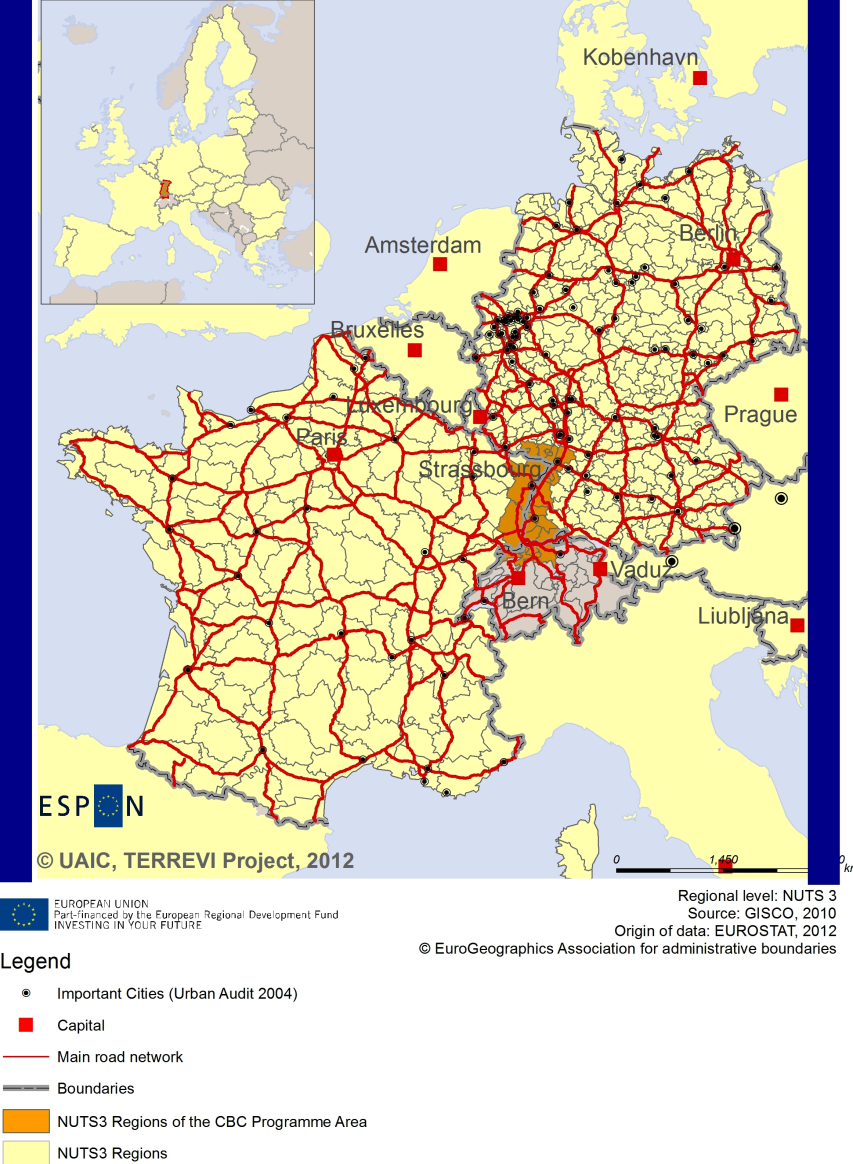
Upper Rhine

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ESPON Project TERREVI

November 2012

# Introduction

ESPON supports policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory. It provides comparable information, evidence, analysis, and scenarios on territorial dynamics, which reveal territorial capitals and development potentials of regions and larger territories. Considering the programme area in its European context adds an important new perspective that can help shaping the programming and the places of implementing projects.

The ESPON TERREVI project focuses on producing evidence for Structural Funds programmes with the aim to support the development of the programmes to be carried out in the 2014-2020 period.

