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Cross-border regional planning

Functional integration and spatial planning in border regions

Border studies discuss national borders as drivers of functional interrelations between territories. However, spatial planning documents usually end at national borders – especially at the regional level. Regional planning pursues the goal of creating equal access to public services. Particularly regions ‘on the edge’ of national territories can benefit from cross-border planning. This exploratory study reflects on whether and what relation exists between the functional integration of border regions and regional planning. It does so through functional and governance analysis, the evaluation of spatial planning documents and expert interviews. The case studies include the Greater Region, the German-Polish and the German-Austrian border regions. The results indicate that functional integration influences cross-border spatial planning but not in a direct manner. However, integration dynamics initiate spatial development processes. Basically, elements of cross-border regional planning are the result of information, documentation, consultation and concertation, mainly driven by cross-border asymmetries. So, for the moment being, functional and institutional integration are interlinked, but this dynamic does not (yet) involve spatial planning in the formal sense.

Keywords: **border regions, cross-border spatial planning, cross-border cooperation, spatial development**

1 Introduction

Spatial planning documents in border regions often have a weakness. As CAESAR/PALLAGST (2018: 11) describe, “spatial development plans of border regions end at the national border – often illustrating the neighboring territories across the border with only a white spot”. In parallel, national borders are discussed as engines of intensive functional links between sub-regions (SOHN 2014a). As a legally binding instrument of spatial development, regional planning pursues the goal of creating equal access to essential facilities of general interest (SMAS/SCHMITT 2021). Regions close to borders can benefit from cross-border cooperation, if, for example, the range of services is coordinated across borders (HARTZ 2022).

Border regions are often not considered in domestic planning documents and concepts (KNIPPSCCHILD 2011). This limited spatial focus reflects the territorial mandates of the authorities. Spatial planning remains a domestic task.

This article addresses the key question of whether and what relation exists between the functional integration of border regions and regional planning. Cross-border metropolitan areas, such as the Greater Region indicate that spatial development does not have to end at national borders. However, different national planning systems, cultures, and paradigms collide in such a process. To benefit from opportunities and potentials of border regions, cross-border strategies could help to overcome these challenges in spatial planning (PALLAGST/HARTZ 2022).

2 Conceptual framework

2.1 European integration, territorial cohesion, and cooperation in border regions

In the 1990s, a spatial turn in European politics led to a spatial-strategic integration thinking and the emphasis on territorial cohesion as an essential goal (HARTZ et al. 2010). With its inclusion in the Lisbon Treaty, European territorial cooperation became the official basis of European integration, giving border regions increasing attention in the mid-2000s (SCHELMANN 2022). The aim of European regional policy is cross-border cooperation between different regional and local actors to find solutions to common challenges (DECOVILLE/DURAND 2018). European integration was supposed to lead to income growth on both sides of the border and changes in spatial practices of people in border regions (TOPALOGLOU et al. 2005). Regardless the high level of heterogeneity in the political systems, spatial development across national borders has become one of the central goals of European integration, particularly at the subnational level (cf. ALLMENDINGER et al. 2014, FRICKE 2015).

In border regions, sector obstacles are still relevant barriers. Referring to different legal systems, the example of ambulance is prominent: Several European member states have restrictions on ambulance transports to neighboring countries (*European Commission* 2017). Nevertheless, border regions are discussed as experimental spaces to strengthen territorial cohesion or ‘spaces of engagement’ (PEYRONY/DENERT 2012).

They are so-called ‘soft spaces’ with ‘fuzzy boundaries’ (CHILLA/SIELKER 2022), characterized by the crossing of one or more administrative borders and, at the same time, by cross-border institutionalization (CAESAR/PALLAGST 2018). In Europe, ‘soft spaces’ evolved into a policy concept and instrument, originally focused on local initiatives, and increasingly promoted as a model for intergovernmental integration through the EU-wide Interreg program (SCOTT/COLLINS 1997, PURKARTHOFFER 2018). Instead of developing binding plans or regulations, as practiced in ‘hard spaces’ like administrative units, the focus is on strategy development, coordination, agenda setting, and mutual learning (PURKARTHOFFER 2016, 2019). Thus, ‘multi-level governance’ is driven by networks at local, regional, national, and transnational levels (KRAMSCH/MAMADOUH 2003, ZÄCH/PÜTZ 2014).

The EU’s regional policy, which entered a new programming period in 2021, represents a direct opportunity to influence cross-border development due to its financial support for cross-border cooperation (DECOVILLE/DURAND 2018). With the introduction of the European Grouping of Territorial Cooperation (EGTC) in 2007 and an accompanying formalization of cross-border cooperation, cross-border legal frameworks have only been possible for a few years (CAESAR/PALLAGST 2022). CHILLA et al. (2017: 2) highlight that this instrument is evolving into a “tailor-made implementation for multiple purposes, including networking facilitation to the implementation of transport corridors”. Soft instruments with corresponding funding opportunities for cross-border cooperation remain the main focus (CHILLA/SIELKER 2022).

2.2 The border as a resource

Borders can take on different functions and thus experience various characteristics. Terms such as bridge, wall, tunnel, threat, or opportunity provide only a limited insight into the discourse (cf. TOPALOGLOU et al. 2005). A state border thus often embodies complex socio-political debates resulting from history-based or contemporary exercises of power, as well as the subsequent legitimacy of the political system enclosed by the border (ANDERSON/O’DOWD 1999, O’DOWD 2002, KOLOSOV/SCOTT 2013, REITEL 2007).

Border studies especially pronounce the border as a resource and opportunity. In this context, four types of benefits are discussed:

- *Positional benefit:* As soon as a border opens, a positional advantage arises for adjoining regions. That requires geographical proximity, theoretically lower transport costs, and privileged access to foreign markets and products (SOHN 2014b).

