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## WHAT DOESN'T WORK IN EUROPEAN COHESION POLICY? DEVELOPMENT CHALLENGES OF THE INNER PERIPHERY AFTER THE COVID-19 PANDEMIC



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**ABSTRACT:** The EU's cohesion policy is a fundamental component of intervention policies in united Europe. Its primary goal is to reduce the scale of spatial differences in development by striving to improve economic, social, and territorial cohesion. The outcomes of the actions implemented to date have been unsatisfactory. This underperformance is the basis for the ongoing discussion in Europe about the future paradigm of cohesion policy post-2027. This article systematizes the challenges and proposes recommendations concerning the actions of EU cohesion policy that should be considered in the new paradigm of this public intervention, enhancing its effectiveness and efficiency during a period of strong pressure from external developmental shocks, especially in less-developed areas such as inner peripheries. Its unique value is constructed from two fundamental factors. Firstly, the presented results are the outcome of qualitative field research, providing unique empirically factual material. Secondly, they concern the processes occurring in relation to the territories of the member state that is the largest beneficiary of EU cohesion policy, Poland, which is often regarded as a specific laboratory for cohesion policy.

**KEY WORDS:** Cohesion Policy, inner peripheries, European Union, Poland.

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## **1. Introduction**

Public policy programming, constituting a form of interventionism in developmental processes, aims on the one hand to reduce market inefficiencies and on the other to realize developmental goals set for achievement (Martin et al. 2021). In the case of cohesion policy, one of the main public policies of the European Union (EU), these actions aim to reduce the scale of spatial disparities in development, thereby ensuring improvement in economic, social, and territorial cohesion. This should lead to an increase in living standards and conditions for residents across all areas to a level where spatial disparities in development, while not eliminable, gain societal acceptance (Faludi and Rocco 2022). While EU Cohesion Policy has contributed to convergence among member states, similar success has not been consistently realized at the regional and sub-regional levels. The increase in developmental divergence within regional frameworks has intensified under the influence of global crises (COVID-19; Russian aggression in Ukraine), fully identifying the lack of resilience of less-developed areas and highlighting their internal strong disparities (European Commission 2023). The observed regularities justify the need for a territorially-oriented approach (place-based policy) in programming intervention actions, based on the need to tailor them to the specific needs of diverse territories (McCann 2023).

A particular type of less-developed areas that should be covered by the scope of cohesion policy interventions is the inner peripheries. These areas are distinguished more by "disconnect" than by their peripheral location relative to more developed areas, which is typical for external peripheries. Thus, these are often areas (occurring in all European countries) with relatively good locations that, nevertheless, exhibit an above-average concentration of developmental deficits determined by limited relations with the environment, as well as internal factors (Servillo et al. 2016). This results in lower productivity, lower levels of development,

lower access to services, leading to a lower quality of life for residents of these areas compared to neighbouring territories (Copus et al. 2017).

The goal of the article is to systematize the challenges and formulate recommendations relating to the actions of EU cohesion policy, which should be included in the new paradigm of this public intervention, improving its effectiveness and efficiency during a period of strong pressure from external developmental shocks, particularly in the type of less-developed areas known as inner peripheries. The results of the analysis are based on qualitative research conducted in 2023 in selected inner peripheries in Poland, which is the largest beneficiary of EU cohesion policy among all member states. These unique findings and opinions obtained in this way were compared with the findings of the subject literature and the latest evaluative reports assessing the effectiveness and efficiency of EU cohesion policy. Based on this, recommendations were formulated that draw attention to the need for changes in the focus and scope of intervention actions addressed to inner peripheries.

The implementation of such a formulated goal takes place through the following research procedure. In the first step, findings that draw attention to the lack of satisfactory effectiveness and efficiency of previous EU cohesion policy interventions are presented. For this purpose, a review and systematization of the subject literature and the conclusions of the latest evaluative reports prepared on behalf of the World Bank, OECD, and the European Commission are carried out. Based on this, the most significant contemporary challenges facing EU cohesion policy are identified, as are systematizing proposals for changes in its current paradigm. Next, the methods used in the subject study, quantitative and qualitative, which were used to delimit and typologize inner peripheries in Poland, analyse their development trajectories, and identify development challenges and previous intervention practice, are presented in a synthetic manner. In the next stage, the results of direct research conducted in selected inner peripheries in Poland, which were carried out in the form of focus group

interviews, individual in-depth interviews, and analysis of existing strategic-programmatic documents, are presented. This unique empirical material allowed for the identification of the main development challenges of this category of less-developed areas in the period after the COVID-19 pandemic, along with the identification of the actions expected by residents, entrepreneurs, and local government authorities. Within the conducted discussion, the obtained results are related to the findings of the subject literature, indicating both the confirmation of facts and opinions formulated by other authors, as well as drawing attention to new findings in the subject area. Based on this, recommendations were proposed that can be operationally utilized in the ongoing discussion on the direction and scope of the reform of EU cohesion policy after 2027. They have the character of final conclusions that synthetically collect the most important findings, with particular attention to new proposals concerning the programming and implementation of intervention actions, constituting the added value of the conducted study.

The conducted analysis fits into the ongoing discussion on the future of EU cohesion policy, introducing unique findings regarding the identified regularities related to the development processes occurring in the particular category of less developed areas represented by inner peripheries. Its unique value is built by two fundamental factors. Firstly, they arise from qualitative field research, offering empirically rich and singularly factual evidence. Secondly, they focus on processes unfolding within the territories of a member state, Poland, which stands as the foremost beneficiary of EU Cohesion Policy. Poland is frequently regarded as a pivotal testing ground for Cohesion Policy initiatives, lending heightened relevance and applicability to the findings presented.

## **2. Ineffectiveness of the European cohesion policy**

Socio-economic development is inherently uneven across different geographical spaces. This variability stems from two main factors: the heterogeneity of spaces in terms of resource quantity and quality, and the effects of agglomeration and economies of scale, which naturally drive spatial polarization in development processes. Despite the shifts influenced by megatrends (Rodríguez-Pose A. et al. 2024), these factors do not lead to the outcomes predicted in discussions about the 'death of distance,' 'end of geography,' or the supposed dominance of a 'weightless economy' as highlighted in Thomas Friedman's concept of a 'flat world' (Friedman 2005). This underscores the fundamental and enduring importance of diverse places and their populations in shaping development policy objectives, which aim to improve economic, social, and territorial cohesion effectively and efficiently (McCann 2008; Rodríguez-Pose and Crescenzi 2008). It also highlights the inevitability of spatial disparities in development, which, if maintained at socially acceptable levels (Faludi and Rocco 2022), underpin the operation of a capitalist economy (Harvey 2005).