One milestone of this work consists in presenting selected ESPON research pieces in easy-to-understand factsheets for all territorial cooperation programme areas. The aim is to provide the reader with preliminary insight on types of territorial evidence ESPON holds at hand with regard to the possible investment priorities of future programmes. The factsheets certainly only give a first glimpse rather than fully present the work of the large number of ESPON projects that are currently underway. Likewise, each programme area includes diverse development potentials and challenges, which needs targeted information search. However, hopefully this factsheet will contain information, benchmarking the programme area in its larger, territorial context, that is of interest and help to better understand the programme area and to navigate within the richness of ESPON material available.

In addition to the programme factsheets there will be a number of specific programme case studies illustrating how ESPON material can be used to support the development of future programmes e.g. by giving a comparative European dimension to the envisaged SWOTs. These case studies will be carried out in early 2013.

This factsheet is structured in three main parts. The first part presents a selection of indicators that help comparing the situation of the programme area in question with the European average, the average for all programme areas as well as the situation in the countries involved. The second part briefly presents the territorial factors of interest for the programme area. The final part offers guidance on the further use of ESPON results and tools. This is intended as an electronic publication so map quality is generally high to allow users to zoom into specific territories.

This factsheet does not necessarily reflect the opinion of the ESPON Monitoring Committee.

# Europe 2020

Europe, with its member states and their regions, is more exposed to global shocks and international competition than at any time before. As the world becomes more interdependent this trend will continue and shape policy thinking across sectors, borders and geographical scales. At the same time, Europe is characterised by a large territorial diversity meaning that global developments can imply rather different development possibilities and challenges for different European regions and cities.

The differences are partly defined by major geographical structures such as urban systems, access and connectivity, the geographical specificity or population density. At the same time, the differences are also spelled out in the larger development trends that affect an area, and the way and degree to which it is affected.

The data, indicators and territorial evidence provided by ESPON provides insight on both the main structures and larger territorial trends. The fine art is to identify what can actually be influenced by policy-making and, in particular, by place-based policy and territorial cooperation related to your programme area.

This chapter provides a selection of ESPON data related to Europe 2020 objectives of smart, sustainable and inclusive growth, giving also hints as regards the main thematic objectives envisaged in the draft regulations for the next period of EU Cohesion Policy. The Europe 2020 Strategy aims to enhance smart, sustainable and inclusive growth. This strategy has clear territorial dimensions. However, achieving these goals is challenging in the crisis-driven times. Furthermore, the economic disparities are growing as economic trends and the crisis have various impacts on different parts of Europe.

In the following the traffic light for each indicator represents how your programme territory compares to wider European and national medians where green = your programme area performs better for that indicator, yellow = similar, and red = worse.

In creating the traffic lights the median was used as central value indicator for all statistical variables due to its advantages (easy to interpret, it splits the statistical distribution in half) but especially due to the constraints linked to the impossibility of computing means for several indicators (Climate Change, Wind Energy Potential etc.). Therefore, a special attention should be given in reading the median values when the number of NUTS 2 regions is below 7. Using percentiles implies also a high dependence of the final results on the type of statistical distribution. This fact should be considered when establishing the relative position of a CBC Programme Area to a specific country.

EU 27+4 in Traffic Lights and box-plots means the EU Member States as well as Iceland, Liechtenstein, Norway and Switzerland – the ESPON space.

### Smart growth

Smart growth refers to developing an economy based on knowledge and innovation. In the framework of the Europe 2020 Strategy it means improving the EU's performance in education, research/innovation and digital society.



According to all indicators reported above, the Upper Rhine CBC area performs similarly to better than the EU27+4 space and all CBC ones.

Considering the objective of R&D expenditure as a percentage of GDP - one of the five headline targets in the Europe 2020 Strategy - the CBC area has higher values than the European EU27+4 space, all CBCs, France and Germany. Moreover, the CBC area is characterised by a medium level of internal disparity. Concerning the ratio of employment in knowledge-intensive services to the total employment in 2010, the CBC area has similar values to the EU27+4 space and all CBCs. It is doing better than Germany and less well than Switzerland, with a low level of internal disparity. In terms of percentage of individuals regularly using internet in 2011, the Upper Rhine CBC has similar values to the EU27+4 space and all CBCs, but it performs better than France and less well than Germany, with a low level of internal disparities.