- *Differential benefit:* The border is a resource due to exploiting factor cost differentials, e.g. in labor markets, land prices, currency, or advantageous differences in tax regimes and regulations. Disparities drive the crossing of national borders to benefit from each others’ opportunities (CAESAR/PALLAGST 2022). Cross-border commuting due to labour market and wage differentials is an important example (especially to Luxembourg in the Greater Region). Another example are the differences along the Dutch-German border with workers in the Netherlands living in Germany to pay lower taxes on cars or land and lower real estate prices.
- *Locus of hybridization:* In some cases, differences lead to hybridity (NEWMAN 2011). Due to different ideas and values, the border represents a contact zone functioning as a source of stimulus that leads to new procedures and ways of thinking. As an example of institutional hybridization, SOHN (2014a) cites the Trinational Euro-District Basel, where long-term confrontation with national differences has led to new ways of doing things, such as rethinking cross-border spatial development.
- *Object of recognition:* Furthermore, borders play a relevant role in symbolizing space (PAASI 1999). The border functions as an object of recognition and represents a “theater that authorizes the staging of a project” (SOHN 2014a: 1704 f.). Certain cross-border metropolitan regions exploit this symbolic resource as a ‘place-making instrument’ by promoting projects such as bridges (e.g. Copenhagen-Malmö, Strasbourg-Kehl, or Basel) or international projects (e.g. Luxembourg as the European Capital of Culture 2007).

2.3 Spatial integration

To ‘look’ beyond national borders, it is essential to understand cross-border interdependencies. The spatial integration approach is concerned with the intensity of functional linkages between centers (VASANEN 2013) and thus may imply a degree of “spatial balance between linked areas, characterized by the presence of two-way relationships” (DE BOE et al. 1999: 9). The spatial integration process reflects intense and diverse patterns of interaction and refers to international, interregional, and intra-metropolitan interactions between entities separated by a border (TURNER et al. 2022). The concept offers the possibility to reflect the willingness to cooperate through the level of interaction, as the need or desire of actors to cooperate (SOHN et al. 2009, ESPON *Metroborder* 2010).

Cross-border integration is a relevant facet of European territorial cohesion that can reduce structural

disparities in border regions. When analyzing potential indicators of spatial integration in border regions, data availability is often limited. CHILLA/HEUGEL (2018) point to a lack of a complete statistical database for border areas, including cross-border flow data. A consistent cross-border data basis as a starting point for a common spatial understanding and coordinated regional development is thus strongly dependent on local and regional political commitment (WONG VILLANUEVA et al. 2022).

Figure 1 shows two abstract settlement areas on either side of the border and distinguishes between three forms of spatial integration: convergence, metropolization/polarization, and tunnel effect. It is important to note that none of these analytically captured dynamics is fully applicable in a region and can provide a conclusive picture, as spatial structures are usually complex and justified in different ways.

In the case of convergence, spatial disparities on both sides of the border indicate a symmetric development of economic structures and living conditions (HIPPE et al. 2023). One of the most significant opportunities for European border liberalization is the convergence of living conditions and economic power and thus the decline of disparities on both sides. However, the similarity of border regions alone does not suggest convergence, as many border regions are already similar even before border opening (CHILLA et al. 2022).

Polarization and metropolization differ in their effect on the respective border region, with the former having a negative and the latter a positive connotation. This integration dynamic is located in heterogeneous areas in terms of settlement structure (e.g. a metropolitan center on one side and a second urban center on the other side of the border) (DECOVILLE et al. 2013). Strong cross-border integration is often reflected in asymmetric development. For example, in commuting behavior, the metropolitan center often attracts cross-border workers from neighboring regions (ANDERSEN/WINKLER 2023, JÄRV et al. 2023). While polarization shifts cross-border labor flows and residential migration to the dominant metropolitan center, metropolization represents a more positive development for the secondary urban center (commuting from the periphery towards the metropolitan center; in parallel an opposite residential migration towards the second urban center). Luxembourg, having a solid financial sector, and the pharmaceutical industry in Basel are examples in this context.

The tunnel effect describes a topographical or infrastructural linkage of two distant regions across the border (BERTRAM et al. 2023). In this case, the border regions benefit less from the interaction (TOPALOGLU et al. 2005). CHILLA/HEUGEL (2018) point out that in a tunnel effect, metropolitan areas in the hinterland benefit from a liberalized economy with reduced transaction costs, while border regions in transition become an inner periphery.

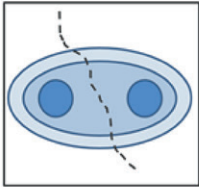
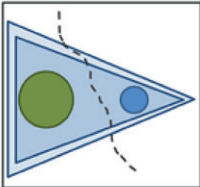
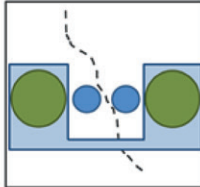
Integration dynamics	Convergence	Metropolization / Polarization	Tunnel effect
Illustration			
Disparities in the border regions	low	high	low
Development of the border regions	symmetric	asymmetric	symmetric
Effect for the regions	positive positive	positive negative	negative negative
Extent of interrelationships	high	high	low

Fig. 1: Forms of spatial integration

own draft, cp. BERTRAM et al. 2019, REISCH/CHILLA 2019

Spatial integration not only implies dynamics of increasing similarity and connectivity but also describes complementarity as a driving force for integration processes. Research shows that relationships between areas can be based on asymmetries and differences (e.g. DA ROSA et al. 2023). Cross-border integration is thus not exclusively accompanied by increasing homogeneity between bordering territories. It is determined by heterogeneous labour market conditions and real estate, land, or rental prices in labour and housing markets (SOHN 2014a). In contrast, interactions between border regions do not necessarily lead to more convergence or similarity or entail a reduction in differences (DECOVILLE/DURAND 2018).

2.4 Cross-border spatial planning?

JACOBS (2016: 71) describes national spatial plans as “blind to what lies outside their jurisdiction”. As a result, the adjacent border region is usually not represented at most plans and concepts as well as border regions are often not sufficiently perceived in national spatial development policies (HARTZ et al. 2010).