Acknowledging that a certain degree of spatial developmental inequality is inherent and inevitable, it is crucial to recognize that their persistence, coupled with a tendency to deepen, leads to entrenched issues, resulting in escalating scales and costs that become increasingly challenging to overlook (Rodríguez-Pose A. et al. 2024). The OECD report entitled "The Longstanding Geography of Inequalities," released in 2023, outlines three primary categories of these costs, distinguishing them as economic, social, and political costs (OECD 2023). Economic costs stem from underdeveloped areas and/or those ensnared in prolonged stagnation cycles, constituting a substantial portion of economic activity across all nations and representing untapped potential for driving growth. Their subpar performance is also linked to fiscal costs, manifested in the form of heightened levels of social support. Although the EU

achieved great success in integrating the socio-economic systems of new member states in Central and Eastern Europe, the economic crisis in 2008 ended a decade of progress in the convergence process. Consequently, alongside low-income regions, a new category of low-growth regions has emerged, losing their capacity for further positive changes despite relatively high levels of development, and 'left-behind places' have become a focal point of geographic inequalities (Farole et al. 2018; Pike et al. 2023). More than half of the 27 OECD countries with available data observed deepening income inequalities among their regions (OECD 2023). Social costs relate to the inability to provide adequate access to essential public services and infrastructure, a characteristic of both rapidly-developing areas (with issues like high property prices and congestion) and marginalized areas (with limited access to social services). The impacts of these challenges became particularly pronounced during the social consequences of the COVID-19 pandemic and Russia's aggression against Ukraine (Zhai et al. 2021; Mbah and Wasum 2022; Ballantyne et al. 2023). Political costs stem from increasing dissatisfaction and disengagement, which contribute to the rise of populism and could potentially undermine the foundations of European democracy in the long term (Rodríguez-Pose 2018; Dijkstra 2020, Rodríguez-Pose et al. 2023).

Regrettably, the extent of spatial developmental disparities is on the rise, particularly at the intra-regional level, underscoring the inadequacy and inefficiency of existing cohesion policies. Undoubtedly, as asserted by the authors of the High-Level Group Report addressing the challenges of future cohesion policy (Forging A Sustainable... 2024), for over three decades since the restructuring of Structural Funds in 1989, Cohesion Policy has made significant strides in alleviating poverty for numerous Europeans. It has propelled social and economic advancement across the EU by investing in customized solutions tailored to tackle the distinctive local circumstances and structural hurdles of each region. Cohesion Policy has emerged as the most comprehensive and sophisticated approach to territorial development

worldwide, inspiring analogous initiatives in other global regions as nations acknowledge the substantial economic, social, and political costs linked with the absence of economic, social, and territorial cohesion. It is essential for the proper functioning of the single market, forming one of its fundamental foundations, as highlighted by Jacques Delors and currently re-emphasized in political discussions (Ninth Report... 2024), culminating in the Enrico Letta Report (2024). Regrettably, its efficacy and efficiency are not fully realized. While national convergence has been noted, there is a burgeoning divergence at the regional and, particularly, sub-regional levels. This leads to a masking of inner disparities and a dangerous increase in the number of areas falling into a development trap and experiencing economic stagnation. The nature of these disparities is broadening, intensifying discussions surrounding the origins of "forgotten locales," "lagging regions" (Pike et al. 2023), which frequently manifest as "inner peripheries" (Servillo et al. 2016; Copus et al. 2017), areas characterized more by their lack of relational connections with growth centers than by their physical distance. Recognizing these factors and formulating effective and efficient cohesion policy measures based on them becomes imperative in light of contemporary challenges, such as geopolitical tensions, geo-economic competition, climate transition, demographic decline, and technological transformation, which often exert a more pronounced impact on weaker EU areas and catalyze processes of developmental divergence.

The persistent and, in certain EU member states, expanding collection of "left-behind" locales starkly highlights the ineffectiveness of cohesion policy. The fact that areas particularly experiencing economic stagnation, population decline, low productivity, high unemployment, and a shortage of highly-skilled jobs and innovation centers are prevalent across the European Community demonstrates the profound impact of these issues (MacKinnon et al. 2022). This leads to the impoverishment of inhabitants, dwindling real wages, and fosters social tensions (MacLeod and Jones 2020). Neglected places are often characterized by limited connectivity.

These are regions poorly connected to growth centers at the regional and national levels, leading to feelings of detachment and isolation from other parts of the country (Mattinson 2020; Tomaney et al. 2021). This isolation is manifested by the fact that essential services, including transport and communication infrastructure, are often inadequate or absent. There is also a lack of social infrastructure, such as schools, healthcare facilities, and public services. These facilities are often closed or in poor condition, due to population decline and financial challenges (Davenport, Zaranko, 2020). The deficits encountered impede the potential of these areas to embrace envisioned green and digital transformations. They pose significant developmental hurdles, potentially exacerbating developmental inequalities and disproportionately impacting economically disadvantaged regions (Rodriguez-Pose et al. 2024). This is aptly illustrated by the repercussions of recent global crises, which starkly underscore the low resilience of lagging regions (Floerkemeier et al., 2021). Residents of these locales, ensnared in the stagnation of their social status and confronting barriers to social mobility, increasingly voice discontent, rendering them highly susceptible to populist political overtures, thereby threatening the foundation of democracy (OECD 2023).

In the pursuit of overcoming the limitations in the effectiveness and efficiency of cohesion policy, there is a heightened emphasis on strategically employing Fabricio Barca's propositions (2009) regarding place-based policy in novel circumstances (Barca et al. 2012). There is an increasing acknowledgment of the uneven impact of transformations and emerging challenges on distinct territories. Consequently, there is a stress on the need for cohesion policy initiatives to be attuned to specific locales (Iammarino et al. 2019) and the inhabitants who shape their territorial assets, influencing the prospects for socio-economic advancement (Camagni 2008). While the consensus on the efficacy of place-based policies continues to evolve, the focus shifts towards refining operational aspects (McCann 2023). Drawing on a broad spectrum of American evidence, Bartik (2020) contends that place-based incentives,



which involve bolstering business services and training assistance, reducing expenses, and augmenting the availability of local business investments, or alternatively, policies aimed at enhancing access to local infrastructure, typically yield greater cost-effectiveness than subsidies directed towards firms contemplating new locations. Consequently, Bartik (2020) advocates for six essential priorities in crafting place-based policies. They should:

- explicitly target distressed areas.
- prioritize industries with high multiplier effects.
- avoid undue preference for large corporations.
- prioritize enhancing the influx of local business investments and improving local infrastructure and land development.
- encompass a cohesive set of measures tailored to the specific local context, fostering complementarity.
- undergo improved evaluation utilizing quantitative selection criteria.

