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# The impacts of the covidfencing phenomenon in three European cross border regions

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## ABSTRACT

This article adopts a temporal and multi-level perspective on the phenomenon of covidfencing, which emerged during the COVID-19 pandemic of the early 2020s and led to widespread 're-bordering' across European cross-border regions. It explores how different regions experienced covidfencing and analyzes the processes that produced divergent outcomes, considering developments at regional, national, and European levels. By assessing the situation several years after the initial crisis, the article examines the persistence of changes to the constitutionalization and everyday functioning of cross-border regions. Drawing on qualitative research in the Geneva Basin, Greater Saar-Lor-Lux, and Öresund regions, it identifies tangible reforms in taxation, social security, and remote work frameworks that have reshaped cross-border mobility and governance. The article also looks ahead to evaluate what institutional changes have been made to improve crisis preparedness and which lessons from the covidfencing period remain unaddressed. In doing so, it contributes to current debates on regional governance resilience, offering insights into how the experiences of the early 2020s have influenced the evolving role and structure of cross-border regions in Europe today.

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## 1. Introduction

The vision of a borderless Europe that shaped the border discourse of the 1990s has increasingly been called into question. As Paasi (2025, p. 61) notes, 'the utopian idea of a borderless world characterizing the border discourse of the 1990s has been challenged by many wars, the 9/11 terrorist attacks, the COVID-19 pandemic and the ongoing Russia – Ukraine conflict'. Among these developments, the pandemic proved particularly consequential, triggering widespread and systematic border closures. Researchers studying cross-border regions (CBRs) began to describe this phenomenon

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as ‘covidfencing’ (Medeiros et al. 2021). At its peak, concerns were raised that such measures could reverse decades of progress in European cohesion and integration, particularly in Europe’s highly interconnected CBRs (European Commission 2021; OECD 2024). These developments have renewed attention to the role and functioning of CBRs.

CBRs have long attracted scholarly attention across disciplines including political geography, regional studies, economics, and sociology (Wróblewski 2022). Within this literature, researchers have examined CBRs through diverse lenses such as transport and mobility (Medeiros 2019), economic geography (Barnes, Peck, and Sheppard 2016), policy entrepreneurship and multilevel governance (Perkmann 2007b), the construction of ‘political dreamscapes’ (Löfgren 2008), and labour mobility (Pires and Nunes 2018). Research has also shown that CBRs operate under distinct economic conditions compared to other regions (Braunerhielm, Olsson, and Medeiros 2019; Makkonen and Rohde 2016). Interdisciplinary work combining EU law and regional studies has further highlighted the spatial implications of reintroducing border controls within the Schengen Area (Evrard, Nienaber, and Sommaribas 2020). Building on this literature, this article examines CBRs through the lens of regional resilience (Boschma 2015; Bristow and Healy 2014; Christopherson, Michie, and Tyler 2010; Hippe, Bertram, and Chilla 2024), a perspective that has become increasingly salient in the context of the pandemic, climate change, and contemporary geopolitical instability.

Specifically, the article investigates whether the governance of borders and cross-border interactions has undergone lasting change as a result of the covidfencing period. It also examines whether the resilience of CBRs to external shocks has improved in the wake of the pandemic, and whether regional, national, and European governance structures are now better equipped to manage future crises, including those related to pandemics, migration, security, or climate change. These concerns are distilled into three guiding research questions:

What changes have European CBRs experienced in their governance and functioning following the pandemic?

Did covidfencing fundamentally alter the nature of CBRs from a long-term perspective?

What lessons have been learned at different governance levels, and has the resilience of CBRs to external shocks increased as a result?

The article draws on empirical research conducted in three European CBRs and is structured around four analytical perspectives. First, we adopt a temporal lens, tracing developments from the height of the COVID-19 crisis to the present day (late 2025) in order to assess how bordering processes and regional dynamics have evolved. Second, we apply a multi-level perspective, situating local cross-border experiences within broader national and European governance frameworks. Third, we take a comparative approach, examining three regions: the Öresund/Greater Copenhagen region (Sweden – Denmark), the Greater Saar-Lor-Lux region (Belgium, France, Germany, and Luxembourg), and the Greater Geneva region (France – Switzerland). Fourth, we draw on an interdisciplinary framework integrating insights from geography, planning studies, European Union (EU) law, and economics to develop a nuanced understanding of cross-border governance and its transformation during and after the pandemic.

The remainder of the article is structured as follows. Section 2 introduces the theoretical concepts and bodies of literature that inform our analysis and outlines the key debates to which we contribute. It then presents the methodological approach and rationale for selecting the three case study regions in section 3. This is followed by an

in-depth presentation of the empirical findings in section 4, tracing developments from 2020 to the present and identifying which changes have endured. The article concludes with section 5 reflecting on how these findings engage with existing literature and drawing broader conclusions about the evolving nature and resilience of European CBRs in the face of external shocks.