At the European level, border regions are mostly addressed with ‘soft’ spatial development tools, as there is no explicit EU mandate for spatial planning from a political perspective (ALLMENDINGER et al. 2014). Cross-border spatial planning is hampered by barriers of administrative borders and, consequently, different planning systems (FRICKE 2015, KUROWSKA-PYSZ et al. 2018). These processes face different responsibilities, a high degree of actor diversity, and different planning cultures and paradigms (BAKRY/GROWE 2022, PEÑA 2007, ZIMMERBAUER/PAASI 2020). A comprehensive

statistical database for border areas is usually lacking which could play an important role in convincing decision-makers for the relevance of cross-border issues (PEYRONY/DENERT 2012).

In the highly complex environment of actors and institutions, European planning practice increasingly deals with new planning standards that emerge in form of spatial rescaling outside formalized, legal planning systems in soft spaces with fuzzy borders (ALLMENDINGER et al. 2014). In this context, DEAS/LORD (2006: 1849) point to an interplay of regionalization and Europeanization. These new institutional and geographical planning spaces are not identical to administrative units and are understood as relational regions (PURKARTHOFFER 2016).

Border areas can thus be discussed as elements of European spatial development. As rather soft spaces they are embedded in a context of non-binding documents of pan-EU documents of spatial development (see Figure 2).

In the 1990s, the Informal Council of Ministers responsible for spatial planning adopted the European Spatial Development Perspective (ESDP). The ESDP established a commitment to territorial cohesion and formulated principles of spatial development, which do not represent legally binding statements or planning specifications (DEAS/LORD 2006). In addition to the European Territorial Observatory Network (ESPON), the Territorial Agenda (TA) emerged in 2007 and initiated processes coordinating spatial policy across Europe. Spatial planning at the European level is thus not a question of competence but rather a process of coordination (NOFERINI et al. 2020, PEYRONY/DENERT 2012).

Due to the “non-governmental character of cross-border cooperation” (FRICKE 2015: 856), strategic spatial plans and cross-border spatial development concepts play a prominent role in cross-border spatial planning and are referred to as informal planning instruments (PALLAGST/HARTZ 2022; SCHELMANN 2022). According to PURKARTHOFFER (2018), this informal, legally non-binding planning is often described as ‘storytelling’, as it triggers a cross-actor communication process, stimulates statistical analysis, and contributes to the harmonization of cross-border regional goals (ALDEN 2006, CAESAR/PALLAGST 2018). Accordingly, a sustained planning dialogue with the involvement of economic partners, municipalities, and the population across the border is fundamental for cross-border spatial development. Consequently, and due to the often significant national differences in formal legislation, soft, informal planning approaches are mostly used in the implementation of European spatial development policy (PURKARTHOFFER 2016).

This article aims at understanding whether and what relation exists between the functional integration



Fig. 2: Pan-European instruments for spatial development
own draft, cp. PURKARTHOFFER 2016

and spatial planning in border regions. It does so with a mixed methods approach with regard to functional and governance analysis, the evaluation of spatial planning documents and expert interviews in three border regions.

3 Methods and data

This explorative study focuses on three case regions, namely the Greater Region, the German-Polish, and the German-Austrian border region. These border regions have frequent cross-border interaction. Nevertheless, at first glance, they show differences in terms of cross-border governance and spatial planning.

The German-Polish border region is almost three times as large as the Greater Region or the German-Austrian border region. However, the Greater Region has a higher population density than the other case regions. While the population development in the Greater Region and in the German-Polish border region is slightly positive, the German-Austrian

border region indicates a strong population growth (4.17%) (see Figure 3). A convergent development on the German (4.11%) and Austrian (4.23%) side of the border should be emphasized, while in the German-Polish border region, the population trend on the German side is much more positive (2.87%) than the Polish (0.07%).

While the Greater Region is the only case region with a cross-border metropolitan character, it has a polycentric settlement structure similar to the German-Polish border region. In the case of the Greater Region, however, there is a functional predominance of Luxembourg. The German-Austrian border region is characterized by mountains, especially in the western part of the border, which limits the cross-border functional reference axes to valley locations.

The empirical work is based on a comparative mixed-methods approach. In the first part of the analysis, secondary statistical data research supports a discussion on functional links and spatial integration. Data sources are Eurostat as well as the respective national statistical offices. In the second part, a document analysis of spatial planning documents at the

