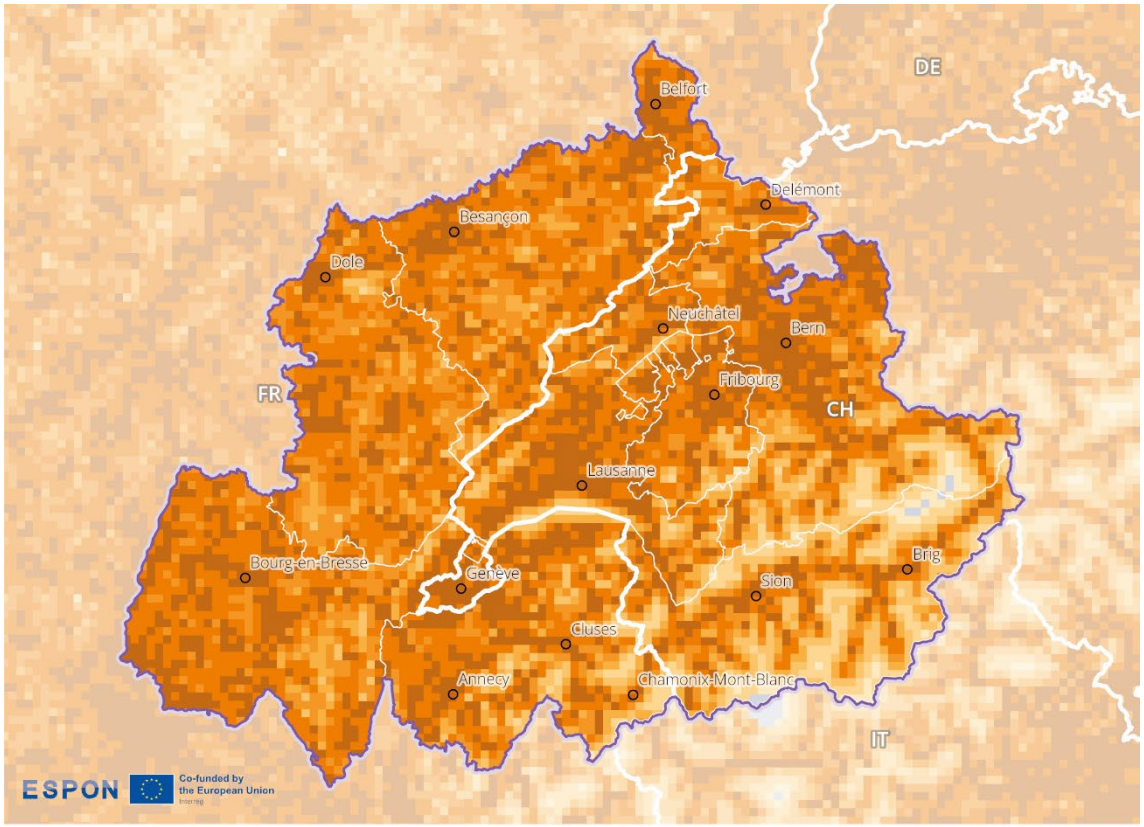
inside outside of the Interreg VI-A perimeter

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 20 40 km

Figure 2.31: Travel time to grocery shops



Car travel time to the nearest shop (2021)

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

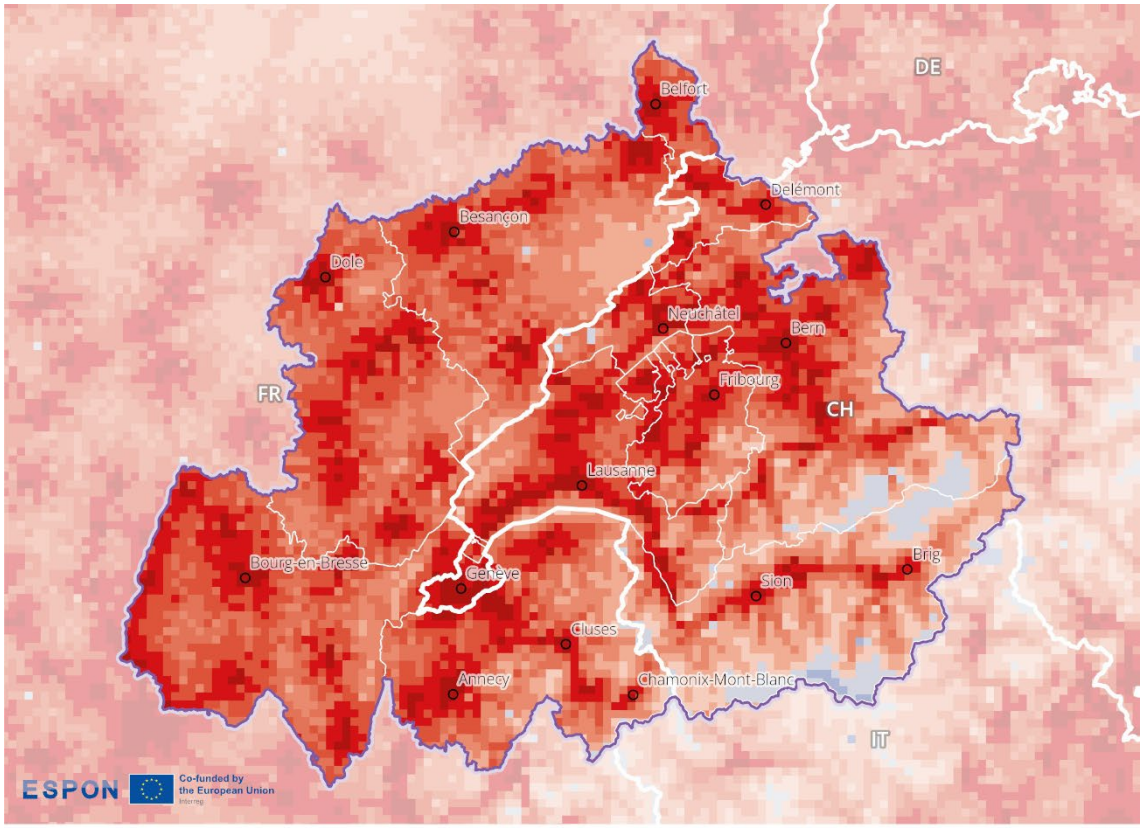
inside outside of the Interreg VI-A perimeter

