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## **METROBORDER**

**Cross-border Polycentric Metropolitan regions**

Targeted Analysis 2013/2/3

Draft Final Report



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## **A Executive summary**

### **1 Analytical part**

#### **Mapping 'CBPMRs'**

The METROBORDER project addresses cross-border metropolitan polycentric regions (CBPMR) in Europe. The aim of the project is to map them, to better understand their functioning and to explore paths of how to (better) use their potentials.

The notion of CBPMR brings together several complex dimensions, in particular 'polycentricity' and 'metropolitan quality'. Moreover, a series of questions related to functional and institutional integration as well as to governance have to be addressed.

In this context the Metroborder project understands CBPMRs

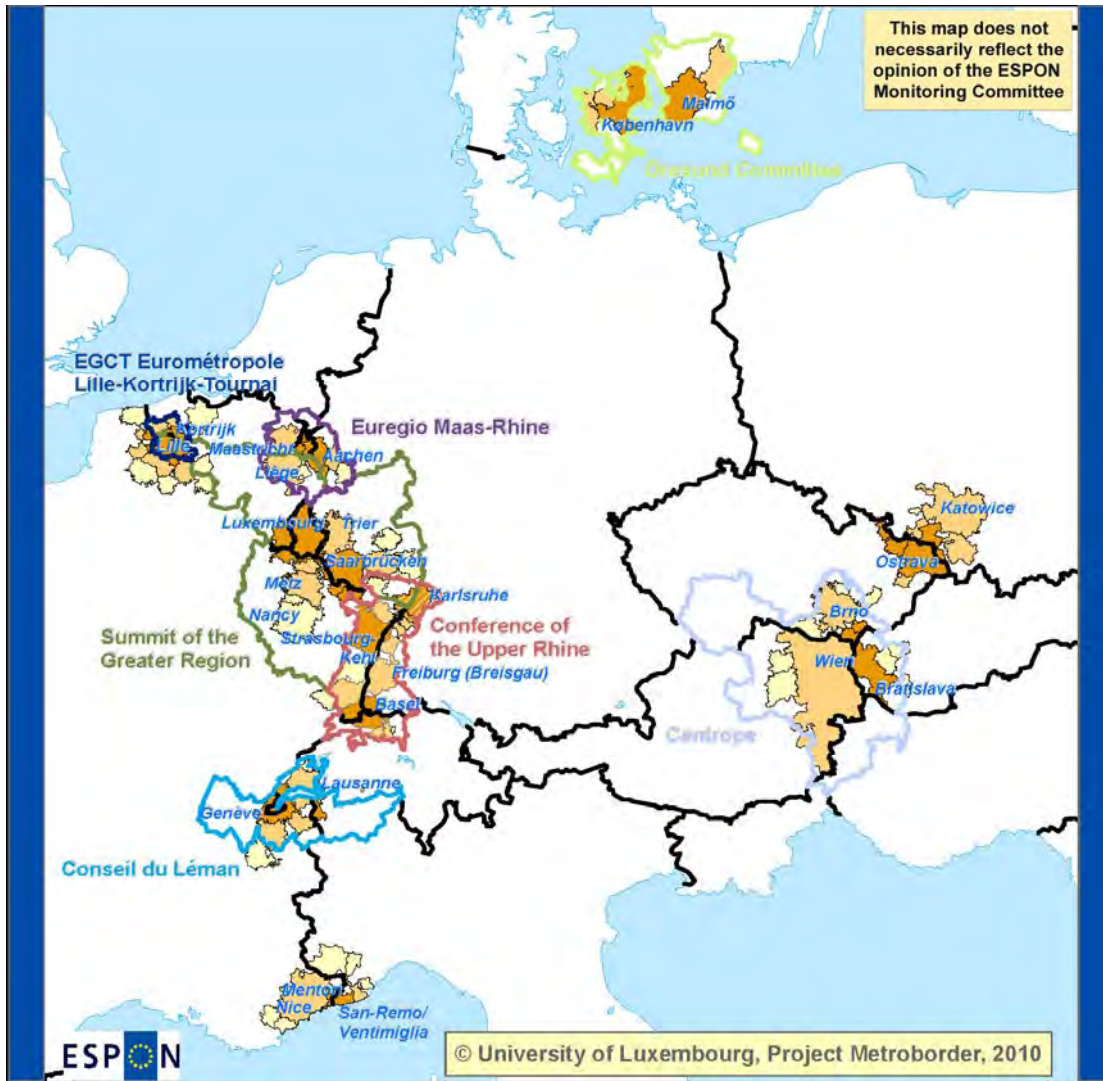
*as political constructions based on cross-border agreements and which consider the existence of national borders as a resource for increasing interactions at the local level and the embeddedness of the metropolitan centre in global networks. Because CBPMR are composed of several urban centres located on both sides of the border, these regional political initiatives can mobilise different geographical scales in order to enhance the potential of morphological or functional polycentricity.*

In order to explore and compare the CBPMRs on a European level, the project is to a large extent based on the ESPON category of Functional Urban Areas (FUAs). Considering the polycentric character, a system of neighbouring and surrounding FUAs has been developed (cp. Map 1). This way of mapping does not intend to give final delimitations but gives a territorial framework for comparative analysis.

#### **The metropolitan dimension**

The aspect of metropolitan quality has been explored by using different approaches, comprising the GaWC-approach (Globalization and World City Research Network 2008), the Functional Indicator from a previous ESPON project (project 1.4.3, 2007) and from the ongoing FOCl project (in particular the economic indicators developed by the University of Lausanne).










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0 50 100 200 300 Km

Level: FUA  
 Source: ESPON Data Base, IGEAT, FOCI, 2010  
 Origin of Data: ESPON Data Base, IGEAT, FOCI, 2010  
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- 'Functional Urban Areas' (FUA)
-  Core FUA
  -  Neighboring FUA of the core FUA
  -  Surrounding FUA of the neighboring FUA
  -  National borders

**Map 1** The Functional Urban Areas (FUAs) of the CBPMRs

In general terms, CBPMRs are localised 'in the shadow' of the most prominent and internationally renowned metropolitan regions such as Randstad, Rhine-Ruhr, Frankfurt-Rhine-Main, Zürich, Milan or Paris ("Pentagon"). Several of the CBPMRs show a considerable metropolitan quality (e.g. Wien, København), even if it is always restricted to selected subspaces of it (which is, in general terms, also true for non cross-border metropolises). The different centres of the CBPMR systems are not 'similar' partners in terms of metropolitan quality, but they are complementary parts of a complex setting.

In other cases, the overall metropolitan visibility is rather low, even if we find strong functional urban areas (e.g. Aachen-Liège-Maastricht or Katowice-Ostrava).

Considering the demographic weight or the connectivity indicates a certain vulnerability of the metropolitan quality: the 'critical mass' is a challenge for many of the CBPMRs. Cooperating in a cross-border manner is an indispensable strategy to ensure and foster their position, especially in the two case study regions of the Upper Rhine and Greater Region.

### **Functional integration**

The Metroborder project has explored the question of functional integration by considering a series of indicators, namely cross-border commuting, public transport, the similarity of GDP per capita and the residents' citizenship. The results for these indicators show a high diversity amongst the cases – there is not *'the typical CBPMR'*.

The results suggest that the presence of a knowledge-intensive economy driven by an international financial centre (Luxembourg, Genève, Monaco) and/or high-tech activities (Basel) is a crucial factor explaining the intensity of cross-border employment in Europe.

The most prominent commuting areas (Luxembourg, Basel and Genève) are also prominent with regard to their metropolitan quality, and they do not have absolute language barriers as Luxembourg and Switzerland can function as 'linguistic bridge'.

The lack of economic flow data in cross-border regions on a European scale was partly compensated by a study of the automotive industry in the Greater Region. The results show a solid presence of the automotive sector in all subregions, but little cross-border linkages between the different players. Almost in parallel, the diverse cluster initiatives and support initiatives are mostly focussed on the domestic level. The potential to exploit appears to be large.

With regard to social aspects, the added value of cross-border cooperation was

addressed in the framework of the feasibility study with regard to emergency services. The study provides a framework for analysing the accessibility in a promising way that could reveal very concrete options for political action.

## **Governance**

Governance and the institutional integration of the CBPMR setting has been a major aspect of the METROBORDER research, too.

A variety of tools of 'institutional mapping' has shown that the diversity of governance settings within the European CBPMRs is enormous. Both with regard to the territorial/thematic focus and with regard to the governance forms, the diversity does not indicate clear trends. An intensified exchange amongst the CBPMRs bears obvious potentials.

"Geography matters" in these fields: defining and concretising a perimeter of action is a sensitive topic. In particular, the differentiation between institutional perimeter and the political focus can be crucial. Further aspects of particular sensitivity when setting up CBPMR governance, are the involvement of the municipal actors, as well as the economic actors, and the possible delegation of competences to a stable 'supra-regional' institution.

The overall challenge to overcome is the 'multi-level-mismatch', i.e., the asymmetric organisation of competences on different political and administrative levels on either side of the border.

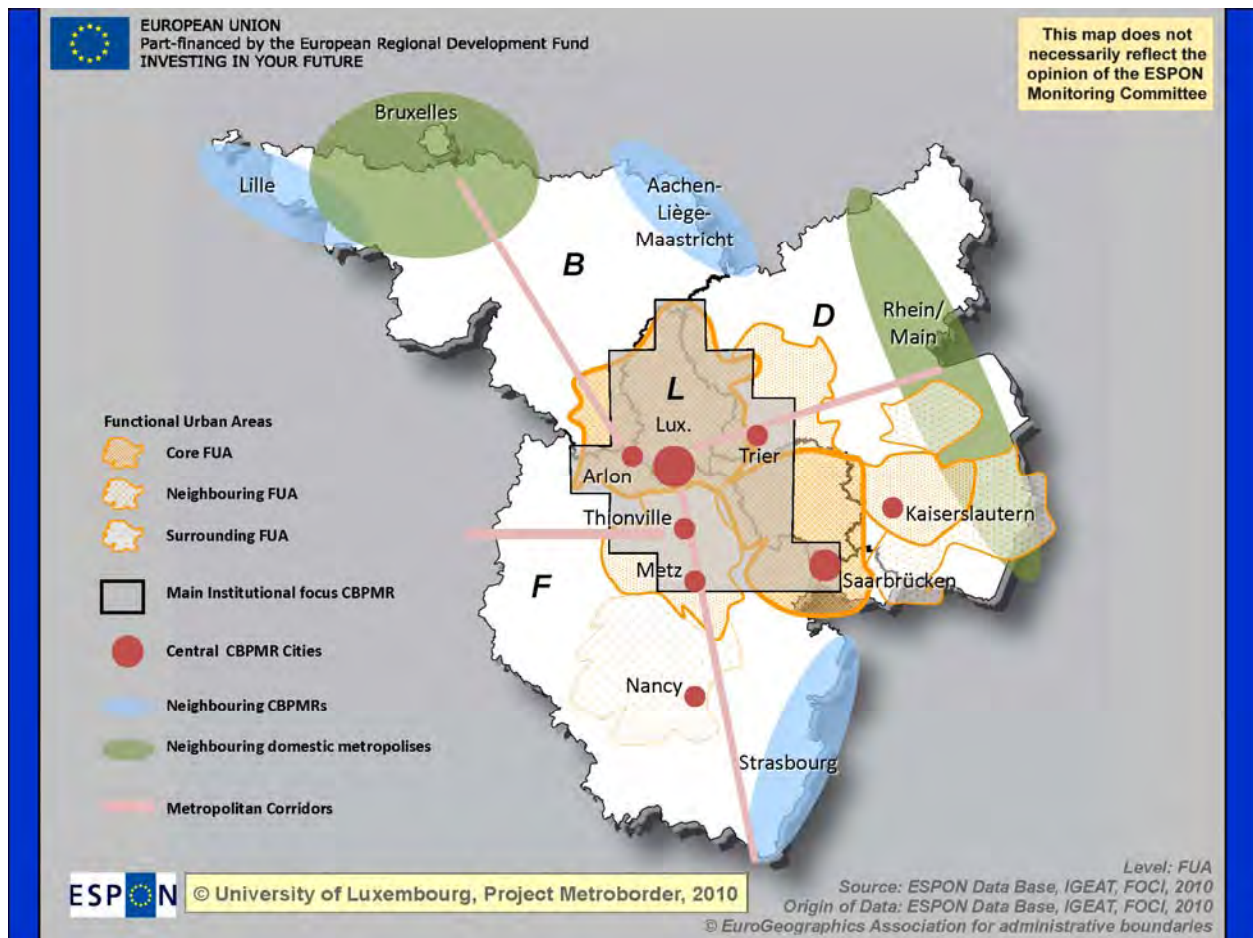
## **Conclusions for the case study regions**

The METROBORDER project not only explores the CBPMRs on the European level but also studies two case study regions in more details. A comprehensive overview for both of them can be found in chapter 18 (Upper Rhine) and chapter 19 (Greater Region).

For both case study regions, the political vision of using the potentials of being a 'CBPMR' finds good arguments in the scientific analysis of the METROBORDER project. Both regions show a particular setting as they bring together three (Upper Rhine) or even four (Greater Region) national backgrounds. Their functional integration is – in some of their sub-spaces – outstanding on the European scale, and the political will for cross-border cooperation is considerable. In both regions, safeguarding the critical mass is an ongoing challenge. With regard to the CBPMR vision, both regions do not have many convincing alternatives: they are, de facto, CBPMRs and they have to exploit the respective potentials.

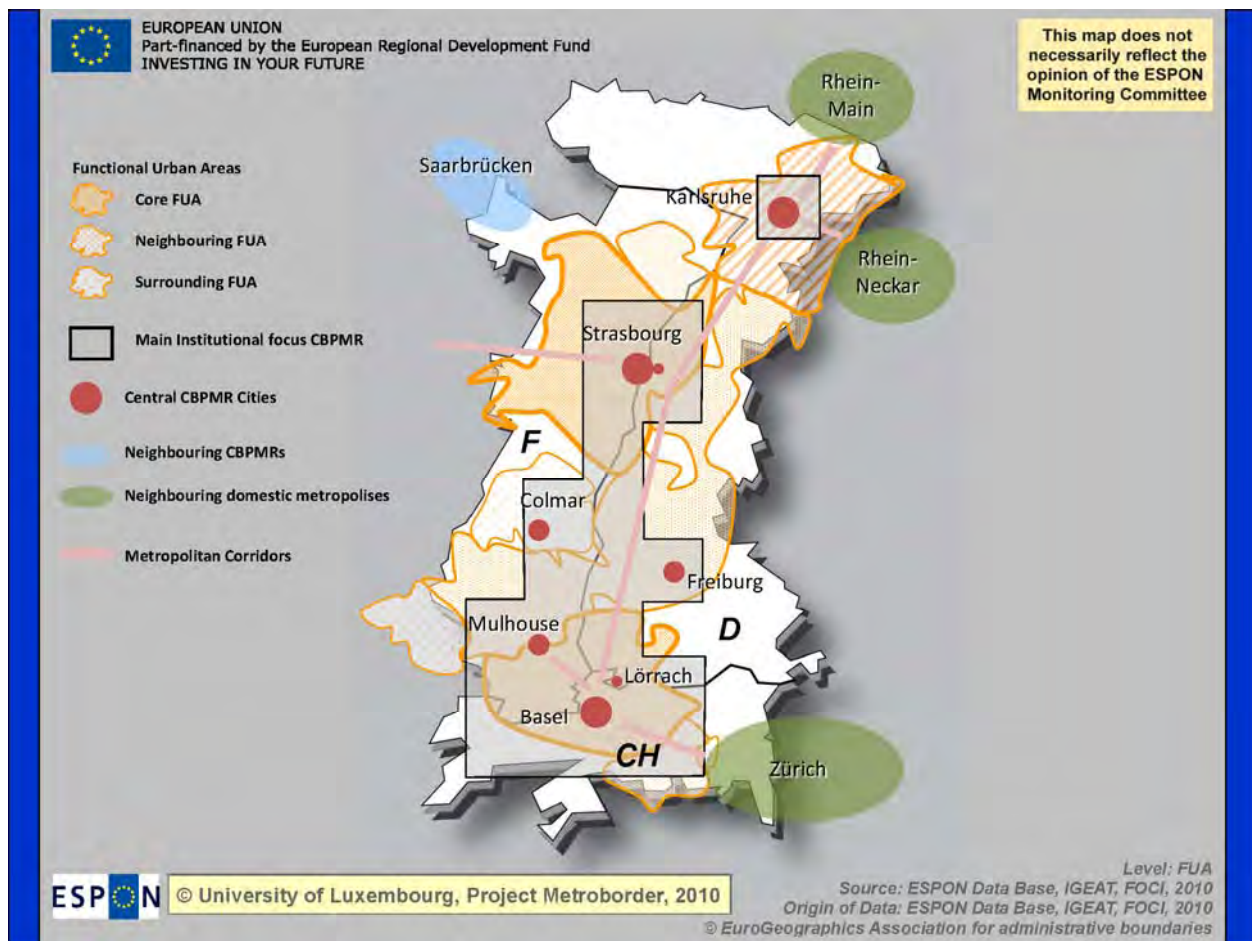
The **Greater Region** shows a clear demographic and morphological polycentricity that is the basis for the overall functioning of the region. In several dimensions, Luxembourg and Saarbrücken make up a bipolar structure, being complemented by a series of domestic centres on each side of the borders (see Map 2). In terms of metropolitan relevance, the functional urban area of Luxembourg takes an outstanding position.

The extraordinary functional integration not only has spill-over effects but also paves the way for the future development potentials. The size of the urban centres and the overall 'critical mass' of the metropolitan setting contrast with the metropolitan visibility on the European map. Ensuring and enforcing this potential is a challenge that none of the partners will be able to meet on his own. Major shortcomings with regard to transport performance, exploiting the potentials of spatial planning and stronger governance tools are the main points on the agenda.



**Map 2** 'CBPMR Greater Region': schematic synthesis map of METROBORDER results

The **Upper Rhine**, too, shows a clear polycentricity with its major cross-border FUAs Basel, Strasbourg, and to a certain extent, Karlsruhe. The overall spatial setting is more a linear form than the concentric setting of the Greater Region. Basel is the most metropolitan spot in the Upper Rhine, but the other FUAs are in particular from a demographic point of view on a similar level (see Map 3). The challenge now is to redirect its cross-border governance into more efficient forms, and to concretise what the main objectives of the metropolitan project are about. As in the Greater region, transport issues and spatial planning play an important role.



**Map 3** 'CBPMR Upper Rhine': schematic synthesis map of METROBORDER results

## 2 Options for policy development

The analysed CBPMRs on the European level differ largely with regard to their territorial setting and cooperation forms. This is partly due to their differing spatial and political settings, and thus, there cannot be a “one-size-fits-all” model that



could bring all of them forward. However, some general conclusions can be drawn.

Metropolitan projects are currently developed dynamically in most of the CBPMRs. Only in Nice-Monaco-Sanremo and in Katowice-Ostrava are there no cooperative projects with metropolitan ambitions existing. This fact might give reason to reflect on the potentials of such cooperation in these cases, too.

For all those regions that are currently involved in establishing metropolitan projects, the institutional settings differ largely. For example, the EGTCs (European Groupings of Territorial Cooperation) and Eurodistricts play a different role in different regions, while the exchange between these regions mostly takes place on an informal basis, if at all. An enhanced exchange on the question of how CBPMR governance could or should be developed is in demand. The meeting of the Metroborder consultation committee meeting in March 2010 – bringing together representatives from different CBPMRs – was a first step in that regard.

From the Delphi study in the two case study regions, we know that the role of the EU support through governance tools, but also financial funding is seen as important for CBPMRs ambitions.

Also from the Delphi study – and from selective interviews with representatives from other CBPMRs – we conclude that the current situation has to be regarded as window of opportunity: The political consensus in the case study regions is large, and the concept fits the general paradigms the EU regional policy.

Within the two METROBORDER case study regions Greater Region and Upper Rhine, the process of strategy building is currently ongoing: Within the Greater Region, the policy options debated at the moment in particular political dimensions ('economic metropolis', 'mobile region, and 'laboratory of Europe'), and specific policy actions are debated, amongst them a territorial observatory and a strong political EGTC. Currently in the Upper Rhine, the Trinational Metropolitan Region Upper Rhine is institutionalised. The most pressing questions are how to modify and simplify the governance structures. Three models have been developed and discussed in order to achieve a more efficient overall structure of the Upper Rhine, serving the overall objectives of the Trinational Metropolitan Region.

### 3 Need for further analysis/research

Despite the fact that cross-border cooperation in Europe can look back on decades of experience, the data situation is still not satisfactory. This is true for many trans-regional and transnational constellations. This lack is due to different statistical and administrative contexts and is well known for example with regard to differences within the NUTS system.

Beyond this general setting, there are some cross-border specific issues that are hardly addressed in a transnational/-regional way. For example, language issues are always named as one of the most pressing bottle-necks in cross-border cooperation, but there is hardly any data available on the linguistic competences of territories.

Against this background, the METROBORDER project had to address an ambitious project specification: the newly establishing political vision of CBPMRs results in many questions, yet are faced with a poor data situation. This situation was the more difficult as the ESPON programme has not yet conducted a more general research project on cross-border questions. The idea of priority 2 (“targeted analysis”) is to zoom into existing ESPON data – which turned out to be a challenge. The project, therefore, mostly zooms into projects that brought helpful data at the domestic level which could be analysed in regard to cross-border questions.

In addition, existing data from the involved research institutions of the METROBORDER project were taken into account. New empirical work was conducted, delivering new data and new interpretations (in particular with regard to governance, functional integration and economic linkages).

Just to name two of the most pressing data and research shortcomings:

First, the data on the economy is not satisfactory. This is the more sensitive as economic arguments play a crucial role in political processes. Currently we can describe the situation on either side of the border, but the linkages between the different settings are hardly explored: It would be helpful to have *flow data* that would allow to analyse cross-border supply chains on the regional level, in specific sectors, and of the intra- and inter-regional linkages.

