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ECONOMIC INTEGRATION ACROSS BORDERS AT THE REGIONAL LEVEL THREE CASE STUDIES

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Abstract: This paper examines cross-border economic integration through the lens of economic geography. Drawing on three empirical case studies—the cheese industry in the German-Austrian-Swiss (D-A-CH) region, the timber sector along the Bavarian-Czech border, and tourism in the Salzburg–Berchtesgadener Land area—the study identifies distinct constellations of integration, ranging from seamless cooperation to back-to-back patterns of limited interaction. Using a mixed-methods approach that combines descriptive statistical mapping and 21 expert interviews, the research reveals that the permeability of borders is highly context-dependent. In the D-A-CH cheese sector, integration is strongest between Germany and Austria within the EU's single market, while the Swiss border acts as a semi-permeable membrane marked by asymmetrical trade and regulatory barriers. In the timber industry (BY DZ), cross-border cooperation intensifies temporarily during crises such as bark beetle infestations but otherwise remains limited due to institutional and linguistic barriers. In tourism (AT BY), consumer mobility transcends the national boundary, creating a de facto integrated visitor space, yet institutional collaboration between Salzburg and Berchtesgadener Land remains limited. Overall, cross-border integration in Europe appears in this study as a selective, multi-scalar process influenced by sectoral logics, historical path dependencies, and the agency of individual actors.

Keywords: economic geography, cross-border value creation, food geography

JEL Classification: L11, L22, O47

INTRODUCTION

Within the European Union, and particularly through initiatives such as the Schengen Agreement and INTERREG programs, cross-border cooperation has been promoted as a cornerstone of cohesion and regional competitiveness. Yet, despite these political and institutional efforts, the degree and character of cross-border economic integration vary considerably across regions, sectors, and scales. Borders continue to influence spatial and economic dynamics—even if the empirical knowledge remains rather incremental.

Previous research has conceptualized the dynamics through typologies of cross-border constellations such as integration, tunnel effects, and back-to-back patterns (Bertram et al., 2019; De Boe et al., 1999; Chilla & Reisch, 2019). This paper contributes with empirical analyses of spatial and economic configurations of cross-border interaction. We focus on three sectors that differ in their economic logic, spatial embeddedness, and institutional environments: (1) cheese production in the German-Austrian-Swiss (D-A-CH) region, (2) the timber industry along the Bavarian-Czech border, and (3) tourism in the Salzburg–Berchtesgadener Land area.

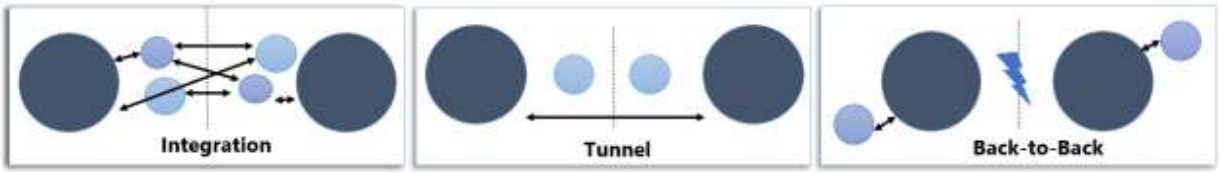
Methodologically, the study combines descriptive statistical mapping with expert interviews to uncover the underlying dimensions of integration. The objective of this paper is therefore twofold: first, to identify and classify the spatial configurations of cross-border economic integration within the three study regions; and second, to analyse the driving forces, barriers, and contextual factors that explain these configurations.

1. CROSS-BORDER INTEGRATION IN ECONOMIC GEOGRAPHY

From the perspective of economic geography, the spatial patterns of cross-border integration are highly relevant. As a starting point, the typology of spatial integration patterns provides an important framework. Fig. 1 shows the most prominent constellations along the EU borders (Bertram et al., 2019; De Boe et al., 1999; Chilla & Reisch, 2019):

- The constellation of cross-border 'integration' assumes an enhanced interaction across border that – in the long run – leads to decreasing differences and, thus, to cohesion.
- The 'tunnel effect' describes that increasing interaction across borders does happen, but only bypasses the border regions at the local level. The border regions are rather transit zones and do not really profit from the integration dynamics at the higher level.
- 'Back-to-back' settings occur when border liberalisation does not lead to increased interactions.

Fig. 1. Types of cross-border integration



Source: own processing (Paul, Sommer & Chilla, 2025)

These spatial patterns result from economic interaction amongst firms and actors on either side of the border. Along the value creation process, materials, services, and financial resources are negotiated and exchanged. It is amongst the most important motivations of European integration in general and the Schengen agreement in particular, that transaction costs caused by borders should be reduced.

Obviously, the introduced spatial configurations are simplified to a large extent, and in reality, a series of further constellations and also combinations might be found. But even more important than describing the correct spatial configuration is to identify the driving forces behind.

Classical economic explanations of transaction costs and differentials are most plausible to play an important role (e.g. Leick, 2011). Differentials are relevant, if e.g. the labour cost level is lower on the other side of the border. Transaction costs might be increased by a border in form of specific regulations or language barriers. Moreover, institutional frameworks, organisational linkages as well as social and cultural proximity can increase the probability of cooperation (Balland et al., 2015).

Our paper aims to contribute to this debate with empirical evidence. Based on descriptive statistics and interviewing, we want to explore in three case studies, what kind of spatial configuration can be found: What role does the border play? How can the spatial configuration be explained? What are the driving forces behind?