## 2. Literature review

### 2.1. Cross-border regions in Europe

To better understand the implications of recent re-bordering dynamics and the emergence of covidfencing, it is necessary to consider the role of CBRs within the broader project of European integration. Since its origins, achieving lasting peace through economic integration and fostering cultural exchange have been central to the EU's ambition to create an 'ever closer union among the peoples of Europe' (Treaty on European Union, Preamble). Strengthening cross-border ties and weakening previously perceived national divisions have therefore remained high on the EU policy agenda (Fogarasi 2024). Transforming border regions into CBRs has been actively promoted, with such regions often described as 'laboratories of European integration' for advancing EU cohesion and integration objectives (Böhm 2023; Knippenberg 2004). In the academic literature, CBRs are understood as 'functional spaces' connecting territories across state borders and characterised by dense social and economic relationships rather than purely administrative entities (Perkmann 2007a). They represent a process of cross-border reterritorialization in which social, economic, and political activities are reorganised at the sub-national scale, with the aim of reducing tensions between states and addressing regional economic disparities (Popescu 2008).

To facilitate cross-border integration, the EU has established numerous funding schemes and governance frameworks. One of the most prominent instruments is the INTERREG programme, which promotes cross-border cooperation (CBC) through financial support and institutional guidance. In many cases, cross-border governance bodies (CBGBs) are created by national or sub-national authorities to institutionalise multi-level cooperation between contiguous territories across national borders (Perkmann 2003). These bodies may bring together actors from both sides of the border, coordinate and implement joint projects, and help foster shared spaces of social and cultural interaction. When functioning effectively, CBGBs can reduce the cognitive distance associated with borders by lowering geographical, functional, and relational barriers, and encourage more proactive national and sub-national policy agendas aimed at deeper European integration (Lundquist and Trippel 2013).

Through these institutional arrangements, CBRs have come to play an important role in advancing the objectives of a borderless internal market. They can stimulate economic activity and generate tangible benefits for citizens (Monar 2001), while also fostering cooperation and innovation between neighbouring states, particularly in border regions (De Sousa 2013). The functioning of CBRs affects the everyday lives of millions of people and companies across Europe, including the EU's and EFTA's approximately 1.8 million cross-border commuters (European Commission 2024). Many more individuals cross borders to sell and purchase goods, provide and receive services, participate in

cultural and educational activities, and access vital transport infrastructure (Karlsson and Olsson 2006), thereby making practical use of the EU's commitment to a borderless internal market as enshrined in EU Treaties.

Despite these advances, the effective functioning of CBRs remains constrained by a range of institutional and legal barriers. While EU citizens enjoy rights to move, reside, work, and provide or receive services within the Union, national governments remain the primary actors in international economic cooperation (Noferini et al. 2020). As a result, cross-border interaction continues to be shaped by differences in national laws, administrative practices, tax systems, and regulatory frameworks (De Sousa 2013; Ramirez and Winkler 2012; Sohn and Reitel 2016). Infrastructure gaps, market imperfections, and divergences in cultural norms and social practices further complicate cross-border integration. Although supranational initiatives such as Schengen cooperation (De Sousa 2013), INTERREG funding (Reitel, Wassenberg, and Peyrony 2018), and other policy instruments (Jorens, Minderhoud, and De Coninck 2015) such as the EGTC since 2006 and BRIDGEforEU since 2025 have sought to mitigate these obstacles, many challenges persist. These structural limitations became particularly visible during the COVID-19 pandemic and other recent crises, which disrupted cross-border interaction and exposed the fragility of integration processes in CBRs (OECD 2024; Studzieński 2016). Beyond this diversity, cross-border case analysis demonstrates that as regulatory asymmetries hamper cooperation, historical depth and institutionalisation stand out as strengths in support of resilient cross-border regions (Evrard et al. 2026).

Beyond these structural barriers, cross-border integration is also shaped by broader socio-economic and political dynamics. Even under normal circumstances, border-related obstacles pose challenges to the sustainability of integration in CBRs. Increasingly integrated labour and housing markets, for instance, can generate heightened competition between domestic and cross-border actors (Claveres et al. 2020). Border regions also often exhibit significant financial and cultural differences, which may lead to communication barriers and segmented labour markets in which cross-border workers tend to occupy either the most highly paid or the least desirable positions (Galgóczi, Leschke, and Watt 2016; Löfgren 2008). In recent years, such dynamics have also contributed to rising nationalist sentiments portraying EU labour mobility as a threat to national interests (Durand, Decoville, and Knippschild 2020), as illustrated by the symbolic role that border control and labour migration played in the Brexit debate (Powell 2017). These tensions underscore the fragility of cross-border integration and help explain why CBRs are particularly vulnerable to external shocks such as pandemics, migration crises, or geopolitical conflicts.