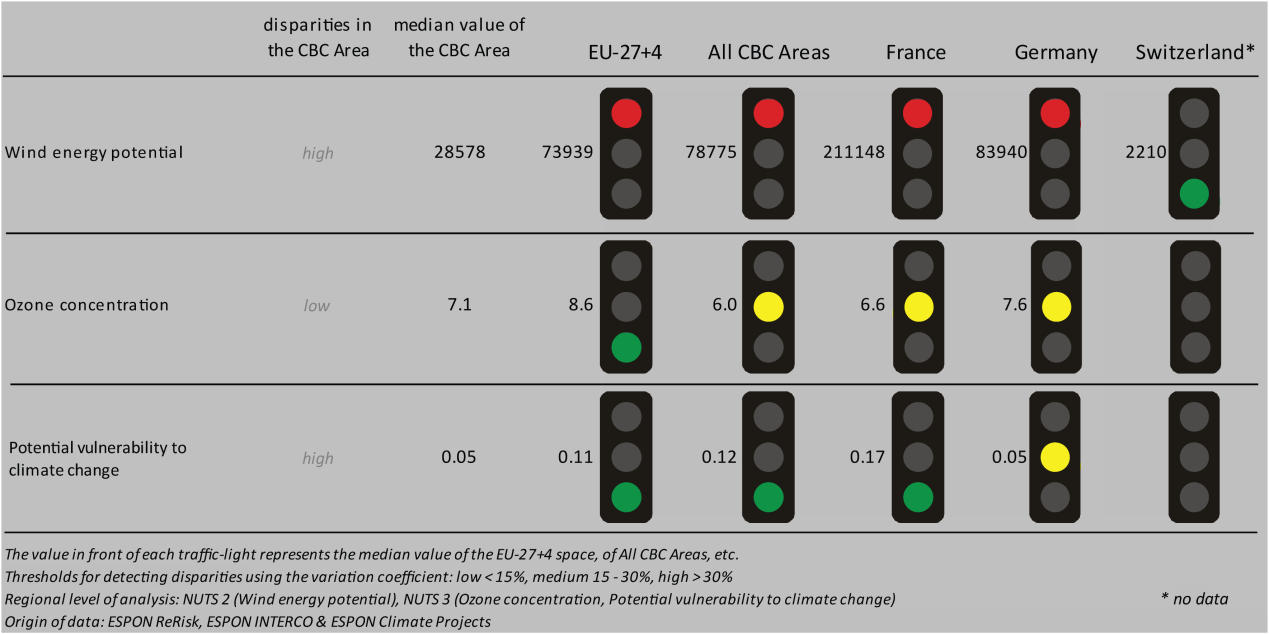
According to the classification of the KIT project, MAP 1 identifies three territorial patterns of innovation:

* ‘European science-based area’, in the eastern part of the CBC incl. Baden-Württemberg in Germany up to the Swiss Aargau and Basel city. It is characterised by strong knowledge and innovation, specialized in general purpose technologies, with a high generality and originality of science-based local knowledge.
* ‘Applied science area’, in the remaining most northern German parts and most southern Swiss parts. It is associated to a quite high generality and originality of science-based local knowledge, and a high degree of attractiveness of knowledge coming from other regions.
* ‘‘Smart technological application area’, in the French side i.e the Alsace region. It is defined by a high product innovation level, with a limited degree of local applied science and R&D endowment, and a high creativity which allows translating external basic science and applied science knowledge into innovation.

**MAP 1 – Territorial Patterns of Innovation (ESPON KIT project) for the CBC Upper Rhine**



### Sustainable growth

Sustainable growth refers to promoting a more resource efficient, greener and more competitive economy. Within the Europe 2020 Strategy it means e.g. building a more competitive low-carbon economy that makes efficient, sustainable use of resources, protecting the environment, reducing emissions and preventing biodiversity loss, capitalising on Europe's leadership in developing new green technologies and production methods, and introducing efficient smart electricity grids. In the framework of the Europe 2020 Strategy it means focus on competitiveness, resource efficiency, climate change and biodiversity.