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 20 40 km

Figure 2.32: Travel time to hospitals



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

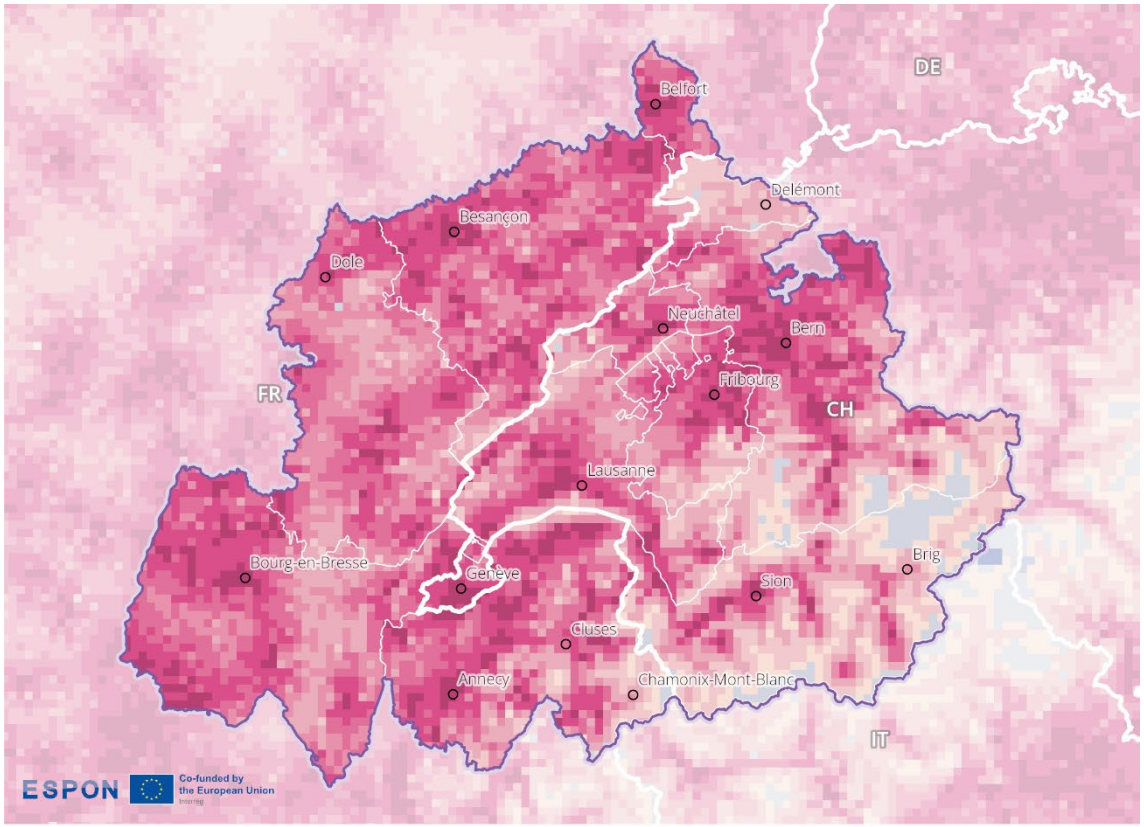
Level of detail: 2.5km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON PROFECY Update, 2022
©EuroGeographics for administrative boundaries

Interreg VI-A perimeter
national border
NUTS 3 border

0 20 40 km

© ESPON, 2026

Figure 2.33: Travel time to doctors



Car travel time to the nearest doctor (2021)

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

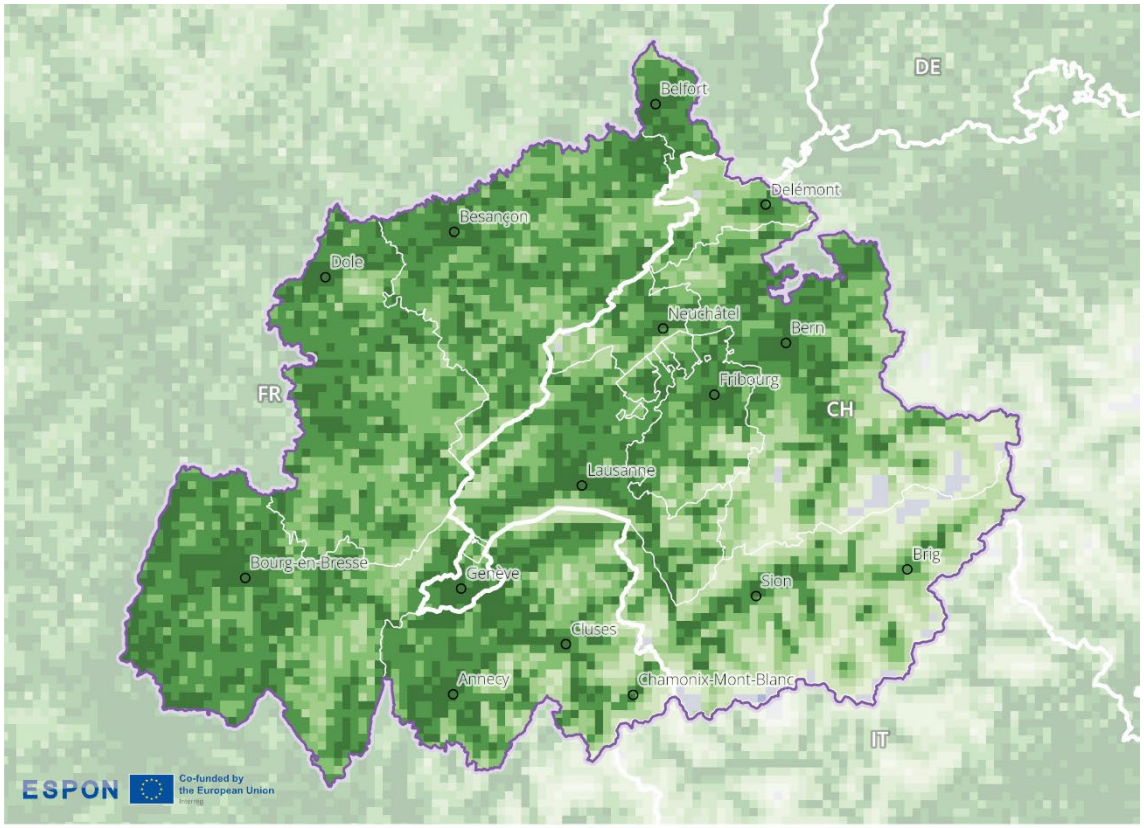
inside outside of the Interreg VI-A perimeter

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 20 40 km

Figure 2.34: Travel time to pharmacies



Car travel time to the nearest pharmacy (2021)