2. DATA AND METHODS

2.1 Case study selection

The selection of case studies aimed at capturing diverse forms of economic interactions in cross-border regions of Southern Germany and its neighbouring countries. Three case studies were chosen based on their regional relevance, sectoral diversity, and potential for cross-border economic interactions:

- The cheese production in the German-Austrian-Swiss border region
- The timber industry in the Bavarian-Czech border region
- Tourism in the German-Austrian border region (Berchtesgadener Land–Salzburg)

These cases were selected to represent different types of economic sectors, enabling comparative insights into how cross-border economic ties manifest in different sectors. Furthermore, the selected regions have different institutional, cultural, and historical contexts, which helps to analyse the factors that foster or hinder cross-border economic integration. The analysis focuses on identifying and understanding existing or potential economic interdependencies and collaborative structures.

2.2 Mapping with descriptive statistics

Descriptive statistical mapping was employed to visualise and contextualise key economic indicators in the selected border regions. This method allows for the identification of spatial patterns and localizing regional value creation (Wilhelm & Chilla, 2023).

Data were gathered from national and regional statistical offices as well as European databases (e.g., Eurostat), focusing on variables such as employment by sector, business density, cross-border commuting, import-export and tourism flows. These indicators were mapped at the NUTS-3 level, ensuring consistency and comparability across national borders.

By cartographic and schematic visualization, we highlight structural economic characteristics and patterns in border contexts. The mapping results served both as a contextual foundation for the case studies and as an exploratory tool to detect areas of strong or weak economic interconnection. They were then used as a tool and visualisation during the expert interviews to give an insight and create spatial awareness for the interviewees (calibration).

2.3 Calibration with expert interviews

In order to validate and deepen the findings from the statistical mapping, expert interviews were conducted as a form of empirical calibration. This qualitative approach provided verification, contextual insights, helped interpret data patterns, and revealed cross-border dynamics not captured in official statistics.

The interviews were organised for each of the three thematic subgroups separately. Each subgroup identified a sample of relevant experts. These experts have considerable professional experience and regional knowledge. The sample includes representatives from local administrations, producer associations, cross-border initiatives, and sector-specific stakeholders.

In total, 21 expert interviews were conducted between February and March 2025: for case study cheese eight interviews (five in-person and three online interviews); for case study timber, seven interviews (four in-person, two online interviews and one by phone); for case study tourism, six interviews (five in-person and one online). The semi-structured interviews lasted approximately 30 to 60 minutes and followed a thematic framework addressing economic interdependencies, institutional conditions, and socio-cultural aspects of cross-border cooperation. Depending on the subgroup, the interviews were either audio-recorded and transcribed (timber and tourism) or documented through detailed notes and memory protocols (cheese).

The interview material was summarized and thematically interpreted to identify shared and contrasting perspectives among stakeholders. The analytical focus lay on capturing sector-specific challenges, forms of cooperation, and the perceived relevance of cross-border dynamics. Insights from the expert perspectives informed the interpretation of statistical patterns and contributed to refining the final maps and visualisations.

3. RESULTS

3.1 Case study 1: Cheese in the D-A-CH region

In the D-A-CH border region (D = Germany, A = Austria, CH = Switzerland), we identified clusters of cheese-producing companies. The interviews revealed that the clusters have historical and natural origins. In particular, an early emergence of cheese production in the Swiss Alpine region was emphasised, with the aim of preserving milk over the winter. Schluchter (2015) expands this perspective by describing a specialisation in hard cheese as early as the 16th century. Bürgi et al. (2013) also recognise a local specialisation in the cheese industry in the Swiss herder landscape.

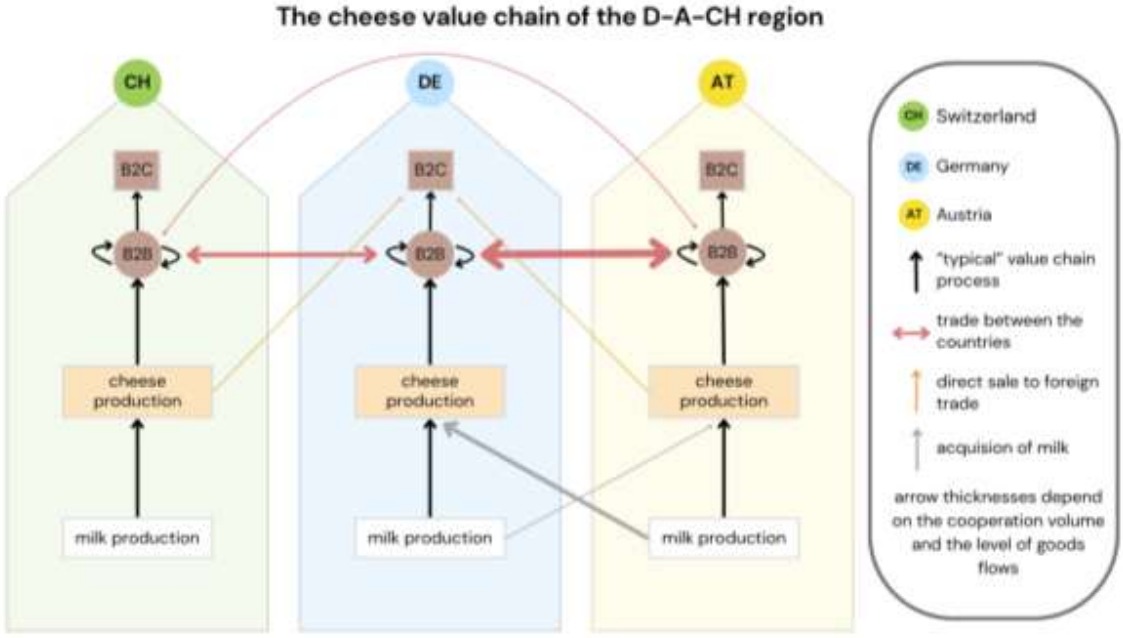
Later, due to economic factors such as the Emmental cheese crisis, master cheesemakers migrated with their accumulated expertise and cheese cultures to Germany and Austria, regions with similar natural conditions. As a result, a cheese dairy cluster has been created in the Alpine region, which concentrates on specialty cheese in particular due to its predominantly silage-free feeding (Irek, 2021).