## 2.2. Covidfencing

Within the EU's history, the reintroduction of borders and its implications for regional integration and the functioning of CBRs became most visible during the COVID-19 pandemic (European Commission 2021), although the trend had been foreshadowed by the 'creeping' border controls introduced after the 2015 migrant crisis (Osso 2025). Capello, Caragliu, and Panzera (2023) evaluated that covid fencing measures may cause a decrease of around 1% of the EU's GDP EU-wide, with costs roughly twice as large for EU CBRs. In response to the pandemic, many national governments assumed that internal health

security could be achieved by restricting external flows, leading to sudden and comprehensive re-bordering commonly described as ‘covidfencing’ (Medeiros et al. 2021). These measures also included calls for citizens abroad to return home. Under EU law, restrictions on free movement may be justified on grounds of public policy, public security, or public health, provided they are legitimate, proportionate and compatible with fundamental rights. Until recently, however, Member States were not legally obliged to consider the specific adverse effects of such restrictions on CBRs on their territories. During the COVID-19 pandemic, this legal discretion translated into a wave of predominantly national crisis responses (Alemanno 2020) that disrupted everyday cross-border interaction through lockdowns and internal border closures.

Although certain ‘critical’ cross-border movements were formally exempted, commuters whose livelihoods depended on the EU single market were often excluded (Novotný 2022). Even where crossings remained legally possible, reduced checkpoints, ad hoc controls, and administrative uncertainty generated significant delays that rendered daily mobility unfeasible (Böhm 2021). As a result, decades of EU integration efforts were abruptly disrupted: cross-border economies contracted more severely than those in other regions (Paül et al. 2022), while trust and long-term cross-border planning were likely weakened (Herbig et al. 2025).

Covidfencing had its most severe effects in highly integrated border regions where free movement had become structurally embedded (Medeiros et al. 2021). While border controls had already been gradually reintroduced after the 2015 migrant crisis, the pandemic differed in that borders were frequently closed rather than merely subject to tighter control (Osso 2025). These unilateral national measures exposed long-standing weaknesses in cross-border planning (Braunerhielm, Olsson, and Medeiros 2019), particularly the failure to anticipate the consequences of reinstating internal border obstacles (Evrard, Nienaber, and Sommaribas 2020). National responses were rarely calibrated to safeguard the mobility of frontier workers, including those in essential sectors (Martin 2020), nor to maintain the functioning of infrastructures designed to serve cross-border populations (Paül et al. 2022). As a result, shared infrastructures were underutilised, public transport arrangements became uncertain, and incompatibilities between tax, social security, and labour-law regimes were intensified, severely disrupting the lives of individuals dependent on cross-border mobility (Novotný 2022; Paül et al. 2022).

During the covidfencing period, information gaps and rapidly changing rules, which have consistently been recognised as major obstacles to cross-border mobility (Jorens, Minderhoud, and De Coninck 2015), interacted with the limitations of existing regulatory frameworks and the widespread shift to involuntary teleworking. This combination generated unfavourable tax consequences, uncertainty regarding social security affiliation, and a heightened risk of losing access to benefits such as healthcare (Razavi et al. 2020). Although temporary remedies were sometimes introduced, including exemptions from commuter tax rules or special entry provisions for cross-border children, these measures remained partial and short-lived. Consequently, calls have intensified for stronger transnational coordination capable of addressing regulatory fragmentation and incoherent crisis responses (Rasnača 2020; Razavi et al. 2020).

More broadly, covidfencing has exposed structural weaknesses in the governance of CBRs (Böhm 2020; Medeiros et al. 2021). CBRs rely on complex and often fragile networks of governmental actors operating across different political and administrative

systems (Böhm 2021). Their institutional capacity is often limited, and many governance arrangements depend heavily on national political support and funding, which makes them vulnerable to sudden disruptions (OECD 2024). Where cross-border cooperation has not matured into stable, deeply embedded networks, crises can quickly reverse earlier gains in integration (Brooks et al. 2022).

In response to these challenges, proposals have been put forward to strengthen EU-level coordination, including the potential creation of a dedicated European agency capable of addressing issues that exceed the capacities of existing cross-border governance bodies (OECD 2024). At the same time, there remains significant scope for local actors, CBGBs, and cross-border entrepreneurs to develop more flexible and adaptive forms of cooperation within their regions (Brooks et al. 2022). Covidfencing therefore highlights both the achievements and the fragility of European cross-border integration, underscoring the need for more resilient, multi-level governance arrangements capable of managing future crises. As CBRs are shaped simultaneously by national, international, and local dynamics (Wróblewski 2022), understanding how these regions responded to the pandemic provides important insights into the resilience of European cross-border governance.

The following sections examine these issues empirically by analysing how three European CBRs responded to covidfencing and its aftermath through a temporal and multi-level perspective.

### 3. Methods and case introductions

The analysis draws on comparative empirical research conducted in three European CBRs: the Greater Geneva region (France – Switzerland), the Greater Region Saar-Lor-Lux (Belgium – France – Germany – Luxembourg), and the Öresund region (Denmark – Sweden). The research was undertaken by a team of scholars conducting field-based empirical work in each region. A mixed-methods approach guided the data collection and analysis, combining document analysis, statistical data, surveys, and semi-structured interviews. Policy documents, reports, and official statistics were examined at the regional, national, and European levels. In addition, interviews and surveys were conducted with key stakeholders involved in cross-border governance as well as cross-border commuters whose daily mobility depends on the functioning of these regions. The analysis triangulated evidence across these sources, and qualitative coding was used to identify key themes emerging from the data. The research questions outlined in Section 1 guided the empirical investigation and provided the analytical framework for the cross-case comparison presented below.