Second, the notion of polycentricity is already from a domestic or European perspective challenging as the concept can be understood in very different ways. The METROBORDER results show morphological, demographic, metropolitan and functional polycentricity by using available indicators. Because most of these data are only available for one point of time, a temporal trend cannot be comprehensively developed. While we can describe that cross-border integration

plays an important role in the overall functioning, but we can hardly detail the causalities.

The METROBORDER approach would profit from the above mentioned flow data, but also from further conceptual clarification that merits a research project of more fundamental research than an ESPON priority-2-project.



## **B Main Report**

### **1 Introduction: Focusing on “CBPMRs”**

The METROBORDER project aims to study “cross-border polycentric metropolitan regions” (CBPMRs) by exploring both their external positioning and their internal organisation, and both their functional and their institutional dimensions. As part of ESPON priority 2 (“targeted analysis”), its purpose is to respond to political questions from the project stakeholders by zooming into existing ESPON data, and in part complementing these with further research and external data.

The study of CBPMRs must take into account the context of European regional policy, with intensive discussion of cohesion policy and the way in which the “Europe 2020” strategy can achieve success by providing support to the regions. Attention must also be given in this regard to the political processes dealing with the updating of the Territorial Agenda. Cross-border regions play a special role in the discussion of how to develop regional policy and how to concretise cohesion policy: the position of cross-border regions as former peripheral regions means they are an important focus of action for movement towards a prosperous Europe with reduced socio-economic imbalances.

Whilst studying CBPMRs, the METROBORDER project addresses two major dimensions: Firstly, the external perspective positions CBPMRs on a European scale as cross-border regions that compete with other metropolises, whether cross-border or domestic. Secondly, their internal perspective examines the internal features and interconnections of the CBPMRs.

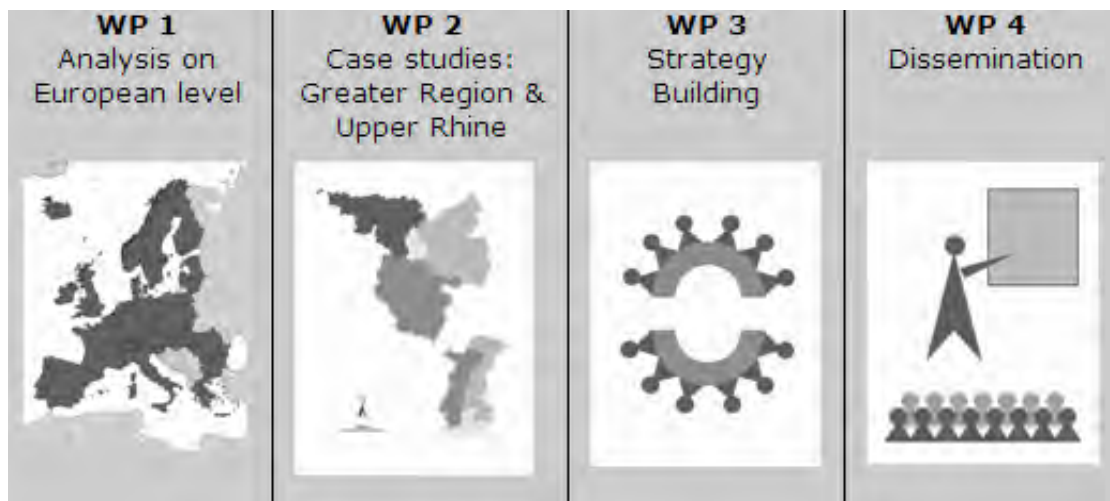
The METROBORDER project’s aim of studying cross-border metropolitan polycentric regions means that it must deal with a range of complex notions. Polycentricity has developed as an umbrella term in both analytical and political contexts. In all definitions, the hierarchical relations between the different centres and the spatial units in question both play a crucial role. Polycentricity is an overriding concern of the project, addressed in particular in chapter 2. The metropolitan dimension of cities and regions has become almost paradigmatic, but conceptual clarification is far from complete. Chapter 3 will explore this dimension, taking primarily an external perspective. Cross-border regions, too, have been the subject of countless studies, although the quantitative data side remains a major challenge – hardly any cross-border flow data is available. Chapter 4 will address this dimension, focusing in particular on the question of functional integration (internal perspective). Chapter 5 will focus on governance issues and institutional integration. Chapters 18 and 0

summarise the METROBORDER results for the case study regions and suggest directions for future political strategies.

Not only are the various dimensions of the METROBORDER project complex on their own; in addition, their combination in the form of CBPMRs constitutes a new form of territorial research which has not yet developed solid definitions. In this context, the METROBORDER project is based on a following theoretical understanding of CBPMRs which sees these:

*as political constructions based on cross-border agreements and which consider the existence of national borders as a resource for increasing interactions at the local level and the embeddedness of the metropolitan centre in global networks. Because CBPMRs are composed of several urban centres located on either side of a border, these regional political initiatives can mobilise different geographical scales in order to enhance the potential of morphological or functional polycentricity.*

This definition brings together a political/institutional and a functional/socio-economic dimension; these must thus both be addressed throughout the project. The research of the METROBORDER ESPON project is organised in work packages (see Fig. 1). The presentation of the Report, however, will not follow this structure chronologically but will instead present results following the main dimensions of the CBPMRs, mostly starting with at European level (WP 1) and then, when possible and useful, focus in greater detail on the two case studies of the Greater Region and the Upper Rhine.



**Fig. 1** Work package structure of the METROBORDER project

This Draft Final Report (DFR) adheres to the limits of 50 pages set by the ESPON programme, including maps and graphics. This renders the report accessible for non-scientific purposes; however, it also means that not all arguments and methodologies can be presented in a comprehensive manner. Therefore, the authors of this report wish to emphasise the importance of the scientific appendix, to which we regularly make reference. Amongst others, the report comprises more detailed summarising chapters for both of the case study regions (see chapters 18 and 19).

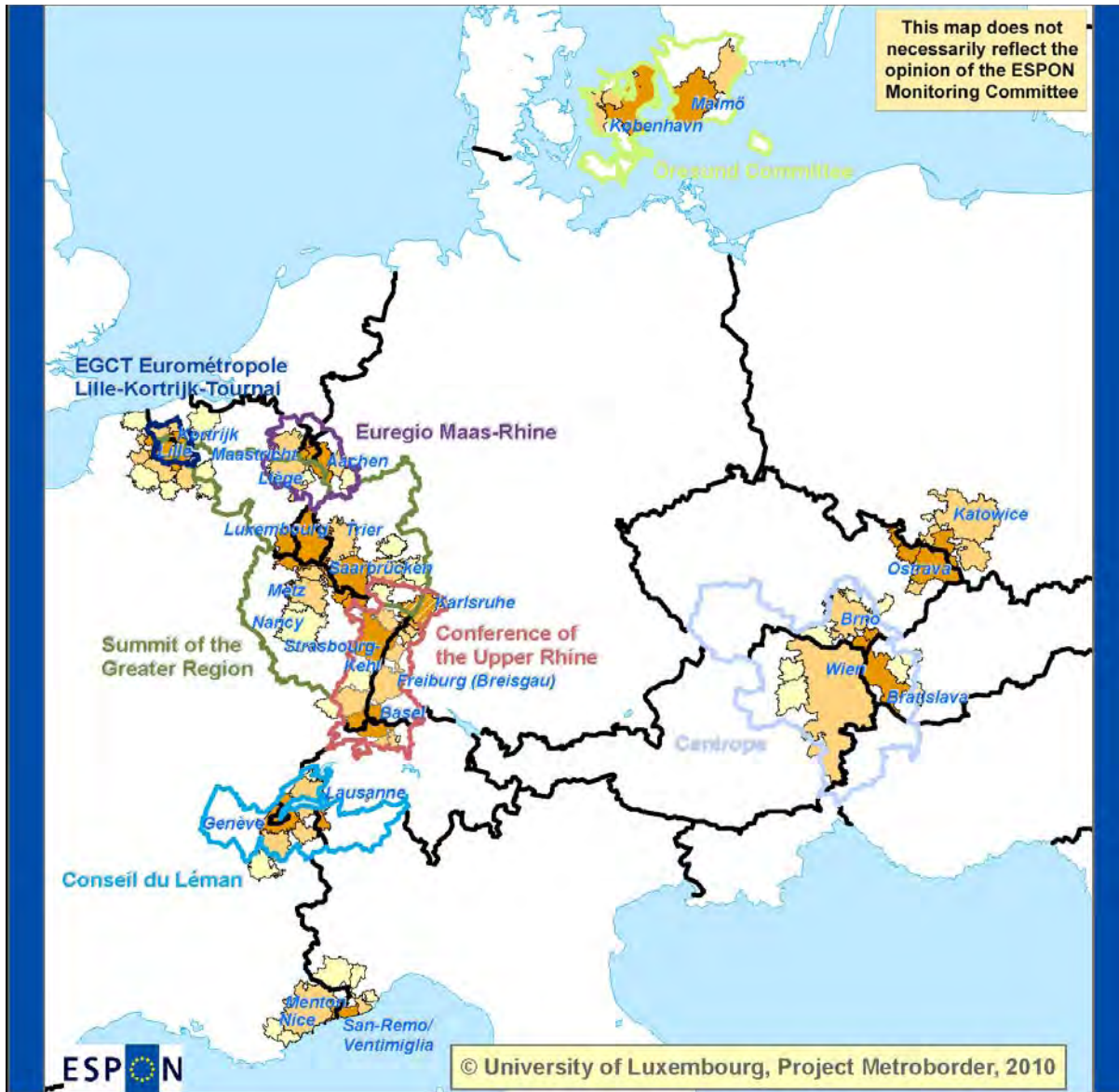
## **2 Spatial configuration of CBPMRs**

### **2.1 European scale**

Given the complexity of the CBPMR-contexts and the current political dynamics of the cross-border cooperation, the METROBORDER project cannot give final spatial delimitations and definitions of the different regions concerned within Europe. Instead, we will approach the different dimensions of the CBPMRs in different ways.

As a first step, we map the general spatial context of the CBPMR (Map 4). Each CBPMR has a cross-border core area that was already identified in the framework of the previous ESPON project 1.4.3. These core areas are defined on the scale of Functional Urban Areas (FUAs), and thus on a local scale. Functional Urban Areas are a crucial analytical concept for the ESPON programme and are defined primarily by commuter flow data at the local level. The precise delimitation of the FUA is associated with the threshold of 10% of the occupied of the active population commuting to the central Morphological Urban Area (MUA). These MUAs are defined as densely built and inhabited urban areas (details in appendix, chapter 7).

The status of cross-border FUA implies that an area is above a certain threshold in terms of cross-border metropolitan quality, sharing this status with only 10 other places in Europe.




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

Level: FUA

Source: ESPON Data Base, IGEAT, FOCI, 2010

Origin of Data: ESPON Data Base, IGEAT, FOCI, 2010

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'Functional Urban Areas' (FUA)

-  Core FUA
-  Neighboring FUA of the core FUA
-  Surrounding FUA of the neighboring FUA
-  National borders

**Map 4** The Functional Urban Areas (FUAs) of the CBPMRs

The METROBORDER project then takes a 'scale jump' from the local to the regional level and considers more than these starting points – for two reasons: Firstly, functional integration and dependencies on superior levels must be seen as crucial, especially in the context of metropolisation. Secondly, the political will in cross-border cooperation has in recent years more and more stressed the regional level. The cooperation of the Greater Region and the Upper Rhine are just two examples of this trend. The jump in scale allows an examination of polycentricity at the regional level.

Hence, the adjacent ("neighbouring") FUAs are included, as well as the "surrounding" FUAs, adjacent to the latter ones. The criteria of being adjacent must not be understood as a de-facto cross-border interaction but rather as granting a potential for cross-border interactions in the future.

Furthermore, Map 4 shows the institutional perimeter of the most relevant cross-border cooperations, when these demonstrate some metropolitan ambition (which is not the case for Nice-Monaco-Sanremo and Katowice-Ostrava; for details, see chapter 5.1).

Map 4 serves as a framework for more detailed investigations throughout the project. It neither intends to give a final definition of CBPMRs, nor does it aim to provide a 'correct' perimeter of political action. The purpose is limited to the comparison of the overall spatial setting, leaving a broad scope for political and functional arguments.

Before going into greater detail concerning the particular regions and their characteristics, we can draw some conclusions already from this European mapping:

Today, after more than 50 years of European integration and 25 years of the Schengen Agreement, we see a series of CBPMRs which have profited greatly from border liberalisation. However, their location on the European map relates to the broader European history. We see a striking concentration of CBPMRs along the 'border' between *Romania* and *Germania*, i.e. through the Benelux-French-German-Swiss areas. In these areas, the longstanding struggle for stable political configurations is reflected in the relatively high population densities and in the cultural and linguistic interactions.

The case of Wien-Bratislava is not part of this context, but once again, the longstanding joint history is again of relevance, only a few years after the fall of the iron curtain. In the case of Katowice-Ostrava, two transformation states are involved, and the case of Copenhagen-Malmö is a case of its own as it is today linked by a tunnel-bridge construction.

## 2.2 Greater Region

If we focus on the Greater Region, we have to consider two starting points or 'core FUAs' that have been identified as metropolitan cross-border FUAs in the ESPON project 1.4.3. – Luxembourg and Saarbrücken (see Map 5). Both are within the institutional perimeter of the "Summit of the Executives of the Greater Region" regional cooperation project. In the following chapters we will explore different dimensions of the complex spatial setting. At this point we can provide the following outline of the situation:

The Functional Urban area of Luxembourg comprises the urban centres of Luxembourg and Esch-sur-Alzette on the Luxembourgian side, Arlon on the Belgian side and some smaller settlements on the French side. The inclusion of the whole of the country of Luxembourg must not be misunderstood as implying that it is all 'metropolitan' in nature. However, even the highly rural municipalities in the north of the country meet the criterion of 10% of the active population working in the metropolitan centre of the FUA.

The FUAs of Luxembourg and Saarbrücken are to a slight degree in direct contact, meaning that the institutional integration of both centres is reasonable. It should be noted that this constellation represents the closest proximity of metropolitan cross-border core FUAs in Europe. This spatial proximity accounts for the common concerns with regard to, for example, transport matters or political issues. This bipolar structure features Saarbrücken as the larger FUA in demographic terms and Luxembourg as the more metropolitan FUA in economic terms, as we will see below.

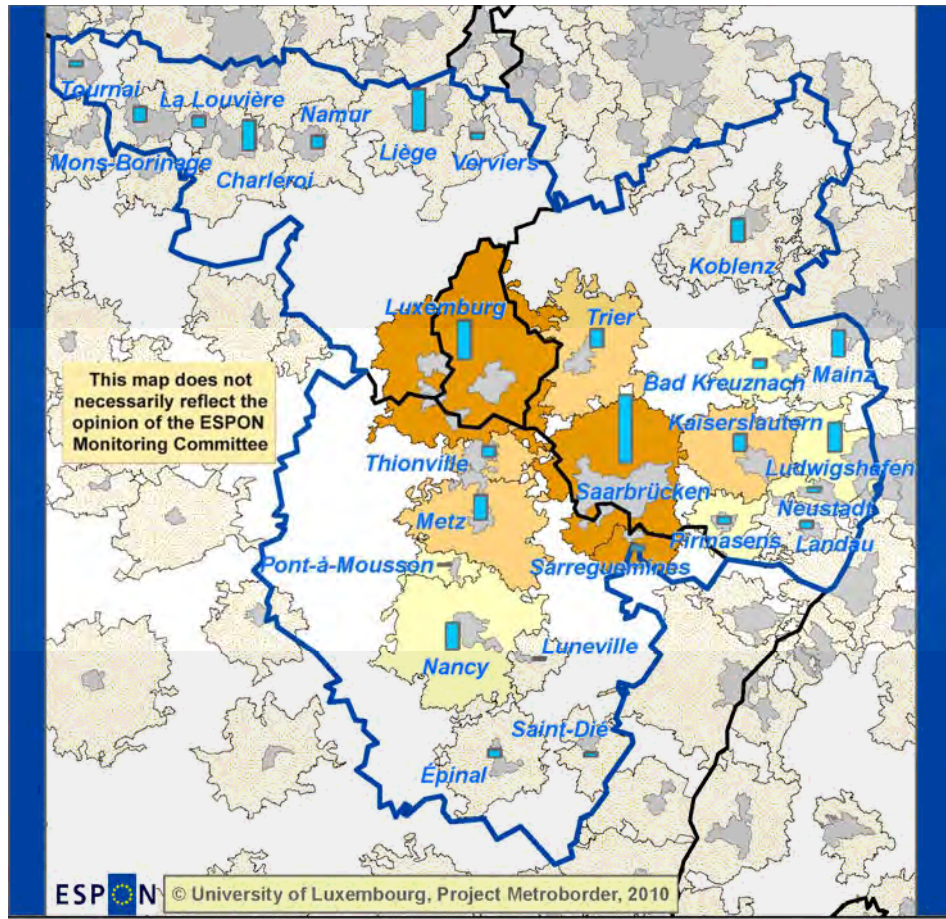
This detailed examination illustrates the criterion of being adjacent to the cross-border FUA: the FUA of Thionville is clearly linked to the Luxembourgian cross-border area, and the FUAs of Trier and Metz are linked to both cross-border centres. With regard to the surrounding FUAs of e.g. Nancy, the situation is different: the MUA of Nancy is approx. 100 km away from the French-Luxembourgian border, so dominant functional cross-border integration is not to be expected. Being part of the "Sillon Lorrain" illustrates a certain political will to contribute to cross-border cooperation, too.

There are further FUAs within the institutional perimeter of the Greater Region that are neither adjacent nor surrounding FUAs to the cross-border centres. This position does not automatically mean that they could not be involved in cross-border cooperation; Namur is a good example, as it is a solid FUA of its own with



strong links to Brussels in the north. At the same time, the connection to Luxembourg via rail/road and the political will to cooperate could make it an interesting partner.

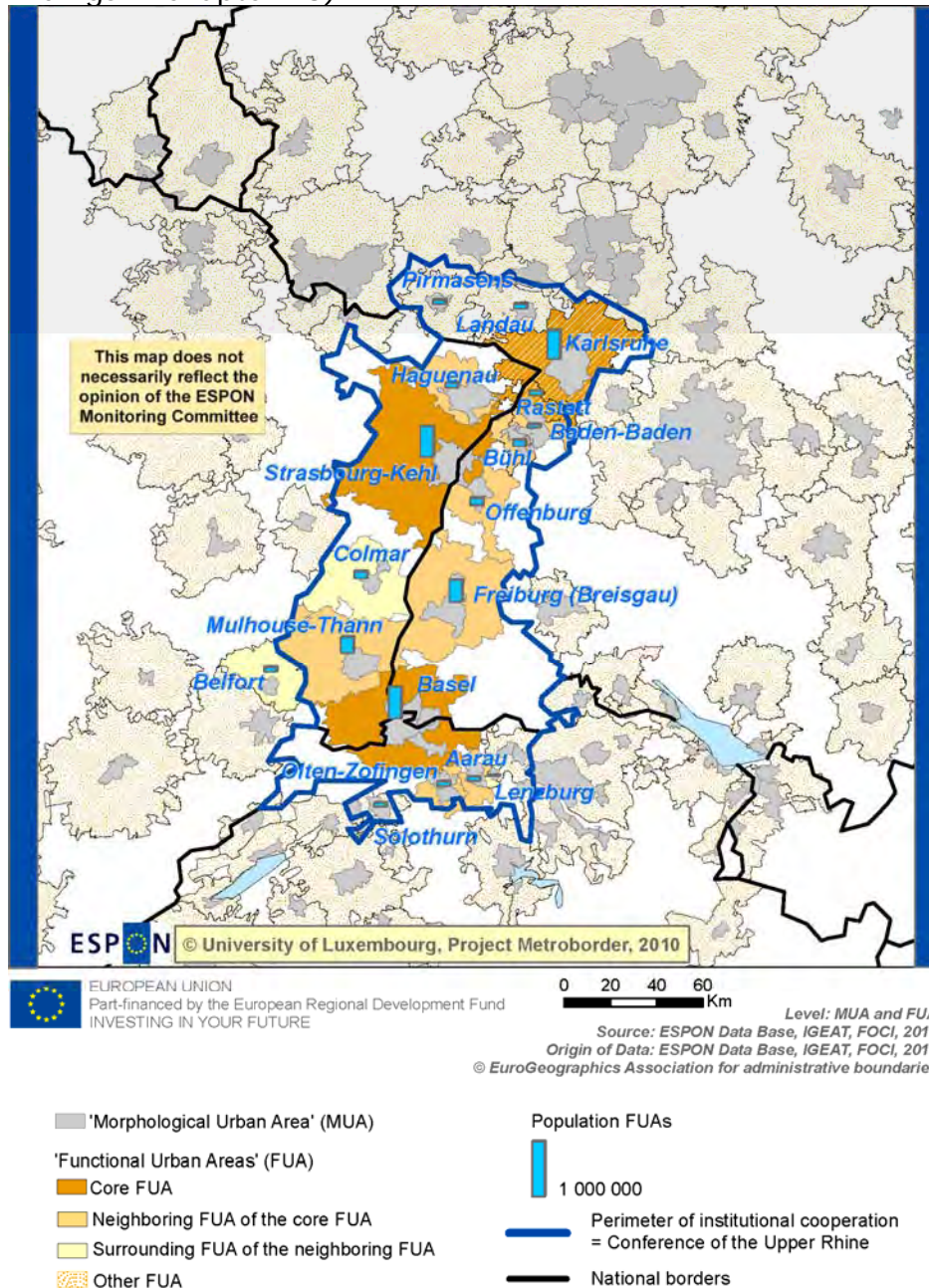
The next chapters will return to the spatial setting of the CBPMR of the Greater Region, providing a more multi-dimensional perspective (see chapters 6 and 19).