It is worth noting that development policy implementation seems to be making successful strides in applying these principles. The Biden administration has shifted towards place-based policies, enabling more effective resolution of local development challenges through tailored interventions that consider the specific needs of each area, incorporating the context of their territorial capital requirements and fostering expanded social participation (Muro 2023). Additionally, it is important to highlight that six principles outlined by Bartik (2020) are being integrated into the European Cohesion Policy. Their essence resonates with the proposals of Fabricio Barca et al. (2009) and are subject to discussions on how to practically implement them in current reform proposals aimed at enhancing the efficacy and efficiency of undertaken actions. Recent reforms of the EU cohesion policy over the last decade have shifted its focus towards a more evidence-based and forward-looking approach, emphasizing local policy design and implementation, as well as increased engagement with stakeholders, collaboration, and

project involvement (Hertrich and Brenner 2024). Unfortunately, the COVID-19 crisis, along with the energy crisis resulting from Russia's invasion of Ukraine, underscores deficiencies in the existing approach, particularly regarding the establishment of long-term resilience in regions (Martin and Sunley 2020). Moreover, it has led to a reinforcement of central authorities at the expense of limiting the empowerment of territorial self-government in a mission-oriented approach (Hadjimichalis 2021).

In the quest for better solutions for future cohesion policy, several key recommendations should be considered. Firstly, cohesion policy must acknowledge that observed trends in climate, demographics, geopolitics, and technology have undergone fundamental shifts due to the financial crisis, the COVID-19 pandemic, and Russia's invasion of Ukraine. These events have triggered a resurgence of inflation and raised concerns about supply security and the availability of food, energy, and raw materials (OECD 2023; Ninth Report 2024). In this altered landscape, developmental interventions aimed at peripheral regions must cultivate their long-term resilience, leveraging their inherent resources to gain new competitive advantages (Lange et al. 2021) and recalibrating global and local connections (MacKinnon et al. 2022). This necessitates a departure from previous methods of programming and executing development initiatives, rendering them more intricate and demanding a heightened level of integration (Pike et al. 2023). Secondly, cohesion policy must foster development opportunities for all, combating exclusion and economic poverty among residents (Forging a Sustainable... 2024). Every individual should be assured access to general services and basic infrastructure, a task particularly challenging in sparsely-populated or economically declining areas where costs escalate and efficiency diminishes, posing a mounting challenge to spatial social justice (Fritsch et al. 2023). This requires the implementation of non-standard solutions that not only use product innovations, such as demand-responsive transport, but also fully leverage organizational innovations—such as the organizational and tariff integration of public

transport—and social innovations, such as increased participation in seeking socially acceptable solutions for disadvantaged areas, including peripheral ones (OECD 2023). Thirdly, strengthening local capabilities to respond to developmental challenges becomes essential, which is apparent not only in peripheral areas with deficiencies in territorial capital and a lack of 'critical mass' for local development, but also in economically stronger areas that fall into developmental traps (Diemer et al. 2022). To effectively counter this, a thorough understanding of the causes of developmental challenges and the possibilities for overcoming them is necessary, using both local resources and forming new functional relationships with the wide engagement of all stakeholders (Rodriguez-Pose et al. 2023). Fourthly, it is necessary to break down barriers to the influence of growth and development poles on their surroundings (Floerkemeier et al. 2021), while counteracting the adverse consequences of agglomeration effects that occur both in core areas (congestion) and surrounding areas (a vicious cycle of stagnation and decline) (OECD 2023). This should involve greater use of functional areas as entities programming and implementing intervention activities in the form of supra-local initiatives that create an environment for the development of functional relationships and improve the efficiency of the intervention provided. Fifthly, more intensive use of the local level as the architect and executor of intervention activities is necessary (Farole et al. 2018). This is not possible without providing the technical assistance necessary to build the institutional capacities of the local level (Forging a Sustainable... 2024), whose deficiencies prevent full participation in activities, responsible multi-level actions, and ultimately the integration of the process, documents, and consequently the outcomes of development planning in territories with diverse resources (Pinheiro et al. 2022).

### 3. Methods

The research procedure leading to identifying the limitations and formulating recommendations for the cohesion policy for the inner peripheries in the post-COVID era included qualitative field research in four case study areas of the inner peripheries. Before choosing the case study areas, the identification of inner peripheries among the functional urban areas (FUAs) of Poland was necessary. Therefore, the first stage of the study was the delimitation of FUAs as the fundamental functional territorial units and postulated development policy intervention entities. Following that, we classified FUAs in multidimensional peripherality to identify inner peripheries. We then made an informed choice of case study areas. We analysed the development trajectories of the selected case study areas against the backdrop of the entire country and performed qualitative field research in these areas, including individual and group interviews and strategic document analysis around three core thematic topics: accessibility, economy, and residents and living conditions. The entire research procedure is schematically presented in Figure 1.

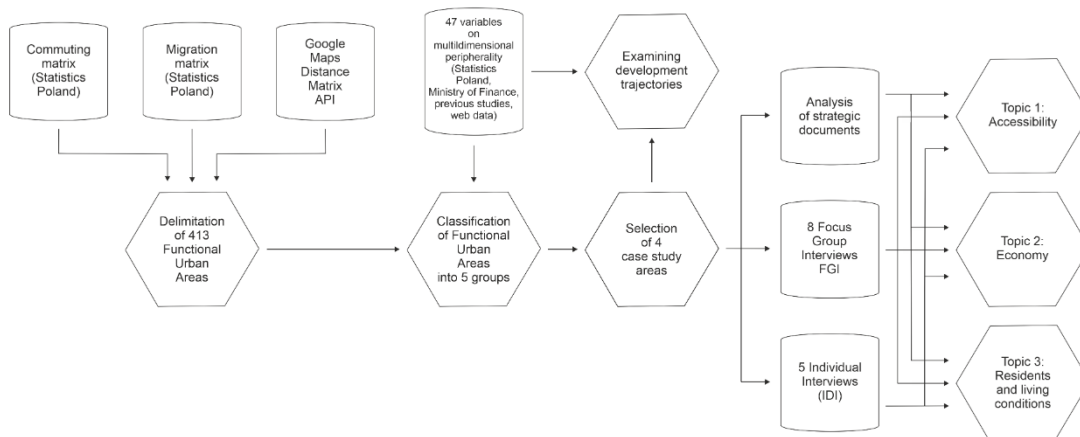


Figure 1. Research procedure

The choice of functional urban areas as the core spatial unit of analysis in the first stages of the study was motivated by the premise that reflecting actual functional links between cities and surrounding areas is more helpful in identifying areas with specific development features than administrative units (Churski et al. 2024). We build 413 FUAs as the aggregates of two or more of 2,477 Polish communes, the lowest-level administrative division in the country. We accepted that each FUA needed to be a territorially continuous area, include a central city and other communes functionally linked to the city by population flows (commuting to work and bidirectional migration) and located within the isochrone of 1 (or for the largest cities, 1.5) hours of travel based on Google Maps actual driving times (Churski et al. 2023).