The three case studies were selected based on both analytical and practical considerations. Analytically, the regions represent highly integrated cross-border areas characterised by substantial cross-border mobility and established governance structures supporting cross-border cooperation (CBC). Each region also experienced significant disruption during the covidfencing period, making them suitable cases through which to examine the resilience of cross-border governance arrangements. From a practical perspective, members of the research team were already conducting empirical research in the three regions and had established collaborative links that facilitated comparative analysis.

The Greater Geneva region is one of Europe's most dynamic CBRs and attracts the largest number of French cross-border commuters along the French – Swiss border. At the end of 2025, almost 240,000 cross-border workers living in France were employed in Switzerland. A majority of these commuters – around 60 per cent – were concentrated in the Geneva Basin (Debouzy and Reffet-Rochas 2022). Cross-border commuting in the region has increased significantly over the past decade, rising from 61,177 workers in 2011 (Delaugère 2012) to over 115,000 in 2025 (Breithaupt 2025). These developments have reinforced the region's functional integration while also raising challenges related to housing, mobility, and governance across the national border.

The Greater Region Saar-Lor-Lux spans Belgium, France, Germany, and Luxembourg and represents one of the most complex CBRs in Europe. The region's current dynamics are closely linked to Luxembourg's transformation into a major international financial centre during the late twentieth century (Dörry 2015; Hesse 2016). This economic transformation has generated substantial cross-border commuting flows, with approximately 60 per cent of new jobs in Luxembourg filled by workers residing in neighbouring countries (LISER & MDDI 2023). By 2024, around 44 per cent of Luxembourg's workforce lived outside the country, with a majority commuting from France. These functional interdependencies have produced increasing spatial specialisation across the region, with residential development expanding in neighbouring territories while economic activity concentrates in Luxembourg (LISER & MDDI 2023). At the same time, this pattern has contributed to social and economic inequalities and growing pressures on housing markets, infrastructure, and the environment (Durand, Decoville, and Knippschild 2020; Evrard 2021; Paccoud et al., 2024).

The Öresund region links eastern Denmark and southern Sweden and has a population of more than four million inhabitants. Its integration has been strongly facilitated by the opening of the Öresund Bridge in 2000, which enabled the development of a shared cross-border labour market (European Commission 2018). As of 2023, approximately 19,000 individuals commuted daily across the bridge for work, the majority travelling from Sweden to Denmark (Futurium 2023). The region has long symbolised Nordic cooperation, yet its integration has also been shaped by differences in national policies on taxation, social security, and border management. These tensions became particularly visible during the COVID-19 pandemic, when Denmark and Sweden adopted contrasting containment strategies that resulted in uncoordinated border restrictions and considerable uncertainty for cross-border commuters.

Together, these three cases represent highly integrated CBRs characterised by strong functional interdependencies and established governance structures. At the same time, they differ in their institutional arrangements, economic structures, and patterns of cross-border mobility. This combination makes them particularly suitable for examining how CBRs responded to covidfencing and what these responses reveal about the resilience of cross-border governance in Europe.

## 4. Results

This section presents the key findings from the empirical research conducted at the European level and across the three CBRs examined in this study. We begin by outlining the broader governance dynamics that shaped crisis responses at the EU level before

examining how these dynamics unfolded in the Greater Geneva, Saar-Lor-Lux, and Öresund regions.

#### **4.1. EU-Level crisis governance and institutional responses**

The COVID-19 pandemic exposed significant vulnerabilities in the EU's borderless integration framework, particularly in relation to the governance of internal borders. The European Commission (2021) identifies three phases through which the covidfencing phenomenon unfolded between mid-March and mid-June 2020.

The initial closure phase was characterised by abrupt and largely uncoordinated reintroductions of internal land border controls. Although freight transport was generally maintained, daily cross-border mobility was severely disrupted, particularly for frontier workers, healthcare patients, and service users. This disruption revealed the extent to which highly integrated border regions had become dependent on uninterrupted mobility.

A gradual adjustment phase followed in late March and April, as Member States introduced exemptions for essential mobility, including cross-border labour, medical transfers, and critical supply chains. However, implementation varied significantly across countries and regions. In some areas commuting was sustained through employer certificates or bilateral arrangements, whereas in others commuters faced delays, administrative uncertainty, and declining public trust in cross-border governance.

The reopening phase between May and June 2020 was similarly uneven. Although the European Commission recommended lifting internal border controls by 15 June 2020, Member States adopted different timelines and approaches, resulting in asymmetric recovery across mobility flows, public services, and local economies.

At the European level, efforts were made to foster greater coordination through a range of non-binding instruments. These included Council Recommendation (EU) 2020/912 on temporary restrictions on non-essential travel and Recommendation (EU) 2020/1475 on a coordinated approach to free movement. The latter introduced a more regionalised system based on shared epidemiological criteria, infection mapping, and consideration of cross-border mobility needs.