**Map 5** FUAs and MUAs within the Greater Region

## 2.3 Upper Rhine

The structure of Functional Urban Areas within the perimeter of the Upper Rhine conference shows again two starting point FUAs that were identified within the earlier ESPON project 1.4.3 (Basel and Strasbourg/Kehl; see Map 6). As for the Greater Region, we will very briefly describe the general spatial setting and expand on a variety of aspects in the following chapters, and will bring together the findings in chapter 18).



**Map 6** FUAs and MUAs within the Upper Rhine



The FUAs of Hagenau, Freiburg, Mulhouse/Thann, and some others have, because they are adjacent to the cross-border cores, clear cross-border potential in terms of proximity, infrastructure setting and economic background.

The situation of Karlsruhe in the north is a unique one, even at the European level. Karlsruhe is not a cross-border metropolitan FUA within the meaning of the ESPON 1.4.3 project, and, therefore, cannot be a core FUA within the meaning of the METROBORDER approach (it would instead be a “surrounding FUA”). However, three aspects provide support for the idea that Karlsruhe has a special position: the Karlsruhe FUA crosses the German-French border; its demographic weight is comparable to that of the two cross-border core FUAs Strasbourg and Basel; and the FUA is only a few kilometres away from the core FUA of Strasbourg.

Thus, if we consider polycentricity on a regional scale, Karlsruhe is certainly an important cross-border centre within the Upper Rhine valley. We will come back to this position when exploring the governance setting of the “Trinational Metropolitan Region of the Upper Rhine” and in the overall synthesis of findings concerning of the Upper Rhine (chapters 6.3 and 18).

The key feature of the Upper Rhine FUAs is that they are all near to the border(s); the polycentricity is more linear than concentric, compared to the Greater Region. Both case study regions – the Greater Region and Upper Rhine – comprise (at least) two cross-border core FUAs and are particularly polycentric.

### **3 Metropolitan positioning**

#### **3.1 Approaching metropolitan quality**

The metropolitan quality of cities and regions is addressed in a vast body of literature. There is a consensus that there are several metropolitan functions to be considered, such as the gateway function of accessibility or the innovation capacity in a broad sense. The most prominent aspect, however, is undoubtedly the economic dimension which concentrates in particular the localised control functions of the globalised economy.

The range of approaches to metropolitan rankings, indicators, etc. is vast (for a current overview see e.g. the FOCI ESPON project). However, the metropolitan quality of *cross-border* areas has rarely been addressed in an explicit manner. METROBORDER approaches the metropolitan quality of its regions in four steps. Firstly, the Globalization and World City (GaWC) monitor is used to explore the

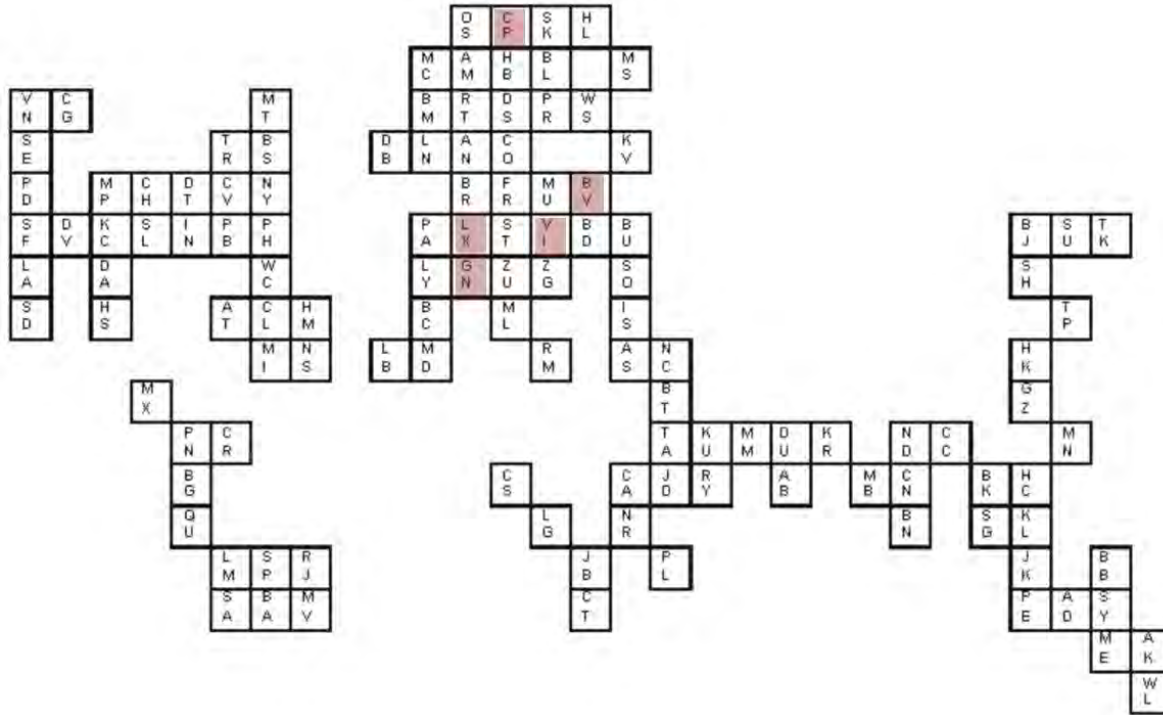
positioning of those cities which are *parts* of the CBPMRs. Secondly, we use existing ESPON data (from project 1.4.3) in order to map the metropolitan dimension on the European scale, while also taking into account other indicators in addition to economic ones. Thirdly, we return to a purely economic perspective by using very recent data from the FOCI project which allow mapping of the economic control function: these data allow analysis on the intraregional scale and some conclusions to be drawn concerning cross-border polycentricity. Fourthly, we explore recent data with regard to metropolitan connectivity within the two case study regions.

### **3.2 Findings from the literature: the global perspective**

On the global level, the best known approach to metropolisation is probably the 'Globalization and World City research network' (GaWC), which monitors the global evolution of metropolitan places and is based primarily on economic indicators (see <http://www.lboro.ac.uk/gawc>). The GaWC monitoring focuses on more than 160 cities worldwide with the most significant metropolitan quality, and they are regularly represented in a visual manner as shown in Fig. 2.

This shows that some of the CBPMR cities do play a role on the global stage. They are certainly not global nodes at the highest level, and certainly not all the CBPMR cities play a role, but we can however note that being near to borders does not provide an insurmountable barrier to global economic significance.

Beyond this, the GaWC approach leaves many questions open, in particular: What is the added value of cross-border polycentricity on a regional scale? What about non-economic indicators of metropolitan quality? We will approach this question by considering the data and the results of two other ESPON projects (ESPON 1.4.3 and FOCI).



**Fig. 2** CBPMR-cities in the GaWC-monitor (marked in red): each square indicates a metropolis, and its position roughly represents the position on the world map (source: GaWC 2008; own graphic).

The graphic represents in an abstract manner the shape of the world's continents, and each box represents a metropolis. The cities are categorised into ten hierarchical categories that summarise their metropolitan quality, based primarily on economic control indicators. Among all these cities, we find five cities that are part of the European CBPMRs presented above:

- VI = Vienna: alpha city (in 4<sup>th</sup> of ten world city categories)
- GN = Geneva: beta city (6/10)
- CP = Copenhagen: beta city (6/10)
- LX = Luxembourg: beta city (6/10)
- BV = Bratislava: gamma-plus city (8/10)

Moreover, Basel and Strasbourg are mentioned as showing "sufficiency" but are not included in this map (cp. GAWC 2008)

### 3.3 European screening: The 'functional score' of CBPMRs

During the previous programme period, ESPON focussed on the different functions of cities and regions. With the project 1.1.1 on polycentricity, the ESPON programme demonstrated that most cross-border FUAs show a certain metropolitan

quality as *Metropolitan European Growth Engines* (MEGAs). All CBPMRs show a certain metropolitan potential.

Project 1.4.3 then analysed a set of indicators concerning European significance in quite general terms, including knowledge, transport and culture (see ESPON 1.4.3, p. 22 ff.). This method of mapping has already provided a first impression of the metropolitan quality of the European urban system on the scale of FUAs.

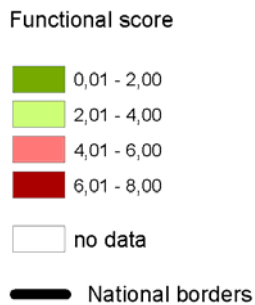
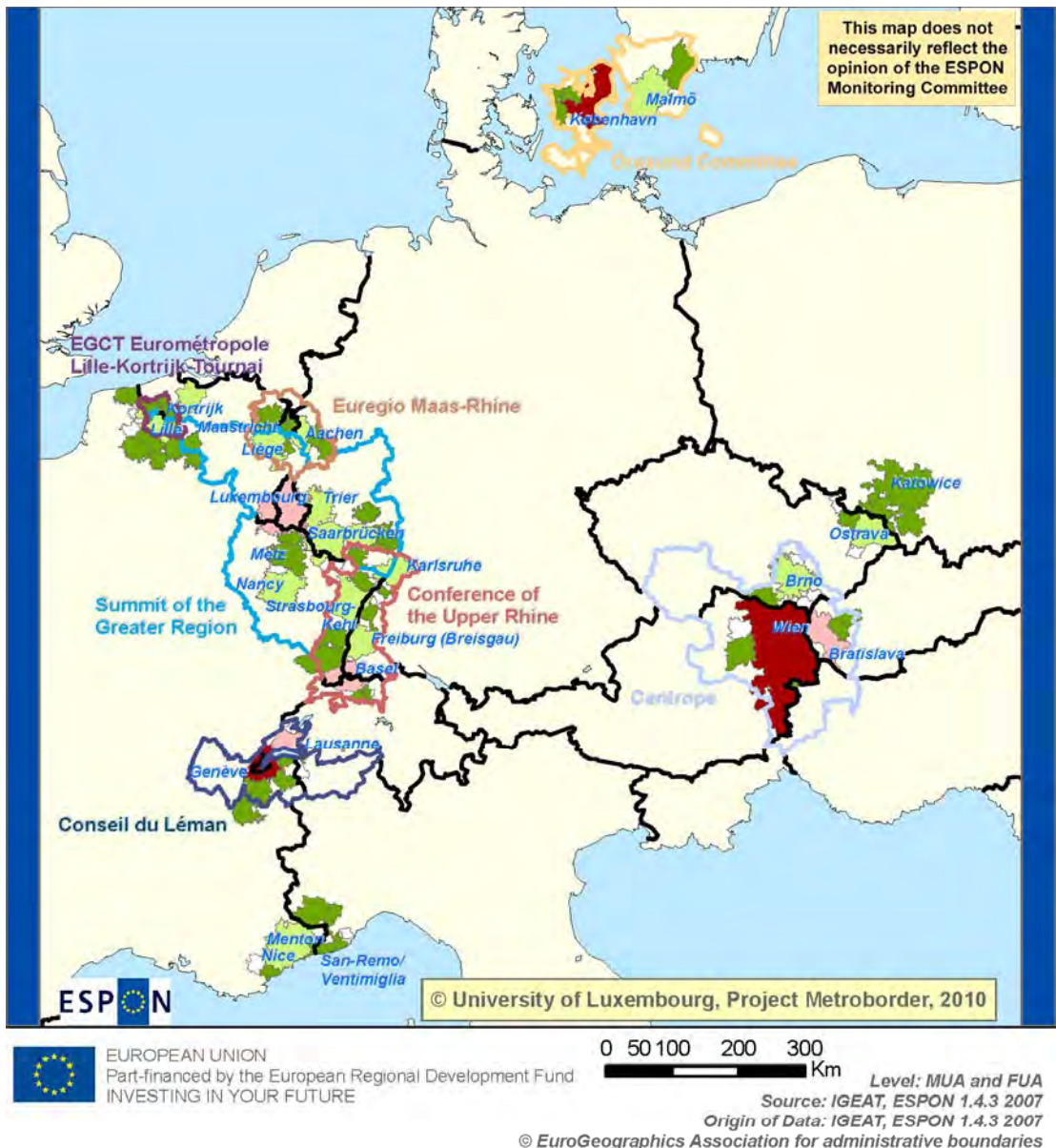
When applying this approach to CBPMRs (see Map 7), we can immediately see some differences concerning the position of these regions: the FUAs of Wien, København and Genève are the highest-ranking ones, the first two as quite large national capitals and the latter as the seat of many international political organisations and the European seat of multinational businesses. In the second tier, also Basel, Luxembourg and Bratislava demonstrate a European level of visibility and significance.

With regard to the two case study regions, we learn the following: the highest-ranking metropolitan centre within the Greater Region is Luxembourg, due to its economic position, especially in the financial sector, its political functions as national capital and seat of European institutions, and its airport.

In the Upper Rhine, the Basel FUA is ranked quite highly due to good ratings with regard to the knowledge-intensive service sector, the transport sector (airport), and the economic decision-making intensity (cp. ESPON 1.4.3: 159). The other Upper Rhine centres are not metropolitan to this degree.

Approaching the metropolitan quality of the CBPMRs in this way certainly gives a good general impression. The manifold limitations of this approach, however, must not be overlooked – both with regard to the methodology (e.g. how to weight each indicator) and with regard to data (e.g. data from NUT2 level has been applied at the FUA level). Moreover, the data have not yet been updated during the current ESPON programme period.

The rankings from the above-mentioned functional-score mapping and the GaWC-approach differ, but the overall picture is largely the same. From this we can conclude that economic indicators are relatively meaningful with regard to overall metropolitan quality. We now return to a purely economic approach in the next section, which allows a closer examination of more recent and more detailed data.



**Map 7** The 'functional score' of the CBPMRs – using the ESPON 1.4.3 approach

### 3.4 CBPMRs as 'competitive nodes'? - Using the FOCI data

The ESPON FOCI project (in particular team partner Céline Rozenblat at the University of Lausanne) has processed data from the 3,000 largest businesses worldwide (ORBIS database) and, on this basis, has developed a geography of economic power in a globalised economy (for the European map, see appendix/ chapter 8, cp. FOCI DFR 2010: 151 fwd.). On the European scale, London and Paris are the dominant metropolitan centres; beyond this, we find a series of national capitals of particular importance.

The database allows an approach to the economic power that is localised at particular sites with the firms. At the scale of the CBPMR-FUAs, the data gives the spatial pattern shown in Map 8.

This map gives two types of information. Firstly, the size of the circles indicates economic activity; secondly, the colour of the circles indicates the degree of control that is located at this site. Whereas economic activity is a fairly self-explanatory indicator, the question of control is far more complex as it does not automatically address *geographical* links, as the examples of Paris and London show (cp. Appendix, Map 18): the dominant degree of control in Paris is linked to the numerous subsidiaries in French FUAs, whereas in London the European subsidiaries of US enterprises play a key role. It is, thus, not easy to evaluate 'economic power', but this indicator nonetheless a good one to use to attain an overall understanding.

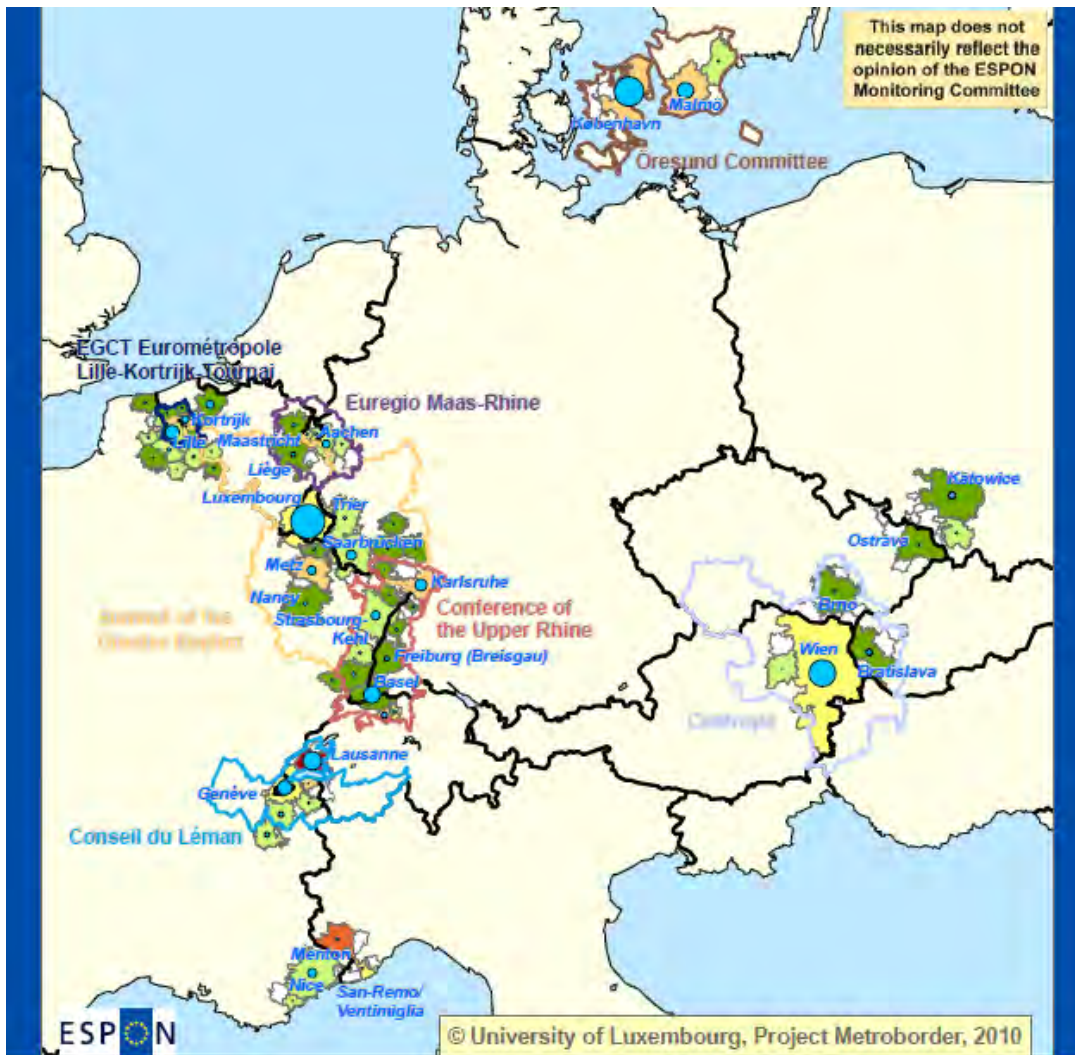
With regard to the CBPMRs, the map suggests the following conclusions:

Economic activity – based on the presence of the top 3,000 businesses – reflects the GaWC picture: København, Luxembourg and Wien have a reasonably high degree of visibility, while the other FUAs are comparably small at the European level.

With regard to economic control, Genève, Wien and København are outstanding; the red colour indicates a strong presence of headquarters that control subsidiaries in other locations. Luxembourg, Basel and Bratislava also have how high values.

With regard to the intraregional polycentricity of the CBPMRs, one can state the following: In those cases where a strong economic centre can be identified, we see a clear difference between the centres (cp. e.g. the differences between København and Malmö, or even between Wien and Bratislava). But this also applies to those cases where we find a predominantly monocentric distribution of economic control functions, even if this does not in any way all contradict an *overall* polycentric organisation of the region. One should add that this is not only true for cross-border polycentric areas but also for domestic polycentric areas.

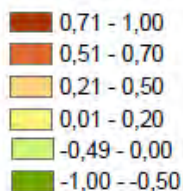




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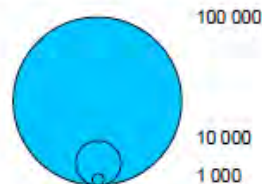
0 50 100 200 300 Km  
Level: MUA and FUA  
Source: Team IGUL, FOCI, 2010  
Origin of Data: Team IGUL, FOCI, 2010  
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Controlled subsidiaries - subsidiaries from outside  
Controlled subsidiaries + subsidiaries from outside



□ No data

Controlled subsidiaries + subsidiaries from outside by FUA (except local links)



— National borders

**Map 8** Economic control in CBPMRs – applying the FOCI approach

Moreover, we can state that the metropolitan character of the different CBPMRs differs largely – intensities of both economic involvement and of the decision

making capacity do not show homogenous patterns across Europe.

With regard to the two case study regions, we can again see some contrasting findings (for further detail see appendix, Map 19 and Map 20). In the Greater Region, the economic metropolitan centre is clearly the FUA Luxembourg, which has the most top 3,000 businesses. The control function is stronger than in most other FUAs, but still not very prominent. This is perhaps to be expected, as it reflects the presence of numerous financial enterprises that have their headquarters outside of the Greater Region's perimeter.