The historically evolved structures and natural conditions thus form the basis for today's spatial distribution and specialization within cheese production. Based on these findings, the value chain of cheese production within the D-A-CH region was analysed in more detail in the next step.

The visual representation of the cheese value chain is shown in Fig. 2. It is derived from a series of qualitative interviews. Using a structured set of interview questions, the various stages of the value chain were analysed to identify and visualise interconnections, cooperative structures, and trade barriers. The resulting diagram presents the countries of the D-A-CH region horizontally, with the stages of value creation aligned vertically. The process starts with milk production and is followed by cheese manufacturing. Cheese trade occurs both as business-to-business (B2B) and as business-to-consumer (B2C).

Economic cross-border interactions are represented with colored arrows of varying thicknesses to indicate the volume of cooperation and trade flows.

Fig. 2. Cheese value chain of the D-A-CH region



Source: own processing

Between Germany and Austria, formal trade barriers are minimal due to their membership in the European Union. While Switzerland is not an EU member, bilateral agreements since 2007 have liberalised the cheese

trade with the EU, effectively eliminating tariffs (Publications Office of the European Union, 2024). However, customs declarations are still required, introducing an administrative burden. Exchange rate fluctuations between the Swiss Franc and the Euro, along with divergent regulatory frameworks (e.g. geographical designation), create planning uncertainties in cross-border trade.

Significant economic differences in milk pricing between the countries complicate free exchange. According to the interviews, milk prices in Switzerland are substantially higher (ranging from 20 % to 100 % more than in neighboring countries) which makes Swiss cheese more expensive in export markets. The current milk price trend confirms this (Europäische Komission, 2025; SMP, 2025). Germany, with its industrial-scale dairy processing sector, is oriented toward cost-efficient production. Austria occupies a niche in the specialty cheese segment with “Heumilchkäse“ (hay milk cheese) and maintains lower milk prices than Switzerland, which complicates the marketing of Swiss cheese in the Austrian market.

As can be seen from the interviews, cultural and market-specific preferences also act as trade barriers. Swiss and Austrian consumers maintain a preference for regional products. The Austrian market is relatively closed, with many specialty cheeses produced domestically, whereas Germany exhibits a higher openness to imported goods. Marketing strategies and product origin labeling play important roles. For instance, Austria uses designations such as Heumilch as a means of market differentiation. In contrast, hay milk cheese is not labeled as such in Switzerland due to low domestic demand for this product attribute. Swiss cheese holds a reputation as a premium product on the international market, which helps maintain high price levels but simultaneously limits the scope for market expansion.

Structural barriers also affect cross-border trade. Geographic constraints, particularly in Alpine regions such as western Austria, complicate logistics and increase transportation costs, especially for small businesses.

Dynamics in competition vary across the three countries. In Switzerland, competition exists mainly among milk processors, even though collaborative structures provide forums for coordinated discussions on pricing, exports, and market development. Larger companies are embedded within trading groups and form dense internal networks (Irek, 2021). The interviews emphasise this, but also confirm that in regions with high levels of cheese expertise, a dual dynamic of cooperation and competition often prevails.

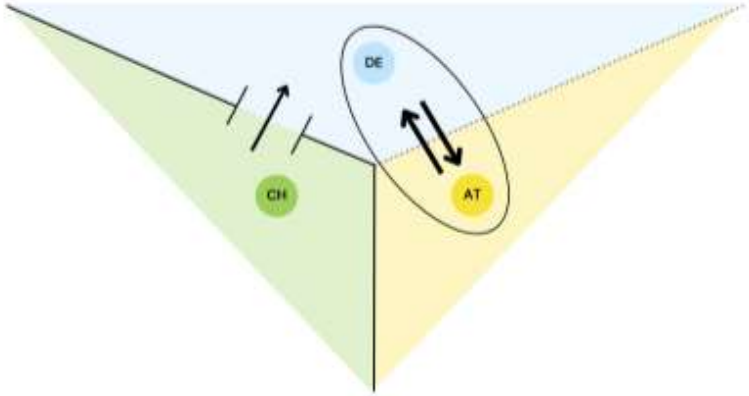
In Germany, the industrial sector and the market for finished goods are highly competitive, particularly in standardised products such as Emmental cheese. In the German market, regional branding is becoming increasingly relevant, intensifying internal competition. In Austria, no explicit patterns of domestic competition were identified in the interviews. However, the hay milk segment is strongly associated with Austrian origin and represents a collective brand identity, resulting in minimal internal rivalry.