As vaccination campaigns progressed, the Council Recommendation of 25 January 2022 re-established free movement conditional on possession of the EU Digital COVID Certificate, shifting restrictions from territorial criteria to individual health status. Most border measures were lifted following widespread vaccination campaigns in 2022, and on 5 May 2023 the World Health Organization declared COVID-19 no longer a global health emergency.

The Commission's 2021 report on the functioning of the Schengen Area proposed the development of a more crisis-resilient Schengen system coordinated at EU level through proportionate and evidence-based measures. In particular, it emphasised strengthening multi-level governance by integrating EU, national, regional, and cross-border institutions including European Groupings of Territorial Cooperation into emergency decision-making processes. The report also highlighted the importance of recognising cross-border living areas as functional regions where labour markets, healthcare systems, education services, and infrastructure extend across national boundaries.

Several of these ideas were subsequently translated into binding law through Regulation (EU) 2024/1717, which amends the Schengen Borders Code (SBC) (Regulation (EU) 2024/1717). The revised provisions regulate the use of temporary travel restrictions during large-scale public health emergencies and grant the Council greater powers to adopt coordinated measures while safeguarding essential travel and cross-border mobility. For the first time, Article 26 SBC requires that decisions to reintroduce or prolong internal border controls explicitly consider the likely impacts on the functioning of CBRs and their strong social and economic ties. Amended Articles 27 and 27a SBC further introduce stricter coordination requirements through consultations with the Commission. Together with the obligation for Member States to designate relevant border regions, these reforms represent an important step toward strengthening the role of CBRs within EU crisis governance.

At the internal market level, additional initiatives have been taken to safeguard free movement during emergencies. Both Council Conclusions of 23 November 2021 and the European Parliament's Resolution of 12 July 2023 called for a coordinated framework to protect fundamental freedoms during crises (Council of the European Union 2021; European Parliament 2023). These discussions ultimately resulted in Regulation (EU) 2024/2747, the Internal Market Emergency and Resilience Act, which requires Member States to maintain certain cross-border mobility rights even during emergency situations, including travel for imperative family reasons, cross-border work, and service provision which are essential – albeit not necessarily sufficient – for the effective functioning of CBRs.

Complementing these legislative developments on the EU level, the OECD (2024) examined the capacity of cross-border cooperation bodies across Europe and found substantial variation in their institutional strength. Many organisations rely on limited funding sources, face staffing shortages, and lack long-term strategic planning capacities. These limitations restrict their ability to build durable cooperation frameworks and may leave CBRs particularly exposed during sudden border closures or other crises.

Taken together, these findings suggest that although the pandemic initially revealed significant weaknesses in European cross-border governance, it also triggered significant institutional responses aimed at strengthening coordination and resilience.

#### **4.2. Crisis governance, coordination capacity, and the role of cross-border institutions**

Across all three border regions, the pandemic exposed a fundamental structural tension between national crisis management and the everyday functioning of integrated cross-border spaces. Despite longstanding cooperation frameworks, cross-border governance bodies were largely sidelined as national authorities implemented unilateral public health measures.

Across all three regions, the COVID-19 pandemic triggered rapid but uneven re-bordering processes driven primarily by national decision-making. In the Greater Geneva region, France closed the border to non-essential travel on 18 March 2020, initiating a three-month period of stringent controls. These included monitored entry points and the closure of unofficial crossings, before crossings gradually reopened from 11 May and fully on 15 June 2020. Later measures, such as Switzerland's quarantine rules, were implemented nationally but selectively exempted neighbouring residents.

In the Great Region Saar – Lor – Lux, the four-country area experienced asymmetrical responses. Luxembourg kept its borders open, whereas Germany closed its borders and introduced regular checks on cross-border commuters. This prompted compensatory measures such as the local housing of essential workers and the extension of partial unemployment schemes during lockdowns.

In the Öresund region, Denmark imposed early and strict controls, including border closures and testing requirements, while Sweden maintained a recommendation-based strategy. These divergent approaches produced pronounced cross-border inconsistencies. Denmark's unilateral closure, enacted without consultation with regional actors or consideration of commuter flows, caused immediate disruption despite earlier experiences with temporary controls during the migration crisis.

Although the strictest measures were lifted relatively quickly – typically by summer 2020 – their timing, severity, and level of coordination varied significantly across regions. These differences shaped commuter experiences and revealed structural vulnerabilities in cross-border crisis governance.

In the Greater Geneva region, unilateral national decisions dominated the first wave of crisis governance. France closed the border to non-essential travel on 18 March 2020, triggering what was described as a three-month 'territorial lockdown' (Beylier 2020). Exceptional control measures were introduced, including border agents stationed at nine official crossing points to verify documentation, while concrete barriers blocked unofficial crossings. This level of control had not been seen since the Second World War (Beylier 2020). Reopening was similarly determined at the national level: seventeen crossings resumed limited operations on 11 May 2020 (Stiti 2020), followed by full reopening on 15 June 2020 (Beylier 2020). Even later measures, such as Switzerland's ten-day quarantine requirement, were implemented nationally but selectively exempted neighbouring regions (Challier and Rey 2020). Cross-border institutions played only a limited role in these decisions. Survey results from 2024 reflect this perception: only 15.8 per cent of respondents felt that cross-border cooperation meaningfully mitigated commuter disruptions during the crisis.