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

inside outside of the Interreg VI-A perimeter

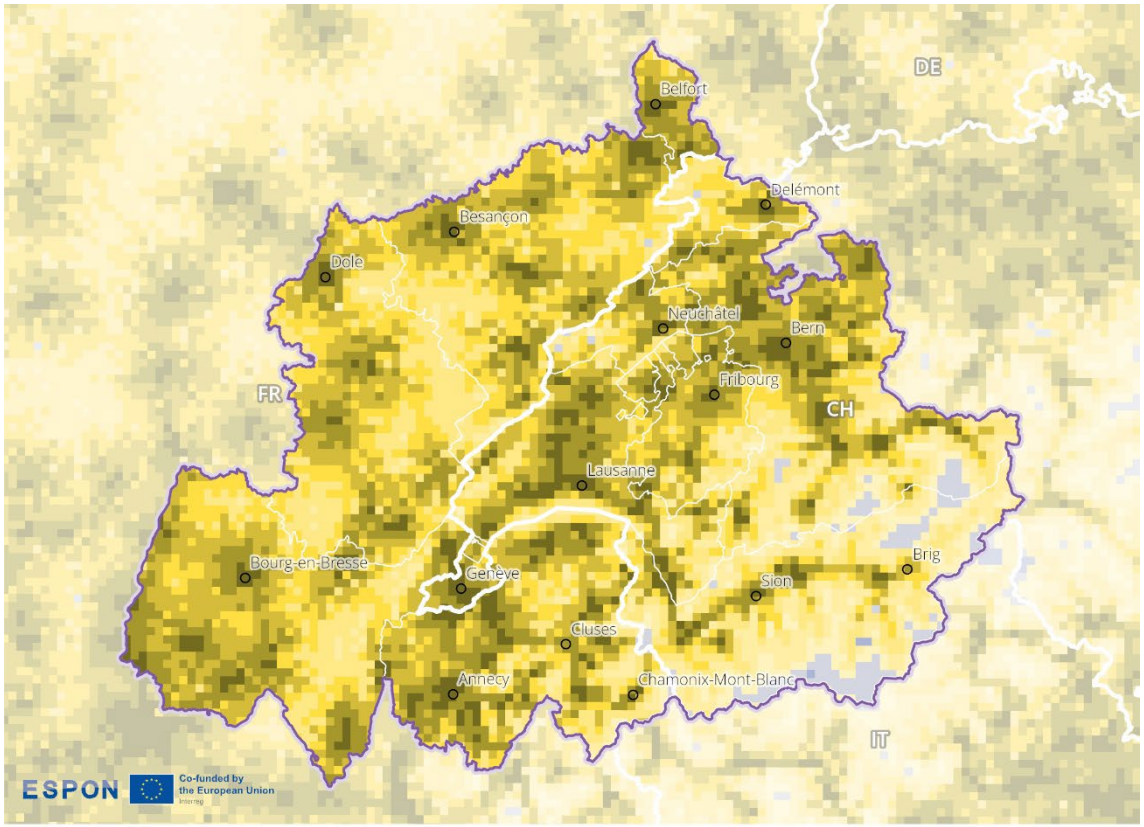
Level of detail: 2.5km grid
Source: FAU, UPOL, ÖIR & EPRC, ESPON Core-IB, 2026
Origin of data: ESPON PROFECY Update, 2022
©EuroGeographics for administrative boundaries

Interreg VI-A perimeter
national border
NUTS 3 border

0 20 40 km

© ESPON, 2026

Figure 2.35: Travel time to cinemas



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 20 40 km

© ESPON, 2026

2.4.4 Key messages on the socio-economic dimension

Based on socio-economic indicators, the region exhibits a multifaceted pattern. Overall, the level of social integration is high, which is not surprising given the high level of economic integration across the borders, as indicated earlier in this document. Tourism intensity is very high on both sides of the border. In terms of accessibility to services of general interest, the topography, particularly on the Swiss side, poses considerable challenges, and also in some parts of the Jura massif.

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.

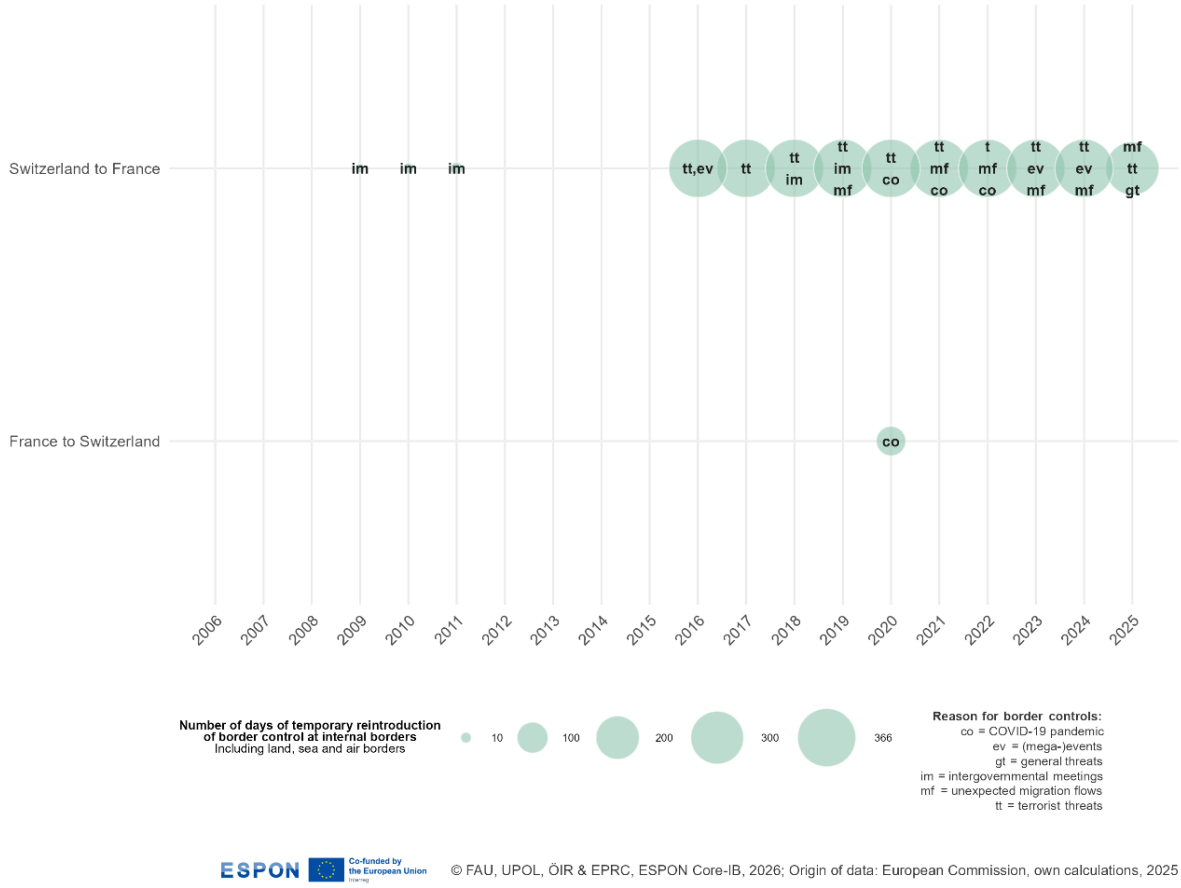
Figure 2.36 illustrates the number of days during which temporary border controls were reintroduced at internal borders within the Schengen Area. Each bubble represents a specific year with bubble sizes indicating the number of days the respective border was under control. The categories of reasons for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

France had already been part of the Schengen Area by 2006, while Switzerland joined in 2008 for land borders and in 2009 for air borders.