The second stage of the analysis was the classification of FUAs based on the set of characteristics of multidimensional peripherality. Nine substantial dimensions of peripherality (accessibility, economy, finances, demographics, housing, health and public safety, education, leisure and social activity, and ecosystem services) were represented by 47 variables, the selection of which was based on our understanding of inner peripheries, as characterized by multidimensional accessibility and weakness of functional links leading to low effectiveness of the territorial socio-economic system, lower access to public goods and services and generally lower quality of life (well-being) than in core areas (Churski et al. 2024).

The data was obtained from public statistics, unpublished data from previous studies, and web-based data from the Ministry of Finance. We then used the indicators in a two-step FUA classification procedure. After cluster analysing the variables to eliminate those highly correlated with the others, we applied the Gaussian mixtures method to classify the FUAs into groups similar in variable value configuration. We selected a five-group classification solution, which resulted in distinguishing core FUAs with major cities, two types of transition FUAs, and two types of peripheral FUAs (Churski et al. 2023).

We then selected case study areas for closer examination. We chose two cases of FUAs from each type of inner peripheries. We chose areas with typical values of peripherality indicators, located in the country's different geographic and historical regions, and representing different sizes of FUAs and central cities.

At the next stage of the project, we looked into the development trajectories of groups of FUAs and individual case study FUAs. Our aim was to determine both the common characteristics of development dynamics within each of the FUA types, and the variations in development dynamics within these types, with particular attention to given to the four FUAs selected for field studies. Due to the lack of access to time series of data, in the dynamic analysis we only considered 30 variables out of the 47 taken into account in the FUA typology. We used correlation matrices, hierarchical clustering and TCAM dimension reduction method (Kilmer et al. 2021) to aid in the understanding of the structure of temporal and spatial variability of indicators.

In the case study areas, we collected secondary and primary information and opinions from strategic documents and local informants. Document analysis focused on the development strategies of communes, poviats and voivodeships (larger administrative units), spatial management plans, sectorial and specific strategic documents including innovation strategies, strategies of and combating social problems, plans of revitalization, plans for sustainable mobility, plans for the low-emission economy, and plans of environmental protection. We analysed the content of the strategies, looking for the diagnosis and responses to the problems we defined as those characterising inner peripheries: poor accessibility, economic and financial challenges, and social and well-being problems.

The second source of information and opinions was local interviewees: politicians and administration employees, entrepreneurs, and representatives of local non-governmental organisations. In each study area, in 2023, we performed two focus group interviews (FGI), and

at least one individual interview (IDI), totalling 8 FGIs and 5 IDIs. Individually, we talked mostly to leaders (usually the mayors of the central cities). One FGI in each area aimed to collect opinions of local administration, while the other one gathered entrepreneurs and representatives of non-governmental organisations. Interviews were recorded and transcribed verbatim. The informants were recruited, and interviews were performed in person by the researchers or a contracted research agency. We asked the interviewees about their perception of the development challenges in the case study areas, with particular attention given to the dimensions of peripherality that we identified at the previous stages of our study and the changes that occurred as a result of the COVID-19 pandemic.

#### **4. Regularities of the development processes of the inner peripheries in Poland**

Our analysis was based on the assumption that the inner peripheries are not internally homogeneous, which leads to the formation of central areas and the surrounding areas in their internal structure, following the general dichotomy of socio-economic space. Thus, we delimited the inner peripheries, taking previously delimited FUAs as reference units. These areas differ in size and spatial extent, corresponding to the size of the central city (Churski et al. 2024).

As a result of the FUA typology, 5 FUA groups were distinguished, differentiated by the level of multidimensional peripherality, which are presented in Figure 2. We categorised two types as the inner peripheries of the first and second order. As many as 208 out of the 413 functional urban areas were classified as inner peripheries. Thus, slightly more than half of Poland's urban functional areas meet the criteria for inner peripheries with a concentration of negative social and economic phenomena. These areas face the greatest developmental challenges, with key developmental issues arising directly from the diagnosed deficits.

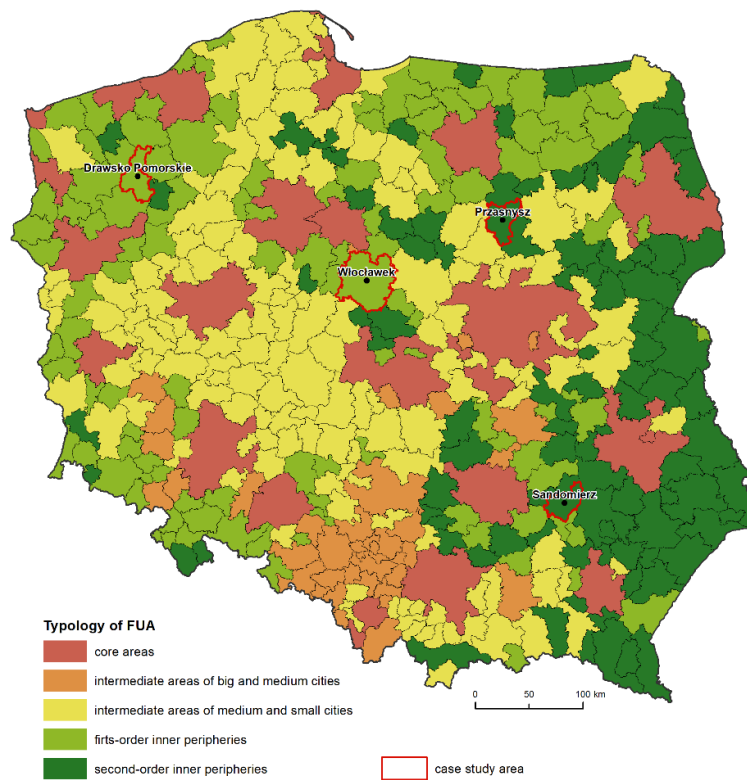


Figure 2. Inner peripheries in the FUA typology in Poland

The second-order inner peripheries are functional areas of medium and small towns scattered across Poland, primarily located in the northeastern and northwestern regions of the country (Churski et al. 2023). They also concentrate in mountainous regions (Sudetes) and in central Poland, and, notably, they directly adjoin the FUAs of large cities. In this context, it is crucial to underscore the primary feature of inner peripheries: their inadequate transportation links to the core regions, where potential developmental stimuli originate. Characteristics of second-order inner peripheries include low efficiency or complete absence of public transportation, which significantly reduces both internal and external transport accessibility. Second-order inner peripheries encompass regions in Poland with the lowest population density, which struggled significantly with the economic transformation in Poland in the 1990s. Demographically, stagnation is evident, though relatively moderate; the depopulation and ageing of society are not yet advanced. Additionally, residents' incomes are notably low, due



to weakening job markets and low levels of economic activity. Numerous tensions in public finances are observed, making these areas heavily reliant on financial support from the state budget and other external sources. The described challenging financial situation is reflected in low levels of infrastructural investment and poor availability and quality of public services.