A similar governance dynamic emerged in the Greater Region Saar – Lor – Lux. Although Luxembourg refrained from introducing systematic border controls during the first wave, Germany adopted a markedly different approach by closing its borders and implementing regular checks at major crossing points. Crisis management therefore unfolded primarily through bilateral national decisions rather than through multilateral mechanisms across the four-country region. National governments implemented measures to compensate for coordination gaps, such as Luxembourg's extension of partial unemployment benefits to cross-border commuters and the temporary housing of essential workers locally (Pigeron-Piroth, Evrard, and Belkacem 2020). Even post-crisis regulatory reforms, such as the harmonisation of tax thresholds and the 1 July 2023 Framework Agreement allowing up to 49.9 per cent telework from the country of residence, were negotiated through diplomatic channels rather than through cross-border governance institutions.

In the Öresund region, divergences in national crisis strategies further demonstrated the limits of cross-border governance. Denmark introduced early and stringent restrictions, while Sweden maintained a more flexible public health approach. National authorities acted independently, with regional and cross-border organisations largely

informed rather than consulted. Interview data indicate that crisis coordination relied heavily on local and regional initiatives rather than on established cross-border governance frameworks. For example, Region Skåne rapidly established testing capacity for travellers entering Denmark. These initiatives supplemented rather than shaped national decision-making. Cross-border actors repeatedly expressed frustration at their limited influence despite being responsible for implementing national policies locally.

Across all three regions, the governance architecture that supports cross-border integration under normal circumstances proved insufficient during crisis conditions. National sovereignty over border management consistently overrode regional integration logics, leaving cross-border bodies with limited authority and revealing a shared vulnerability in cross-border governance structures. These findings indicate that crisis governance in CBRs remains primarily national in character, with cross-border institutions playing only a limited role during emergencies.

#### ***4.3. Mobility, labour markets, and the reconfiguration of cross-border flows***

The most immediate and visible impact of the pandemic across the three regions was the disruption of cross-border mobility. The cases demonstrate how quickly highly integrated labour markets can be destabilised when national authorities restrict movement, even when exemptions for essential workers or commuters formally remain in place.

In the Greater Geneva region, the first wave of the pandemic produced severe mobility disruptions. Although cross-border commuters were formally exempt from full closure, they experienced significant delays and route diversions due to the closure of numerous crossing points and the requirement to pass through controlled entry sites. Survey data from 2024 indicate that 43 per cent of respondents explicitly recalled border controls and 37 per cent reported substantial delays. Even those exempt from restrictions had to adapt to longer travel times and reduced access to crossing points. Documentation requirements, including ‘international derogatory authorizations’, became a routine feature of daily commuting for essential workers. Although mobility gradually normalised after June 2020, commuters’ experiences during the early months of the pandemic remained a central reference point in how the crisis was remembered.

In the Greater Region Saar – Lor – Lux, mobility disruptions were shaped by asymmetrical national policies. Luxembourg sought to maintain labour mobility for essential workers, including providing local accommodation (for example for the nurses) when commuting became difficult (Pigeron-Piroth, Evrard, and Belkacem 2020). In contrast, Germany introduced border closures and regular checks that significantly impeded cross-border commuting. Workers also experienced differences in labour market conditions across borders: employees working in Luxembourg generally retained more favourable employment conditions and partial unemployment benefit than those living in France and employed in Germany. Over time, teleworking emerged as the most significant structural transformation. Remote work expanded rapidly across sectors such as banking, consulting, insurance, and public administration, reducing dependence on daily cross-border commuting. Subsequent regulatory reforms including the harmonised 34-day tax threshold and the Framework Agreement permitting up to 49.9 per cent telework<sup>1</sup> from the country of residence directly addressed mobility challenges revealed during the crisis.

The Öresund region experienced disruptions shaped by divergent national health strategies. Denmark's unilateral border closure, implemented without consideration of cross-border dynamics or the thousands of daily commuters, destabilised mobility across the Sound. Testing requirements and travel restrictions introduced new administrative barriers for cross-border workers. Although temporary, these restrictions reinforced earlier practices introduced during the migration crisis, normalising the use of border controls in a region previously celebrated for its high level of integration. Regional actors attempted to mitigate the impacts through pragmatic measures, including testing initiatives designed to facilitate entry into Denmark. Nevertheless, the long-standing interdependence of Danish and Swedish labour markets came under considerable strain. In response to these pressures, a revised Öresund Agreement entered into force in early 2025. The agreement allows greater flexibility for cross-border workers residing in Sweden and employed in Denmark to work remotely, extends coverage to private-sector employees, and adjusts taxation rules to better reflect evolving labour-mobility patterns (Skat 2025).