At the international level, competition between Switzerland and its EU neighbors is marked by clear boundaries. Switzerland functions as a self-contained market with numerous formal and informal trade barriers. The import of milk from Germany or Austria for use in Swiss specialty cheese production is considered unacceptable, as cheaper EU milk would devalue the product and endanger the Swiss dairy sector. In contrast, Germany and Austria maintain a more open and interdependent relationship. As EU members, they benefit from harmonised market conditions and cooperate in areas such as hay milk and mountain cheese production. This overlap gives rise to both cooperation and competition. For example, products such as Mozzarella and Emmentaler are produced in both countries and distributed across European markets, fueling competitive tensions.

Cooperation patterns also differ across the region. In Switzerland, cooperative efforts are mainly domestic and supported by strong institutional frameworks, including for example product-specific associations. There is a lot of cooperation within clusters: Exchange of technology and knowledge takes place, but is nevertheless selective. These findings from the interviews is confirmed by Irek (2021). The author underpins a strong cooperation through the organisation in form of brand associations. In Germany, cooperation is extensive, both within the country and across borders. This includes partnerships between dairy, farmers and processors as well as collaboration between dairies, particularly in the semi-hard and hard cheese segments. Product-

specific cooperation also exists for butter producers, whey, and soft cheese production. Comissioned work is common, with milk often processed externally. Austria displays a similar structure of cooperation. Bilateral cooperation between Austria and Germany is especially prominent in milk collection, contract processing, and raw material logistics. Switzerland plays only a limited role in these cross-border cooperative activities.
In terms of interconnections, Germany and Austria have seamless trade relations due to their EU membership. Austria exports both specialty and industrial cheese to Germany and also sends milk to be processed into cheese. In the hay milk segment, Germany imports from Austria to meet demand, as not enough is available.
The interviews revealed that the exchange of raw materials within the EU is particularly intensive. Germany and Austria demonstrate strong integration in milk supply, depending on product specialisation. Hay milk remains a scarce and valuable resource, resulting in imports from Austria to Germany. Switzerland exports comparatively little milk but contributes to the value chain through specialised value-added products. In trade and distribution, smaller producers are increasingly engaging in business-to-consumer (B2C) sales, especially via online platforms. Larger firms operate primarily in business-to-business (B2B) settings, maintaining cross-border supply chains that connect to retail food distributors.
The analysis of the cheese value chain in the D-A-CH region highlights a complex interplay of economic, regulatory, cultural, and structural factors that shape cross-border trade and cooperation. While Germany and Austria benefit from integrated EU market conditions and maintain strong bilateral cooperation, Switzerland's position is also defined by trade barriers, despite bilateral liberalisation agreements. Significant differences in milk pricing, consumer preferences, and product labeling practices create challenges for market integration. Overall, the cheese trade in the D-A-CH region reflects both opportunities for collaboration and difficulties rooted in market structure and national identities.
These structural dynamics become particularly visible when looking at how borders influence the flow of goods and the directionality of trade. While regulatory frameworks, pricing structures, and national preferences shape the broader context, it is at the border where these factors manifest. The following section analyses the function of the border in more detail.

Fig. 3. Schematic representation of the interdependencies of the cheese trade in the D-A-CH region



Source: own processing

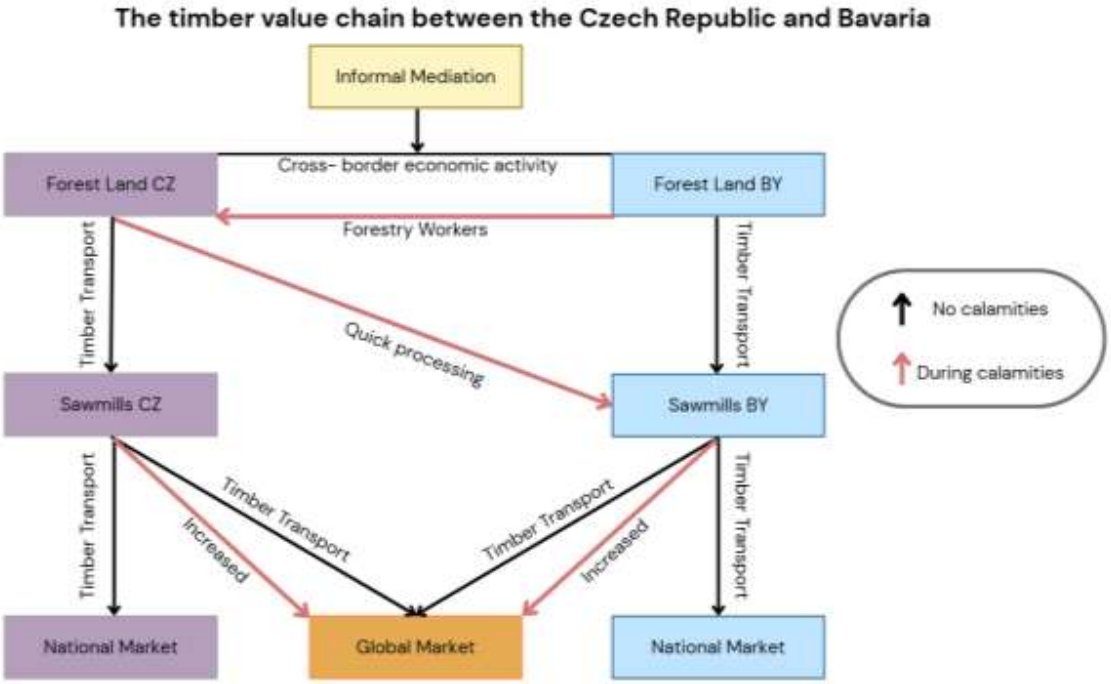
The border between Switzerland and Germany acts as a semi-permeable membrane, meaning that goods cross the border primarily in one direction. Specialty cheese in particular is exported from Switzerland to Germany. The border can be seen as a resource because an expanded sales market becomes possible for Switzerland. With the Switzerland label, 'Swissness' is constructed as an exceptional quality. At the same time, Switzerland imports little or no specialties from Germany. Trade is therefore mainly in one direction (Fig. 3). However, a similar quantity of German industrial cheese is sold in Switzerland. The liberalisation