Even more challenging conditions are present in the group of FUAs identified as first-order inner peripheries, characterized by the lowest level of development and the most pronounced functional and transport disconnect from areas driving development. These areas mainly comprise functional areas of small towns in Eastern Poland (Churski et al. 2023), covering regions primarily located in the eastern part of the country, which faced the most difficult and prolonged economic transformation. In this part of the country, peripheral areas directly adjoined the core FUAs, which are characterized by the highest level of development in the country. There is also a strong convergence between functional and spatial peripheries, reflected in the lowest values of time accessibility indicators from FUA centres to regional centres. Very low digital accessibility, which determines digital exclusion in these areas should also be mentioned. First-order inner peripheries are also characterized by less favourable values of other variables. Demographic depression is observed, primarily caused by the outflow of the young population. Stagnant job markets and a noticeable lack of economic activity manifest in low individual and municipal purchasing power. This, in turn, does not guarantee budgetary stability, even with limited or often completely absent public investments. Consequently, they are areas characterized by insufficient infrastructural development and significantly limited access to public services.

In further research, we traced the dynamics of development within the inner peripheries in relation to the rest of the functional urban areas. We looked at the dynamic characteristics of the four peripheral FUAs selected for field studies, representing both types of inner peripheries. Our research indicates a slight improvement in transportation accessibility from year to year.

The inner peripheries of both the first and second order exhibit the least convenient external accessibility, markedly weaker than in other regions, though diversified even across the four FUAs selected as case study areas. Internal accessibility is largely dependent on the spatial scale of FUAs: typically, peripheral FUAs are smaller than FUAs in core and transitional areas.

Inner peripheries are particularly negatively distinguished concerning matters related to economic activity. While indicator values are indeed increasing, this growth began later than in other functional urban areas, and significantly lower baseline values of indicators were noted. Similarly, the initial level of income in peripheral FUAs was markedly lower. Nonetheless, income levels increased at almost the same rate across the five types of FUAs; slightly slower growth rates were observed in relation to second-order inner peripheries. We observed negative demographic changes in all groups of FUAs, with both groups of peripheral regions being in the least favourable position. Depopulation intensifies primarily due to a decrease in the proportion of the young population. There is a divergence between central areas (with more gradual negative demographic changes) and peripheral ones (experiencing faster negative changes). The individual dimensions of indicators of peripherality exhibit specific characteristics of both temporal and spatial variability between FUA types and within individual types of FUAs.

During the quantitative research phase, we could not identify the sensitivity of inner peripheral areas and their core cities to global socio-economic trends due to a lack of data. Therefore, direct research in four selected case study areas was necessary.

## **5. Development challenges of the inner periphery in Poland in the period after the COVID-19 pandemic**

The results of strategic document analysis and interviews in four study areas were organized into three thematic categories: accessibility, economy, residents, and living conditions, treating them as key for the functioning of inner peripheries in the context of

identifying their development challenges (figure 3). Within each highlighted thematic area, attention was paid to trends in socio-economic processes that took place as a result of the COVID-19 pandemic, including those that were a consequence of another asymmetrical developmental shock, the Russian aggression in Ukraine. The results obtained allowed for the determination of recommendations to be considered in the programming of EU Cohesion Policy targeting inner peripheries in its next programming perspective, i.e., after 2027.

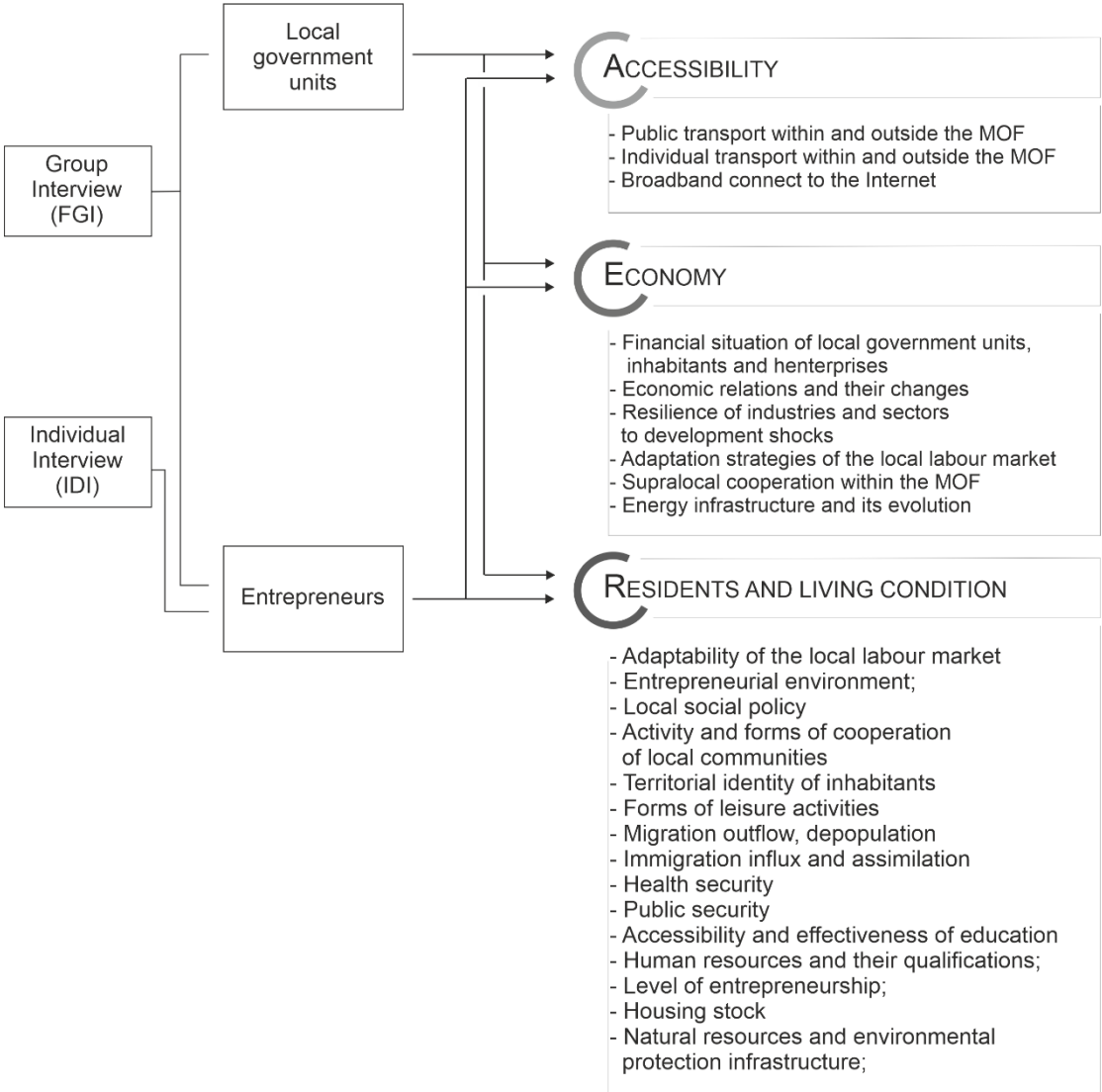


Figure 3. Algorithm and scope of procedure in qualitative research

Accessibility is particularly important for the functioning of inner peripheries, characterized by a relatively high degree of disconnection. Considering the developmental