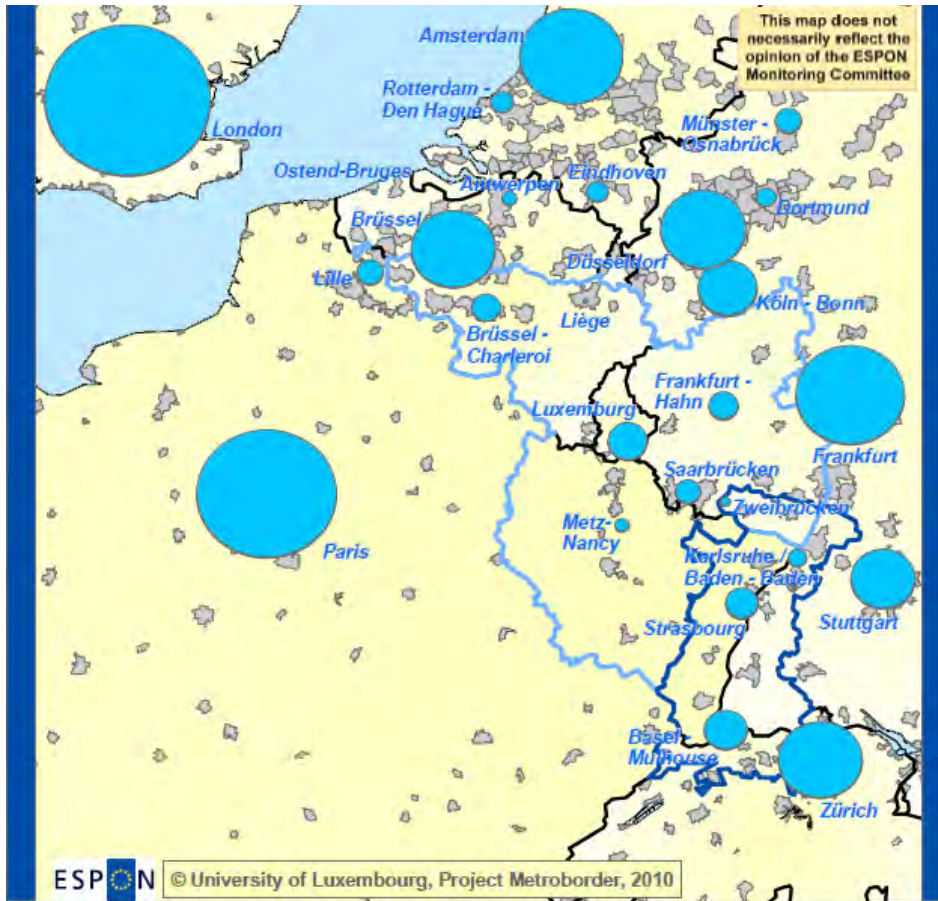
In the Upper Rhine, the picture is similar with regard to the control function – the CBPMR-FUAs are clearly integrated into the globalised economy, but the degree of control exercised is not outstanding. The case of Basel is perhaps surprising, as it is not metropolitan to the degree one might expect, bearing in mind the considerations above. This is partly due to the fact that the indicator only reflects the number of businesses – a large chemical industry headquarters in Basel, for example, only carries as much weight as a banking subsidiary.

In general, it is worth noting that the metropolitan dimension of the CBPMRs and their sub-regions does not reflect the totality of their economic position. For example, highly innovative and flexible small- and medium-sized enterprises (SMEs) are not considered in these approaches, although they typically play a crucial role in the economic prosperity of regions between large cities, as in parts of Baden-Württemberg. The available statistics do not allow a comparison of – for example – the presence of so-called “hidden champions”, primarily SMEs with leading global position due to a high degree of innovation. Developing the metropolitan quality of the CBPMRs will require consideration of these aspects and must not be restricted to a simple comparison with top ranking metropolises such as London or New York.

### **3.5 Metropolitan accessibility?**

With regard to the case study regions, we focus on one particular indicator of metropolitan quality: accessibility by air provides a useful indicator of the degree of interconnection with transnational and global flows. In this regard, we were able to use the FOCI data that include all European flight connections for one working day in October 2009, by a team at the University of Paris-Est. The indicator is not the number of passengers but rather the number of connections (passenger flights). From a customer's perspective, this is the more relevant indicator, as the number of connections is of greater relevance than plane capacities etc. Mapping this indicator gives a surprisingly clear picture (see Map 9).









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0 25 50 100 150 Km  
 Level: NUTS 5  
 Source: Université Paris-Est, LVMT, Inrets 2009, FOCI, 2010  
 Origin of Data: Université Paris-Est, LVMT, Inrets 2009, FOCI, 2010  
 © EuroGeographics Association for administrative boundaries

Total flights per day\*



-  Perimeter of institutional cooperation = Summit of the Greater Region
-  Perimeter of institutional cooperation = Conference of the Upper Rhine
-  National borders

\* London = Sum of airports Heathrow, Gatwick, City, Luton and Stansted  
 Paris = Sum of airports Charles de Gaulle, Orly, Beauvais-Tillé  
 Weekday October 2009

**Map 9** Number of flights per day and airport for the two case study regions and their surrounding areas

Firstly, the “shadow” cast by the classic domestic metropolises is very clear, and even more clearly so than in the mappings of the overall metropolitan indicator. Especially when considering the institutional perimeter, large airports like Frankfurt, Zurich and Brussels are located in close proximity and easily be used by the inhabitants of the case study regions. Secondly, the diversity of smaller airports within both regions is impressive.

The existence of many smaller airports is not necessarily to be seen as inefficient – the clients have a choice of ‘gateways’ relatively near to their homes. The necessity to take connection flights can even be compensated by efficient airports where check-in/-out procedures do not take that much time as at major airports.

The challenges presented by this situation are obvious. Airports are major infrastructure investments – in most cases involving public money – and at the same time, the market is sensitive to economic crises, political uncertainties, taxation and environmental policy instruments. Against this backdrop, the question is that of how competition can be kept to a reasonable level: from the perspective of the case study regions, competition both between the smaller regions within their perimeters and with the larger hubs beyond their perimeter is of importance. Developing complementarities with regard to destinations, services (business, tourist, freight) etc. can be an important element within this strategy (cp. these aspects from the governance side, in chapter 5).

### **3.6 Summary**

The starting point of our reflections was the statement that the CBPMRs are located in the shadow of well-established and internationally-renowned metropolitan regions such as the Randstad, Rhine-Ruhr, Frankfurt-Rhine-Main, Zurich, Milan and Paris (“Pentagon”). This position is to a certain degree reflected in the different approaches to metropolitan quality – numerous criteria of significant metropolitan quality can be identified. Considering demographic weight or connectivity indicates a certain vulnerability in terms of degree of metropolitan quality: ‘critical mass’ is a challenge for many of the CBPMRs. Cooperating in a cross-border manner is an essential means of securing and developing their position – in particular at a time when domestic metropolitan regions are strongly deepening their cooperation across domestic borders.

With regard to polycentricity, it can be stated that several CBPMRs comprise a series of demographic or morphological centres on the same level. With regard to metropolitan quality, this is not the case if none of the centres has a remarkable degree of metropolitanism on a European scale. In the other cases, a clear metropolitan differential can be observed. This, however, does not put into question the idea of the polycentric region: overall functioning can depend to a large extent on intraregional dependencies and integration. However, the idea of polycentricity in strongly metropolitan contexts must be differentiated: the centres of CBPMR systems should not be regarded as somehow ‘similar’ partners, but rather as complementary components of a complex system.

This study of the metropolitan quality of CBPMRs still does not permit all relevant

questions to be answered – the data is relatively poor, and the question is relatively new. There are no cross-border statistical units, little fine scaled data for cross-border regions, and hardly any flow data (for commuting, see next chapter). This is not a purely academic problem, but one which also hampers discussion of political action.

Against this background, a SWOT analysis, as initially intended, cannot be seriously considered and, thus, has to be excluded.

However, this multidimensional approach provides a good overview, as different scales and perspectives are considered. One should also mention a recent study from BBSR (2010) on metropolitan functions on a European scale that have also been deepened with regard to cross-border questions. Though the methodology is completely different, the overall findings are similar – both with regard to the location of CBPMRs as well with regard to their metropolitan position.

Last but not least, it should be mentioned that the METROBORDER project must, both politically and scientifically, be seen in the context of the metropolitan paradigm of today's regional policy. Criticism, such as that of the ignoring of highly innovative 'hidden champions' in often peripheral areas, cannot be addressed here. However, a euphoric heading towards the improvement of the classical metropolitan indicators should not be the only aim, also of CBPMRs.

## **4 Functional integration within CBPMRs**

### **4.1 On the concept of cross-border integration**

The term "spatial integration" has been given multiple definitions, particularly in the context of studies on European integration (Anderson & Wever 2003, Brenner 2004, Dabinett & Richardson 2005, Hansen & Serin 2007). The spatial integration process is fundamentally based on the existence of interactions between areas separated by a boundary. These interactions are not limited to the economic sphere, but concern also other flows or transactions (cultural, political relations, migration, etc.). The existence of interactions does not necessarily mean that the territories converge. Some relationships can be highly asymmetric and be fed by strong differentials. It is therefore necessary to complete the analysis by considering the possible convergence of the territories. Cross-border relations are not necessarily based on shared motivations. The need or the desire of actors to cooperate is therefore an essential aspect of the integration process. As a consequence, in this study we define cross-border integration as a process of the development of increasing

interactions between different types of actors located on both sides of the border and we pay particular attention to what extent this comes along with convergence. This definition allows us to consider the two main dimensions of integration: firstly, cross-border integration refers to the existence of *interactions* between territories and is based on flow analysis and barrier effects; secondly, cross-border integration also refers to the *convergence* of spatial characteristics and is based on analysis of homogeneity and discontinuities. Interactions and convergence can be studied in terms of different domains, including demography, economy, transport and policy. With regard to interactions, the project studied the intensity of cross-border commuting, the frequency of cross-border public transportation lines, as well as the structure of cross-border cooperation. With regard to convergence, the analysis is based on average annual demographic growth, the evolution of the residents' citizenship, the development of regional gross domestic product (GDP; cp. Table 1). In the following sections, the results from the commuting analyses and the overall synthesis of the interaction indicators are presented and illustrated. For more details, in particular with regard to the other indicators, see appendix, chapter 9. Institutional integration will be addressed in chapter 5.

Domains	Interactions	Convergence
Demography		Population average annual growth  Residents' citizenship
Economy	Cross-border commuters	Regional GDP
Transports	Frequency and average speed of cross-border transportation lines	

**Table 1** Indicators of cross-border integration in METROBORDER WP1

## 4.2 Cross-border commuting

### 4.2.1 European overview

Commuting data constitutes the best data set available which considers cross-

border flows and allows the comparison of the different aspects of the border regions (including direction, size and the temporal development). Moreover, time series and trends can be elaborated for these data. Fig. 3 shows the European context of cross-border commuting.

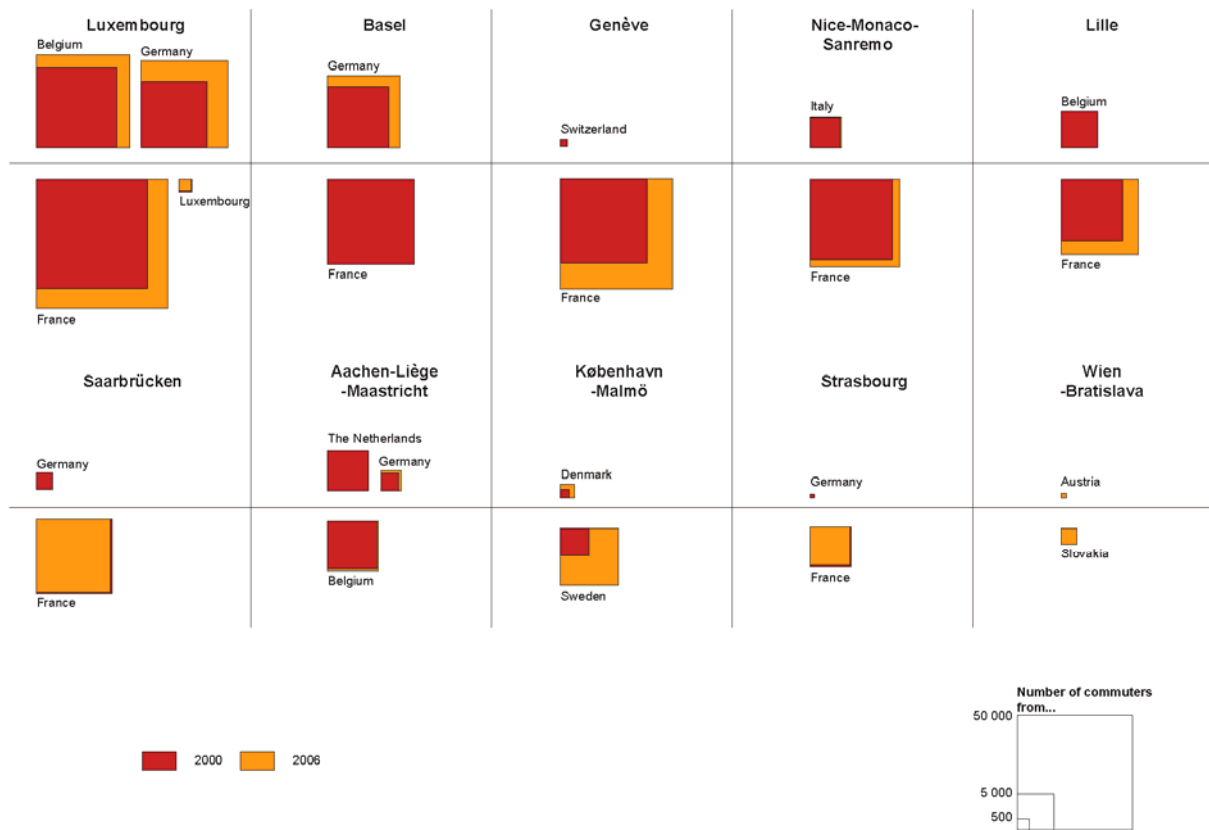
The different CBPMRs show very different commuting intensities, depending on the size, average annual growth and distribution by country of origin considered. With more than 127,000 cross-border workers in 2006, the Luxembourg metropolitan area is undoubtedly the border area where this phenomenon is the most developed, followed at some distance by Basel (49,000), Genève (47,500), Nice-Monaco-Sanremo (34,000) and Lille (27,500). Saarbrücken (21,500), Aachen-Liège-Maastricht (17,500) and København-Malmö (13,500) have a lower number of cross-border workers, while Strasbourg (6,000) and Wien-Bratislava (1,000) are, in numerical terms, much less affected by the phenomenon. No information is available on Katowice-Ostrava.

Most of the cross-border metropolitan areas examined in this study experienced positive annual growth in cross-border employees between 2000 and 2006, with the exception of Saarbrücken (-0.8%) and Strasbourg (-1.2%). The highest average annual growth can be observed in København-Malmö (+26.5%), which can be explained by the opening of the Öresund Bridge in 2000. In Genève (+9.0%), Luxembourg (+6.4%) and Lille (+5.9%), the number of cross-border workers is also growing rapidly and is at least twice as high as in the other metropolitan areas.

In most cases, the distribution of cross-border workers by country of origin is extremely asymmetric. This is particularly true for the metropolitan areas of Luxembourg, Basel, Genève, Nice, Saarbrücken, København-Malmö and Strasbourg, where over 90% of the flows are moving in one direction. Two exceptions should be noted: in Lille and Aachen-Liège-Maastricht, the distribution between countries is more balanced.

The Grand Duchy of Luxembourg (127,533) is the most important destination for daily cross-border commuters, coming ahead of Germany (86,334). The European Union (2009) states that around 664,000 cross-border workers were identified in the EU15/EFTA and 114,000 in the EU10+2, which means a total of 778,500 cross-border workers in the EU27/EFTA (2006-2007). Our results suggest that at least 345,000 of these (44%) are located in one of the 10 regions examined.

Interestingly, these results suggest that the presence of a knowledge-intensive economy driven by an international financial centre (Luxembourg, Genève, Monaco) and/or high-tech activities (Basel) is a crucial factor explaining the intensity of cross-border employment in Europe.



**Fig. 3** Cross-border commuters in metropolitan areas, 2000 and 2006 (sources and spatial units: see appendix, chapter 9)

#### 4.2.2 'Metropolitan commuting' in the Greater Region

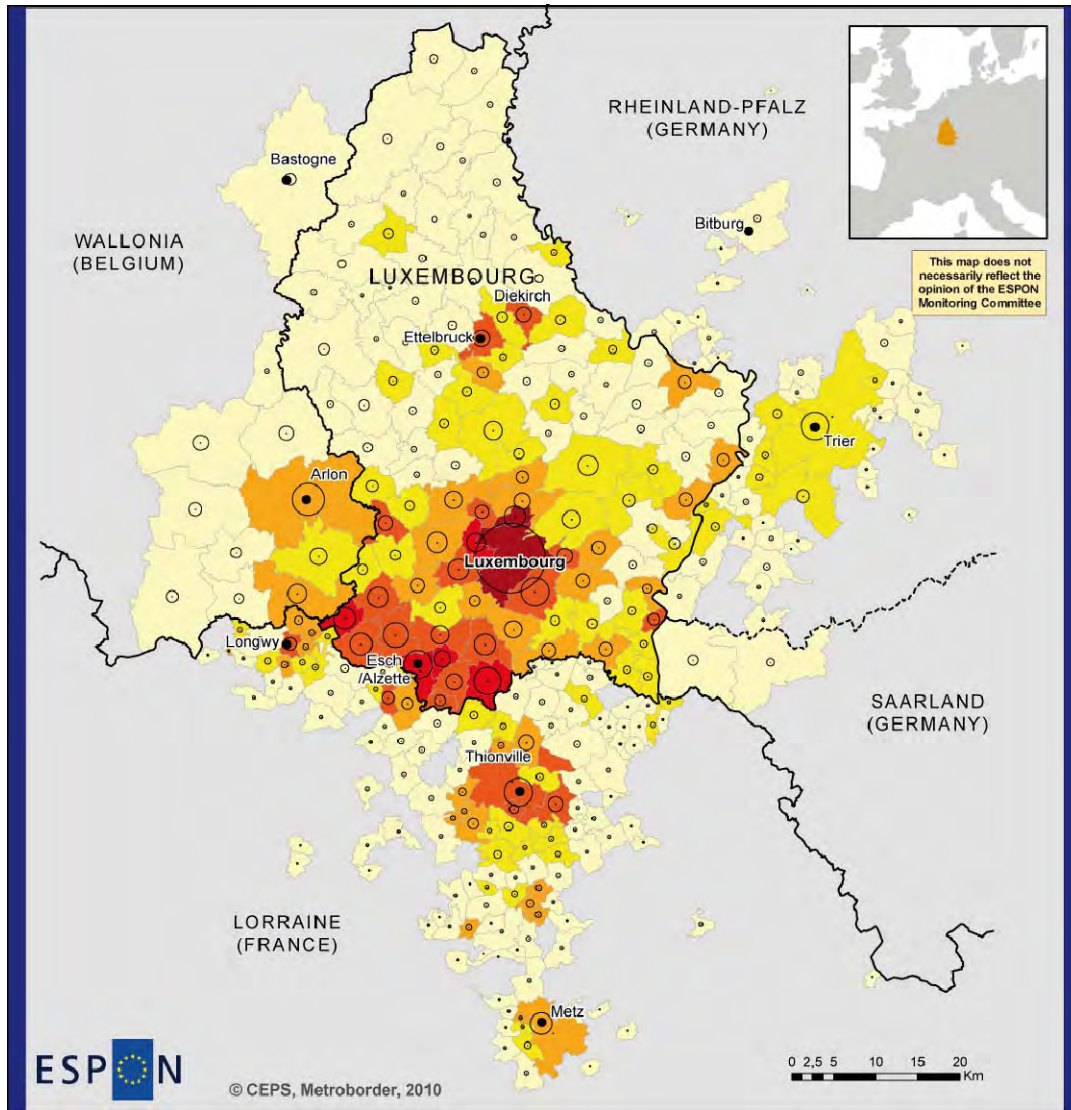
When considering cross-border commuting in CBPMRs, the question is to what extent this commuting can be attributed to the metropolitan dimension. In most regions, this question cannot be addressed due to problems with data. For the Luxembourg area, however, the available data allow this question to be addressed to at least a certain extent (cp. Map 10).

High-technology and knowledge-intensive jobs represent a growing proportion of total employment within Luxembourg, rising from 29.2% in 1994 to 36.2% in 2008. 82.5% of this employment is located with the Luxembourg Urban Area.

High-tech and KIS workers live mainly in the Luxembourg urban centres and suburban municipalities and in peripheral urban centres located in neighbouring France (Thionville 2,079, Metz 1,199), Belgium (Arlon 2,654) and Germany (Trier 1,917). Despite its industrial past, the southern region of Luxembourg is a major residential area for those categories of workers (13,000), coming after the City of



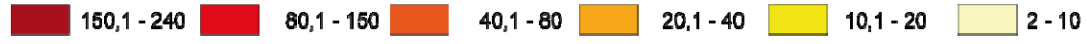
Luxembourg (19,800), demonstrating a form of functional interdependence between the economic centre of the metropolis and its urbanised periphery.



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Local level: NUTS 5  
Source: Metroborder, 2010  
Origin of data: Metroborder, 2010  
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**High-Tech and KIS employment density**



**Number of persons working in the Luxembourg Urban Area**



**Map 10** Place of residence of high-tech and KIS workers employed in Luxembourg and number of persons working in the Luxembourg MUA, 2005

An significant border effect can be identified between municipalities in southern Luxembourg where high-tech and KIS employment density is high and in many French municipalities located close to the border in North Lorraine. No such border effect can be observed elsewhere in the metropolitan area: a remarkable continuity can be observed between Luxembourg City and the hinterland of Arlon, and between the capital of Luxembourg and Trier.

Accessibility by road, the preference for suburban housing, the cost of housing and increased cross-border work has lead to an extension of the Luxembourg cross-border metropolitan residential area. The latter – including medium-sized (e.g. Thionville, Arlon) and larger cities (e.g. Metz, Trier) in the neighbouring countries – gives this cross-border metropolitan region a clearly polycentric character from a residential point of view. This is undoubtedly the case at the intraregional level (i.e. Luxembourg's FUA). Further research on potential overlapping with FUAs of neighbouring urban centres may provide evidence regarding the interregional level of metropolitan polycentricity.

#### **4.2.3 Cross-border vs. domestic commuting in the Upper Rhine**

The data situation concerning commuting in the Upper Rhine region differs from that for the Greater Region: no parallel analysis of KIS employment can be carried out. However, we can much better localise the (cross-border and domestic) commuting flows at a municipal level.