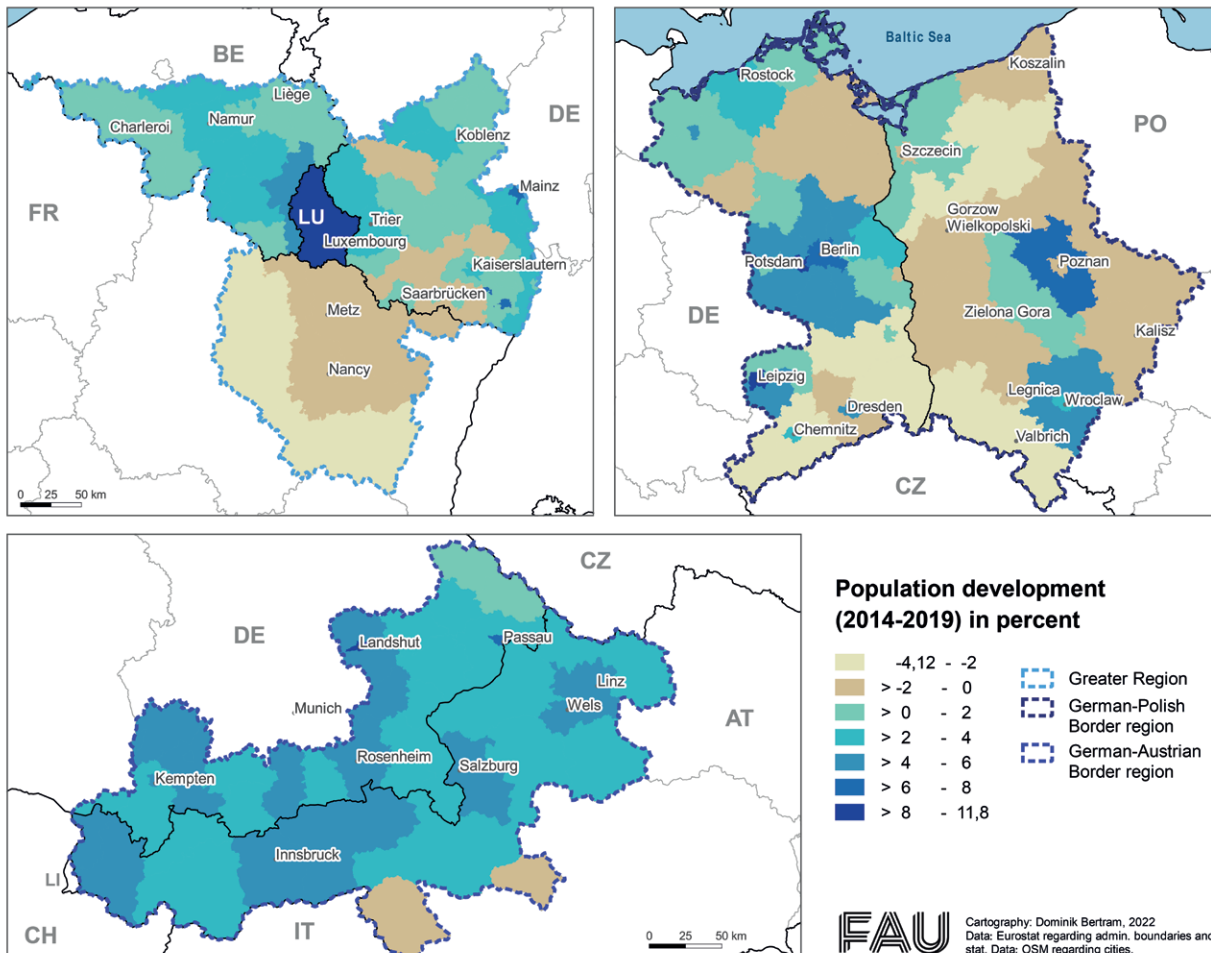


Fig. 3: Population development in selected case studies at NUTS3 level

own illustration

Tab. 1: Examined spatial planning documents

Case region	Involved regions	Name of spatial planning document	Year of publication	Code
German-Austrian border region	Bavaria	Landesentwicklungsprogramm Bayern	2020 (non-official reading version)	[Doc. 1]
	Upper Austria	Oberösterreichisches Landesraumordnungsprogramm	2017	[Doc. 2]
	Salzburg	Salzburger Landesentwicklungsprogramm	2003	[Doc. 3]
	Tyrol	Raumordnungsplan Lebensraum Tirol Agenda 2030	2019	[Doc. 4]
	Vorarlberg	Raubild Vorarlberg 2030, Zukunft Raum geben	2019	[Doc. 5]
German-Polish border region	Berlin-Brandenburg	Landesentwicklungsprogramm Hauptstadtregion Berlin-Brandenburg	2007	[Doc. 6]
	Mecklenburg-Western Pomerania	Landesraumentwicklungsprogramm Mecklenburg-Vorpommern	2016	[Doc. 7]
	Saxony	Landesentwicklungsplan Sachsen	2013	[Doc. 8]
	West Pomeranian Voivodeship	Plan Zagospodarowania Przestrzennego Województwa Zachodniopomorskiego	2020	[Doc. 9]
	Lower Silesia Voivodeship	Plan Zagospodarowania Przestrzennego Województwa Dolnośląskiego	2014	[Doc. 10]
	Voivodeship Lubuskie	Plan Zagospodarowania Przestrzennego Województwa Lubuskiego wraz z planami zagospodarowania przestrzennego miejskiego obszaru funkcjonalnego ośrodka wojewódzkiego Zielona Góra i Gorzów Wlkp.	2018	[Doc. 11]
	Wielkopolska Voivodeship	Plan Zagospodarowania Przestrzennego Województwa Wielkopolskiego – Wielkopolska 2020+	2019	[Doc. 12]
Greater Region	Rhineland-Palatinate	Landesentwicklungsprogramm Rheinland-Pfalz	2008	[Doc. 13]
	Saarland	Landesentwicklungsplan, Teilabschnitt „Siedlung“	2006	[Doc. 14]
		Landesentwicklungsplan, Teilabschnitt „Umwelt“	2004	[Doc. 15]
	Luxembourg	Programme Directeur de l'aménagement du territoire	2003	[Doc. 16]
		Integratives Verkehrs- und Landesentwicklungskonzept für Luxemburg	2004	[Doc. 17]
	Lorraine	Directive Territoriale d'Aménagement des Bassins Miniers Nord-Lorrains	2005	[Doc. 18]
	Wallonia	Schéma de développement du territoire	2019	[Doc. 19]

regional level proves insights on cross-border elements in spatial planning (see Table 1). Regional planning documents represent artifacts of communicative practice, social processes, and political action. The spatial plans contain programmatic statements on future spatial development, and due to their strategic and analytical characteristics they are a suitable data basis to discuss the research question. With a qualitatively oriented, category-guided text analysis, the spatial planning documents were exploratively examined with regard to cross-border content, the role of the border and the linkages with the neighboring state, as well as cross-border cooperation and cross-border spatial planning instruments.

Guideline-based expert interviews support the document analysis. Overall, eight supplementary interviews with regional actors complement findings of the mixed methods and give further insights on cross-border linkages, cooperation structures and cross-border spatial planning and development. The data base are four interviews in the German-Polish border region, and two interviews each in the Greater Region and the German-Austrian border region, with experts on spatial development and spatial planning

(state ministries, regional management, regional spatial planning offices). The expert interviews were evaluated via qualitative text analysis and, together with the functional statistics and the document analysis, are complementary parts of the study.

4 Results

4.1 Spatial integration in border regions: the functional and institutional perspective

Functional perspective

Figure 4 shows the economic development of the Greater Region (A), the German-Polish (B), and the German-Austrian border region (C) in an abstract form. Economic development is represented at the regional level (NUTS-2) by the change in absolute GDP per inhabitant in 1,000 purchasing power standards. The light squares show the GDP for 2008, and the dark squares the value for 2018.