Taken together, the cases demonstrate that while cross-border labour mobility remains central to regional economic functioning, it is also highly vulnerable to national crisis responses. The pandemic not only disrupted existing mobility patterns but also accelerated longer-term transformations, particularly through the rapid institutionalisation of telework and the emergence of new regulatory frameworks governing cross-border employment.

#### ***4.4. Post-Crisis adaptation, policy learning, and the repositioning of cross-border regions***

Despite the disruptions experienced during the pandemic, each region has subsequently engaged in processes of institutional adaptation and policy learning that are reshaping the future of cross-border cooperation.

In the Greater Geneva region, the temporary re-emergence of an otherwise largely invisible border renewed attention to cross-border vulnerabilities. Although 82 per cent of surveyed commuters reported that the crisis had not fundamentally altered their relationship with the border, qualitative responses revealed a growing awareness that the pandemic had 'reminded people that the border still exists'. Post-crisis policy responses have been concrete. France and Switzerland signed a new bilateral agreement allowing cross-border employees to work remotely up to 40 per cent of the time without changing their tax status or healthcare coverage (Ambassade de France en Suisse 2023; République du Canton de Genève 2025). These reforms directly address mobility challenges encountered during the pandemic and reflect a more flexible approach to cross-border labour market integration.

In the Greater Region Saar – Lor – Lux, the crisis highlighted Luxembourg's structural dependence on cross-border labour, particularly in healthcare and other essential sectors. The COVID-19 pandemic demonstrated cross-border interdependencies and the economic impact of the border restrictions was felt immediately and acutely (Dittel 2023). The region has since consolidated new teleworking frameworks, tax arrangements, and social security rules that reflect lessons learned during the pandemic. At the same time, the occasional reintroduction of border controls in Germany following political

changes has reinforced a sense of continued vulnerability among cross-border workers. Personal reflections among workers also indicate changing priorities: many now seek employment closer to home, prioritise family time, or prefer remote working arrangements. Local elected officials increasingly frame teleworking as an opportunity to revitalise communities previously characterised as ‘sleeping neighbourhoods’, while regional debates also highlight its potential to alleviate chronic congestion problems.

In the Öresund region, the pandemic reshaped both perceptions and governance dynamics. The region’s reputation as a model of European cross-border integration was challenged by Denmark’s unilateral crisis decisions, taken without consultation or contingency planning for commuters. The experience prompted cross-border actors to reposition themselves more actively as policy entrepreneurs advocating stronger coordination mechanisms. Their proposals include greater transparency in national decision-making, systematic consultation with regional stakeholders, and the creation of a permanent cross-border coordination platform for future emergencies. While cross-border organisations have gained greater visibility at the national level, their influence still relies heavily on informal networks, and key regulatory domains such as labour law, taxation, and social security remain, unless harmonised at EU level, largely dominated by national interests.

Across the three regions, the post-crisis landscape is characterised by efforts to translate crisis experiences into longer-term institutional reforms. Although national authority over border management remains central, regional actors are increasingly seeking stronger coordination mechanisms, more resilient governance arrangements, and clearer recognition of cross-border interdependencies within European crisis governance.

## 5. Discussion and conclusions

The COVID-19 pandemic provided a rare opportunity to examine CBRs through the lens of crisis and to revisit several core assumptions of cross-border regionalism. In the Geneva Basin, Greater Saar – Lor – Lux, and the Öresund region, the crisis exposed the limits of long-standing integration efforts and the fragility of cross-border cooperation when confronted with the reassertion of national territoriality. The findings confirm and extend earlier scholarly work conceptualising CBRs as functional spaces shaped by processes of reterritorialisation (Perkmann 2007a; Popescu 2008), while also demonstrating how quickly these spaces can be disrupted when national authorities reinstate internal borders. In this sense, the study contributes to the growing body of research that has described covidfencing as a revealing moment for understanding the structural weaknesses of CBR governance (Böhm 2021; Medeiros et al. 2021).

### 5.1. Lack of institutionalised crisis coordination

The cases reinforce longstanding theoretical insights concerning the limited institutionalisation of cross-border governance. The literature has long emphasised that cross-border governance bodies (CBGBs), although promoted through initiatives such as INTERREG, operate within multi-level governance systems in which national governments retain decisive authority (Noferini et al. 2020; Perkmann 2003). The pandemic brought this

asymmetry into sharp focus. In all three regions, national governments introduced unilateral border measures without consulting cross-border institutions, despite the high degree of functional integration in these spaces.

The unilateral responses observed in the Öresund region where Denmark and Sweden implemented divergent crisis strategies illustrate a broader challenge identified in previous scholarship: that despite efforts to reduce cognitive and relational distance across borders (Lundquist & Tripp, 2013), CBRs remain subject to national political logics. Similar patterns in the Geneva Basin and the Greater Region confirm that CBRs lack formal mechanisms capable of influencing national crisis responses. This weakness echoes Evrard et al.'s (2020) critique of insufficient anticipatory planning for cross-border crisis management. The findings therefore support the argument that cross-border cooperation structures remain vulnerable when national authorities rely on crisis management tools that prioritise internal security over cross-border functionality.