Figure 2.36: Temporary reintroduction of border controls



The France-Switzerland border area is characterised by an asymmetric pattern:

- Crossing the border from Switzerland to France: Temporary border control occurred in 13 out of 20 years, driven by intergovernmental meetings such as NATO and G20 summits. From 2016 to 2025 the border is permanently controlled. The reasons are terrorist threats e.g., due to attacks in Paris and Nice (2016-2017), major sports events like the EURO 2016, the Tour de France (2016) or the Olympic and Paralympic Games (2024). Further the border has been controlled due to COVID-19 (2020-2022) and general threats like the situation at the external borders, organised criminality and smuggling (2020-2022). Another reason is the unexpected and persistent migration flows since 2019 (until 2025).
- Crossing the border from France to Switzerland: Temporary border controls occurred in 1 of 20 years, tied to COVID-19 (2020).

From a comparative perspective, France has implemented controls for significantly more days than Switzerland, 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

There are a number of reasons for the asymmetric patterns of border controls. Firstly, Switzerland has a long-standing tradition of being a neutral diplomatic location for many high-ranking exchange formats. Secondly, both France and Switzerland are rather attractive destinations for migrants, including those arriving irregularly. However, Switzerland is not located on any major migratory routes,

primarily due to the geographical barriers in the south of the country. France, on the other hand, is located on a major migratory route from Northern Africa.

Overall, border controls are an important issue for this region, given the high level of socio-economic integration. Border controls result in increased transaction costs and thus hamper socio-economic prosperity.

2.6 Governance dimension

This section covers the cross-border governance of the France-Switzerland Cross-border Programme area. Particularly in the Alpine region, the cross-border area between France and Switzerland enjoys the advantages of a long-standing legacy of institutional collaboration based on a shared historical and cultural heritage. The Franco-Swiss border is amonst the most ancient regions in Europe for cross-border collaboration. It hosts several well-structured cross-border political bodies, including the Arcjurassien.org (ex Conférence TransJurassienne), Grand Genève, Conseil du Léman, and the Comité Régional Franco-Genevois. Since 2005, there are also yearly exchanges between the foreign offices of France and Switzerland on cross-border issues ("Dialogues transfrontaliers"[17]). These structures facilitate sustained political dialogue and joint action. The programme area also expands on a robust institutional and legal framework supported by numerous bilateral agreements and conventions between the EU and Switzerland. Strong synergies with neighbouring cross-border programs like Upper Rhine, Alpenrhein-Bodensee-Hochrhein, and Italy-Switzerland, where comparable principles of collaboration apply, serve to reinforce co-operation. Institutions and authorities on the Franco-Swiss border have an extensive amount of cross-border governance expertise. The existence of multiple Groupements Locaux de Coopération Transfrontalière (GLCTs), which are legal entities with a long history of operation, a public mission, and specialised knowledge, is indicative of this. For present and future collaboration, their institutional knowledge and legitimacy are a significant benefit. Additionally, the EU Strategy for the Alpine Region (EUSALP) covers the France–Switzerland program area, offering chances for multilevel governance and cooperation on common regional concerns as well as extra strategic alignment. Despite the region being a model for cross-border collaboration, complexity persists because of variations in national systems and Switzerland's non-EU position.

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.

[17] https://www.europa.eda.admin.ch/en/cross-border-government-commissions-and-dialogue

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.

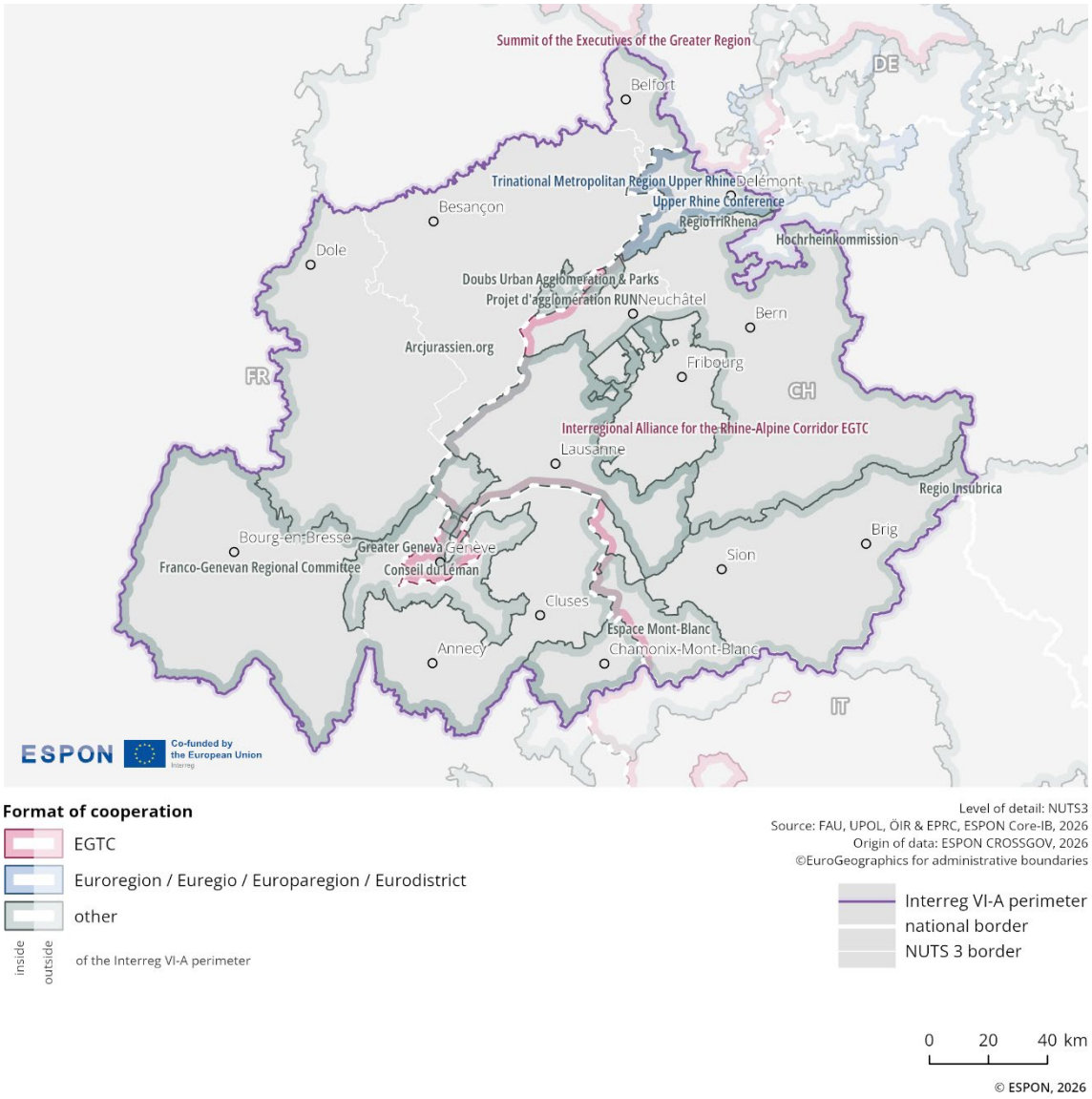
Figure 2.37 shows the different types of institutionalised cooperation. These governance structures either function as cross-border entities or bring together stakeholders from the cross-border region around shared topics. The governance structures covered include Eurocities, Euroregions, European Groupings 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[18]. Overall, the region demonstrates a high level of institutionalised cross-border cooperation. The most prevalent forms are EGTCs and other structures such as councils and working communities.