Wind energy potential of the Upper Rhine CBC region is highly limited when compared to that of the EU-27+4 or of all CBC areas, but even more in the French and German national contexts. At the same time the CBC area has better potentials for using this sustainable source of energy than Switzerland. The level of ozone concentration is broadly similar to the EU-27+4, to all CBC areas’ and to national levels (no data are available for Switzerland). The CBC programme area performs well with regard to the level of potential vulnerability to climate change, which is at a considerably lower level than that of the EU-27+4, of all CBC regions and than France, and at the same level than Germany (again no data available for Switzerland). The combined adaptive capacity to climate change of the programme area and that of the German border-regions in particular, is at a high level in al contexts.

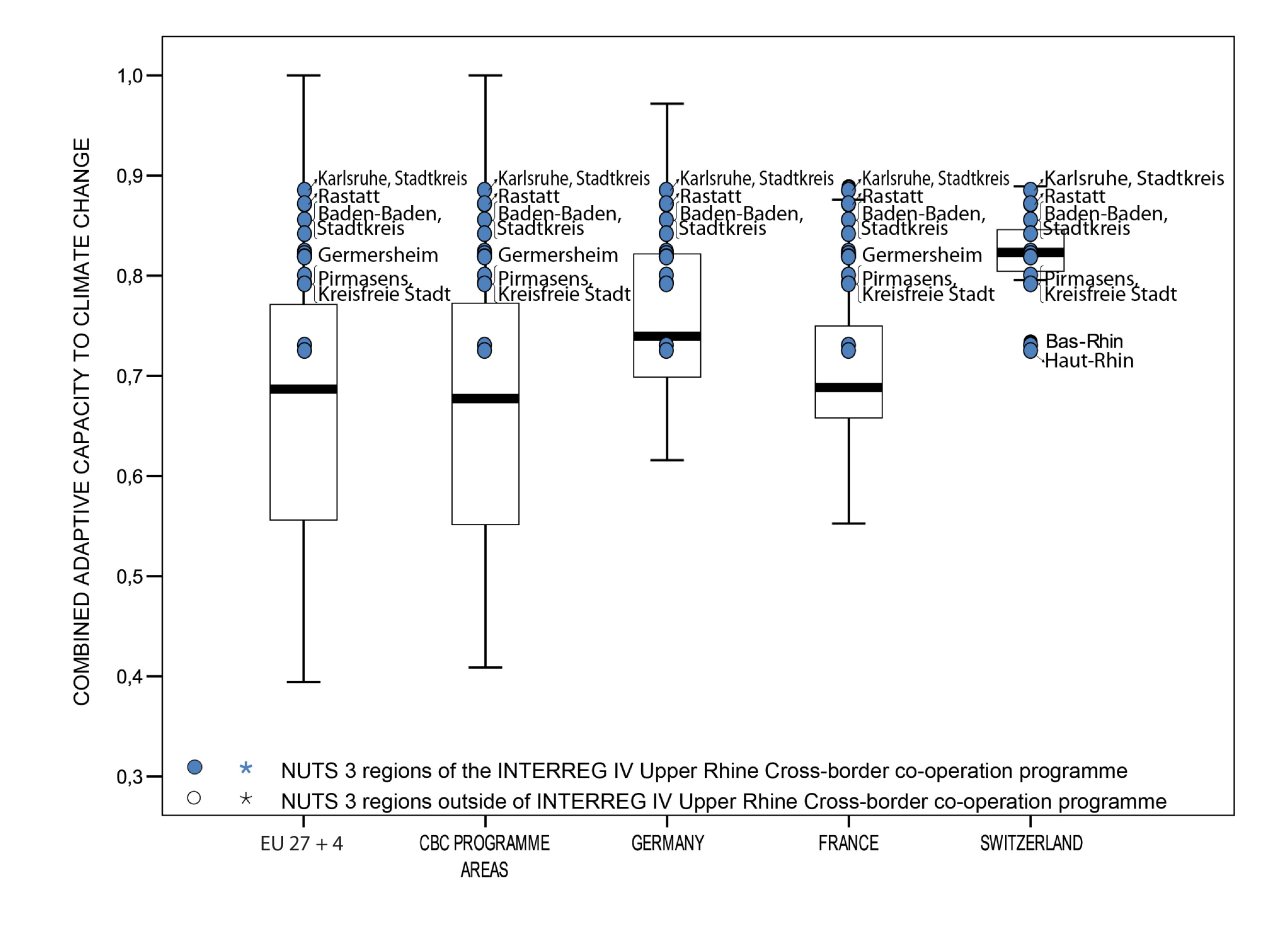
Directive 11 has no impact on fossil fuel consumption on the French side of the border (MAP 2) and in the Southern German NUTS3 border-regions, whereas it is estimated to have a minor impact in the Northern German regions (there is no data available for Switzerland).