of the market, the low volume of Swiss milk in relation to demand (at high milk prices) and the increasing attractiveness of lower prices among Swiss consumers mean that large quantities of cheese are imported into Switzerland every year, even if these are mainly supermarket products such as sliced cheese and industrial cheese preparations.
Thus, the boundary works as a semi-permeable membrane when referring to specialty cheeses. This pattern is a combination of the simplified constellations earlier in this paper: It is a combination of integration (from CH to Germany) and a back-to-back pattern in the other direction.
For the Swiss-Austrian border the interdependencies are so small compared to Switzerland-Germany that it is not possible to speak of considerable interaction. Rather, the relationship is a „back-to-back“ situation. Austria focuses primarily on its own specialty cheese (“Heumilchkäse“) and therefore only imports a small amount of Swiss specialties, which is why this is not shown in the diagram.
The EU border between Germany and Austria is permeable and does not have a strong effect. There is intensive regional interaction in the form of cooperation in both directions, particularly in the trade of hay milk, but also in cheese production and trade.
Thus, the three borders have different effects on the economic integration, displaying a multi-polar pattern.

3.2 Case study 2: Timber in the Bavarian-Czech border region

In the timber sector between Bavaria (BY) and the Czech Republic (CZ), cross-border networks are not highly institutionalised and tend to emerge either by coincidence, through informal contacts, or within companies that operate on both sides of the border. The expert interviews underlined there is neither an official point of contact for cross-border timber trade, nor dedicated departments within companies to manage this. Fig. 4 captures the main characteristic of the sector from a cross-border perspective.

Fig. 4. Interlinkages in the timber industry between the Czech Republic and the German federal state of Bavaria



Source: own processing

The experts also underlined that language barriers are an important barrier to overcome (German or Czech). Few people on the German side speak Czech but more people on the Czech side have at least a basic

knowledge in German. Therefore, communication relies on English as a fallback and language can pose a challenge in cross-border cooperation – especially when smaller companies are involved.

All of the interviewed experts indicated that cross-border networks typically develop when damaging events occur, such as storm and especially bark beetle infestations. These events can be addressed as calamities. In times without, or with only minor calamities, logging is organized across the border, but the harvested logs are primarily delivered to national sawmills. After processing, the timber remains largely within the domestic markets. Cross-border trade in these times remains limited and when it does occur, it is mostly oriented towards the global market, particularly by larger. Smaller enterprises tend to operate within their national borders and at the regional level.

However, this situation changes significantly during calamities. From 2015 to 2021, Czechia experienced a severe bark beetle infestation that damaged large numbers of trees, necessitating rapid processing (Brázdil et al., 2022). This had notable effects on cross-border relationships. Large volumes of Czech timber required urgent processing. To support the extensive logging efforts, more German forestry workers were employed in Czechia. Moreover, Czech sawmills lacked sufficient capacity, so timber was also transported across the border to Bavarian sawmills for further processing. The so-called calamity wood or infested timber had to be processed rapidly, and because of higher capacities in German sawmills and their utilisation, a lot of logs have crossed the border (Toth et al., 2020). Due to the increased timber volume, more wood was also directed toward the global market rather than being confined to national trade (Toth et al., 2020).

After the calamities subside, the situation stabilizes again: timber processing and trade return primarily to national patterns (LWF, 2025). Thus, calamities influence cross-border networks only temporarily and do not lead to a sustained increase in cross-border activity.

The interviewees underlined that there are fundamental differences in forest ownership in Bavaria and the Czech Republic. Although Bavaria has a large proportion of state-owned forests, which are managed by the Free State of Bavaria (approx. 30%), there is also a considerable proportion of many small private forest plots that are managed individually. Although there are forest owner associations (WBV), the more fragmented structure makes it difficult to trade across borders (Aurenhammer, 2017). In the Czech Republic, there is a much larger proportion of state-owned forest (approx. 50%), which is managed centrally (Staatsbetrieb Sachsenforst, 2018).

Both Bavaria and the Czech Republic have a relevant timber industry. A certain concentration can be identified on both sides of the border. Logging companies and sawmills exist on both sides of the border, but Bavaria has a higher number of sawmills, with higher sawing capacities (IHK, 2025; ARES, 2025).

The trade of timber between Bavaria and the Czech Republic can be divided into two constellation, as indicated above – the ‘ordinary setting’ and the ‘calamities setting’. Cross-border interaction mainly depends on what constellation is active.