[18] See also, CROSSGOV Atlas

Figure 2.37: Cross-border governance structures



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.

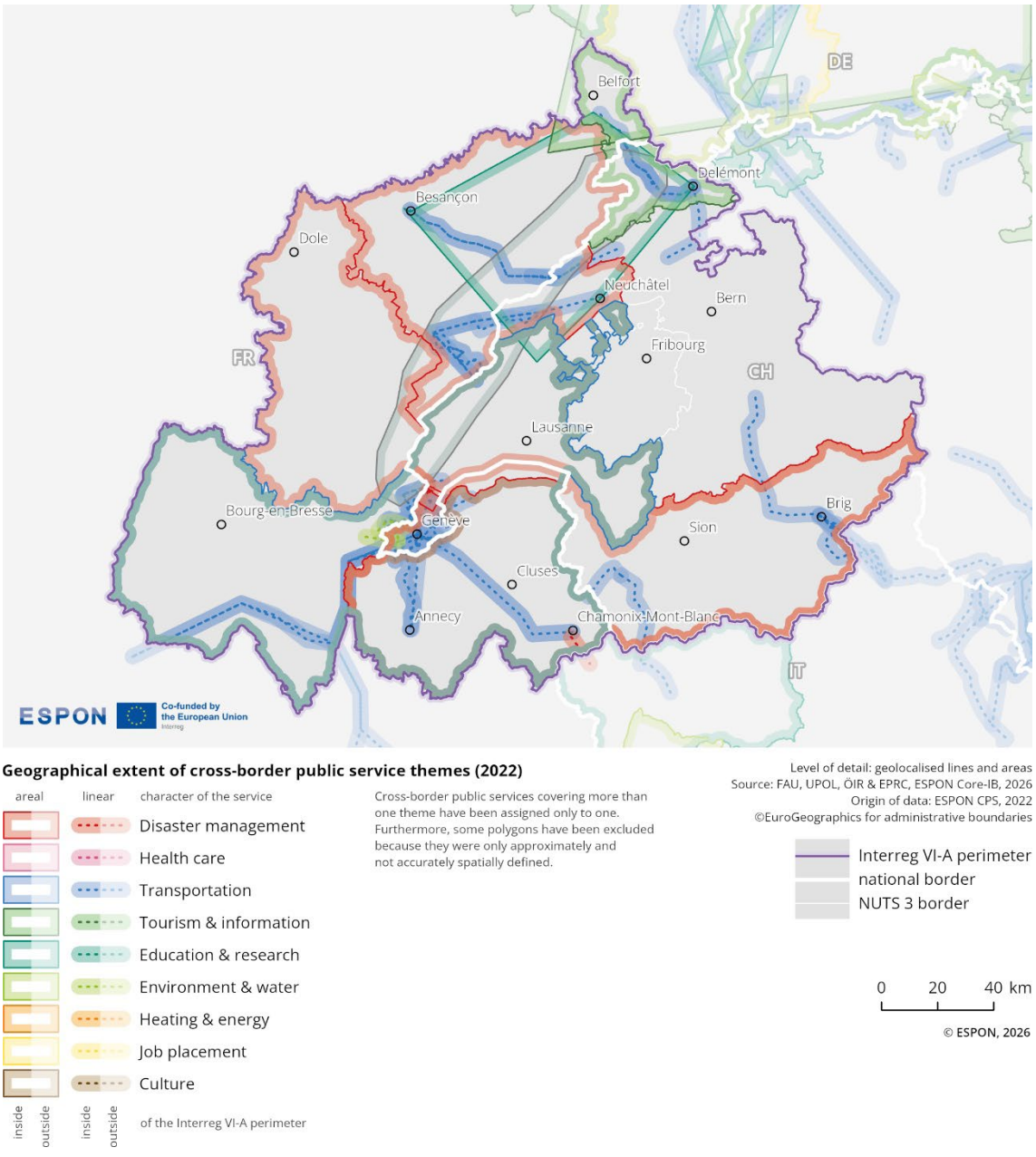
Figure 2.38 depicts the geographical extent of cross-border public services in the border area in 2022. Different thematic areas are represented by distinct symbols and colours, indicating services such as disaster management, health care, transportation, education, environment, energy, job placement,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

Cross-border public services in the France-Switzerland Interreg region (Greater Geneva area and Jura Arc) are concentrated around Geneva, Lausanne, and Delémont. The services span a wide range of themes, with an emphasis on transportation, disaster management, and education & research.

The Geneva–Haute-Savoie area shows intense cooperation across several themes, including transportation, education & research, disaster management, and environment & water, forming one of the densest service clusters.

Tourism & information and environment & water services are stretching around Delémont up to Belfort.

Figure 2.38: Cross-border public services



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 France-Switzerland, 3 b-solutions pilot actions were identified. These included initiatives on the 3Land-Bridge over the Rhine to establish a state treaty, addressing the non-recognition of incapacity and disability at work between France and Switzerland, and improving ecological continuity. Applications for these pilots were mainly submitted by Eurodistricts and public bodies.

In this border area, in the field of institutional cooperation, issues relate to infrastructure development, urban mobility networks, and sustainable transport. Labour market and educational challenges include the recognition of skills, administrative procedures, digitisation, and transparency in working conditions. Ecological and environmental concerns focus on biodiversity protection, administrative cooperation, and tourism development.

The solutions proposed in the pilot actions are predominantly hybrid in nature. For example, the 3Land-Bridge over the Rhine project involved both legal measures, such as establishing a bilateral treaty, and administrative solutions, including the formation of a joint commission for coordination and the establishment of an administrative planning agreement to streamline procedures. The initiative addressing the non-recognition of incapacity and disability proposed applying EU regulations for automatic recognition of qualifications combined with operational strategies focused on information sharing between relevant institutions. Lastly, the ecological continuity improvement project suggested operational solutions like creating an interactive map and enhancing international visibility through an Interreg project, as well as administrative measures to create a France-Switzerland committee and improve existing cooperation structures.