### **5.2. Rise of regional agency and innovation**

At the same time, the empirical material illustrates the capacity of cross-border actors to assume entrepreneurial roles in the absence of strongly institutionalised governance frameworks. This observation resonates with recent scholarship emphasising the role of local and regional actors in compensating for governance gaps (Brooks et al. 2022). In the Öresund region, cross-border organisations responded to their marginalisation during the pandemic by initiating advocacy efforts and proposing new governance mechanisms for crisis coordination.

These developments align with theoretical accounts describing CBRs as laboratories of European integration (Böhm 2023; Knippenberg 2004), where institutional experimentation can emerge when formal structures prove insufficient. In the Greater Region Saar – Lor – Lux, the crisis exposed Luxembourg's dependence on cross-border labour and prompted renewed debate about sustainable governance arrangements. These examples demonstrate that while CBRs remain constrained by national decision-making, they can also exhibit elements of regional resilience by adapting governance practices and developing new coordination mechanisms in response to emerging challenges (De Sousa 2013).

### **5.3. Teleworking and structural inequalities**

The pandemic also highlighted the differentiated nature of cross-border interdependence. CBRs have long been characterised as dynamic but uneven spaces shaped by asymmetries in labour markets, wages, and social systems (Galgóczi, Leschke, and Watt 2016; Löfgren 2008). The rapid expansion of teleworking further exposed these structural inequalities.

While remote work provided some new flexibility for some groups, particularly in the Greater Region, many essential workers remained dependent on physical cross-border mobility. These findings echo earlier concerns about the uneven distribution of benefits within cross-border labour markets (Claveres et al. 2020) and demonstrate how crises can amplify existing social and economic disparities. The subsequent tax and social security adjustments, including the standardisation of the 34-day rule and

the EU Framework Agreement permitting up to 49.9 per cent teleworking from the country of residence, illustrate how cross-border labour regimes require continuous institutional adjustment. These developments also reflect broader regulatory incoherence identified in the covidfencing literature, particularly regarding taxation, social security coordination, and access to benefits (Novotný 2022; Razavi et al. 2020).

#### **5.4. Shifting perceptions of borders and integration**

The resurgence of borders during the pandemic provided a striking illustration of the re-bordering tendencies observed since the 2015 migration crisis (Osso 2025). In the Geneva Basin, the sudden reappearance of border controls highlighted the latent power of national borders even within regions where everyday practices had rendered them largely invisible. In the Öresund region, Denmark's unilateral border closure challenged the region's longstanding reputation as a model of European integration. These developments underscore the symbolic and political dimensions of borders within CBRs and support the argument that integration remains contingent and reversible (Böhm 2021).

At the same time, the crisis stimulated institutional reforms at both regional and European levels. The revision of the Schengen Borders Code and the adoption of the Internal Market Emergency and Resilience Act introduce, for the first time, explicit obligations for Member States to consider the effects of border measures on CBRs. These developments resonate with calls in the literature for stronger multi-level coordination mechanisms (Rasnača 2020) and illustrate how cross-border actors can influence broader policy debates on European crisis governance.

Taken together, the findings suggest that covidfencing offers a critical lens through which the assumptions underpinning cross-border regionalism can be re-examined. The pandemic revealed the persistent tension between the EU's ideals of a borderless internal market (Article 26(2) TFEU) and the continued centrality of national sovereignty in crisis management. Even in highly integrated and economically dynamic CBRs, governance remains fragmented, and cross-border institutions lack the authority to safeguard functional interdependencies when borders harden. At the same time, the crisis demonstrated the potential for regional agency, local innovation, and institutional learning. These dual dynamics confirm that CBRs embody both achievement and fragility, and that their long-term resilience depends on more adaptive and better institutionalised multi-level governance.

Although this study focuses on economically strong and highly integrated European CBRs, which may limit generalisability to less integrated contexts, it highlights important directions for future research. Comparative analysis of additional CBRs, the use of longitudinal data, and further investigation of legal and administrative interfaces at borders would deepen understanding of how CBRs function during and beyond periods of crisis.

#### **Note**

1. Regulation (EC) No 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems (Text with relevance for the EEA and for Switzerland) – <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32004R0883&qid=1730114915704>

Regulation (EC) No 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing Regulation (EC) No 883/2004 on the coordination of social security systems (Text with relevance for the EEA and for Switzerland) – <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32009R0987>

Guidance Note on telework applicable from 1 July 2023 (AC 137/23) – [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024D00594&qid=1730115568014#ntc9-C\\_202400594EN.000101-E0009](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024D00594&qid=1730115568014#ntc9-C_202400594EN.000101-E0009) (ANNEX IV).

## Ethics statement

The research has received ethical approval from the Swedish Ethical Review Authority.

## AI statement

Microsoft Co-Pilot and ChatGPT were used for text editing and proofreading. All original text was written by the co-authors.

## Disclosure statement

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