For both given scenarios, the initial logging does take place cross-border, and actors are cooperating on this level of the supply chain. Here the border acts as a permeable membrane. In the next step, logs are being transported for further processing. At this level, it depends on the scenario or period whether the timber is being exported to another country or not.

In recent years, economic interaction between Bavaria and the Czech Republic has decreased in this sector, as both countries produce sufficient timber for their domestic markets (and the global market), and less infested wood was deforested. In this constellation, the border situation can be described as a back-to-back setting. One interview with the head of a sawmill highlighted that in both scenarios, the processed timber is mostly sold directly, so that cross-border cooperation is not very significant at this level (LWF, 2025). This also applies to the wood manufacturing industry, as interdependencies on this stage of the value chain are low to nonexistent. If there will be new need for sawing capacities in years with calamities, the cross-border cooperation can be reactivated rather easily, in particular for the utilisation of the sawmills. To summarize

this case study in a very compact manner: back-to-back patterns in normal times, and cross-border integration in times of calamities.

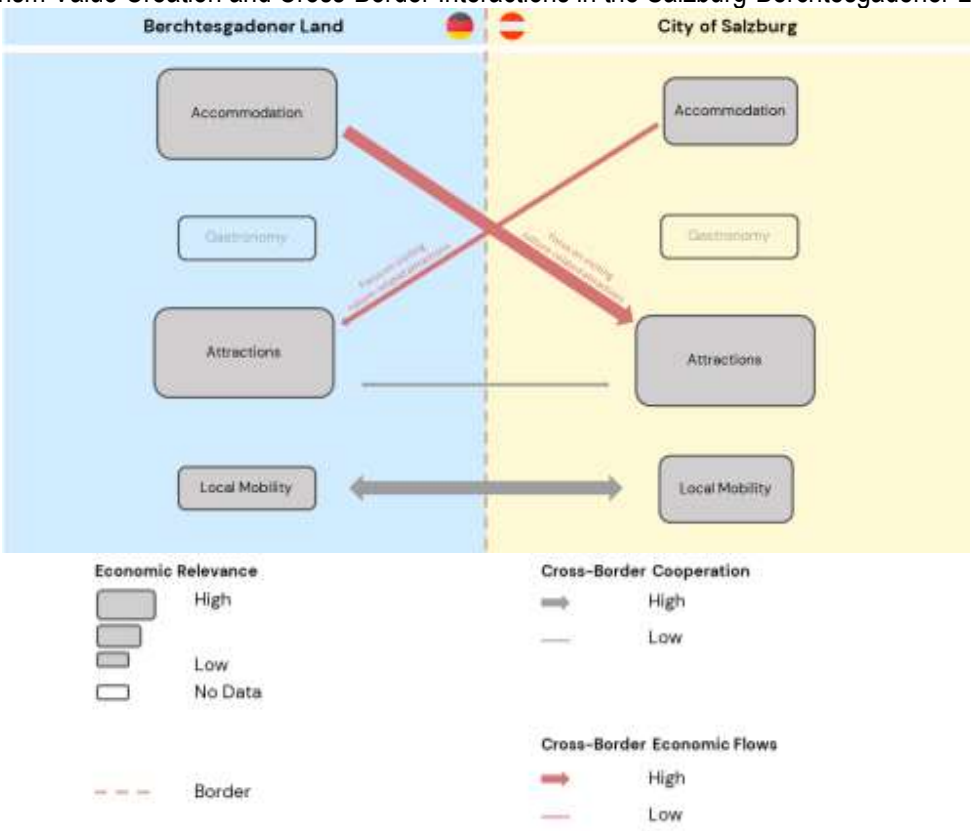
3.3 Case study 3: Tourism in the Salzburg-Berchtesgadener Land region

Also in the case the tourism economy of the Berchtesgadener Land (DE) and the City of Salzburg (AT), a mixed-methods approach was employed. The database for Berchtesgadener Land relies on revenue figures from the DWIF study (2020). Sectoral differentiation between accommodation and gastronomy was carried out based on typical ratios, with approximately two-thirds attributed to accommodation and one-third to gastronomy. For the City of Salzburg, tourism revenues were taken from the official 2024 tourism report. The distribution across accommodation, gastronomy, and leisure/cultural sectors follows standard industry benchmarks for urban destinations, as defined by Austrian National Tourist Office (2024).

Based on these data, a schematic visualisation was developed (Fig. 5), which compares tourism value creation in the two regions. The figure differentiates Accommodation, Attractions (including cultural and natural ones), and Local Mobility. The boxes are connected by arrows that indicate cross-border activities (cooperation and economic flows) and their intensity, thus illustrating the relevance of each sector to the respective region's tourism-related value creation. The national border is visualised as a vertical line. The frames of the boxes reflect the economic importance of the aforementioned sectors based on statistical data. It should be noted that no data on economic relevance is available for the “Gastronomy” as well as the “local mobility” sector.

This visual framework offers a comprehensive perspective on the economic and functional interconnections in the tourism border region and illustrates both existing complementary structures and potentials for deeper cooperation.