challenges related to the accessibility of inner peripheries delimited in the arrangement of functional areas, it is necessary to pay attention to its inner and external dimensions. The inner dimension of accessibility shapes inner cohesion within the inner peripheries, which is determined by the degree of heterogeneity of their space and the possibilities for developing relations between the central area of the functional area and its surroundings. The external dimension of accessibility shapes the possibilities for establishing and developing connections and full participation of a given area in the socio-economic system. Its deficit, especially in terms of communication accessibility, including the relatively large time distance to economic centers, results in a limited range of functional connections of these areas with the poles of socio-economic growth and development and the lack of ability or difficulties in their permanent establishment. The results obtained indicate a common deterioration of accessibility and an increase in communication exclusion, which persists in the post-COVID-19 period. This is the result of a deep crisis in public transport caused by the restrictions introduced during the pandemic. Consequently, there is a fundamental increase in the use of the car as the primary means of communication, which raises costs, increases congestion, negatively affects environmental quality, and results in a decrease in road safety. Although there is also an increase in the use of bicycles as a means of transport, this is effective and efficient only at the level of ensuring internal cohesion of the studied areas and does not improve their accessibility in the external dimension. Initiatives related to the increased importance of e-services in improving residents' access to basic services, and especially higher-order services, are unfortunately rare in the studied units and are more incidental than common. Attempts to restore the lost position of public transport and change its organization encounter serious institutional obstacles related to barriers limiting the possibilities of cooperation of local government units within the functional area. In the face of the identified changes and trends concerning accessibility, the

catalog of intervention actions programmed and implemented within the framework of future cohesion policy should include three key recommendations:

- (1) Implement a system for monitoring the directions and volumes of passenger flows, allowing for the identification of varying demand for transport services. This requires strengthening institutional collaboration within the functional area, which may generate a need for changes in legal regulations and enhancing administrative competencies. It is also necessary to integrate the operation of all public transport operators to fully utilize their transport capacity.
- (2) Restore the position of public transport in residents' mobility decisions, urgently. This requires reorganizing its structure, using innovative forms and modes of transport services, including demand-driven transport and schedule and fare integration among different carriers. These actions should be accompanied by initiatives to increase the use of sustainable forms of transport, through the integration of bicycle path networks and the increased use of environmentally-friendly vehicles in public transport. Implementing these investments should reduce the degree of transportation exclusion, decrease the use of cars as the primary means of transport, and restore the key role of public transport in ensuring internal cohesion within the functional area.
- (3) Undertake measures to improve the external accessibility of inner peripheries. This involves both promoting the use of e-services while minimizing the likelihood of digital exclusion due to a lack of infrastructure or limited user competencies and enhancing the quality of transport infrastructure connecting inner peripheries with growth centers and socio-economic development hubs, while organizing public transport with full multimodal utilization.

The economy of the inner peripheries is characterized by a series of deficits and dysfunctions that are a consequence of the difficult economic and social conditions of these

areas. They are determined by the size and quality of local territorial capital and the negative consequences of the impact of megatrends, as well as the course of transformation processes in areas disconnected from centers of growth and socio-economic development. The results obtained confirm the indicated characteristics of the economy of inner peripheries, which under the influence of global asymmetric developmental shocks show very diverse economic reactions, unfortunately mostly negative. Economic entities located in these areas are characterized by varied resilience, both in terms of size structure and industry. The observed changes that occurred due to the COVID-19 pandemic, later reinforced by the socio-economic consequences of Russia's aggression against Ukraine, confirm the emergence of shifts in value chains. It should be emphasized that these changes do not always have negative consequences for inner peripheries and in some cases can be used as a new opportunity for their development. Nevertheless, there has been a significant worsening of the financial situation in the study units, due to both the negative economic effects of observed development shocks and the lack of a thoughtful and well-executed national financial policy that could effectively limit the scope and impact of these negative effects. Attempts to improve the unfavorable economic situation of inner peripheries encounter many obstacles. In the studied areas, serious difficulties are observed in the preparation and promotion of investment areas that could form the basis for attracting new employers. The situation in this regard is not facilitated by the increasing competition between individual municipalities that are part of the functional area, with the noticeable negative influence of the main city, associated with the "washing out" of the surrounding areas. This results in both a lack of a common offer aimed at potential investors and a difficult to understand, and accept, lack of cooperation of special investment zones operating within the studied areas. A serious challenge for the local economy of inner peripheries is the transformation of the local labor market. Changes in the economic structure progressing in conditions of asymmetric crises lead to an increase in the mismatch of

qualifications and competencies of residents in relation to the changing needs of employers. A very serious economic challenge for inner peripheries, commonly noticed by study participants, is the energy transformation. The need to make changes regarding the structure of energy production sources, its distribution, and the need to reduce the energy intensity of the economy and households results on the one hand from the assumptions of the European Union's Green Deal policy, which assumes that Europe will achieve climate neutrality by 2050, and on the other hand from the economic consequences of Russia's aggression against Ukraine, which led to a fundamental increase in energy prices. The identified patterns again confirm the need to use a territorially-oriented approach in programming and implementing development interventions provided, among others, within the framework of cohesion policy. The results obtained allow for the formulation of key recommendations that must be taken into account in the catalog of intervention actions aimed at supporting economic processes that should be undertaken as part of a more effective and efficient future cohesion policy:

- (1) Strengthen institutional cooperation at the supra-local level within functional areas, which should be the basic subject and object of intervention activities in future cohesion policies. This requires creating legal conditions for supra-local cooperation and supra-local programming and implementing intervention actions, which should be a precondition for accessing future cohesion policy funds. This should serve as a foundation for integrating economic policies aimed at diversifying economic activities, using local resources with viable specializations. It should also facilitate the preparation and promotion of a common and competitive offering for future investors and residents. Finally, it should enable the planning of a labor market policy and an educational policy adapting the skills and competencies of residents to the changing needs of employers.
- (2) Restore significant decentralization of competencies and public finances through the introduction of appropriate legal regulations. Decentralization is the best means to

combat further erosion of democracy, which could threaten the European integration idea, leading to unforeseeable economic and social consequences. Its need also stems from the necessity to ensure multi-level governance conditions, which are the foundation of an effective and efficient cohesion policy.