The figure indicates that, except for Lorraine, the entire Greater Region has seen an increase in

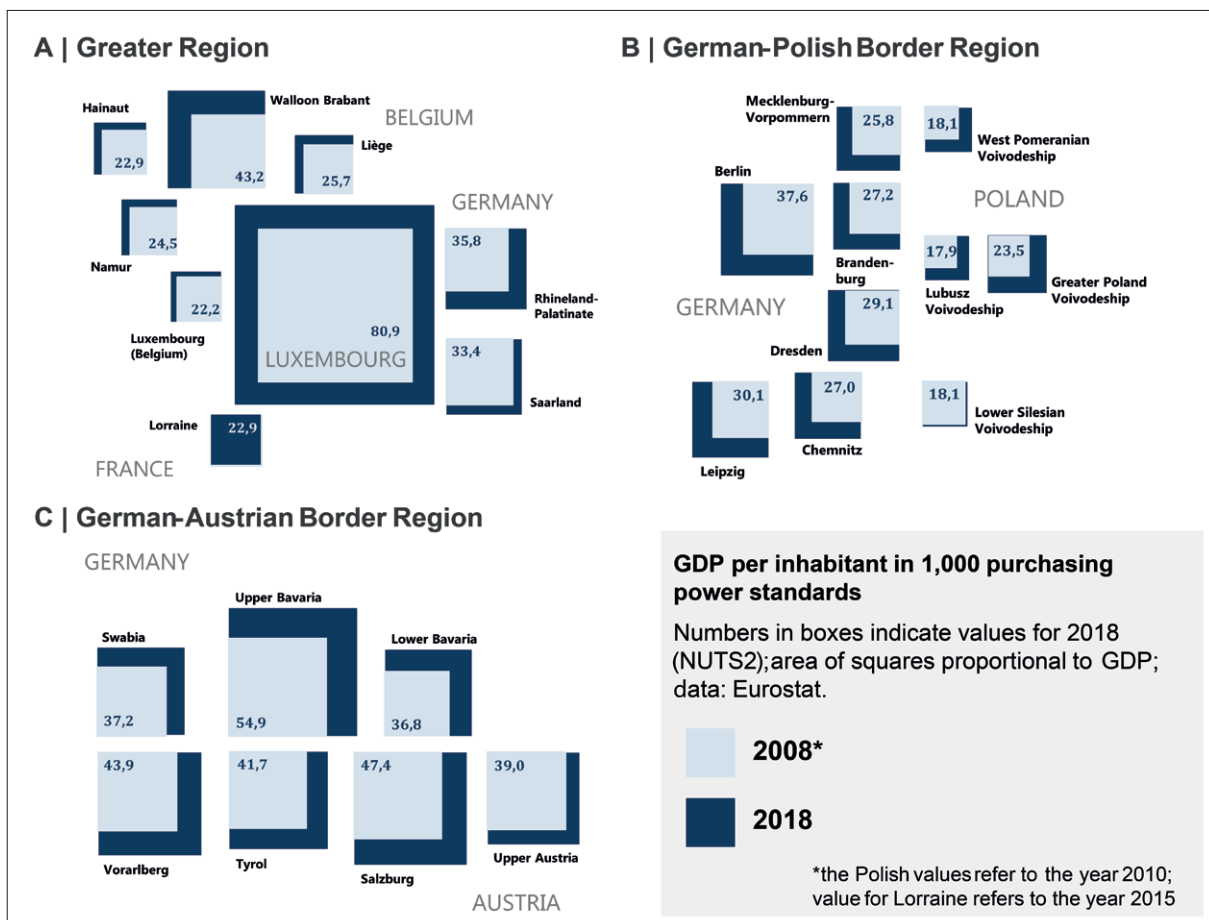


Fig. 4: Economic development in border regions

own illustration

GDP between 2008 and 2018. However, the level of economic distribution is remarkably heterogeneous. The Grand Duchy of Luxembourg has by far the largest GDP in 2018. Furthermore, the number of cross-border commuters to Luxembourg has increased significantly over the same period, with most people from Lorraine (FROMENTIN 2021). The economic development of the neighbouring regions in Rhineland-Palatinate, Saarland, and Wallonia has also developed positively, and especially Lorraine benefits from jobs in Luxembourg. With a solid financial sector, the integration process implies cross-border commuting primarily toward the metropolitan centre. In parallel, there is a residential migration from Luxembourg to neighbouring countries (WILLE/ROOS 2022).

In the German-Polish border region, there is still an asymmetrical distribution of economic power in 2018. However, the figure indicates a positive development of absolute GDP in all regions, but also considerable differences between Germany and Poland. The West Pomeranian, Lubusz, Greater Poland and Lower Silesian Voivodeships have a lower GDP per capita in 2018 than e.g. Mecklenburg-Western Pomerania or Brandenburg. In parallel, cross-border commuting increased to all German regions (CAVALLARO/DIANIN 2019). This situation illustrates the statement by ARING (2017: 13), who assumes an increase in functional interdependence between Germany and Poland. Furthermore, he notes that since 2004 due to differences in terms of salaries and cost of living, about 1,000 to 1,500 Poles have moved to Germany to benefit from the lower prices on the housing market.

Similar to the demographic development in the German-Austrian border region, the economic development shows a convergent trend. Compared to the German-Polish border region or the Greater Region, there is no asymmetrical distribution of GDP. The figure indicates similar economic strength on both sides of the national border, which has developed convergently over the ten-year period. However, the German-Austrian border region already had similar characteristics before the Schengen Agreement was implemented (CHILLA et al. 2017). Especially the centres of Salzburg, Innsbruck, and Kufstein show high cross-border commuting patterns (CHILLA/HEUGEL 2022).

The institutional perspective

Greater Region

Cross-border cooperation in the Greater Region was intensified with the economic decline of the coal and steel industries due to common challenges

(CHILLA/SCHULZ 2015; MOLL/NIEDERMAYER 2008). In response to unemployment challenges, and to implement formal cooperation across national borders, the Saarland-Lorraine-Luxembourg-Trier/West Palatinate Regional Commission was founded in 1971 as the regional executive body of the Intergovernmental Commission (SOHN et al. 2009).