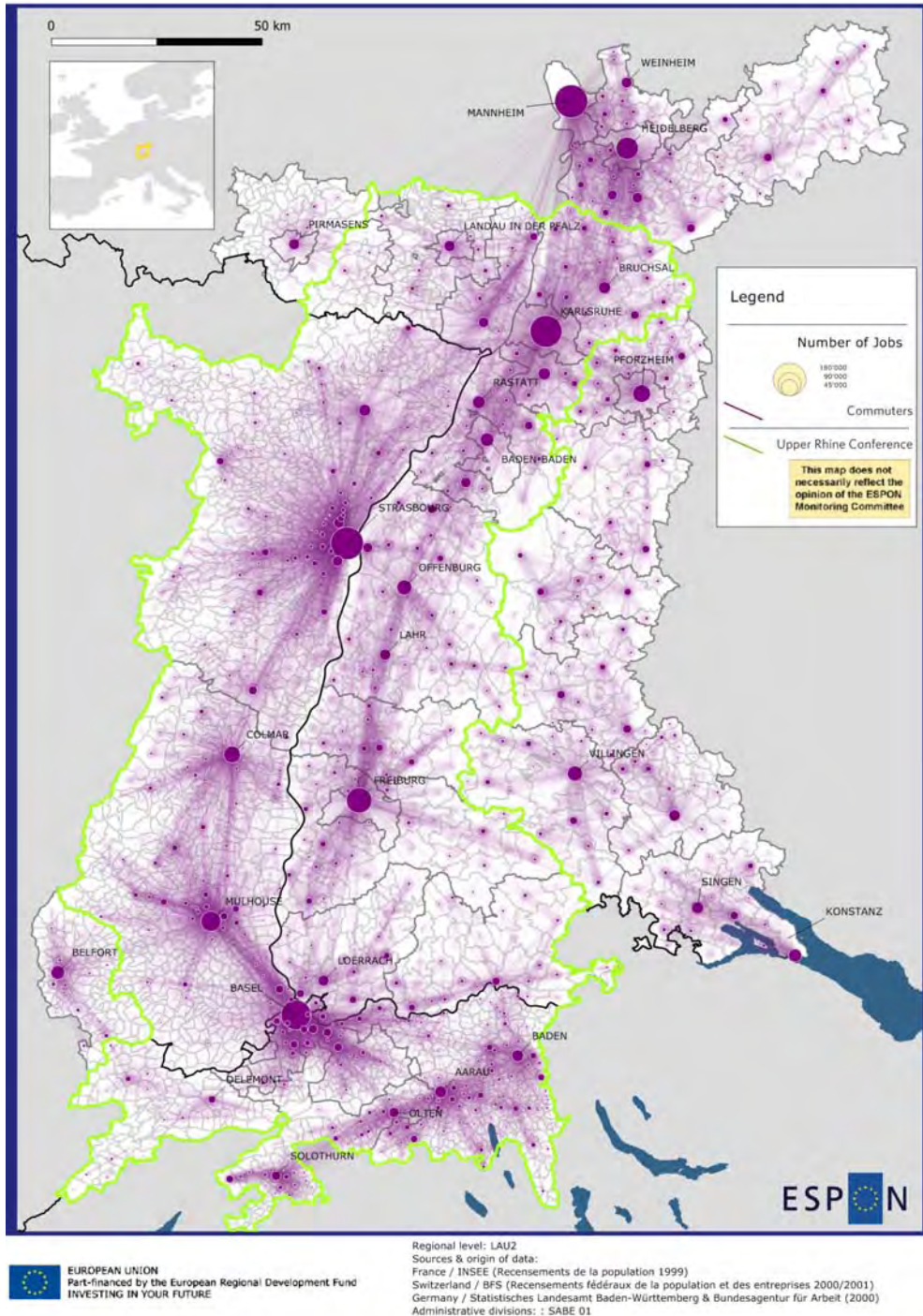
Visualising the data flows for the Upper Rhine gives an interesting picture (Map 11): border effects can be clearly seen between France and Germany, despite the linkages between Strasbourg and Kehl. In the case of Basel, no border effects are seen. The larger differentials in terms of attractive job offers overcome geographic, cultural, political and other differences.

However, the overall picture indicates that commuting is not a cross-border characteristic: commuting is primarily a domestic phenomenon that is being complemented by cross-border commuting. This can be seen as an indicator that further cross-border integration can have very positive effects in terms of dynamic labour markets.

Commuting in the Upper Rhine can – with this comprehensive focus – be mapped only for the year 2000, as comparable data for Switzerland do not exist for later years. However, comparing the overall data for 1999/2001 and 2006/2008, the general picture is quite stable (cp. also Fig. 3). Commuting towards Basel is slightly increasing from the German side and stagnating from the French side. Commuting



from France towards Germany is stagnating, too. However, some sub-areas show increasing levels, especially the Mulhouse-Basel axis and that along the Rhine valley on the German side.



**Map 11** Commuting flows in the Upper Rhine, visualisation for 2000  
(© Grenzgängerbewilligungen G of BFM, 2000, processed by Manfred Perlik/Martin Schuler)

### 4.3 Synthesising functional integration indicators

The cross-border commuting discussed above is just one indicator that has been analysed in order to obtain a better picture of the functional integration within CBPMRs. Functional integration must be considered in the context of territorial cohesion: territorial cohesion is not only relevant to the current debate at the European level but also to politics within the respective CBPMRs: the challenge of equivalent living conditions, territorial balance, and joint prosperity is seen on all sides of the border. In the context of the METROBORDER project, these questions have been approached via the dimensions of “interactions” and “convergence”. The indicators of cross-border commuting, public transport, regional GDP and residents’ citizenship have been calculated, adding a comparative perspective on a European scale for the core spaces within the perimeters of institutional cooperation (see Fig. 4).

The European picture shows a variety of patterns. The interpretation of regional GDP on this scale is – due to the data situation – a sensitive issue. However, a certain trend can be observed of a high difference in regional GDP correlating with strong functional integration. Economically attractive places are the driving forces of cross-border interactions. At the same time, considerate must be borne in mind that GDP per *inhabitant* is strongly influenced by the high number of *commuters*.

It can be observed that the Greater Region is in a remarkable position. In comparison with the other CBPMRs in Europe, an extraordinarily high intensity of interactions can be seen, and the citizenship indicator too is relatively strong for the area around Luxembourg. The second core, Saarbrücken, is clearly different, but remains an example of interaction and convergence. However, clear differences in terms of GDP can be found in all cases where cross-border commuting is a strong phenomenon.

The Upper Rhine region shows, as was the case with commuting intensity, different values for the Basel and the Strasbourg areas: again, the contrast between GDP differences and interactions is striking.

In more general terms, this can be seen as providing evidence for the argument that differences are the driving force of cross-border interactions, as they can be exploited by actors in complementary ways. The question of who profits most and who does not profit remains a sensitive issue.

Putting the different indicators into perspective allows the analysis to be deepened. Thus, there appears to be a relationship between wealth differentials in border regions and the degree of cross-border employment. Given that one of the objectives of planning policy advocated in the ESDP (1999) is to reduce regional

imbalances, it is questionable whether cross-border work alone is really a relevant indicator to illustrate the level of the maturity of the cross-border integration, since its development can be based on the existence of differentials. The indicator of public transport infrastructure also appears worthy of consideration. It shows whether the governments are aiming to facilitate and support interaction arising from economic opportunities or not. Indeed, political decisions are necessary to either create new public transport lines or support private transport companies. Finally, a large number of residents coming from the neighbouring countries indicates whether the border still plays the role of a barrier to the individual decision to move abroad. The reasons for such a choice can be varied (quality of life, tax issues in relation to housing supply). The few indicators presented here are of course not exhaustive, but they do serve to illustrate the spatial cross-border integration process.

Cross-border metropolitan areas	Interactions		Convergence	
	Cross-border commuters	Cross-border public transport	Similarity of GDP per capita	Residents' citizenship
Luxembourg	5	5	1	5
Saarbrücken	3	3	5	2
Basel	4	4	2	3
Strasbourg	1	1	5	1
Genève	4	4	2	4
Aachen-Liege-Maastricht	2	2	4	5
Lille	3	1	5	3
Nice-Monaco-San Remo	3	2	2	3
København-Malmö	2	4	4	2
Vienna-Bratislava	1	5	3	1
Katowice-Ostrava	No Data	1	5	No Data

1 = very weak, 2 = weak, 3 = moderate, 4 = strong, 5 = very strong.

**Fig. 4** Synthesis indicator for cross-border interactions and convergence (source: CEPS/Instead; for details see Annex 9)

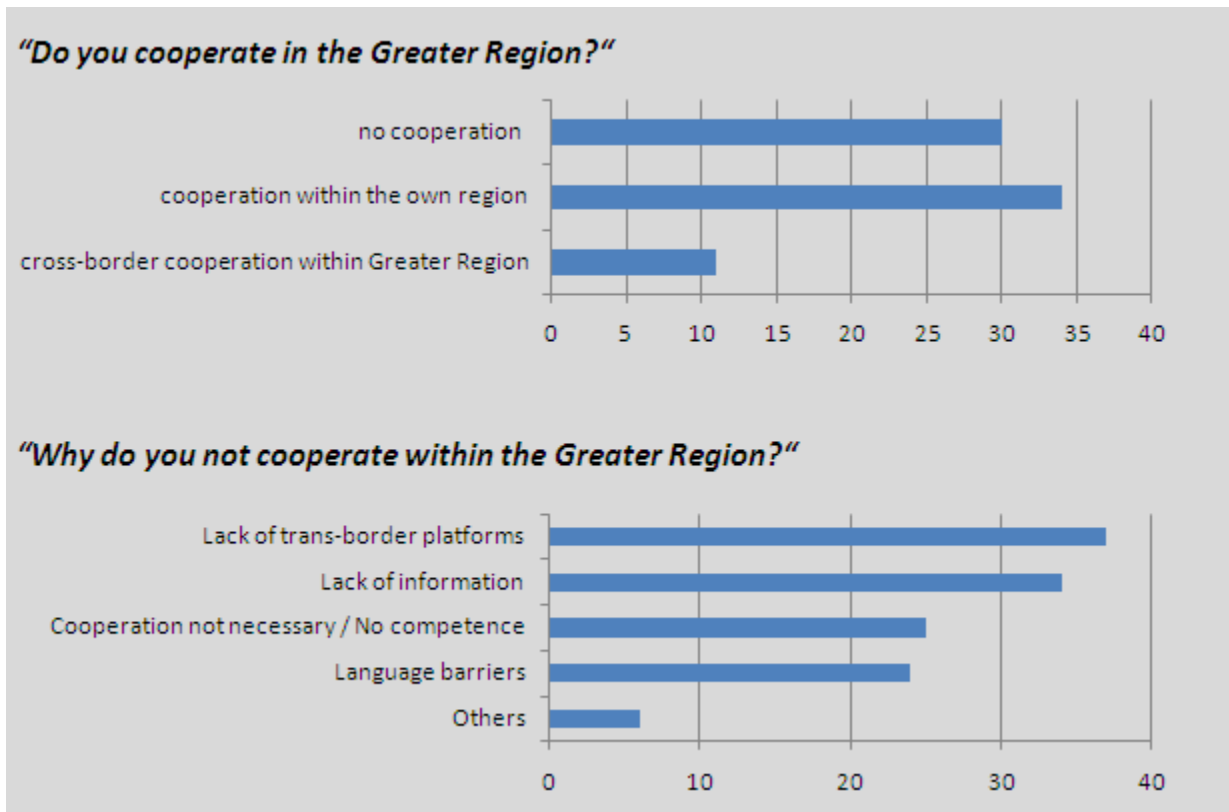
## **4.4 Cross-border integration of the economy?**

### **4.4.1 The example of the automotive industry in the Greater Region**

As for regional development in general, the overall importance of economic dynamism also applies to cross-border cooperation. 'Co-opetition' and 'win-win by added value' are just two key phrases from the political debate. Again, it is regrettable that the data available in relation to this issue is poor. The METROBORDER project has, against this background, provided details of some aspects of the automotive industry in the Greater Region.

As already shown in the Interim Report, the automotive industry is present and relatively important in all parts of the Greater Region, when considering the diverse patterns of the whole value chain, including R&D, production, marketing etc. (see Appendix, chapter 11). As economic flow data is not available, a postal survey was addressed to 650 enterprises – most of them small- or medium-sized – in order to explore the cross-border dimension of this sector on the regional scale. This survey has been complemented by a series of expert interviews.

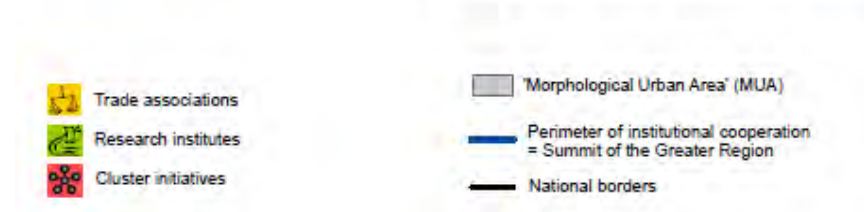
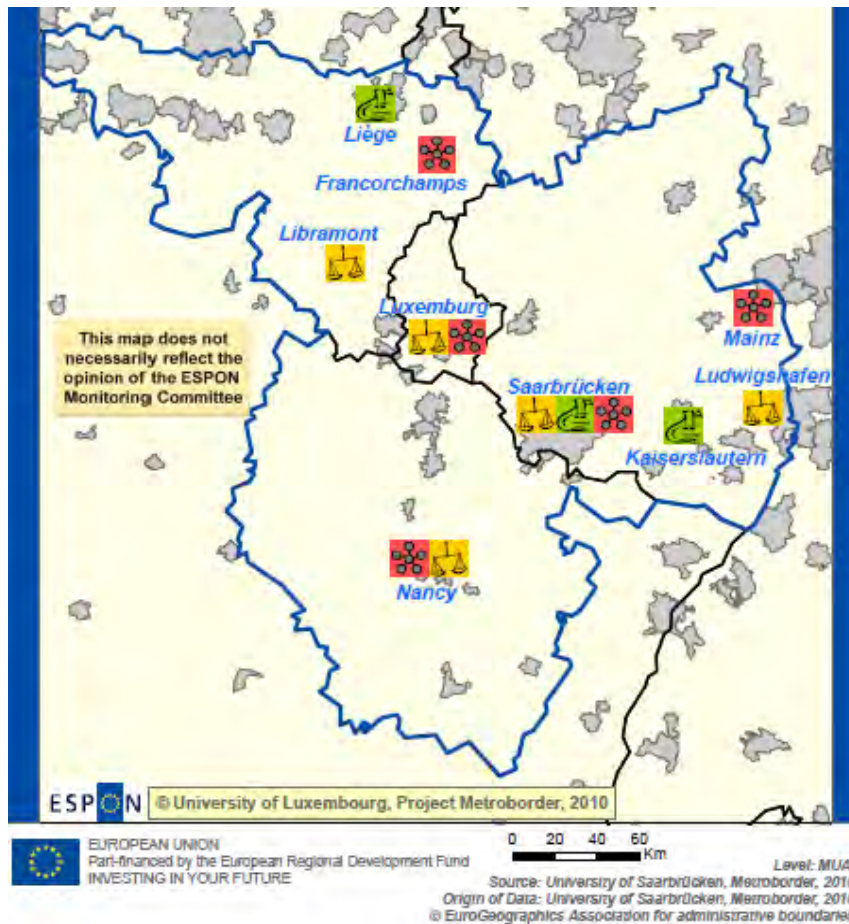
Although these basic characteristics indicate similarities and homogeneity between the parts of the Greater Region and seem to form a solid basis for an integrated economy, the survey results show that the degree of cross-border activity is very low. Less than 15% of the enterprises (11 out of 75 responding) cooperate with partners located in a foreign part of the Greater Region (see Fig. 5). At the same time, about 45% of the enterprises (34 out of 75) cooperated within their own region. Consequently, the automotive industry of the Greater Region has to be considered more as a conglomerate of five separate regions than as one integrated 'automotive region'.



**Fig. 5:** Challenges for inter-regional cross-border cooperation in the Greater Region (postal survey 2009/10, University of the Saarland; n=75)

There are diverse reasons for this situation: on the one hand, several enterprises – mostly subsidiaries of large, globally-active companies – do not have the ability to develop cooperation at the regional level. Furthermore, many enterprises refer to language and mental barriers: they either lack language skills to develop relations with foreign partners, or have protectionist attitudes. In addition, prejudice about the performance of foreign enterprises can be observed.

There are many instruments which could potentially be used to overcome the barriers; one of these is the creation of a common platform. More than 50% of the enterprises state that a lack of integrated, cross-border platforms and networks hinders greater cooperation within the Greater Region. Therefore, optimised performance on the part of the cluster initiatives will probably increase the degree of cross-border cooperation within the Greater Region.



**Map 12** Mapping of automotive institutions – potential for a common platform?

Indeed, five cluster initiatives mainly focussed on their respective region by organising meetings for the enterprises, providing information and databases, and installing cooperation among enterprises (Map 12). The entire Greater Region, however, has only been of secondary interest for the cluster initiatives: from time to time, they organize bilateral meetings (for example for enterprises from Lorraine and Saarland), and some of the initiatives provide internet links on their website to other initiatives. Independent from a sector focus, the existence of the “Conseil Interrégional des Chambres des Métiers Saar-Lor-Lux” (CICM) should be mentioned. However, more intensive cooperation for the automotive sector is largely absent.



#### 4.4.2 Life sciences in the Upper Rhine

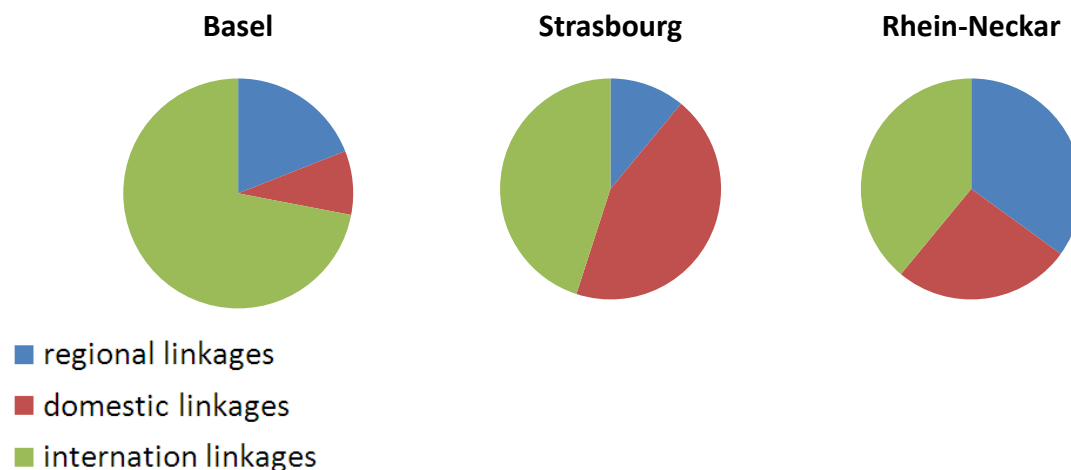
The spatial organisation of the Upper Rhine differs from the above-mentioned case of the automotive industry: it is much more concentrated in certain locations.

Exploring this organisation was initially intended to be carried out means of a postal survey, in parallel to the Greater Region survey. The preparation of this survey suffered from problems with the address database. Among the respective associations, firms, and also the METROBORDER stakeholders, worries were voiced that such a survey would place too great a burden on the life science companies, as they have recently been the subject of several scientific studies (in particular Biovalley Basel 2010, Plaut Economics & BAK Basel Economics 2007, Metrobasel 2009, Regio Basiliensis 2009, Schneider Sliwa 2008, Swiss Biotech Association 2010, Zeller 2001). Given this background, the METROBORDER project decided not to carry out the postal survey and to rely instead on the relatively good-quality information available from the literature, a series of expert interviews and some additional municipal data.

The Upper Rhine Region developed early (since the 15. century) as a common economic space and was characterised by strong frontier effects. Especially the tri-national region of Southern Baden, Southern Alsace and Basel constituted for the textile industry in all three countries a common trajectory which gave (via, first bulk chemicals, then fine chemicals) the basis of today's biotech-clusters Basel. The effects of the border with its different political regulations nearby led to changing cooperation and mutual complementarity.

With regard to the today's spatial organisation, three clusters of biotechnology can be observed within the Upper Rhine. Of these, Basel has the strongest international dimension; it comes before even Strasbourg, which also is very much oriented towards the international market. The Rhine-Neckar cluster is only partially contained within the Upper Rhine perimeter and is not located as near to the national borders as the clusters already mentioned; it also differs clearly in that it is much more oriented towards the regional and domestic market (cp. Klöpffer 2009, Fig. 6).

For both cases directly at the border, one can observe clear border effects (Klöpffer 2009). The Basel cluster in particular shows a pattern of new enterprises located in the Swiss part of the metropolitan region. This can be explained in particular by the Swiss regulations favourable to research and economic freedom.



**Fig. 6:** Intraregional, national and international interdependencies in the biotechnological sector – source: Klöpper 2009: 121, modified.

However, these intraregional demarcations do not apply to the labour market, which is open and serves both clusters. Parallel to structural changes to the regional production system from chemistry to biotechnology/life sciences, with its high R&D component, the structure of the workforce and its qualifications has shifted towards highly qualified employees, who are recruited globally. The three biotechnology clusters in the Upper Rhine together achieve the critical mass necessary for the Upper Rhine to gain a global reputation. The enlarged labour market reinforces agglomeration advantages and reduces search costs for enterprises and individuals; in particular, it reduces risks for new immigrants.

On the municipal scale, we find – in the case of Basel – a very clear complementarity that includes an attractive job market the Swiss side and attractive residential areas, leisure landscapes and retail on the French and German sides.

#### **4.5 Social aspects: the example of the emergency services (feasibility study)**

Political attention has been paid in the Greater Region as well as in the Upper Rhine Region to accessibility to emergency services. Cross-border arrangements in this field are likely to improve services to residents. In the METROBORDER Interim Report (IR), we underlined the value of a multiscale analysis of the emergency services, in order to consider not only travel from emergency hospitals to the place of injury, but also travel to the specialist hospital – known as primary transport and secondary transport.