- (3) To create conditions for an effective energy transformation in less-developed areas like inner peripheries, it is necessary to prepare and implement territorial programs aimed at decarbonization and improving energy efficiency. These would allow for integrating planned actions and, at the same time, for identifying barriers and limitations to this process, which can be more easily overcome through cooperation at the supra-local level within the boundaries of functional areas.

Inner peripheries are characterized by unfavorable demographic trends, relatively low quality of human and social capital, and low living standards. In the period after the COVID-19 pandemic, a deepening of negative demographic trends was identified in the studied areas. The greatest threat in this regard, according to the opinions of study participants, is the increasing migratory outflow, especially of young residents, which leads to rapid depopulation, disrupting the demographic structure and leading to an increase in social burdens. The pandemic also caused an increase in the need for health security, which is certainly not fully guaranteed in inner periphery areas. The results obtained also indicate that despite the forced development of the use of ICT solutions under pandemic conditions, no lasting and significant changes were observed in the organization of work, including the development of shared workspaces and the increasing importance of remote work. ICT technologies, however, found application in improving access to services, primarily health and educational services. The positive changes indicated by the study participants include the increase in social activity resulting from the self-organization of residents in the face of challenges created by the pandemic and the migration crisis related to Russia's aggression against Ukraine. However, these trends do not necessarily



lead to clear improvements in the quality of life for internal peripheries' residents. Opinions in this regard are mixed, highlighting the need for territorialization of intervention measures, tailoring them to the specific needs of each area. It is worth noting the commonly-indicated increase in residents' expectations regarding the provision of basic services within their immediate neighborhood (isochrone travel time up to 30 minutes), while simultaneously accepting access to higher-order services at the expense of longer travel or through e-services. An important element in improving living conditions must be meeting housing needs. Deficits in this area are one of the main development barriers. It is worth emphasizing that housing policy should not be solely focused on building homes for sale. Although private property is the dominant form in Poland, it also constitutes one of the reasons for the relatively low level of meeting housing needs. In these conditions, the right direction is the development of residential construction for rent and for rent with temporary acquisition of ownership. A very disturbing fact, identified as a result of the conducted studies, is the very low level of residents' social activity. As mentioned, it improved under the conditions of direct impact of asymmetric developmental shocks, but this did not lead to permanent changes in this regard. Low social activity limits the possibility of engaging all stakeholders in the process of programming and implementing development actions, which directly reduces their effectiveness and efficiency. This also has implications for the functioning of formal institutions, whose quality is relatively low. The obtained results enable the formulation of key recommendations for future cohesion policy interventions focused on residents and shaping their quality of life:

- (1) Introduce operational principles in socio-economic and spatial planning to ensure that all residents have access to a basket of basic needs within a socially acceptable time frame. This should be realized through the development of a concept of spatial social minimum, defining a minimal catalog of services that must be provided to residents in each location.

- (2) Provide systemic support for projects related to implementing housing policies that significantly and permanently improve the level of housing satisfaction. Linking these efforts with promoting the residential attractiveness of areas with better environmental conditions and lower population density can both improve their economic situation and reduce the congestion in core growth and socio-economic development centers.
- (3) Support the functioning of informal and formal institutions. This involves both increasing the competencies required to address ongoing development challenges and creating conditions for increased awareness, social activity, and residents' engagement.

## **6. Discussion**

The COVID-19 pandemic and its consequences have had a tremendous impact on the implementation of cohesion policy, introducing challenges that it had not previously faced. Experiences from previous crises show that different countries and types of areas absorb their effects in different ways (Martin 2010; Brakman et al. 2015; Capello et al. 2015; Auzina-Emsina and Ozolina 2022; Kowalski 2024). Both our findings and initial analyses of the consequences of the COVID-19 pandemic indicate a deepening of spatial disparities (OECD 2020; Brada et al. 2021; Artelaris and Mavrommatis 2022). This underscores the importance of territorially-targeted cohesion policy, which should consider the territorial context and territorial capital (Ministers 2020).

Restrictions on mobility and interpersonal contacts caused by the pandemic particularly affected highly-urbanized areas characterized by a greater scale of economic activity. These areas were more exposed to the effects of the crisis than peripheral areas (Auzina-Emsina and Ozolina 2022; Kang and Wang 2021, 2023). In the case of the peripheral areas we analysed, there is a clear delay and milder form of initial reaction to the crisis phenomena. The literature indicates various concepts for shaping the post-pandemic urban space, which must consider

issues of quality of life, environmental protection, and smart mobility, combining individual and public transport and efficiently monitoring traffic flows (Pinto and Akhavan 2021; Moreno et al. 2021; Marchigiani and Bonfantini 2022; Cerasoli et al. 2022). On the one hand, there are actions aimed at reducing the need for mobility within the concept of the “proximity city” (Cerasoli et al. 2022) and the “15-minute city” invented by Carlos Moreno (2020) and implemented in some European cities. Implementing such concepts requires the creation of basic public service infrastructure with short transport accessibility (within 15 minutes), which is intended to enable the fulfilment of residents' basic needs in close proximity to their homes, simultaneously reducing congestion, movement, and counteracting adverse climate changes. On the other hand, as our research indicates, modern technologies and digital accessibility can enable remote work, halting the depopulation of previously peripheral areas, and changing development conditions. This fits into the broader concept of the “remote city” which assumes the use of digital technologies to meet basic human needs. As Artelaris and Mavrommatis (2022) demonstrate, the pandemic may positively influence the development of polycentric spatial systems, which are the foundation of spatial cohesion, while simultaneously realizing the idea of spatial justice. Cohesion policy should not completely reorient itself towards supporting peripheral areas, as cities are the engines of economic development. However, it should reinterpret the role of rural areas and urban-rural relations, analysing the causes of their marginalization and developing new, alternative ways to overcome development problems (Cotella, Brovarone 2020). At the local level, particularly in peripheral areas, the use of relational proximity in the implementation of development processes encounters problems, which may indicate the need to consider a broader, supra-local perspective. This supports the need articulated in this article to consider development programming rather in functional areas, taking into account urban-rural relations, than within administrative units. This could positively impact the improvement of the resilience of entire economic systems, particularly long-term

resilience, which is crucial for overcoming the consequences of shocks such as the COVID-19 pandemic.