After the Euregio Meuse-Rhine in 1976 and the International Parliamentary Council in 1986, the Summit of the Greater Region was established. Hereafter, the cooperation area was called 'Greater Region'. The formation of the Economic and Social Committee in 1997 expanded the institutionalisation to include further actors (WASSENBERG/REITEL 2015). With four nations, many different 'policy regimes' meet in the Greater Region. The Summit and the government commission act as the political representation of the cooperation area and provide the strategic framework for joint projects and topics.

The operational implementation of common cross-border ideas takes place in working groups and cooperation networks. This work is supported by the Summit Secretariat of the Greater Region. With the city network QuattroPole, the Eurodistrict SaarMosel, and the University of the Greater Region, further actors were added to the institutional structure of the Greater Region between 2000 and 2013. In 2010, the Greater Region was transformed into an EGTC to ensure the management of the Interreg programmes of the same name (WASSENBERG/REITEL 2015). At the beginning of the 2014 to 2020 funding period, a Greater Region Summit Office was established to coordinate the work of the summit and its working groups. In addition to the EGTC of the Greater Region, there are two others: Eurométropole Lille-Kortrijk-Tournai and Alzette-Belval.

German-Polish border region

After the fall of the Iron Curtain, cross-border cooperation in the German-Polish border region accelerated in 1991 with a bi-national agreement (SCOTT/COLLINS 1997). Socio-economic differences in the border region and reconciliation work (joint dialogues on economic, planning, and regional development issues) were drivers for this development (WASSENBERG/REITEL 2015). According to ARING (2017), relations on both sides of the border have improved significantly over the last two decades.

This development is reflected in the institutionalisation of cross-border cooperation. In addition to four Euregios (Pomerania, Pro Europa Viadrina, Spree-Neisse-Bober and Neisse-Nisa-Nyse), there are three cross-border partner cities: Frankfurt(Oder)-Slubice, Guben-Gubin and Görlitz-Zgorzelec.

Cooperation is institutionalised on both the regional and national level. The German-Polish Government Commission for Regional and Cross-border Cooperation (1991) and the Spatial Development Committee (1999) link actors in a proper governance structure for current cross-border issues and political decisions.

The EU membership in 2004 was a relevant condition for further integration and institutional cross-border cooperation. Thus, one year later, the cross-border metropolitan region of Szczecin came into being. In 2012, the spatial planning authorities of Berlin, Brandenburg, Mecklenburg-Western Pomerania, and the Regional Office for Spatial Planning of the West Pomeranian Voivodeship in Szczecin signed a declaration of intent for the implementation of a joint development concept (*Deutsch-Polnisches Raumordnungsportaal* n.d.). In this time, the Oder Partnership was established as an informal inter-regional network between Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, and the western Polish voivodeships of West Pomerania, Lubusz, Greater Poland and Lower Silesia (*Oder Partnerschaft* n.d.).

German-Austrian border region

Austria's accession to the EU came rather late in 1995. Accordingly, previously bilateral and multi-lateral agreements, such as the German-Austrian Agreement on Cooperation in Spatial Planning (1973) and the German-Austrian Commission on Spatial Planning were highly relevant for cross-border cooperation. In 1972, multilateral cooperation formats such as ArgeAlp or the International Lake Constance Conference were established. Especially in the period between 1993 and 1998, German-Austrian cooperation was particularly fostered by the formation of six Euregios covering the complete border (WASSENBERG/REITEL 2015).

In addition to local cooperation, such as the joint city marketing Braunau-Simbach, the cross-border central places, or the Nagelfluhkette Nature Park, the Bavarian-Austrian border region has large-scale cooperation formats as well. In 1995, the Alpine Convention was established as a multilateral treaty under international law aiming at the protection and sustainable development of the Alps. The EU Strategies for the Danube and the Alpine region and the European Region Danube-Moldova are further large-scale forms of cross-border cooperation, overlapping with others. Despite a multi-level mismatch, the German-Austrian border region has a “high institutional density of cooperation” and a variety of forms and spaces of cooperation that overlap several times (CHILLA/SIELKER 2022).

4.2 Cross-border regional development and planning

The findings on cross-border regional development and planning are based on the combination of information from the expert interviews and the document analysis. In addition, these findings are complemented with existing research references.

Regional development across borders

The process and form of cross-border regional development is specifically related to the border region. Accordingly, cross-border regional planning is approached quite differently.

In the Greater Region, the ESPON metroborder project functioned as a starting point for cross-border spatial planning. This study started a movement in 2010, triggering the Spatial Development Concept of the Greater Region (REK-GR). In the past ten years, numerous studies have been completed, e.g. on transport axes of the Greater Region and the potential for economic cooperation. In 2018, these findings were taken up under the organization of the Regional Planning Committee (KARE) as part of the Interreg project SDTGR/REKGR. In partnership with spatial planning stakeholders, a spatial analysis was carried out, which has formed the basis for the spatial development strategy of the Greater Region since 2019 (SCHELKMANN 2022).

The Geoinformation System of the Greater Region (GIS-GR) is a tool to homogenize and monitor cross-border dynamics to emphasize common spatial challenges. This GIS supported the spatial analysis for the REK-GR and functions as a relevant building block for the decision-making process in the context of cross-border spatial development (HARTZ/CAESAR 2022).

However, problems with joint spatial planning also exist in the Greater Region. First, there is still the challenge of different administrative units (multi-level mismatch), which leads to imbalances in the institutional setup for joint agreements. Second, cross-border planning in general requires lots of time to develop. Thus, it is relevant that informal joint cross-border spatial development is at last integrated into national spatial planning documents to become legally binding.

In the German-Polish border region, the language barrier is a relevant obstacle to cross-border development. In spatial planning, the language barrier has been overcome insofar as simultaneous translation and interpreters are common in most of the joint meetings. Similar to the discussions on cross-border spatial development in the Greater Region, there is a need for joint cross-border planning. The areas on both sides of the border face similar challenges. Due

to migration and demographic transformations both sides are interested in cross-border cooperation and synergy effects.