**MAP 2 - Territorial impact on fossil fuel consumption of Directive on the promotion of clean and energy-efficient road transport vehicles (ESPON ARTS project) for the CBC Upper Rhine**



**BOX-PLOT 1 – Combined adaptive capacity to climate change (ESPON CLIMATE project) for the CBC Upper Rhine**

*“Adaptive capacity (adaptability)” to climate change indicates the ability or potential of a system to respond successfully to climate change and variability, and includes adjustments in behaviour, resources and technologies.*



### *How to read the box-plots?*

*The box-plot is a statistical and mathematical tool used to visualize numerical data sets and to compare its statistical distribution.*

*Because it is used in exploratory analysis of databases, this representation is sensitive to the quality of the central value selected to explain the symmetry, shape and distribution variability. In the case of a box-plot, the most used central value is the median, because it has the quality of sectioning the data string into two halves, so that 50% of the cases will be above the central value and the other half will be below it. Since the purpose of the representation is to highlight outliers’ behavior, it uses a box that encompasses half of the cases, i.e. values that are in the range defined by the percentile of 25% and 75%. If a region has a value in this box then it can be considered that it has, according to the variable in question, a situation close to the average behavior of all regions analyzed.*

*When a region consistently deviates from the average profile of the analyzed territorial context, this behavior will be noted in the chart only when certain thresholds of statistical tolerances are exceeded, this being pointed in the diagram with segments perpendicular to the middle box, segments called the "whiskers".*

### Inclusive growth

Inclusive growth refers to fostering a high-employment economy delivering social and territorial cohesion. Within the Europe 2020 Strategy it means raising Europe’s employment rate, helping people of all ages anticipate and manage change through investment in skills & training, modernising labour markets and welfare systems, and ensuring the benefits of growth reach all parts of the EU. In short the key factors are employment and avoiding risk of poverty and social exclusion.