## **A case study on strokes**

A case study is here proposed for a particular disease: cerebrovascular accidents (CVA, or strokes). CVA are a serious public health issue, because the time between the occurrence of the accident and the medical operation in a specialised hospital (a stroke unit) must be less than three hours in order to avoid repercussions – and for example in France, 50% of the CVA are not cured within this three-hour period (Ministère de la Santé et des Sports (France), 2009). It is thus particularly interesting to the hypothesis of transnational care of this disease, in order to show the potential benefits to residents.

As a feasibility study, the aim is to examine the operational interest and a methodology to pave the way for a study in the Greater Region and the Upper Rhine Region (for contextual and methodological details, see Interim Report and annex, chapter 12).

## **The time-distance matters**

The key issue was to define the time necessary between the attack and the arrival of the patient in the stroke unit, where they can undergo thrombolysis (medical removal of blood clots). This time consists of: calling an emergency service and description of the symptoms; time for an emergency vehicle to arrive; time for the diagnosis; time of transportation to a stroke unit; time for exams (scanner, MRI); then operation. The time for the diagnosis, exams, calls etc. has been assessed as 90 minutes, so the time for transportation cannot exceed 90 minutes in order to not exceed the vital period of three hours.

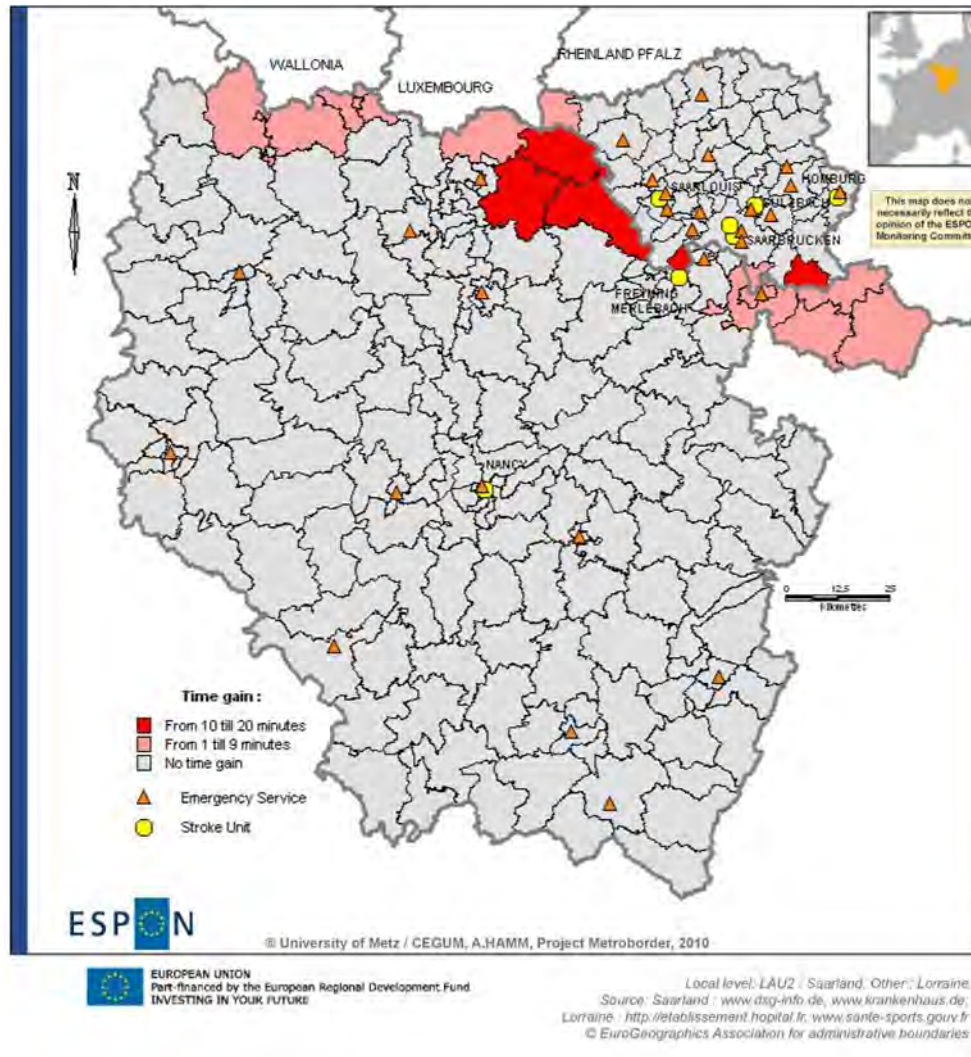
A significant amount of work is involved, so in this feasibility study we had to focus the test on only two parts of the Greater Region, Lorraine and Saarland. The following figure shows a case in which LAU1/2 residents experience time gains in a scenario of a transnational care for CVA as compared with domestic care (current situation). In other words, the arriving emergency vehicle is the nearest, whatever the side of the boundary, and the stroke unit to which the patient is driven is also the nearest.

## **Significant time gains in the LAU close to the boundary**

Although the border area is well-equipped with various medical and emergency facilities, the map shows clear improvements in CVA care, with a maximum improvement of 18 minutes. This time is precious within a vital period as short as

three hours.

The situation at the margins of Luxembourg and Wallonia cannot be properly analysed as the inhabitants may benefit from the stroke units located in these regions, so the time gain could be larger.



**Map 13** Significant time gains for the residents under a hypothesis of harmonised cross border care of strokes

### Lessons to be learned from the feasibility study

The study provides a framework for analysing the accessibility to emergency services in a transnational context. First, conceptual elements were defined in the Interim Report – primary and secondary transport; definition of accessibility. Second, several methodologies were also set out in the IR, to meet the various

objectives and spatial levels of emergency services action. Third, the benefit to residents is tested for the case of CVA.

Nevertheless, although the benefit of cross-border arrangements is proven with regard to primary transport, it is less obvious for secondary transport – with the exception of diseases for which rapid care is vital, such as CVA. For other diseases, such as severe burn injuries or accidents requiring neurosurgery, time is not as critical once a patient is stabilised; he/she can wait several days before being treated in a specialised hospital. A study of emergency services and CVA would be highly useful in the transnational context of the whole Greater Region and of the Upper Rhine, combining the network of emergency services with the localisation of stroke units, as it would meet a real need of residents.

## **5 Governance of CBPMRs**

### **5.1 Addressing Governance**

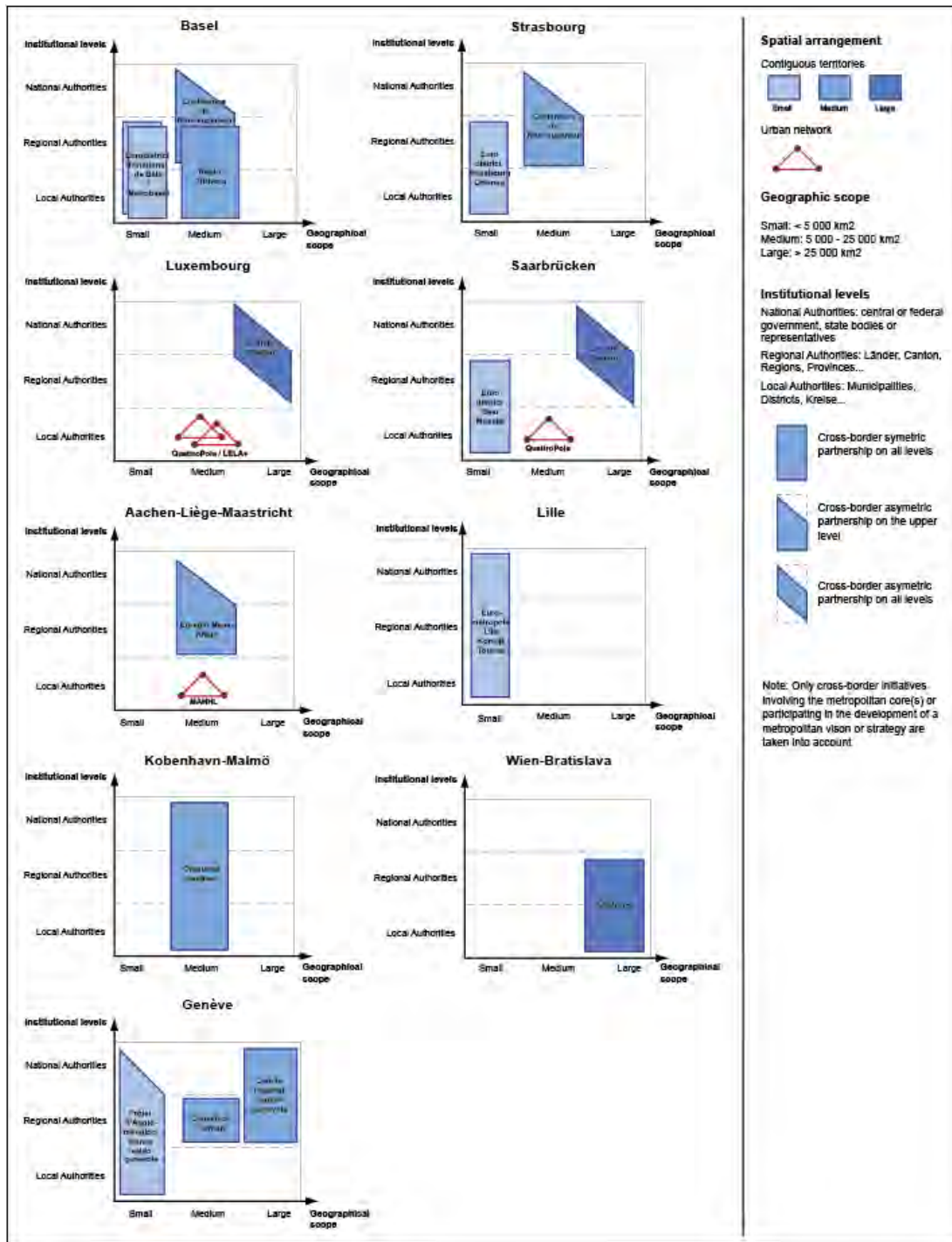
In the previous chapters, the understanding of CBPMRs has been mainly based on functional indicators and perspectives. However, cross-border integration, metropolitan ambitions and polycentric systems cannot be understood without taking into account governance.

Governance focuses on the institutional aspect, but goes beyond the notion of government. In general terms, governance explores power relations in a multi-level system and can link up with territorial questions (cp. the overview in Benz & Papadopoulos 2006, more specifically Reitel 2006).

The METROBORDER project takes a multi-dimensional approach in order to analyse the governance settings of the CBPMRs. Firstly, institutional mapping on different levels and with different tools give a systematic overview (for details see Appendix, chapter 13). Secondly, a comprehensive Delphi study in both case study regions has been conducted in two rounds. Thirdly, expert interviews and workshops have served both analytical purposes and the strategy building process.

### **5.2 Overview at European level**

The diversity of governance settings in Europe's CBPMRs – i.e. of the institutional arrangements for the coordination and execution of cross-border policies and projects - is vast (see Appendix, chapter 14). Fig. 7 illustrates this diversity in a simplified overview for those cases where cross-border governance shows a certain degree of metropolitan ambition: the x-axis represents the geographical scale and the y-axis the institutional levels of the public bodies involved.



**Fig. 7** Institutional Mapping of CBPMRs (CEPS/Instead 2010)

The analytical distinction between geographical scales and institutional levels seems relevant, as cooperation at local scale does not necessarily involve only local actors and cooperation at a regional scale is not restricted to regional or national authorities. In fact, there is a decoupling of the two parameters, making tangled

governance assemblages both (institutionally) multi-level and (geographically) multi-scalar. After having synthesised the institutional cooperation setting in each CBPMR, this analysis seeks to identify common trends and structures.

In order to ensure comparability on European level, both axes have to simplify highly complex aspects. Firstly, the institutional level refers to the domestic political hierarchy. Numerous specific details have to be simplified (e.g. French *Préfecture*, absence of regional level in Luxembourg etc.). The notion of symmetric / asymmetric patterns addresses the hierarchic level and must not be misinterpreted as normative. Asymmetric configurations can be optimal if they bring together the required competences, and symmetric configurations can bring together partners that do not possess the same institutional powers.

Secondly, the geographic scope refers to the formal perimeters of the institutions involved or the cross-border institution. This does not necessarily mean that the political ambition of the cooperative project is focused on this territory.

It is not only the institutional levels and territorial scopes that are very different. The overall result is large diversity of juridical forms, actors involved, and policies addressed. It is true that, given the diversity of territorial settings, there cannot be a one-size-fits-all solution to CBPMR governance. However, the interviews indicated that exchange between the different regions does not take place in a very systematic way. Political leaders of cross-border cooperation know each other on a personal level and they do exchange; European platforms like the AEBR (Association of European Border Regions) do provide the possibility of mutual learning. However, the development of governance strategies is based mostly on regional path dependencies. Focusing more closely on the two case study regions will illustrate some differences and similarities of CBPMR governance.

### **5.3 Territories of cooperation: focusing on the case study regions**

Both case study regions – the Upper Rhine and the Greater Region – have to handle a large territory. The advantage of a large perimeter is that more relevant actors are included and that it is possible to address large-scale issues (e.g. TENs). At the same time, both the diversity of actors and the large size can pose problems. Residents and politicians may question the sense of working over such distances and in such institutions.

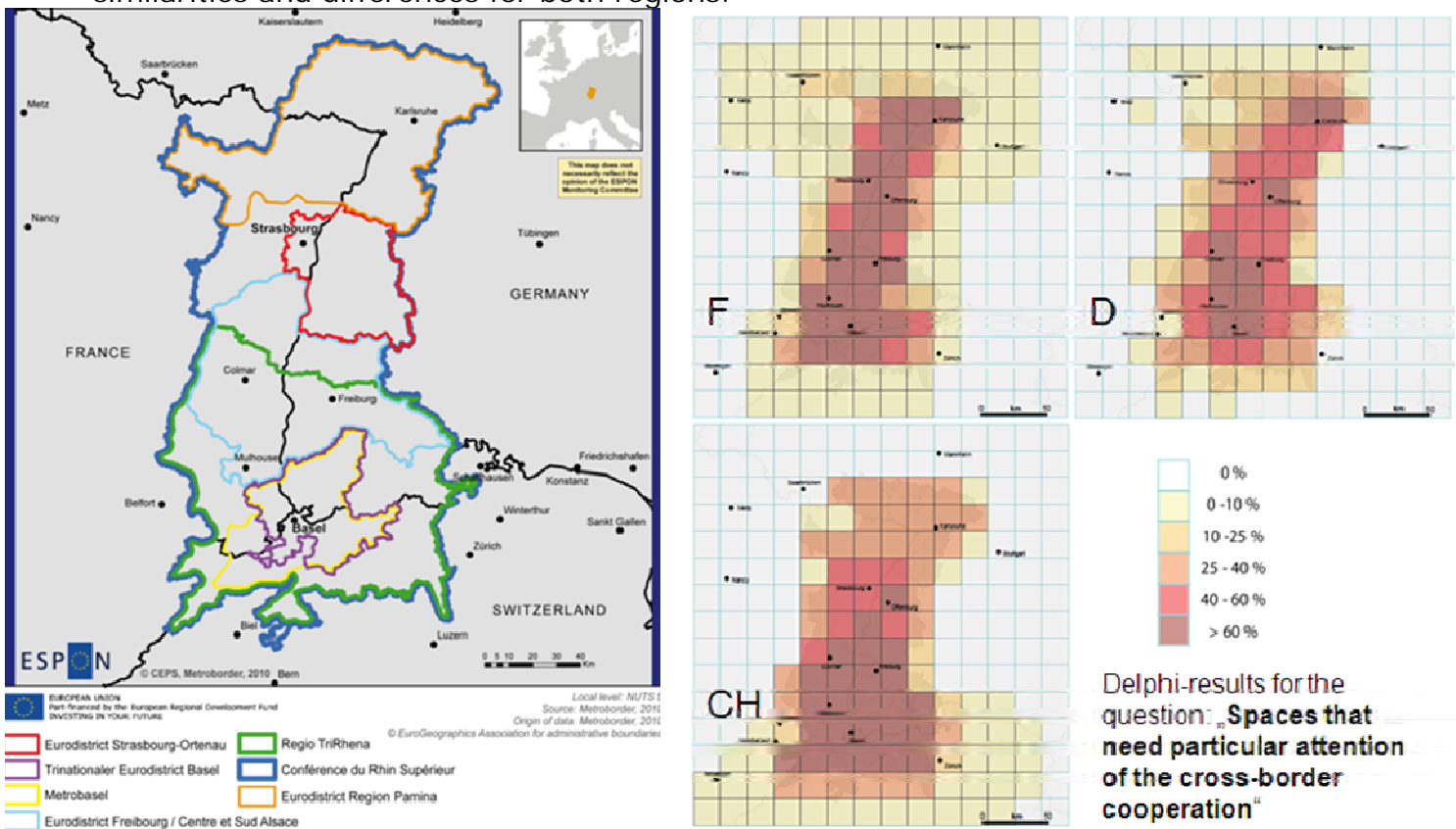
Given the diversity of territorial settings at the European level, the question of the cross-border perimeter is a crucial one. We examine this in greater detail by focusing on the two case study regions.

A variety of tools for institutional mappings has been developed in order to explore

the governance setting in a more detailed way. The key methodological tool was a comprehensive Delphi study of approximately 300 experts for both case study regions in order to scrutinise the territorial dimension of the CBPMR governance and to develop political strategic options (see Appendix, chapters 13 and 15).

The Greater Region’s perimeter consists of the ‘pooled’ perimeter of the institutions involved. The Upper Rhine Conference has defined a particular (and smaller) perimeter that excludes parts of the German federal states, although they are full institutional members of the cooperative project (for details see 3-D mappings in Appendix chapter 13).

In the course of the Delphi Study, the experts on both case study regions were asked to identify those areas that they consider to be in particular important for the cross-border cooperation. The results (cp. Map 14/Map 15) show interesting similarities and differences for both regions.

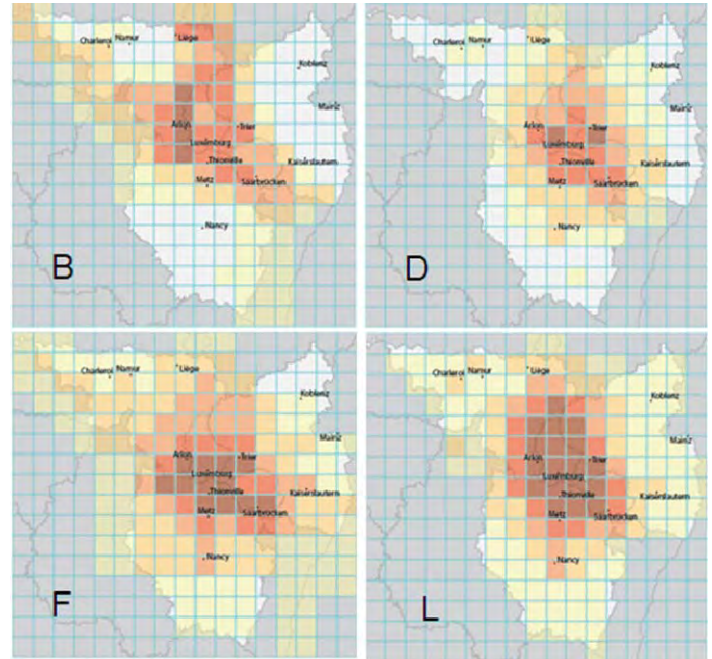


**Map 14** left: cross-border institutions and their perimeter within the Upper Rhine region; right: core spaces for increased cross-border cooperation in the case study region – results from the Delphi study, differentiated for the national backgrounds of the responding experts





**Map 15** left: cross-border institutions and their perimeter within the Greater Region; **right**: core spaces for increased cross-border cooperation in the case study region – results from the Delphi study, differentiated for the national backgrounds of the responding experts (legend s. Map 14).



Delphi-results for the question: „Spaces that need particular attention of the cross-border cooperation“

The maps of both regions show a certain consensus among the respective experts in terms of core areas. Even if we differentiate by the national background of the experts involved, the answers do not differ greatly. The multilateral context is not predominantly seen as an arena for bringing forward domestic interests. Instead, common concerns are very visible.

Interestingly, the overall pictures show a certain parallel between the regions which indicates that the respective ‘cultures’ in planning and politics have a visible impact. In both regions, the French vision is clearly influenced by the spatially-comprehensive, inclusive concept of the *aménagement du territoire* approach. The German approaches are much more discrete, which might be interpreted as a reference to the Christaller school of centrality and a polycentric vision of metropolitan quality. Both Luxembourg and Switzerland – as “bridge” countries in terms of language, culture etc. – see in particular their own “bridge” areas included.

In general, the maps illustrate the differences between institutional territory ("*Vertragsraum*") and the territory of political projects ("*Mandatsraum*"). The clear difference between both regions is that the perimeter of the Upper Rhine is in general seen as relevant to cross-border cooperation. The Greater Region's experts, in contrast, concentrate much more clearly on a core area that is much smaller than the institutional perimeter. Hence, the Greater Region's experts seem informally to agree on a perimeter of cross-border cooperation that has never been institutionalised. This explains why – as another Delphi question shows – the large perimeter of the Greater Region is not considered as a major barrier to intensified cooperation. The Upper Rhine, in contrast, has explicitly defined a perimeter that differs from the pooled territory of the domestic institutions involved in the cooperation. This perimeter is largely confirmed.

These results do not give easy answers to the complex questions of territoriality. The many challenges include:

- Depending on the policy focus of the cross-border cooperation, different spaces have to be taken into account (cp. so called 'flexible geography')
- The political mandate, and thus the territoriality, is organised on the basis of a domestic logic. Setting up a transparent and democratic setting is not easy in this context.
- Domestic frameworks – e.g. with regard to administrative territorial delimitations – remain important.