The German-Polish Governmental Commission for Regional and Cross-Border Cooperation addresses multi-level mismatches such as competencies and responsibilities for the border region at different political levels (CHILLA 2023). The Common Future Vision 2030 for the German-Polish Interaction Area manages the balancing act between the European and the local level to involve several actors. In addition, Interreg funding is a relevant building block for cross-border spatial development. Cross-border issues in the fields of rescue, health or education are often tested in Interreg projects, evaluated and then integrated into larger frameworks (CHILLA/LAMBROCHT 2022). A systematic spatial monitoring for the German-Polish border region does not yet exist, but possibilities and approaches are currently explored within the Interreg framework.

In contrast to the other case regions, cross-border spatial development in the German-Austrian border region seems not to take place because of a common strategy, but due to selective needs and political willingness to deal with cross-border issues. Similar to the German-Polish border region, small and medium-sized Interreg projects seem to be of high relevance for local and regional challenges along the border. There are no instruments, that take the border region as a whole into account. Accordingly, cross-border spatial development is somewhat selective and requires a necessity and political explosiveness to be initiated. The example of Salzburg with its intensive cross-border links represents a basic prerequisite for cross-border development. In this context, cross-border central places are a prominent example (BLOSSFELDT 2022).

Referring to the functional perspective, it has to be mentioned that Bavarian and Austrian border regions have essentially the same level of prosperity and low unemployment. Since development on both sides is convergent and there is no cross-border asymmetry, it is assumed that there is no need for joint cross-border spatial development on a national level. However, within the new Interreg period (2021-2027), the Euresias develop cross-border development strategies that manifest regional development concepts for cross-border spatial development as a basic prerequisite for funding. These non-binding and strategic concepts represent an important step in cross-border development.

Cross-border regional planning?

The analysed regional spatial plans in the Greater Region address their neighboring countries, first and

foremost the functional links with Luxembourg. All documents (13–18) describe cooperation patterns with at least one neighboring country. A high number of cross-border spatial planning instruments can be seen as a political willingness to cooperate across borders. However, the instruments emphasize specific regional elements.

For example, the plan in Rhineland-Palatinate includes ‘regions and spaces with cross-border development impulses’ and ‘spaces with cross-border natural interrelationships’, where projects with regional-wide significance are identified and coordinated across borders (Doc. 13: 63, 67). Similar instruments can be found in the planning documents in Saarland with the ‘action spaces for the establishment of spatial platforms and contemporary regional governance approaches’ (Doc. 14: 28) and Wallonia the ‘spaces for regional and cross-border cooperation’ (Doc. 19: 121). In Luxembourg, the development of cross-border town twinning is formulated as a policy objective to promote polycentric spatial development (Doc. 16: 108, 154).

Additionally, informal spatial development strategies made their way into legally binding planning documents. For example, the plans in Rhineland-Palatinate and Saarland call for the implementation of the REK-GR in the fields of spatial development and environment (Doc. 13: 60; Doc. 14: 44; Doc. 15: 41).

In the German-Polish border region, two very different planning systems meet. Nevertheless, the regional planning documents hardly show any cross-border ‘blind spots’. Similar to the Greater Region, the planning documents refer to informal spatial cross-border development. With the Common Future Vision 2030 for the German-Polish Interaction Area, a spatial planning concept is in place that displays development opportunities of the cross-border integration area.

The Saxon spatial development plan has a range of cross-border spatial planning instruments. In ‘border areas’, the goal is to reduce location bottlenecks by removing infrastructure gaps and deficits. Other aims are improving cross-border transport infrastructure and cooperation in services of general interest (Doc. 8: 52). The declaration of border areas as places of special attention implies the development based on their region-specific potentials along the border. That includes a sustainable development of tourist destinations and the implementation of coordinated cross-border flood protection systems (Doc. 8: 13).

In the plans of Lubuskie and West Pomerania, the Common Future Vision 2030 for the German-Polish Interaction Area is already directly mentioned, referring to cross-border development and strategies (Doc. 11: 48; Doc. 9: 24).

Furthermore, Lower Silesia and Lubuskie use instruments, like cross-border central places combined

with concrete cross-border tourism development. The Lower Silesian plan considers the Zgorzelec-Görlitz and Bogatynia-Zittau-Hradek centers to be developed in an integrated manner (Doc. 10: 44). Moreover, concerning tourism development, cross-border routes in the Sudeten Mountains should be part of the cross-border cooperation (Doc. 10: 43). In the Lubusz region, the border towns Frankfurt (Oder)-Slubice and Guben-Gubin are special subjects of cross-border spatial planning. Another instrument is the Lubusz 2020 tourism development program, which aims to develop cross-border tourism and is mentioned in the regional spatial planning (Doc. 11: 38).

It is striking that informal planning instruments, such as the Development Concept for the Cross-Border Metropolitan Region Szczecin and the Common Future Vision 2030 for the German-Polish Interaction Area, are present in the spatial planning documents. In particular, in the more recent spatial development plans of Lubuskie and West Pomerania, the Vision 2030 is integrated into spatial planning. Similarly, the development concept of the Szczecin metropolitan region has found its way into the spatial planning documents of West Pomerania and Mecklenburg-Western Pomerania.

Cross-border spatial planning in the German-Austrian border region focuses on the cross-border twin centers and the Salzburg cross-border region, where the regional plans on both sides of the border refer to each other.

Concerning cross-border spatial planning instruments, the Bavarian spatial plan provides cross-border central places (Doc. 1: 25). These are considered if the area-wide supply with services of general interest is not secured and a common center can be established due to functional connections or complementarities (Doc. 1: 34).

In the Bavarian-Austrian border region, there are four joint central places, namely Neuhaus am Inn/Schärding, Simbach am Inn/Braunau am Inn, Laufen/Oberndorf and Lindau/Bregenz (Doc. 1).