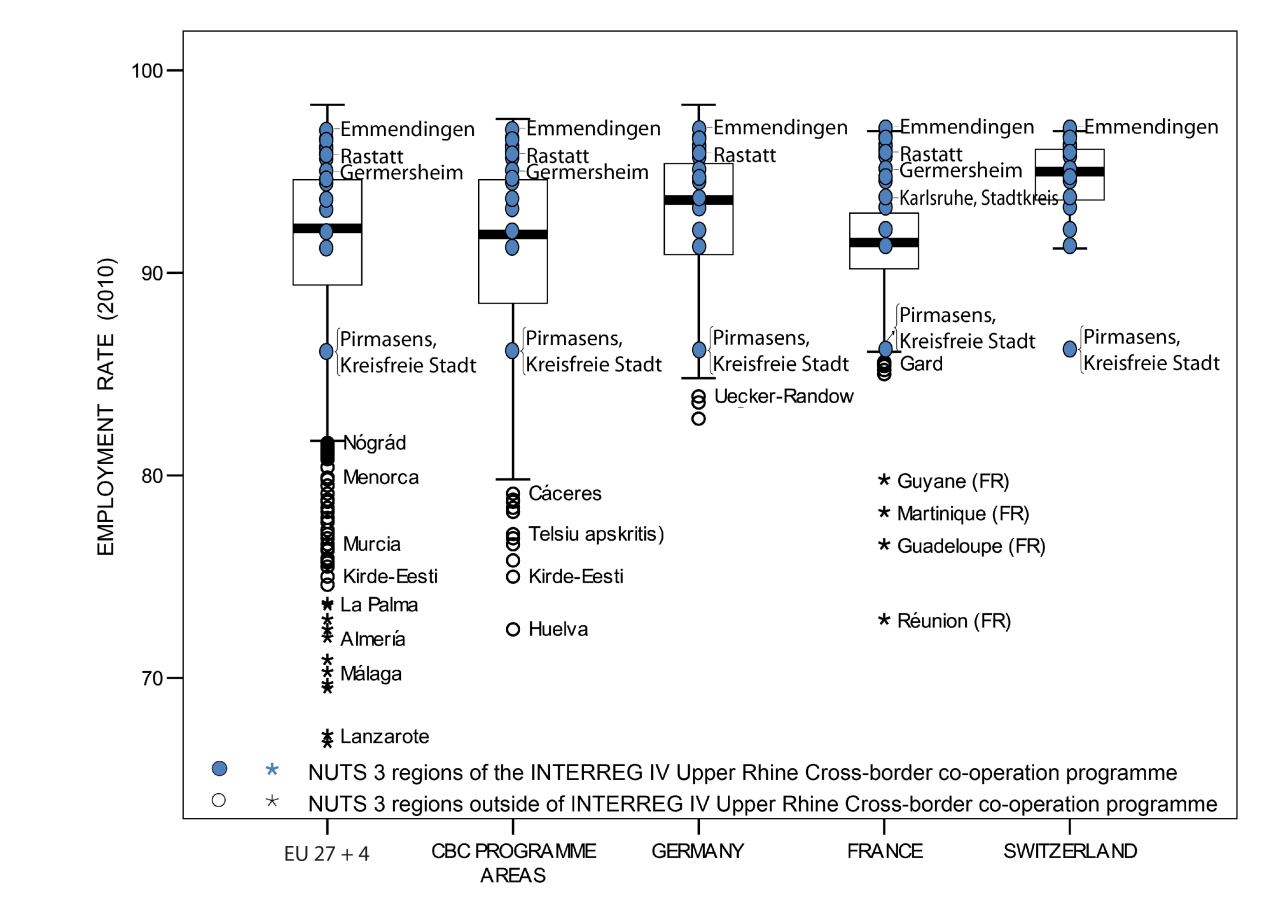
Looking at the selected indicators, it can generally be stated that the CBC area Upper Rhine benefits from a strong employment situation in both the European and national contexts. The long-term unemployment rate is generally very low (while it is slightly higher than that of Switzerland). The rate of people at risk of poverty is also low compared to other European and national regions. At the same time, the percentage of persons aged 25-64 and 20-24 with upper secondary or tertiary education is high when compared to the relevant European and national medians (and only slightly lower than in Germany and Switzerland). Similarly, the employment rates (described in BOX-PLOT 2) of the NUTS3 regions of the CBC area are either close to or higher than the median value of the EU-27+4, of all CBC regions and the relevant national values. Only the German NUTS3 region of Pirmasens, Kreisfreie Stadt has a relatively low employment rate.

To further explore the role of policies the ESPON project DEMIFER has developed four scenarios to show how various policy bundles can lead to different trajectories of developments in population and labour force. On the German side of the border, all scenarios predict significant labour force reductions. The changes foreseen for the border regions of France and Switzerland are mixed: the ‘Growing Social Europe’ and ‘Expanding Market Europe’ scenarios predict minor increase in the labour force in the French border-regions and minor negative to high-level positive changes on the Swiss border, while the ‘Limited Social Europe’ and ‘Challenged Market Europe’ scenarios predict labour force reductions by 2050.