According to the results of our research, the economic structure, particularly diversification and labor market flexibility, impacts the resilience of the socio-economic system. Research conducted in the USA by Kang and Wang (2023) does not identify a significant impact of economic structure or regional specialization on the consequences of COVID-19 for the economy and building regional resilience, although it is certainly important in the long term and during the recovery phase (Martin 2011). Other American studies (Bartik et al. 2020) indicate that the impact of the pandemic on business could be observed even in the short term, in the form of a significant reduction in operations and employment, with the scale of business closures increasing the longer the crisis lasted. Larger companies typically had greater capacity to accommodate crisis phenomena and survive than small businesses, whose financial capabilities allowed for the closure of operations for only a few weeks. Economic diversification undoubtedly positively influences the reduction of risk concentration. As analyses of responses to older crises indicate (Martin et al. 2016; Ray et al. 2017), the quality of human capital, specialization, and knowledge accumulation should be important for long-term regional resilience to external shocks (Jagódka, Snarska 2022). This typically favors core areas, concentrating a more qualified workforce, simultaneously offering a higher level of education, particularly specialized education, and greater access to capital, which can finance innovations and increase the level of adaptation to crisis phenomena. This can lead to a change in the economic structure, which will be better suited to post-crisis reality (Boschma 2015). The industrial sector exhibits a more pronounced response to crises, with a longer recovery process compared to the services sector (Ray et al. 2017). Conversely, the share of agriculture enhances resilience in rural regions (Giannakis and Bruggeman, 2020). Moreover, a higher degree of economic diversification increases the likelihood of milder crisis impacts (Giannakis and

Bruggeman, 2020; Lee et al. 2022; Angelopoulos et al. 2023), underscoring the necessity to support initiatives that promote economic diversification. Sectors such as accommodation, food services, arts, entertainment, recreation, educational services, tourism, and transport experienced greater adverse effects during the COVID-19 pandemic compared to other industries (Bartik et al. 2020; Auzina-Emsina and Ozolina 2022; Kang and Wang 2021). This corroborates our findings that industries based on raw materials, agricultural regions, and services reliant on natural resources exhibited weaker crisis impacts and higher regional resilience. In the context of the pandemic, and particularly in analysing the consequences of the war in Ukraine, a longer time series will be necessary to accurately capture the long-term effects.

Local governments play an important role in overcoming the effects of the pandemic. Due to their direct proximity to the local community, they are the first to respond to crisis situations, and pandemic experiences indicate that local governments have been extremely innovative in this regard (Dzigbede et al. 2020). In such a situation, the ability to generate adequate financing opportunities is crucial, which should primarily have their sources in own revenues, while many local governments rely on earmarked grants intended for specific sectoral activities (UNCDF 2020). Various researchers (Sabirin et al. 2022; Alibašić and Casula 2023) emphasize the importance of joint management, indicating that close cooperation between local governments and central (state) governments increases resilience to pandemic challenges. Other authors highlight the need to include actors from other sectors to create a multi-level and multi-sectoral crisis management system (Milly 2023).

Our recommendations, based on robust analyses and research, offer specific guidelines for shaping cohesion policy that is more resilient to future crises and better meets the specific needs of peripheral areas. Implementing such strategies can contribute to sustainable and

equitable development that will benefit both core and peripheral areas, ensuring socio-economic balance and integrity in the long term.

## **7. Conclusions**

Despite the commendable directions pursued by EU Cohesion Policy through a territorial-oriented approach, the efficacy and efficiency of this policy in reducing developmental disparities remain contentious in the face of macroeconomic shocks, such as the COVID-19 pandemic and the war in Ukraine. These dysfunctions disproportionately impact peripheral regions, which lack the necessary capacity to stabilize their economies and alleviate growing social tensions. Consequently, it is imperative to reassess the approach and enhance the instruments of EU Cohesion Policy to ensure that its interventions more effectively address the specific needs of diverse territories.

The results of our research on inner peripheries, operating under the unique conditions of the Polish laboratory of EU Cohesion Policy, underscore the need to enhance the capacity to respond to developmental challenges at a supra-local level, corresponding to the reach of functional urban areas. In this regard, building local and supralocal institutional capacities is crucial to enable effective programming and implementation of developmental actions, particularly in terms of creating opportunities for complementary use of local resources on supra-local scales. This approach should eliminate competition for resources and foster coherent supra-local socio-economic systems based on the potentials of individual functionally connected areas. Strengthening the ties between urban and rural areas should create conditions for more effective spillover of developmental impulses to non-urban areas, enhancing the role and significance of smaller towns and rural areas. We see in this approach the potential for more efficient use of public funds allocated for developmental intervention, as well as a greater impact of the implemented actions on shaping developmental opportunities for all residents.

Our findings lead to the conclusion that for the effective functioning of such supra-local systems, especially in the case of internal peripheries, key factors include the availability of an efficiently operating transportation system and high-speed internet infrastructure. These should ensure access to basic public services, connectivity to more developed regional centers offering diverse employment opportunities and higher-level services, and a better work-life balance, which in turn improve the quality of life for local communities. The economy of the analysed supra-local socio-economic systems must enhance its resilience to the consequences of successive asymmetric shocks and accelerate adaptation to changing market and technological conditions. This is facilitated by the diversification of the economic structure, effective territorial marketing, and the cultivation of a strong local identity. A significant challenge for the economies of such systems exhibiting characteristics of internal peripheries is the need to adapt to climate change. In this regard, actions must be strengthened at the supra-local level to prepare and implement decarbonization programs, improve energy efficiency, invest in renewable energy sources, and create purchasing groups to mitigate the effects of the energy crisis. The greatest social challenge faced by these areas is depopulation. Improving the situation in this regard requires attention to the quality of education, access to childcare services (nurseries, kindergartens), flexible working hours, and the creation of conditions that enable the combination of professional duties with child-rearing. Additionally, the implementation of an integrated supra-local housing policy, along with ensuring access to social, educational and health services and improving public safety, can significantly increase the attractiveness of these areas, especially for young families.

Our research covered the period immediately following the end of the pandemic COVID-19 and the onset of military actions in Ukraine, allowing us to capture only short-term effects. Continuous monitoring of the consequences of absorbing asymmetric shocks and evaluating the effectiveness of implemented interventions in various types of peripheral areas

is necessary. It is also important to establish a systematic assessment of the potential and processes for strengthening supra-local institutional and social competencies. EU Cohesion Policy must be more differentiated and tailored to the specific needs of local territories, with greater emphasis on building supra-local capacities to integrate actions and resources within functional areas. Only such an approach can effectively reduce spatial developmental disparities, halt depopulation trends, and foster more sustainable development.



### **Declaration of interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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### **Data Statement**

Due to the sensitive nature of the questions asked in this study, survey respondents were assured raw data would remain confidential and would not be shared.

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