Fig. 5. Tourism Value Creation and Cross-Border Interactions in the Salzburg-Berchtesgadener Land area



Source: own processing

As shown in figure 5, in cross-border tourism between the Berchtesgadener Land and the city of Salzburg, accommodation plays a relatively greater role in the local tourism economy on the German side, even though Salzburg generates higher absolute revenues in this sector. In the expert interviews, it was mentioned that price differences and capacity bottlenecks in Salzburg can lead to some visitors staying overnight in Berchtesgadener Land. However, as the experts confirmed that there are no counts of tourists crossing the border in this area, it remains unclear to what extent these guests mainly visit Salzburg or the Berchtesgadener Land or are interested in both regions.

At the same time, according to the interviewees, there is a clear structural difference in the tourist infrastructure: While Salzburg appeals to a heterogeneous audience with a large number of hotels and a wide range of international events, the Berchtesgadener Land often attracts regular guests and is characterised by many private rentals. The experts of both regions expressed their concerns, albeit for different reasons: In Germany, private holiday rentals are increasingly being criticised as exacerbating the housing shortage, while in Salzburg the potential risks of platforms such as Airbnb are discussed. Despite these challenges, demand in both regions remains stable (TSG Tourismus Salzburg GmbH, 2025; Bayerisches Landesamt für Statistik, 2025) - even given the limited number of beds - and tourism is a key economic factor, particularly for the Berchtesgadener Land region. To date, it seems there has been no institutionalised cooperation in the area of accommodation, which can be attributed, among other things, to different legal frameworks that make cross-border cooperation more difficult.

There is also a clear differentiation between the two regions in terms of the tourist attraction structure. While Salzburg is a cultural center with an extensive cultural offering - such as the internationally renowned Salzburg Festival and the enduring global appeal of The Sound of Music as a cultural reference point- Berchtesgadener Land focuses on nature experiences, such as the Königssee, the Eagle's Nest and the National Park. Due to these different focuses, different target groups are addressed. The interviewees on both sides of the border do not perceive these different focal points as competition, but rather as complementary. On the contrary, the interviewees emphasise that these are complementary offers that can enrich each other. This indicates that there is potential for stronger networking and joint positioning in tourism marketing. Nevertheless, no active, strategic collaborations for joint marketing were named. The existing cooperation is selective and mostly informal, without institutional anchoring.

Cross-border cooperation is much more pronounced in the area of mobility, which can be identified as a central field of action. A well-developed network of bus and rail connections, which enables seamless connections between both sides of the border, plays a key role in making the region accessible to tourists. According to insights from expert interviews, Salzburg, as a regional center, benefits from an efficient transport infrastructure with good regional and international connections – a major advantage, especially for day trippers and international guests. In contrast, Berchtesgadener Land has more limited transport connections overall, including less frequent rail connections with longer journey times and fewer direct highway connections, which together contribute to increased traffic congestion, especially in the summer months. In the interviews it became clear that measures such as the integration of public transport into guest cards or EUREGIO mobility projects are seen as important starting points for improving the accessibility and attractiveness of the region. Cross-border bus connections in particular are popular with guests and contribute to relieving traffic congestion - but have so far remained isolated solutions without an overarching strategic concept.

The interviews showed that in the area of cross-border cooperation, the picture is ambivalent. On the one hand, there are successful forms of cooperation - particularly through the EUREGIO and its projects - that promote structural dialog. On the other hand, bureaucratic hurdles and differences in the national legal system were mentioned as significant obstacles to in-depth cooperation. These legal differences particularly hinder project developments that require a long-term and institutionally secured cross-border perspective. Additionally, the experts made clear that differing perceptions of the benefits of cooperation also play a role

in why more extensive collaboration has not developed. Despite individual positive examples, there is still room for improvement in terms of systematic and strategically managed cooperation.

The border between the Berchtesgadener Land (Germany) and the city of Salzburg (Austria) can be described as a partially permeable, semipermeable membrane, though it is marked by a clear asymmetry in perception and dependency. The Berchtesgadener Land benefits in multiple ways from its proximity to Salzburg, for example, through inflows of day tourists, accommodation spillover during peak seasons and access to broader transport connections. In contrast, Salzburg perceives its Bavarian neighbor only marginally. Simplifying to a certain extent, this results in a one-sided permeability, where cross-border tourism dynamics flow predominantly in one direction.

There is no doubt that the city of Salzburg has a prominent position in the region. Based on Christaller's "model of central places", Salzburg can be classified as a regional center that acts as a development driver for the region, be it from a social, economic or tourism perspective. For peripheral areas such as the region under investigation, Kühn and Sommer (2013) refer to the term regiopole, which defines small cities in more rural areas. Salzburg, as such a regiopole, thus achieves the centrality of the region through a pronounced infrastructural supply, such as the presence of developed transport connections, educational facilities, health centers, but above all through a wide range of cultural and leisure activities, which are particularly relevant for tourism and give the city unique selling points in the region (Kühn & Sommer, 2013). It is clear that Berchtesgadener Land experiences numerous positive effects thanks to its proximity to the city. Conversely, the polarisation in favour of Salzburg also means an often unequal distribution of the benefits of cross-border tourism for Berchtesgadener Land. For example, good transport connections in a tourism region increase its attractiveness, but also lead to competition with each other (Gühnemann et al., 2021). In summary, the disparities in the border region can be regarded as high and the development as asymmetrical (Bertram et al., 2019).

From an institutional perspective, cooperation between tourism actors remains limited and constrained within national boundaries. While cultural and economic collaboration (e.g. joint product development or bundled offers) as in EUREGIO projects is possible in principle, it is often scarce, informal, or project-based. Most businesses operate within their respective national frameworks, and deeper cooperation—especially in the accommodation and gastronomy sectors—remains rare.