Despite these major challenges, the Delphi maps illustrate the political will at the (cross-border) regional level to establish strong cross-border frameworks. The next chapter addresses the phase of strategy building that aims to make use of this political energy.

#### **5.4 Towards a CBPMR governance: strategy building**

In both case study regions, the political will to establish a 'metropolitan project' is strong. In the Greater Region, the project of creating a CBPMR was agreed on at the 11<sup>th</sup> summit of the executives of the Greater Region in 2009, labelled 'Metroborder'. In the Upper Rhine region, the 'Tri-national Metropolitan Region Upper Rhine' was launched 2006 within the framework of the Upper Rhine Conference.

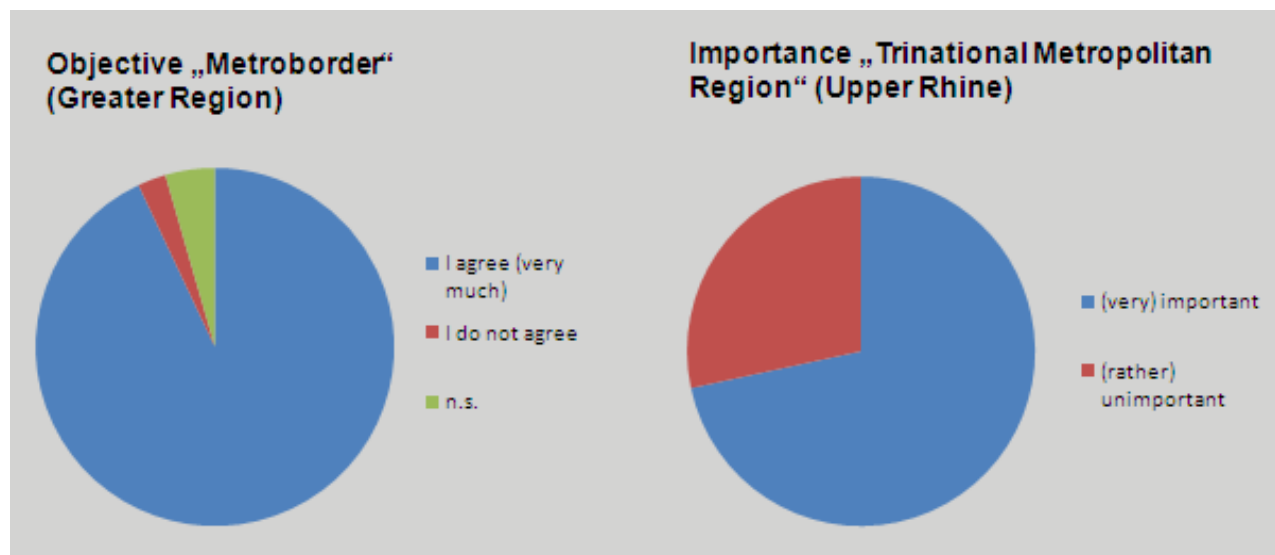
The Delphi study in both regions shows a strong political will to support and establish these projects (Fig. 8). The Greater Regions' experts "agree" to a level of over 90% with the political ambitions; within the Upper Rhine, about three quarters



of the experts consider the project to be “(rather) important”. This degree of consensus can be regarded as a political window of opportunity that offers the impetus needed to concretise and establish the projects.

The general consensus must be seen in the context of the fact that the spatial focus of the actors involved is fitting quite well, as explained above.

The Delphi study, numerous expert interviews and the reflections within workshops of the strategy building process have clearly shown two axes of action: institutionalisation and concretisation. Institutionalisation does not necessarily mean *more* institutions, but rather reflection on and potential modification of the existing structures. In the Upper Rhine, a certain institutional ‘overload’ is noted by the experts; in the Greater Region, a certain under-institutionalisation can be identified. In both regions, however, changes are considered to be due.



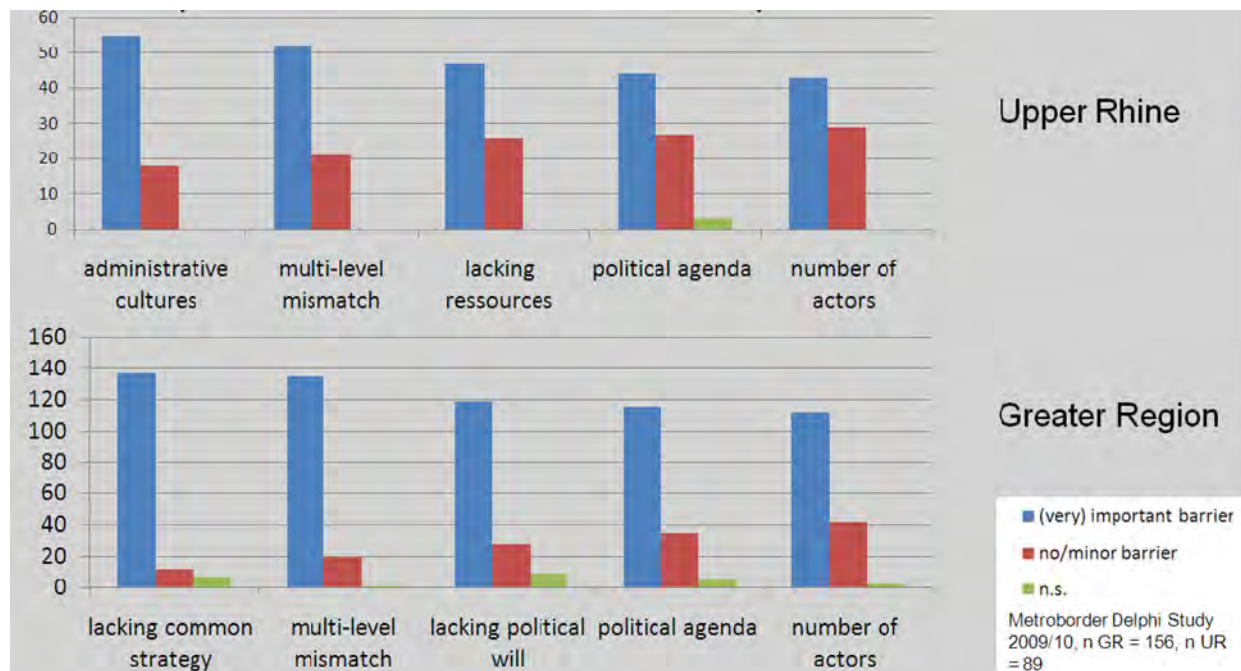
**Fig. 8** Political support of the metropolitan strategy in the Greater Region in the Upper Rhine (source: Delphi Study; n GR= 156, n UR =89)

Concretisation means the *conceptual elaboration* of the ambitions (e.g. what kind of joint lobbying strategy in national capitals?), the improvement of the *actual outcome* of the cooperation (e.g. joint transport improvements, establishment of a ‘network-of-the-networks’), and, last but not least, the development of visible projects with a strong *symbolic dimension*. If one thinks of the visibility of the Öresund bridge or the pedestrian bridge between Strasbourg and Kehl, the potential of symbols becomes obvious. This is not only important in order to strengthen the position in European and national debates, but also as starting points for ‘cross-border identities’ of civil society.

In both case study regions, the policy focus for future action is very similar (Fig. 9), and also the barriers to overcome in further developing cross-border cooperation are parallel (cp. Fig. 10).



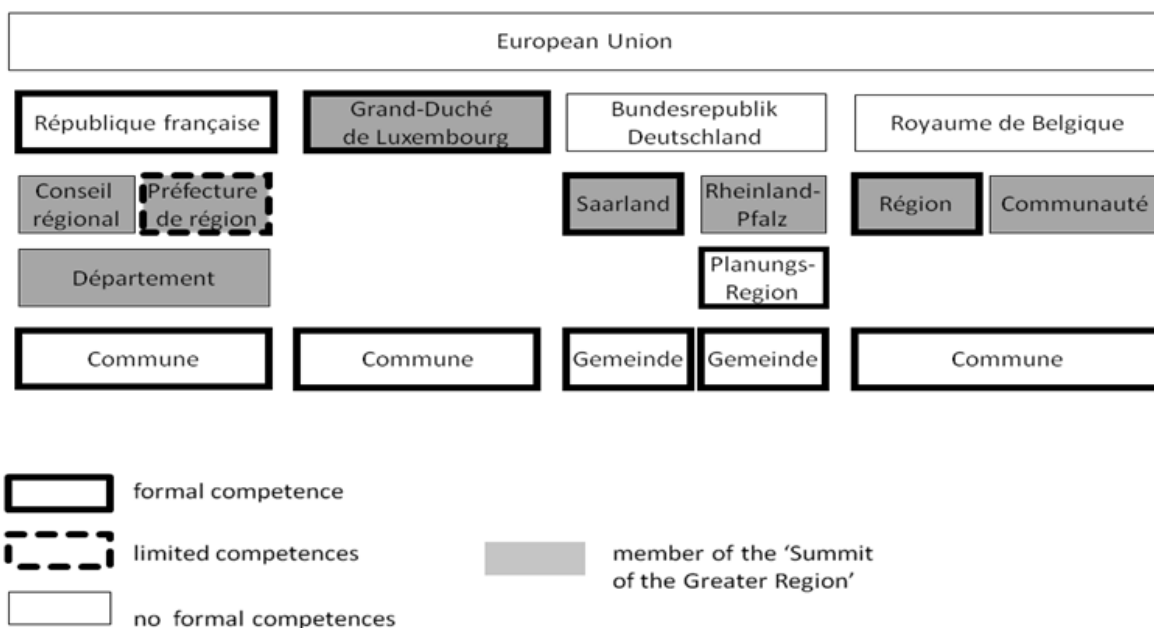
**Fig. 9** The most relevant policies for increased cross-border cooperation (Delphi Study)



**Fig. 10** The five most important barriers for an enhanced cross-border

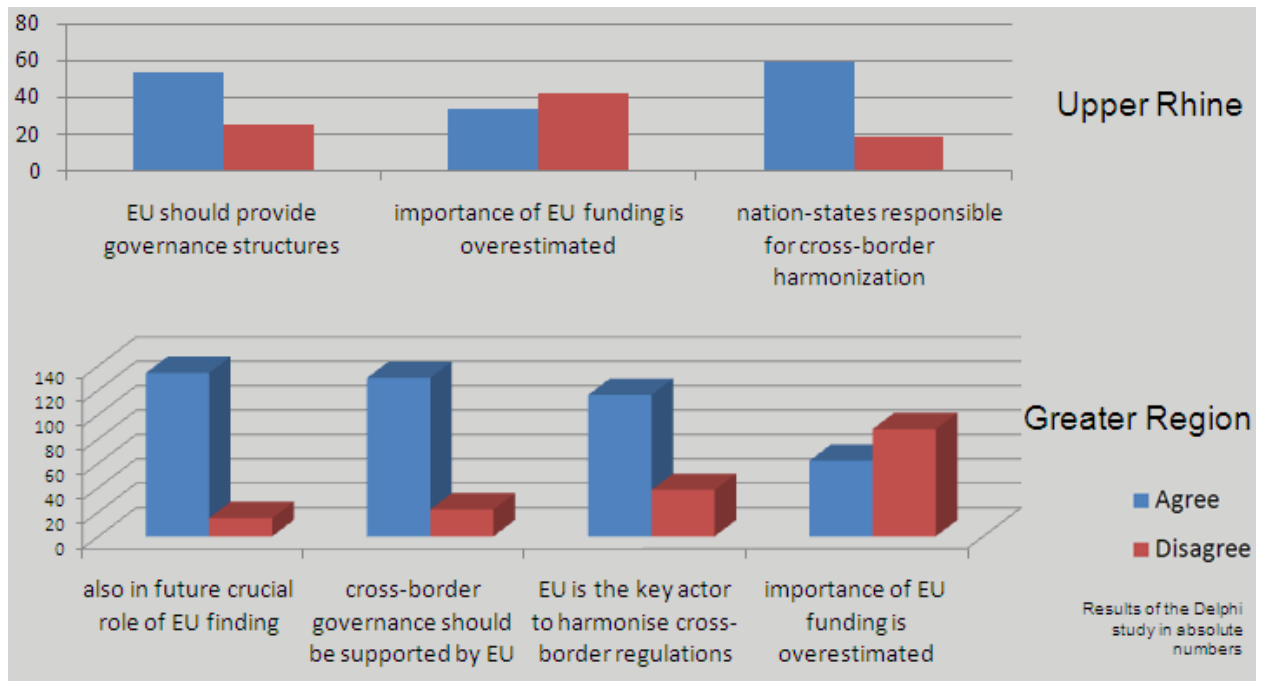
cooperation in both case study regions (Delphi study)

Of the barriers to better cross-border cooperation, the 'multi-level mismatch' plays a crucial role in both case study regions. That political and administrative competences cannot be found on the same levels on either side of the border(s) is true of almost every policy - Fig. 11 illustrates this for the example of spatial planning in the Greater Region, which is not the most complicated case.



**Fig. 11** Institutional mapping of competences for spatial planning in the Greater Region

There is no easy way to overcome these barriers. Harmonisation of hierarchies and competences is not a realistic prospect. Instead, a key aspect is the informal competence of the personnel working in the region, having a detailed knowledge of the other side's organisation, with personal contacts and confidence playing an important role. However, staff turnover and individual mishaps can endanger the functioning. This is why the establishment of *supra*-regional institutions carries a certain potential. Discussions about European Groupings of Territorial Cooperations (EGTC) are the best-known example of this (for more detail see Appendix, chapter 15). Concrete projects like the *Territorial Observation* project in the Greater Region aim to achieve regionally-specific implementation. The European Union plays an important role in this context: experts in both regions consider the support in terms of governance tools to be the most important, followed by support in form of funding and facilitation by harmonisation (see Fig. 12).



**Fig. 12** What role for the EU? Results from the Delphi study (n GR= 156, n UR =89)

The remaining time of the METROBORDER project is dedicated to the strategy building process, which aims to concretise political action in both regions. The process has begun with several workshops in both regions, the preparation of input papers and hand-outs etc.

Chapters 18 and 19 and the respective appendices will give more details on which arguments are considered as most important in this process of establishing the CBPMR vision in particular regions.

As the process remains in a relatively fluid state, the results will be part of the Final Report. However, some tendencies can already be noted:

- In the Upper Rhine region, institutional questions are the most pressing. A workshop in September 2010 in Freiburg discussed three scenarios of how to simplify the institutional diversity (multi-level, bi-level or one comprehensive structure). A more content-oriented strategy has also now been developed.
- In the Greater Region, questions of institutionalisation and concretisation are discussed in parallel. Institutionally, the involvement of economic actors as well as of municipal representatives is the most pressing task. The current establishment of an EGTC is fuelling these debates. With regard to concretisation, three dimensions of action are actively discussed – the ‘economic metropolis’, the ‘laboratory of Europe’ and the ‘mobile and accessible region’.

When reflecting institutionalisation, the results can be very different (more or less institutions, softer or harder institutionalisations, more or less partners etc.). However, four aspects can be identified as being of particular sensitive in both case study regions, and interviews with experts from other CBPMR regions indicate that these are general problems:

- If multi-level mismatches are to be overcome and the political output of cross-border institutions is to be enhanced, the question of *supra-regional institutions* must be addressed. This requires reflection on political power and democratic legitimisation.
- As long-term success depends to a large extent on joint economic prosperity, the involvement of business is highly desired, but not easy to achieve. In particular, decision-makers from private enterprises do not focus on regional cooperation at the political level.
- In relation to metropolisation, the municipal level – in particular the larger cities – has an important role to play. Linking inter-regional and inter-municipal cooperation, however, is a challenge as it can easily complicate the already-complex situation.
- Last but not least, involving civil society is a challenge. This participation is indispensable, both from a political and a democratic view. At the same time, the complex and abstract situation is not easily communicated to a broader public.

However, addressing the challenge is likely to be worthwhile. The CBPMRs are the laboratories of Europe – border areas have always been where Europeanisation has always shown results in the most concrete and positive ways, and border areas remain regions of high potential. This potential is all the larger as metropolitan characteristics are in general seen as driving forces. There is little doubt that the current window of opportunity should be exploited, even if the work required is enormous. Developing strategies of joint lobbying, economic complementarities, territorial marketing etc. will lead to complex political debates. Addressing the poor availability of data would be an important step in this process; showing economic potential and bottle-necks in a more detailed way would certainly facilitate this process.

Still, political will is decisive, and currently the floor is open for those who seek to make use of a “first mover advantage”. The floor is open for a pioneering CBMPR approach, which will certainly replace the CBPMR acronym with a label suitable for territorial marketing.

## **6 Conclusions for the case study regions**

### **6.1 From research to political action**

The following two chapters contain crucial elements that are discussed in the context of strategy building in both case study regions, bringing together the results presented so far.

During the series of strategy building events, many aspects were discussed (for an overview of the events organised, see chapter 20). The current state of the debates is described in greater detail in a comprehensive description in the appendix (chapters 18 and 19). These appendices aim to provide a relevant summary for the regional stakeholders.

Strategy building brings together territorial evidence and political vision – the following chapters aim to give concrete statements in order to define this interface.

### **6.2 Synthesis of the Greater Region situation**

#### **6.2.1 Why a CBPMR strategy for the Greater Region?**

At the European level, the Greater Region is a special ‘cross-border metropolitan polycentric region’ (CBPMR): in no other place in Europe, or perhaps in the world, is there such a high density of national borders combined with such a high degree of cross-border integration.

Moreover, the Greater Region is not just a polycentric settlement system, but also comprises a metropolitan area of global significance, despite its relatively small size. Further exploiting the potentials of the CBPMR is a coherent strategy with few alternatives in the long run.

The development of the Greater Region has to take into account its overall strengths and weaknesses.

In greatly simplified terms, the most prominent strength of the Greater Region is its role as a metropolitan region of European relevance, despite its relatively small agglomerations. This visibility results primarily from the economic strength of the Luxembourg region and the Greater Region’s complementary polycentric structure. Economic control functions, attractive retail and cultural centres, political sub-centres at all levels etc. can be found on all sides of the borders. This is combined with a remarkably high degree of cross-border integration that is both the precondition and the outcome of the clever exploitation of differentials by residents and economic and political actors.

The unique internationalism and the strong functional integration in the central part

of the Greater Region highlight its potential to be the 'laboratory of Europe'. The long-standing experience in cross-border cooperation within the Greater Region can be seen as a solid starting point.

The CBPMR approach helps to further develop polycentric complementarities. Existing differentials – in terms of labour markets, real estate markets etc. – have been and remain the driving forces of cross-border development. The CBPMR vision helps to further explore this path. At the same time, a certain balance and fairness among the sub-regions and the residents can be ensured.

For the Greater Region's potential as a CBPMR to be exploited, several constraints and weaknesses must be considered. The overall challenge for the Greater Region is to ensure that the 'critical mass' is attained in terms of urban agglomerations and metropolitan functions. The sheer territorial size of its cooperation perimeter does not compensate for the small size of the cities and the ultimately limited metropolitan quality of the economy. This argument also plays a crucial role with regard to accessibility issues and the challenge of influencing political agendas. The cross-border cooperation helps to safeguard the 'critical mass' of the territorial features. Working together, and on the basis of the demographic and economic contributions of all partners, the Greater Region can maintain its current role. In this context, Luxembourg plays a particular role with regard to the metropolitan visibility. At the same time, Luxembourg can only perform thanks to the high degree of cross-border cooperation.

With regard to governance, the purely intergovernmental and hardly institutionalised character contains significant potential as – among other factors – the 'multi-level mismatch' must be better addressed.

In economic, political and demographic terms, we see both promising and problematic developments within the Greater Region. The greatest positive development can be seen in the core space of the Greater Region; other parts differ significantly. Territorial cohesion remains a challenge, and at the same time the Greater Region has to ensure it is not left behind by the competing metropolises on the fringes of its perimeter (e.g. Brussels, Rhine valley).

Without enhanced cross-border development, sustainable spatial development is difficult to attain. For example, only an intelligent transport infrastructure can reduce environmental problems, and only the efficient use of public budgets – avoiding double spending on either side of the border – can be regarded as economically and socially sustainable. Avoiding unsustainable development due to border effects can be seen as a major contribution towards cohesive territorial development, including from a European perspective.



### 6.2.2 Which perimeter for the CBPMR?

The spatial configuration is a particularly sensitive issue within the Greater Region, as it is known for being extremely large without having – apart from administrative and institutional constraints – any especially convincing reasons for this perimeter. The current territory is not an outcome of explicit political reflection. In a process that brought together the relevant institutions involved in regional cooperation, each institution brought with it its territory - resulting in a huge pooled territory. This is frequently criticised; however, the definition of a narrower perimeter carries with it numerous problems. The political energy which must be invested in order to define a smaller perimeter is enormous; a particular risk is that misunderstandings develop with certain partners being excluded. Moreover, no unique or absolute definition of the cooperation perimeter is possible; this depends largely on the policy ambitions. The perimeter of action differs for example, when addressing supra-regional transport connections or debating a joint fare structure for public transport.