**MAP 3 – Change in Labour Force 2005-2050 (ESPON DEMIFER project) for the CBC Upper Rhine**



**BOX-PLOT 2 – Employment rate 2010 within the CBC Upper Rhine**



*(see “How to read the box-plots?” on page 8)*

# Territorial factors of interest for the programme area

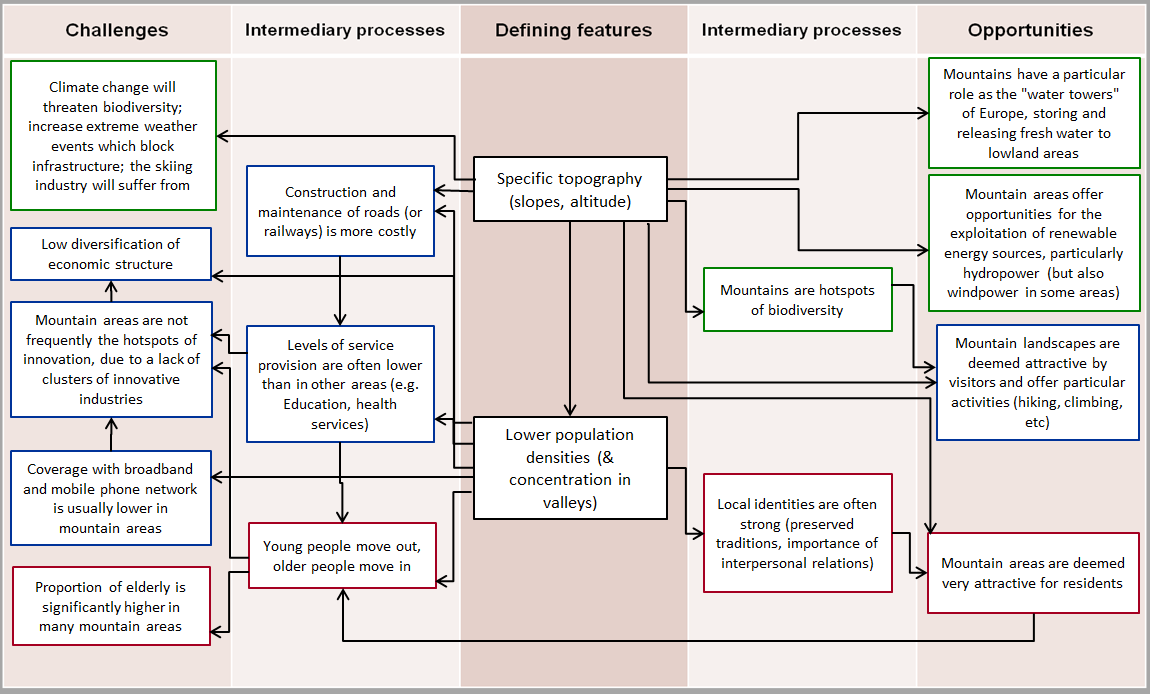
Territorial cooperation programmes can make a difference for the future development of cross-border and transnational territories in Europe. Some of the factors can be analysed by European wide data sets and using some studies having specific maps, figures and tables concerning the areas of the cooperation region.

In a European perspective the programme area comprises mainly intermediate regions close to city, some rural regions, and some urban areas. The main urban centres in the programme area are Karlsruhe, Strasbourg and Freiburg. However, there are also various smaller cities in the area. Furthermore, some urban areas of European importance are in close proximity to the area, such as Mannheim/Heidelberg, Stuttgart, Basel and Bern. This implies that the programme area, compared to many other cross-border areas, can benefit from good access to several European Metropolitan Growth Areas.

This concerns both the access to services and infrastructure. Most parts of the programme area have above average European accessibility and some areas around the urban centres have well above average European accessibility. The larger urban centres offer furthermore good opportunities for one-day business trips within the European urban network. Most parts of the programme area have above average border-crossings per 100 km border, which also supports the development of cross-border functional areas.