However, the behavior of tourists paints a different picture. Tourists cross the border frequently and effortlessly, showing interest in experiencing both regions regardless of national affiliation. This creates notable cross-border economic spillovers and results in a functionally integrated tourism space. For visitors, the border is virtually invisible—a situation best described as consumer-led cross-border integration with actor-level asymmetry. While demand flows freely, supply-side cooperation remains fragmented. A clear asymmetry in willingness to engage is also observable: actors in the Berchtesgadener Land show greater openness toward cross-border initiatives, whereas stakeholders in Salzburg tend to prioritise cooperation within their own federal state (Salzburger Land), which offers similar natural assets and keeps value creation domestic.

Cross-border mobility represents a notable exception to this pattern of limited cooperation. Thanks to collaborative projects under the EUREGIO framework—such as hop-on-hop-off buses and sustainable transport initiatives—public transport infrastructure is well developed and functionally integrated across the border. Nevertheless, these collaborations are largely confined to the mobility sector and do not extend into broader tourism management or product development. While the border itself does not present a significant legal barrier, deeper integration is confined by institutional and administrative challenges, due to differing legal systems and funding structures on each side.

Following the typologies of cross-border integration discussed by Bertram et al. (2019), there is also evidence of a tunnel effect: Salzburg functions as a major international tourist hub, attracting high volumes of visitors, while neighbouring areas such as Berchtesgadener Land are able to attract visitors themselves - especially

for nature tourism - but in addition often serve as complementary destinations for accommodation or day trips. In this context, the Bechtesgadener Land generates considerable income from tourism, yet value creation remains to a certain extent structurally dependent on its function as a complement to the centrality of Salzburg. At the same time, the relationship can be characterised as complementary: Salzburg focuses on urban cultural and event-based tourism (e.g. festivals, “Sound of Music” tours), whereas the Berchtesgadener Land specialises in nature-based tourism, hiking, and recreation. This functional differentiation helps avoid direct competition and offers potential for coordinated cross-border tourism development, though these potentials are currently underutilised.

4. DISCUSSION AND CONCLUSION

Based on the empirical results, the following conclusions can be derived for the role of the border. The role of borders varies significantly depending on geographic, political, and sectoral contexts. The three case studies – cheese production in the German-Austrian-Swiss region, forestry in the Bavarian-Czech border area, and tourism in the Salzburg–Bavaria region – demonstrate diverse patterns of integration patterns and dynamics.

- In the cheese sector, the German-Austrian border functions in a largely seamless manner – here, cross-border cooperation operates in an almost "borderless" mode. In contrast, the German-Swiss border can be characterised as a “semipermeable membrane”, allowing for asymmetric exchanges. The Swiss-Austrian relationship appears most limited, representing a “back-to-back” constellation with little interaction.
- Natural geographical features – such as the tradition of the “herder landscape” – act as path-dependent drivers of integration. Overproduction, particularly in the German market, can also trigger or intensify interaction. However, barriers remain: differences in regulatory frameworks, high bureaucratic burdens at the Swiss border, and the paradoxical role of similarity – where similar products and structures can foster competition rather than cooperation.
- In the Bavarian-Czech forestry sector, the border’s function is highly context-dependent. In times of crisis – such as widespread bark beetle infestation – it becomes more permeable due to pressure for coordinated action. In more stable periods, a “back-to-back” logic prevails, with limited interaction. Integration is often driven by the personal commitment of individual actors who serve as intermediaries to bridge institutional and cultural divides. Again, crises – particularly wood oversupply – act as catalysts for cooperation. Barriers include language differences and divergent ownership structures, which increase transaction costs and hinder exchange.
- The tourism sector shows a nuanced picture: for tourists, the border is highly permeable, while for institutions and businesses, cooperation is often limited to funded projects. Exchange is promoted by complementary offerings (e.g. urban cultural experiences in Salzburg versus nature-based tourism at Königssee) and cross-border public transportation. At the same time, institutional mandates often remain nationally bound, and similarities – such as parallel offers in hiking or landscape tourism – can create competition rather than collaboration.

Overall, cross-border integration proves to be specific and complex, as it varies across the stages of value creation and with regard to further dimensions. Political contingencies – such as the “Swissness” label or programs like INTERREG – play a significant role, as does individual intentionality: personal engagement by key actors, such as an independent timber intermediary, Switzerland Cheese Marketing, or the Heumilch ARGE, often drives integration.

The empirical study has not operationalized policy questions. Nevertheless, some arguments can be derived, even if the specific case study highly matters. Generally speaking, economic cooperation belongs to those sectors that are not very prominent in cooperation programmes as – in particular – INTERREG (Chilla & Lambracht, 2022). In particular the involvement of business actors remains rare. However, the study

at hand shows, that the potential of more systematic cooperation across borders is high. Moreover, the three case studies illustrate the relevance of rather establishes cooperation issues, like cross-border public transport (AT BY), language competences or joint crises management (BY CZ).
Borders serve as locational factors in ambivalent ways. Their relevance rather depends on factors of cultural proximity, mentalities, and trust – at least at the border regional level. At the national level, however, borders play a central structuring role in markets – through symbolic labels like “Swissness” or language-based transaction costs.

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