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

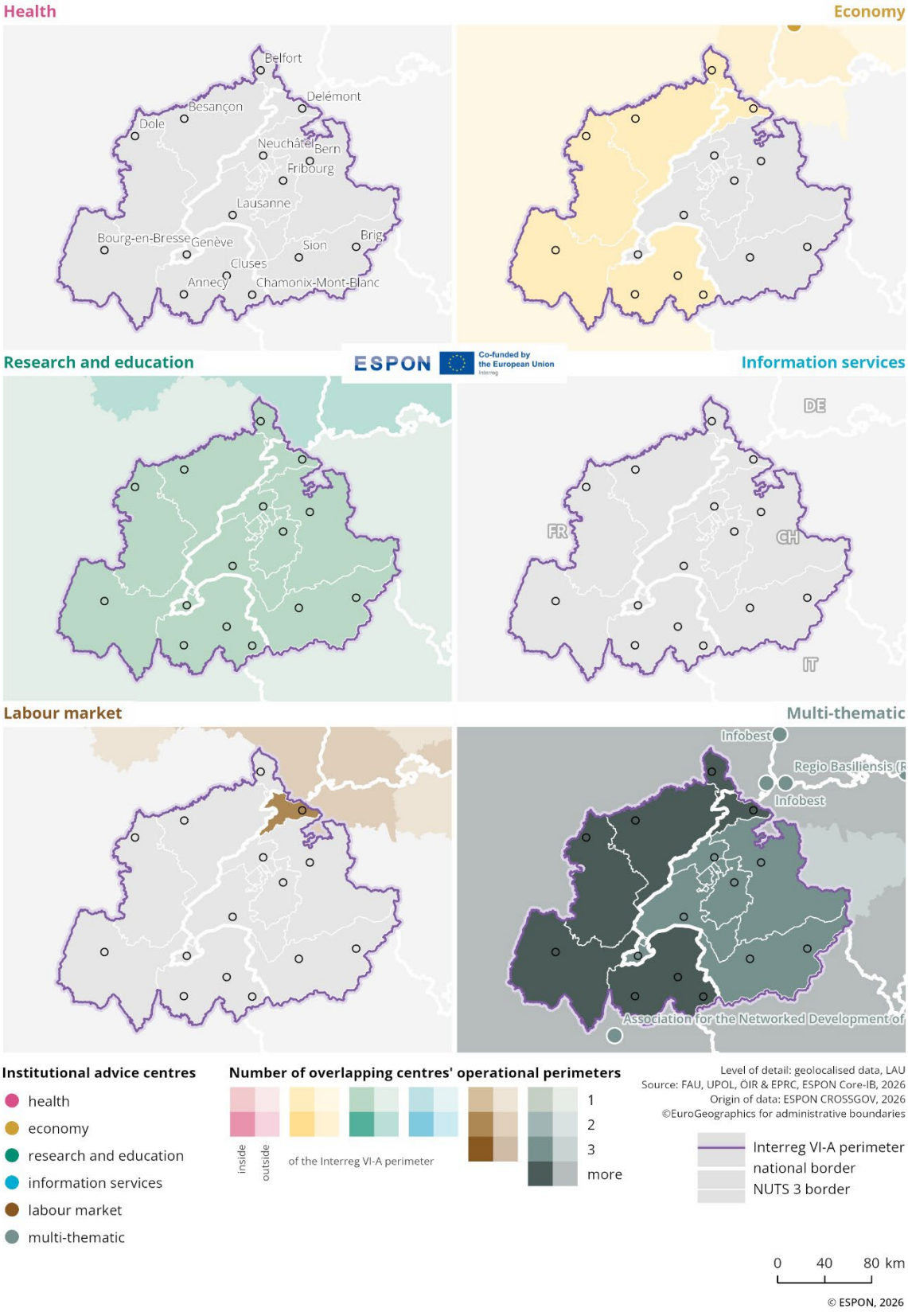
Please refer to the technical annex for more information.

Figure 2.39 shows the locations and types of institutionalised advice centres, along with their operational domains, in the cross-border Interreg region between Switzerland and France. 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, just outside the Interreg area, there are several multi-themtic institutionalised advice centres located along the French–Swiss–German border, including Infobest and Regio Basiliensis (REGBAS).

Within the Interreg region, multi-thematic as well as research and education operational domains are represented in both countries, but they are more pronounced in the French part of the Interreg region. Additionally, in the French part, centres with economic operational domains are also present across the region.

Figure 2.39: Institutionalised cross-border advice centres



2.6.2 Outline of Interreg activities

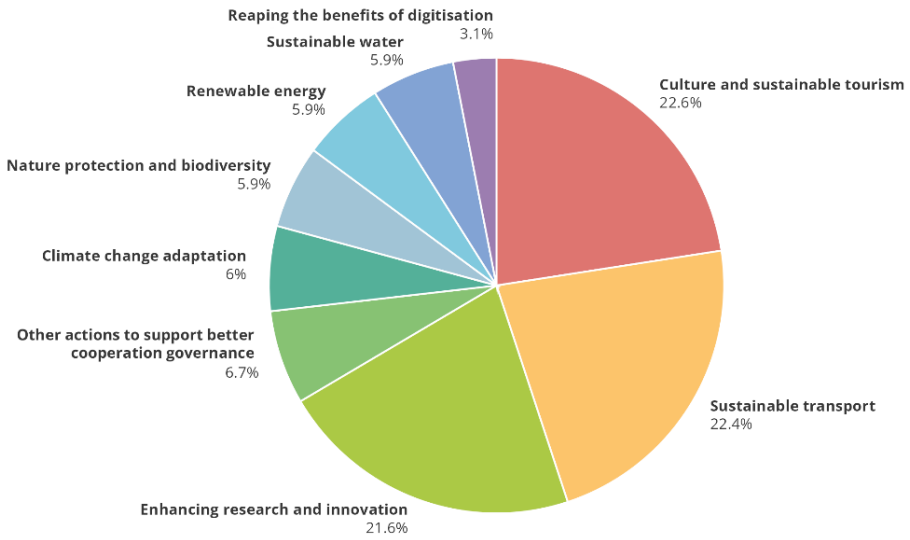
The following section outlines the key Interreg activities in the 2021-2027 programming period. The aspects included concern the development opportunities and challenges identified (see Table 2), the budget available and split of allocation (Figure 2.40), overlapping Interreg programmes and the key aspects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

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

Topic	Key development opportunities and challenges identified for Interreg 2021-27
Environment	▪ Area faces moderate to high vulnerability to climate change, with rising temperatures increasing the risk of natural disasters. ▪ Transboundary climate action is essential, particularly in water resource management and disaster prevention. ▪ Cross-border commuting by car is on the rise ▪ Public transport links across the border are often limited in frequency and quality
Economy	▪ Despite a strong foundation of universities, research centres, and competitiveness clusters, the region struggles to fully connect research with the economic sector. ▪ The programme actively supports cross-border SMEs (Small and medium-sized enterprises), research partnerships, digital innovation, and the development of digital hubs. ▪ Tourism remains a key sector, offering opportunities to develop sustainable, year-round tourism and to promote the region's cultural and natural heritage.
Social	▪ Mixed pattern of population change and migration trends further highlight disparities ▪ Demographic imbalances contribute to disparities in access to services and opportunities, raising the risk of social fragmentation and uneven quality of life across the territory.
Cooperation governance	▪ Switzerland's non-EU status introduces additional administrative and legal complexities not present in EU-only cross-border programmes, complicating the alignment of public policies and the implementation of joint initiatives. ▪ Potential for more effective, resilient, and participatory governance, enhanced public service delivery, and reinforced cross-border cooperation.