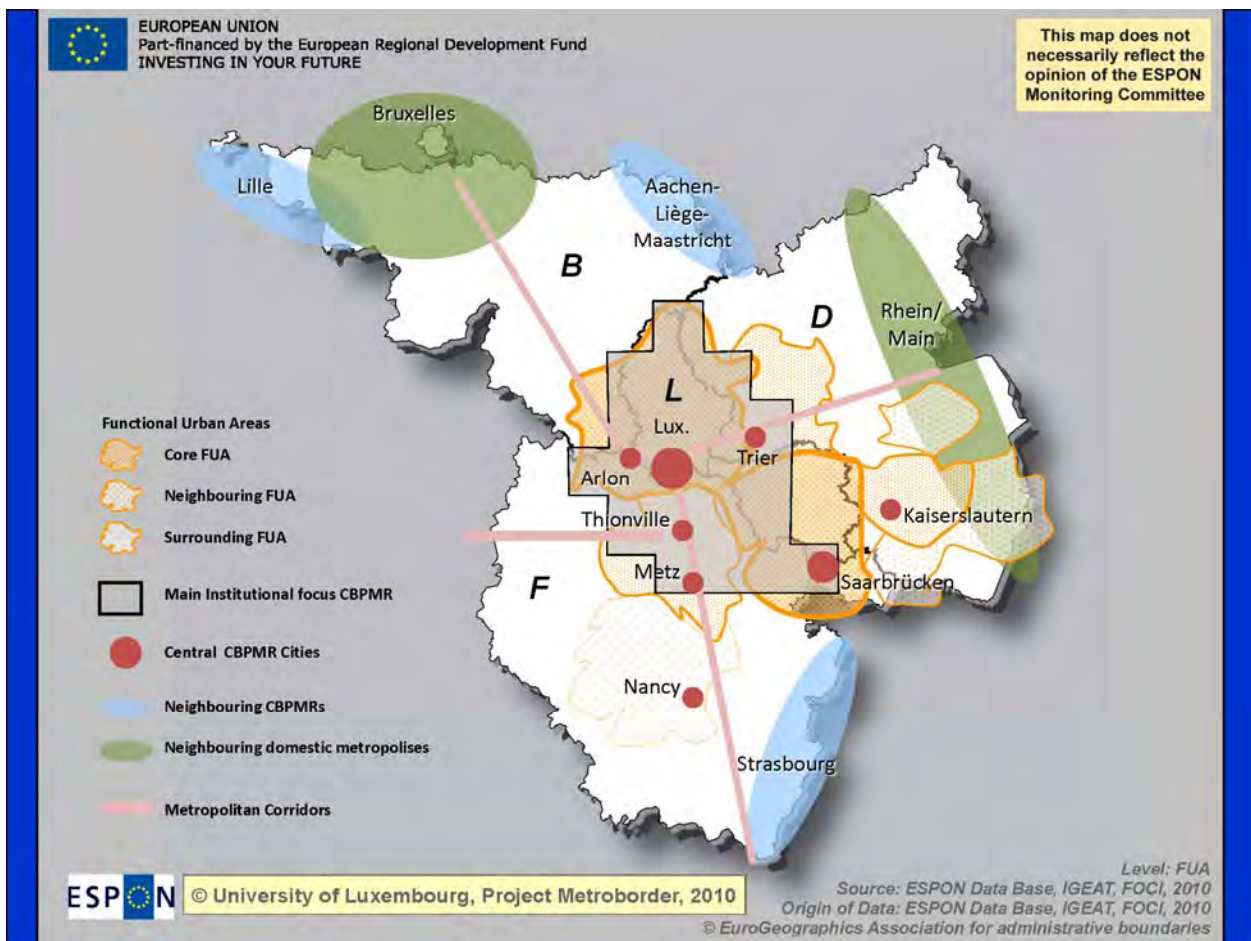
Bringing together the territorial evidence from the METROBORDER project gives some indication of the spatial configuration of the CBPMR project within the Greater Region. The schematic Map 16 gives a simplified overview of this setting.

The different information layers of the map are explained below:

- **Functional Urban Areas:** The Greater Region comprises two Functional Urban Areas (FUAs) with a cross-border dimension – the Luxembourg FUA and the Saarbrücken FUA. Having two cross-border FUAs touching each other is unique within Europe. These two cross-border FUAs can even be regarded as a bipolar cross-border corridor. Within this bi-polar structure, Luxembourg is the much more metropolitan area in economic terms; Saarbrücken has the larger urban centre in demographic terms. Jointly with the neighbouring and – very much dependent on the political will – surrounding FUAs, we see important evidence for the CBPMR core space of the Greater Region.
- **Central CBPMR cities:** The overall polycentric structure of the Greater Region and its core space is represented by the settlement structure. Here, we see four levels of polycentricity within the core space, reflecting 1) the outstanding economic importance of Luxembourg, 2) the demographic size, political importance ('Landeshauptstadt') and status as a cross-border FUA, in the case of Saarbrücken, 3) the urban centres of the neighbouring FUAs and 4) the centres of the surrounding FUAs (e.g. Kaiserslautern) whose profiting from the CBPMR status depends largely on the respective political will to cooperate.
- **Institutional focus:** The political will has been analysed by the Delphi study; in the map, the perimeter shown represents the space considered by

over 45% of experts to be particularly important. This core space covers all national frontiers and the cities near to the borders.

- **Metropolitan corridors:** The ambition of establishing the Greater Region as a CBPMR is linked to the situation regarding infrastructure. The most important links to the surrounding metropolises are of particular importance. Whereas Paris is comparably well connected, the Brussels connection, and also the Rhine direction and the Strasbourg/Basel link, are not yet adequate. Focussing political attention on these links is, as is also indicated by the Delphi study, doubtless a useful approach.
- **Neighbouring CBPMRs and domestic metropolises:** The spatial setting of the Greater Region CBPMR cannot be understood without paying attention the surrounding metropolises. The Greater Region is 'embedded' in the form of a pattern comprising a series of metropolises, two of them domestic ones (Brussels region, Rhine valley/Frankfurt) and three of them cross-border metropolitan areas (Lille, Aachen-Liège-Maastricht and Strasbourg-Kehl).



**Map 16** 'CBPMR Greater Region': schematic synthesis map of METROBORDER results

### **6.2.3 Governance: the political setting of the Greater Region**

Cross-border cooperation in the Greater Region dates back to the early 1970s and can be regarded as providing a solid basis for future cooperation. Its strength can be seen in the involvement of the decision-makers at the top political levels and the many years of experience.

The institutional cooperation in the form of the 'Summit of the Executives of the Greater Region' is complemented by a variety of further institutions, some of them closely linked to the Summit (such as CESGR and IPR); others are complementary at the regional level (e.g. Eurodistrict SaarMoselle) and the local level (e.g. Euregio, city networks). Certainly, this diversity represents an asset for cross-border cooperation.

At the same time, the challenges are obvious as the involvement of four national backgrounds multiplies the border effects in political terms. In particular, the 'multi-level mismatch' must be seen as a major bottleneck in terms of cross-border cooperation, meaning that different and sometimes incompatible allocations of competences in many spheres occur on either side of the border. The current organisation is not ideal for the overcoming of these multi-level mismatches, as the approach is mainly based on a rotating intergovernmental system ('presidencies of the Greater Region's summit'). The second most important challenge is to activate the private sector for cooperation and to ensure the adequate involvement of the municipal and metropolitan actors within the interregional cooperation.

Some of the main results of the Delphi study regarding governance can be summarised in the following bullet points:

- The experts of all countries involved agree that cooperation has to focus on a core area of the Greater Region
- The priorities with regard to the policy focus are clear – transport, spatial planning and R&D are the key areas.
- The currently-established EGTC (European Grouping of Territorial Cooperation) can be seen as an important steppingstone towards a governance framework that complements the current structures. There is a strong will to establish a strong EGTC in the medium term.

### **6.2.4 Strategic options**

The current strategy-building process is in a dynamic phase; the final report will be

clearer about the political results. As explained in greater detail in chapter 19, concretising the ambition to establish a CBPMR is discussed along the following dimensions or *leitmotifs*:

- The vision of an “economic metropolis” aims to explore further synergies and complementary natures in order to ensure cross-border prosperity. The internal dimension aims to develop potentials in regional supply chains and clusters. The external dimension aims to position the Greater Region more prominently within the globalised economy.
- The vision “laboratory of Europe develops the potential that the extraordinary international and multicultural Greater Region bears. This addresses mainly two spheres. Firstly, the residents (*‘civil society’*) have to be further involved in the cross-border dynamics. Secondly, and more pressingly, the *political sphere* of the Greater Region that has to deal with cross-border mismatches in many dimensions on a daily basis. The Greater Region has long experience in cross-border cooperation, and has – in a complex environment and at times of outstanding economic development – achieved some good results. However, the purely intergovernmental organisation with its rotating presidencies is still a relatively cautious structure. Given the current dynamics with regard to EGTCs on the Greater Region’s perimeter, the role played must be that of pioneer and laboratory.
- The vision “mobile and accessible region” aims at improving transport issues, but also at facilitating professional mobility. With regard to mobility questions, both the technical and the symbolic aspects have to be taken into account.

### **6.2.5 Specific actions**

The next steps towards the establishment of the Greater Region CBPMR must, firstly, include reflection on governance issues (*institutionalisation*). Secondly, the cross-border cooperation has to think about more concrete, visible projects, and outcomes (*concretisation*).

The following sections develop examples of actions that are – from the academic perspective – promising. As mentioned above, however, the concretisation of political visions is the original mandate of the political sphere.

The projects to be further debated in the political sphere are the following (in detail see annex, chapter 19):

- the *‘automotive platform’* as an example for the development of interregional synergies and complementarities.
- A *territorial observatory* in order to close knowledge gaps that result from the

various statistical multi-level-mismatches.

- Developing a *politically strong EGTC* as a supra-regional institution that helps to enhance the political outcome
- *Territorial marketing*: territorial marketing has not yet been established in the Greater Region as an important policy – this should be done in strategic and also more symbolic/visible terms
- Having the pressing transport issues in mind, a *Greater Region mobility scheme* has to be developed in order to solve the manifold bottlenecks

## 6.3 Conclusions for the Upper Rhine

### 6.3.1 Synthesis of the Upper Rhine situation

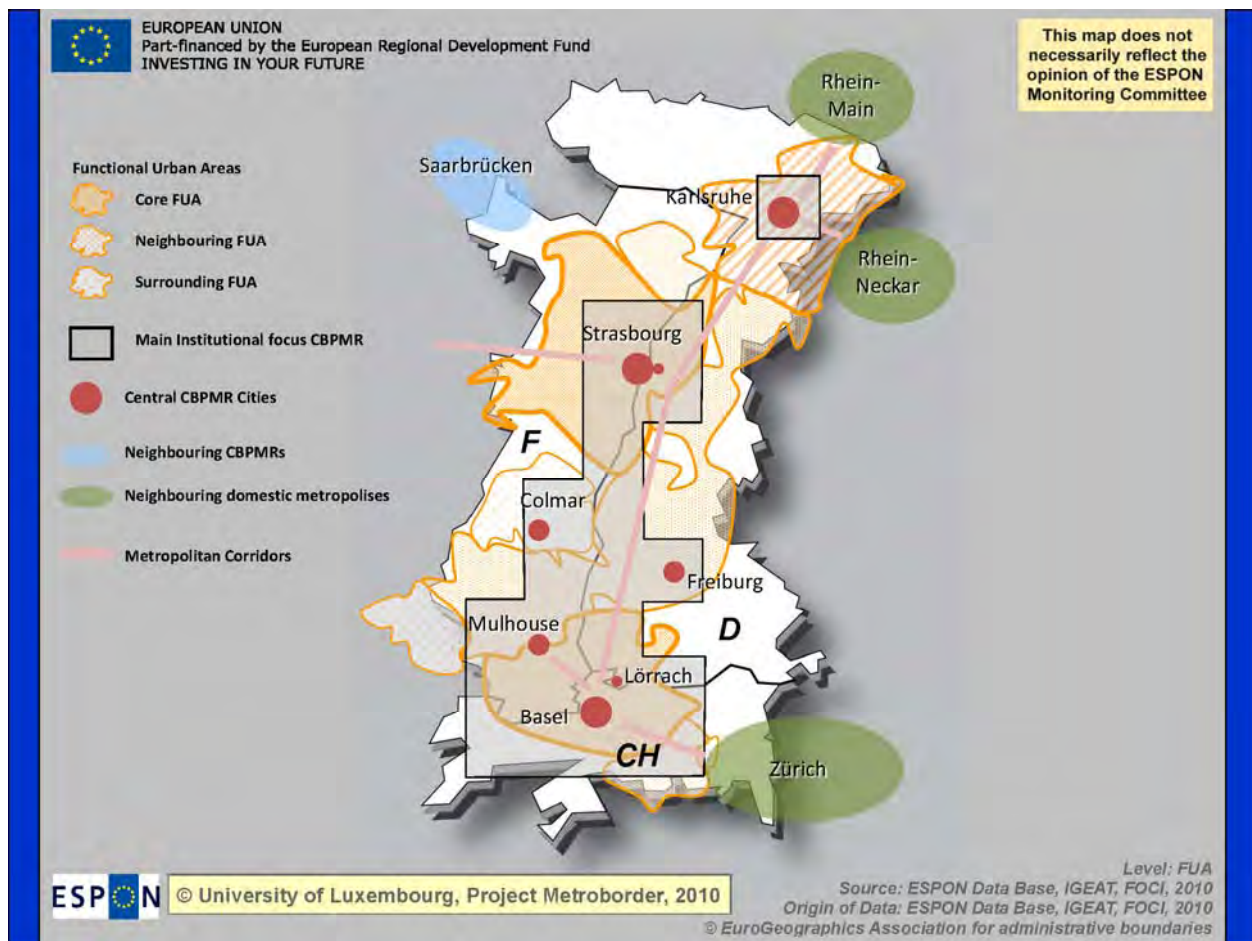
The Upper Rhine region is a particular CBPMR because of its tri-national character. Compared to the other European CPMRSs, its polycentricity is quite balanced (having two truly cross-border cores with the Basel and Strasbourg FUAs and an important third player with Karlsruhe). The functional cross-border integration is particularly intense in the Basel FUA, being amongst the three most important cross-border commuting regions in Europe.

The status of the Upper Rhine as a CBMPR is obvious: the synthesis map brings together the crucial results from the METROBORDER research.

The different information layers of the map are explained below:

- **Functional Urban Areas**: The Upper Rhine perimeter comprises two core cross-border FUAs (Basel and Strasbourg), with Karlsruhe as a third player with a cross-border character and with a high demographic and economic weight. The neighbouring and surrounding FUAs match almost exactly the perimeter of the Upper Rhine conference.
- **Central CBPMR cities**: The strongest metropolitan dimension within the Upper Rhine perimeter can be found in and around Basel, mainly due to economic factors. Strasbourg, too, has a clear metropolitan dimension, amongst others due to political indicators. Karlsruhe has a strong economic dimension, but Freiburg, Colmar and Mulhouse are also important centres, in particular in terms of demographic figures.
- **Institutional focus**: Political will was measured by the Delphi study – in the map, the perimeter represents the area that more than 45% of the experts consider as particularly important. This picture reflects the overall acceptance of the Upper Rhine perimeter. At the same time, the northern part (around Karlsruhe) is seen as part of this setting, but in a more 'careful' way – this is, in a way, going very much parallel to the functional analysis.

- **Metropolitan corridors:** The metropolitan corridors of the Upper Rhine are predominantly oriented along the Rhine valley. The problem in this region is – differently to the Greater Region – not so much the linkages to external metropolitan regions but more the internal bottlenecks.
- **Neighbouring CBPMRs and domestic metropolises:** The Upper Rhine is positioned ‘in the shadow’ of the ‘Pentagon’ metropolises, namely Zurich, Rhine-Neckar (Stuttgart), Rhine-Main (Frankfurt). At the same time, the Upper Rhine is part of corridor of CBPMRs in Western Europe, not very far to the Greater Region and Genève.



**Map 17** 'CBPMR Upper Rhine': schematic synthesis map of METROBORDER results

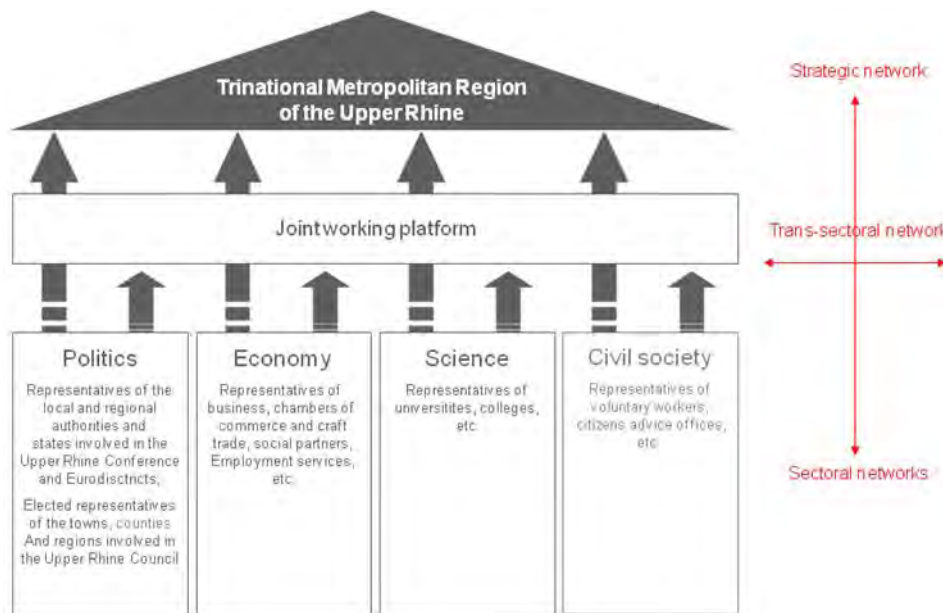
### 6.3.2 Governance and the "Trinationale Metropolregion"

The METROBORDER project has shown that the Upper Rhine region is characterised

by strong cross-border flows, such as cross-border commuting, as well as a well-developed cooperative structure. In this regard, the Upper Rhine is often considered as an exemplary cross-border region.

The actors involved in cross-border cooperation in the Upper Rhine have decided to go a step further and better position the region as a model for cross-border cooperation and development by establishing the so called “Tri-national Metropolitan Region of the Upper Rhine”.

The objectives of the project are multiple. According to the results of the Delphi study, the two main goals are the intensification of cross-border cooperation on the one hand, and lobbying in Brussels, Berlin, Paris and Berne on the other (see appendix, chapter 15). In order to achieve these objectives, the actors have established a new cooperative structure:



**Fig. 13** The “Trinational Metropolitan Region of the Upper Rhine” – current overview

One should mention the institutionalised involvement of the business and science sectors, as well as of civil society, in the cross-border cooperation. We must stress here that the four pillars of the “Tri-national Metropolitan Region of the Upper Rhine” do not show the same degree of institutionalisation. While the “politics” pillar can be considered as being over-institutionalised, there is a need to consolidate the organisational structures within the “economy” and “science” pillars. Finally, the “civil society” pillar represents a real challenge in terms of institutionalisation. This pillar is characterised by a lack of structure.



At the same time, the actors in the Upper Rhine are working on the definition of tri-national strategies within each pillar, as well as of a common strategy for the whole “Tri-national Metropolitan Region of the Upper Rhine”. The overall strategy focuses on the following action areas: multi-level governance, competitive and sustainable development, knowledge economy, and civil society.

### **6.3.3 Strategic options**

In the framework of the Delphi study, the need for institutional revision was expressed quite clearly (for details see appendix 18). The simplification of the cooperative structures is not a goal in itself, but rather contributes to

- improving the efficiency of the cross-border cooperation
- enhancing the transparency of the cooperative system and the visibility of the cross-border region,
- increasing the democratic legitimacy of the cross-border cooperation.

On the basis of the Delphi results, three different scenarios for possible simplification of the cooperative structures within the “politics” pillar have been developed. The idea was not to present realistic future trends, but rather to provide stimulus for discussion. The three scenarios were presented to the regional stakeholders and discussed at a workshop held on September 14<sup>th</sup>, 2010. The stakeholders were asked to criticize the scenarios and to further develop them.

The scenarios are briefly described in the following bullet points; discussion of the strengths and weaknesses is contained in the appendix.

#### **Scenario 1: Multi-level cooperation (status quo)**

The “multi-level cooperation” scenario reflects the actual situation. Its main characteristics are:

- “Politics” pillar: long tradition of cooperation and over-institutionalised cooperative structure.
- “Economy” and “science” pillars: well-functioning cooperative networks (e.g. BioValley, EUCOR and NEUREX) and cooperative structure which is institutionalised only to a low degree.
- “Civil society” pillar: low involvement in cross-border matters and lack of cooperative structure.

#### **Scenario 2: Two-level cooperation**

The scenario “two-level cooperation” presents a realistic development alternative. Its main characteristics are:

“Politics” pillar:

- Two cooperation levels: regional level with the Upper Rhine Conference together with the Upper Rhine Council and local level with the Eurodistricts together with so called District Councils.
- Integration of the Upper Rhine Council in the Upper Rhine Conference (as Upper Rhine Parliament)
- Creation of a District Council in each Eurodistrict (as District Parliament)
- Close cooperation between the Upper Rhine Conference and the Eurodistricts
- Representation of the interests of the Upper Rhine Conference and the Eurodistricts on the national level by the Governmental Commission
- Abolition of the RegioTriRhena
- Abolition of the City Network

Pillar “economy”:

- EURES-T Upper Rhine a centre of excellence for cross-border mobility
- Integration of EURES-T Upper Rhine in the “economy” pillar

All pillars:

- One coordinator for each pillar, close cooperation between the coordinators and the pillars

### **Scenario 3: Integration**

The scenario “integration” represents more a vision than a realistic development alternative. Its characteristics are:

- Creation of a single cooperation structure: Tri-national Metropolitan Conference
- Creation of a Tri-national Metropolitan Council as Upper Rhine Parliament
- Integration of the bigger cities with their agglomerations in the Tri-national Metropolitan Conference as Agglomeration Committees
- Abolition of the Eurodistricts and the City Network
- Integration of the pillars “economy”, “science” and “civil society” in the Tri-national Metropolitan Conference as Thematic Networks
- Representation of the interests of the Tri-national Metropolitan Conference on the national level by the Governmental Commission
- Integration of the different helpdesks (e.g. INFOBESTs and Euro-Institut) in one information centre

As mentioned above, simplifying the cooperation structures in the Upper Rhine is a

necessity as well as a challenge. It will take time and a great deal of convincing will have to be done. Together with the other results of the project METROBORDER, the revised scenarios will be presented again and discussed with the regional stakeholders within the framework of the Upper Rhine Conference and the Eurodistricts.

In order to achieve real results, the actors involved in cross-border cooperation will then have to take over and carry forward this process.