As a further instrument of regional planning with cross-border relevance, the Bavarian plan provides the “Zielabweichungsverfahren in grenznahen Räumen” (Doc. 1: 56). With this instrument, the location of large-scale retail projects close to the border should be facilitated. The aim is to prevent the outflow of purchasing power into the neighboring country (Doc. 1: 80).

In the Salzburg plan, there is a separate chapter on cross-border spatial planning (Doc. 3: 20). In addition to the adaptation of the spatial planning instruments involving municipalities, provinces, federal ministries, interest groups, and other stakeholders, the Salzburg plan links to the provisions in the Bavarian plan to

make the cross-border area subject to a coordinated spatial planning strategy (Doc. 3: 67).

In Upper Austria, strengthening cooperation in cross-border integration areas is declared a central objective (Doc. 2: 7). In addition, strategic goals, such as the further development of existing concepts or the development of joint strategies, are defined for the areas of Euregio Inn-Salzach, Linz-Amstetten and Phyrn-Liezen (Doc. 2: 15). The Vorarlberg Plan mentions the development of concepts and strategies for strengthening the cross-border economic and living space, which are coordinated with the neighboring countries and implemented in joint projects (Doc. 5: 19).

4.3 Functional integration and cross-border planning interlinked?

In the Greater Region and the German-Polish border region, a differential benefit triggers cross-border integration dynamics. Asymmetric labour market opportunities and salary differences as well as the real estate market are drivers for a high extent of cross-border interrelationships. Those metropolitanisation processes are reflected in diverse and overlapping cross-border regionalizations. In order to overcome barrier effects, several governance structures have been implemented in the Greater Region as well as in the German-Polish border region.

The German-Austrian border region indicates a convergent population and economic development and does not suffer language barriers. But even if there are no differential benefits, cross-border interrelations are present in this border region, but on a lower level and concentrated in some areas. Furthermore, the entire border is covered by several Euregios.

Accordingly, high functional integration goes hand in hand with a multiplicity of cross-border spatial development processes. In addition, cross-border spatial planning elements exist primarily in those border areas with a high degree of interrelationships. Moreover, the spatial planning documents show that cross-border planning instruments are more pronounced in border regions that develop asymmetrically. It is also striking that where legal binding cross-border regional planning elements are implemented, informal spatial development is particularly advanced and partly institutionalized. In the Greater Region and the German-Polish border region, informal development concepts were integrated into regional planning. This time-intensive informal development is a result of existing cross-border networks and a common spatial awareness with the potential to overcome barrier effects of cross-border spatial planning.

The comparatively ‘weaker’ cross-border regional planning in the Bavarian-Austrian border region supports the assumption that cross-border spatial development in the planning context needs a functional driver. It is most meaningful if it solves problems, implies synergy effects, and is supported by the national level to compensate for differences in political responsibilities.

This leads to the conclusion that functional integration influences cross-border spatial planning, but not in a direct manner. However, in those case studies with an asymmetric development of the border regions, there is first a cross-border process of spatial development initiated on several levels with many actors. After that, cross-border development concepts or shared visions can lead to formal spatial planning over time. So, for the moment being, functional and institutional integration are interlinked, but this dynamic does not (yet) involve spatial planning in the formal sense.

5 Conclusions

This explorative study illustrates that cross-border functional integration is present both in border regions where differences across the border are evident, and in border regions that are similar across borders. The results also demonstrate that functional integration influences cross-border spatial planning, but not in a direct manner. High integration dynamics initiate a process of informal spatial development. Basically, elements of cross-border regional planning are the result of a process mainly driven by cross-border asymmetries. From this perspective two stages can be differentiated.

First, information and documentation are the basis for all planning-related activities. Spatial analyses and monitorings play a relevant role in this context. In the case regions, the GIS-GR might be the most prominent example. In two case regions, cross-border asymmetries led to institutional innovation: the Summit of the Greater Region and the German-Polish Governmental Commission for Regional and Cross-Border Cooperation are platforms to overcome different systems and responsibilities across the borders.

Second, consultation and concertation go a step further. That is where elements of cross-border regional planning are located. As described in several regional plans, the cross-border central places are an example. This planning instrument can be seen as a punctual result of a consultation and concertation process. It should be emphasized that cross-border spatial planning in each border region faces specific

challenges and is strongly dependent on necessities, networks, and hybrid forms of cooperation. Still, a high level of information and documentation on cross-border functional integration is of great relevance in this context.

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Kurzfassung:**Grenzüberschreitende Landesplanung – funktionale Verflechtung und Raumplanung in Grenzregionen**

Die Border Studies diskutieren nationale Grenzen als Triebkräfte intensiver, funktionaler Wechselbeziehungen zwischen Regionen. In der Regel enden jedoch Raumplanungsdokumente an nationalen Grenzen – insbesondere auf regionaler Ebene. Die Landesplanung verfolgt das Ziel, einen gleichwertigen Zugang zur Daseinsvorsorge zu schaffen. Insbesondere die Regionen ‚am Rande‘ nationaler Grenzen können von einer grenzüberschreitenden Planung profitieren. Diese explorative Studie befasst sich mit dem Zusammenhang zwischen der funktionalen Integration von Grenzregionen und der Landesplanung. In den Fallstudien Großregion, deutsch-polnische und deutsch-österreichische Grenzregion wurden Funktional- und Governance-Analysen durchgeführt, regionale Raumplanungsdokumente ausgewertet und Experteninterviews geführt. Die Ergebnisse zeigen, dass die grenzüberschreitende räumliche Integration einen indirekten Einfluss auf die Raumplanung nimmt. Vor allem asymmetrische Entwicklungen von Regionen an der Grenze setzen zuerst eine grenzüberschreitende Raumentwicklung in Gang. Dementsprechend sind Instrumente der grenzüberschreitenden Landesplanung auf einen Prozess von Information, Dokumentation, Konsultation und Abstimmung zurückzuführen. Funktionale und institutionelle Integration sind also miteinander verknüpft, diese Dynamik betrifft aber (noch) nicht die Raumplanung im formalen Sinne.

Schlagwörter: **Grenzregionen, grenzüberschreitende Raumplanung, grenzüberschreitende Zusammenarbeit, Raumentwicklung**

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