Total Budget: EUR 90,588,038.00

Figure 2.40: Split of Interreg allocation



ESPON Co-funded by the European Union

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.[19] 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

Interreg A (cross-border)	Interreg B (transnational)
3	1

Key aspects

- Prioritisation of green and sustainable development: The program prioritises environmental protection, climate action, and sustainable mobility. Projects are grouped around topics like biodiversity, carbon neutrality, water management, ecosystem restoration, and sustainable tourism.
- Specific emphasis on innovation and cross-border economic integration: Interreg France–Switzerland uses the region's leading research institutes and competitiveness clusters to improve innovative ecosystems, digitalise, and collaborate across borders.
- Promotion of cultural heritage and sustainable tourism: in response to the demands of environmental preservation and economic diversification, the programme encourages the

[19] 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.

development of year-round, sustainable tourism as well as the appreciation of cultural and natural assets.

- Possibility of cross-program synergies: The programme region intersects with other significant Interreg initiatives, such as the Interreg Alpine Space programme, offering chances for coordinated action and information sharing.
- Integrated approach to public services and social inclusion: The initiative aims to improve quality of life and community relations across the border by addressing social inclusion, demographic challenges, and access to health, education, and training services.
- Adaptation to particular cross-border governance challenges: With specialised governance procedures and a long history of institutional collaboration, France–Switzerland Interreg adjusts to the distinct legal and administrative setting of an EU/non-EU border.

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[20]. 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.

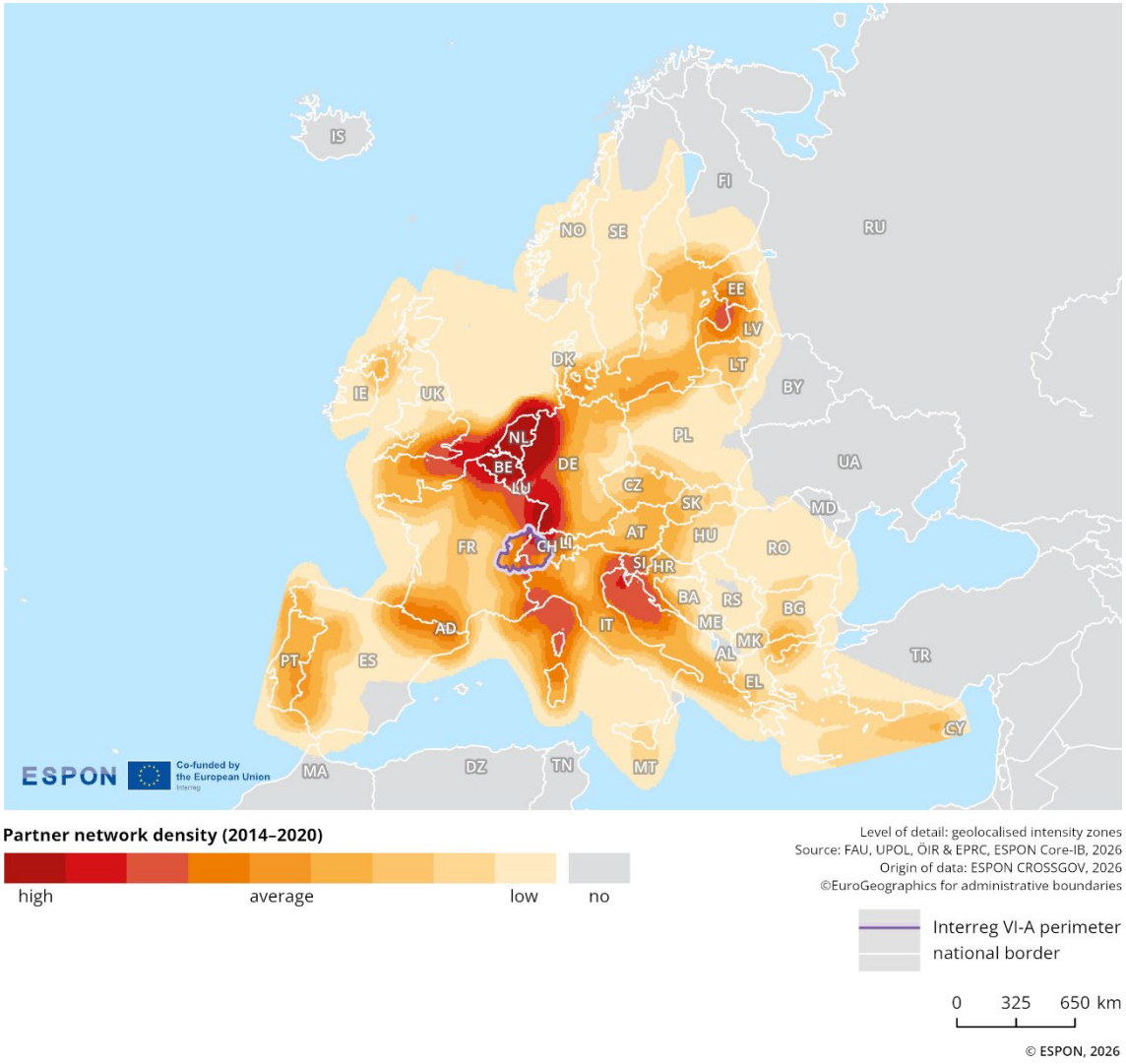
Cooperation activities and networks are among the most meaningful types of information for delineating cross-border functional areas. As such, the indicator on cooperation through Interreg can help to identify networks among cross-border actors and highlight the density of cooperation in specific border 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 France-Switzerland border area appears quite evenly spread. The partner network density in this border area is close to the European average. Based on the keep.eu database and excluding duplicates, the number of project partners increased from 197 in Interreg IV-A (2007–2013) to 453 in Interreg V-A (2014–2020), an increase of about 130%. It is important

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

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.

Figure 2.41: Interreg V-A partner network density



2.6.3 Key messages on the governance dimension

The France-Switzerland Interreg region is unique. This is due to the very high level of cross-border integration, particularly in the Geneva area, as well as Switzerland's position as a non-EU member state.

In recent years, a high density and complexity of cooperation formats has evolved, resulting in a rather mature multi-level governance setting. This includes numerous cooperation formats at the local level, amongst others. Nevertheless, gaps and discrepancies in regulations remain an ongoing challenge.

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	• Topographic contrasts are characteristic, with steep relief in particular on the Swiss side. Parts of the border region are highly integrated and urbanised, whereas others are of very rural character; • Above average values in demographic trends and a dynamic settlement development can be observed.