The mainly intermediate character with large number of smaller urban centres comprises a range of development opportunities and challenges. In European perspective the large parts of the programme area belong to the Central European Middle Mountains. ESPON GEOSPECS has developed a nexus model for mountainous regions linking defining features via intermediary process to development challenges and opportunities (see figure). This model can be of interest for further developing the discussion about the challenges and opportunities in the programme area. There is also an extensive analysis of the Upper-Rhine Region as one of the main focus areas of ESPON METROBORDER.

ESPON GEOSPECS PROJECT – FINAL REPORT, PAGE 102:  
Nexus model for mountain areas



**MAP 4 – Urban-rural typology of NUTS3 regions including remoteness (DG Regio) for the CBC Upper Rhine**



*(Accessible=close to a city)*

**MAP 5 – Multimodal accessibilty (ESPON Accessibility Update) for the CBC Upper Rhine**

*“Potential Accessibility Multimodal” scores accessibility of NUTS 3 regions by road, rail and air relative to the European average in an Accessibility Index.*



# Recommended ESPON reading

ESPON provides an essential underpinning for translating into practice the calls for integrated and place-based approaches to economic development, when analysing a programme area or deciding about future programme priorities. ESPON has published a wide range of exciting reports providing valuable territorial evidence for future territorial cooperation initiatives.

The table below shows examples of relevant projects for the Cooperation Region. However, you have to study other ESPON reports as well in order to capitalise fully on the European information available for the cross-border programming.

|  |  |  |
| --- | --- | --- |
| **ESPON study** | **Topic** | **Content** |
| EDORA | Rural areas | It provides evidence on the development opportunities of diverse types of European rural areas and reveals competitiveness options (see maps in Appendix 1). |
| CLIMATE | Climate change | It analyses how and to which degree climate change will impact on the competitiveness and cohesion of European regions and Europe as a whole (see from map 1 to 23). |
| TIPTAP | Territorial impact assessment | It provides a tool for the ex-ante assessment of territorial impacts of policies to deliver evidence on the territorial impact of policies (see from map 2.3.1 to 2.3.9). |
| CAEE | Agglomerati-on economies | It aims at a better understanding of the economic costs and benefits of large urban agglomerations (see figure 1). |
| TRANSMEC | European cooperation | It develops a method providing guidance on how ESPON results can add value to support territorial cooperation programmes (see map 27 and from map 36 to 39). |
| SEMIGRA | Rural migration | It identifies the main reasons and consequences of selective migration in rural regions in order to develop strategies for territorial development (see map 1, 4 and 5). |
| KIT | Innovation | It describes patterns and potentials of regions in terms of knowledge and innovation economy and explores development opportunities (see from map 3.1.1 to 4.4.1). |
| SGPTD | Growth poles | It provides evidence about performance and roles of European secondary cities (see from figure 2 to 2.12). |
| METROBOR-DER | Metropolitan regions | It identifies governance practices for polycentric cross-border metropolitan regions in Europe, in particular for the Upper Rhine area (see maps 3, 6, 12, 15, 17, 23, 30). |

Furthermore, some of overall ESPON products of particular interest for territorial cooperation are:

* **ESPON Synthesis report** “new evidence on smart, sustainable and inclusive territories” provides an easy to read overview on ESPON results available.
* **ESPON Territorial Observations** is a publication series, which on a few pages presents policy relevant findings deriving from latest ESPON research.
* **ESPON 2013 Database** provides regional information provided by [ESPON projects](http://www.espon.eu/main/Menu_Projects/) and [EUROSTAT](http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home).
* **ESPON Hyperaltas** allows comparing and analysing a region’s relative position at European, national and local scale for a wide range of criteria.
* **ESPON MapFinder** provides access to the most relevant ESPON maps resulting from ESPON projects and reports.
* **ESPON Typologies** provides nine regional typologies for additional analysis of regional data to be considered in the European context.

All ESPON reports and tools are freely available at  
**www.espon.eu**



The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.