Territorial dimension	
Policy options	**Population and settlement related aspect** • Demographic growth and increasing settlement pressure across large parts of the region underline the potential for an integrated approach to spatial development. A relevant policy option is to address spatial development to balance diverse and partly competing land-use demands (e.g., housing, economic activities, tourism, transport, agriculture and nature conservation), which in turn requires ongoing coordination and exchange, including across borders. **Accessibility related aspects** • Maintaining transport infrastructure at a high level in the context of rising population numbers represents a key potential, particularly in parallel with ambitions to advance a sustainable mobility transition; • Cross-border cooperation can contribute to this endeavour by supporting innovative pilot activities, strengthening continuous information flows and improving shared knowledge bases. In this context, the added value of cross-border cooperation lies less in large-scale infrastructure investment and more in strengthening the underlying foundations for information exchange and solution development. **Cross-cutting aspects** • More generally, an effective organisation of the cross-border territory could help to address the above-average development dynamics in the region. This includes working towards a good infrastructural fit and high alignment in spatial development; • A strong information base and reliable cross-sectoral exchange (e.g. transport, environment, spatial planning) represent key preconditions for such coordination.

Economic dimension	
Key analytical findings	• The border region tends to show (much) stronger values than the European average, e.g., in terms of GDP. In parallel to ageing trends and despite migration, the overall dynamic has decreased over recent years; • Differences between the French and the Swiss parts of the border region tend to be very large. Both sides depend on cross-border integration, but cohesion is an issue, and strategies of 'co-development' across the border are an important objective; • In the coming years, it will be a challenge to safeguard the strong economy despite the ongoing demographic change.
Policy options	**Competetiveness related aspects** • Maintaining a strong economy and a high level of prosperity requires the mobilisation of cross-border potentials within the region. This is particularly relevant with regard to ensuring an adequate availability of qualified labour despite ongoing demographic ageing. Cooperation projects can address the recognition of professional qualifications across borders, as well as the attraction and integration of migrants into the labour market; • In addition, innovation remains central to helpt the economy to be competetive, and cross-border perspectives offer further scope for strengthening innovation dynamics; • Bringing together complementary capacities from both sides of the border represents a significant potential, with cross-border cooperation contributing in particular through the support of networks and knowledge exchange aimed at overcoming border-related barriers. **Cross-cutting aspect** • The economic dimension is closely interlinked with other policy fields, notably labour markets, skills and education, infrastructure investment and spatial planning. The development of strategies, pilot actions and exchange formats at the interfaces of these fields can help unlock existing cross-border potentials.

Green dimension	
Key analytical findings	• Natural risks are mainly to be seen in landslides, given the Alpine topography in large parts of the area; • Both sides have reached increased resource efficacy and decreased waste production, even if the final objectives are not reached yet; • The share of cross-border linkages in protection regimes appears to be rather low.
Policy options	**Environmental aspects** • Cross-border cooperation can address the alignment of green infrastructure and protection measures. At a time when ecological connectivity is high on the policy agenda, border effects constitute a relevant barrier that can be tackled through cooperation. This includes joint approaches to protected area identification and coordinated natural area management; • Risk management represents a well-established field of cross-border exchange, as risk assessments, emergency planning and monitoring measures tend to be more reliable when aligned with neighbouring regions across borders. **Cross-cutting aspects** • Many environmental challenges affect all types of territories within the programme area without having a dominant border-related dimension, such as climate change adaptation or economic decarbonisation. Nevertheless, in indirect terms, cross-border cooperation can still add value, particularly by building on shared information bases and ensuring reliable communication channels; • A more specific issue concerns the integration of environmental considerations when addressing economic and demographic growth. The development of settlement and infrastructure systems could take into account environmental concerns and ecological connectivity, including across borders.

Socio-economic dimension	
Key analytical findings	• Overall, the data indicate high levels of social integration across the border; • On both sides of the border, the tourism intensity tends to be very high; • In terms of an accessibility to services of general interest, the topographic situation, in particular on the Swiss side, poses considerable challenges.
Policy options	**Sectoral aspects** • Social integration remains a classical field of cross-border cooperation, particularly through small-scale project funding. While formats such as school exchanges, sports events and cultural initiatives are well established, they continue to provide an essential foundation for addressing more complex cross-border challenges; • Given that a considerable share of public services is located close to borders, the potential for cross-border cooperation in this field is evident. While some services, such as healthcare, face significant legal constraints, others (e.g. retail) are more accessible. Cross-border cooperation could play a particular role in piloting new service arrangements and addressing existing barriers; • The tourism sector tends to respond sensitively to competitive pressures. Although cross-border hiking routes and the joint valorisation of points of interest near the border are well-established cooperation formats, destination management organisations often maintain a strong domestic focus. Cooperation on marketing, visitor flow management and overnight capacities remains challenging, yet joint approaches offer potential for developing new opportunities. **Cross-cutting aspects** • Cross-border spatial development could address socio-economic dynamics and territorial potentials. For example, if a high degree of socio-economic integration is an objective, cross-border tourism activities of the local population can play a relevant role; • Similarly, if efficiency within cross-border settlement systems is a priority, the cross-border use of public services offers potential. The development of these potentials can form the basis of joint strategies and pilot activities within cross-border cooperation.

Border security and safety dimension	
Key analytical findings	• The border region is amongst those cases where border controls have become more numerous in recent years, and they are clearly assymmetric (i.e. controls predominantly in one direction). The asymmetric patterns of border controls are molstly related to migratory flows and to high ranking events; • Given the high relevance of cross-border integration to the region, the temporary reintroduction of controls is of high sensitivity. Border controls increase transaction cost in supply chains and they can complicate the daily lives of cross-border commuters and service providers.
Policy options	**General relevance** • Border controls are predominantly a subject of multi-national mandates: this true for the mandates of the Schengen agreements and questions of migration/asylum policies, that have been closely interlinked with border control measures. European territorial cooperation can only play a secondary role in this regard. **Cross-cutting aspect** • The mitigation of border control effects can be integrated into cross-border cooperation projects across several sectors. Economic networks, transport infrastructure initiatives and tourism-related activities may incorporate considerations related to the impacts of border controls.

Governance dimension	
Key analytical findings	• The regional situation is particular due to a high level of cross-border integration, especially in the Geneva area, combined with Switzerland's position as a non-EU Member State; • A high density and, at the same time, a high level of complexity of cooperation formats has evolved, resulting in a rather mature multi-level governance setting; • Nevertheless, a series of gaps and misfits in regulations remains an ongoing challenge.

Governance dimension	
Policy options	It is beyond the scope of this project to formulate specific governance recommendations, particularly in an advanced cooperation setting such as this one. Nevertheless, the general potential of cross-border cooperation also applies in this context, notably through: • The maintenance and strengthening of trust-based personal relations across governance levels and sectors, enabling engagement with more sensitive issues; • The support of pilot actions and innovative governance solutions, particularly in their early stages; • The transfer and scaling-up of governance solutions that have proven effective in one sector to other fields (e.g. cross-border monitoring databases and exchange mechanisms for critical situations).

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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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