COMPARATIVE ANALYSIS OF THE REGIONAL OPERATION OF THE JUST TRANSITION FUND BASED ON TERRITORIAL DEVELOPMENT PLANS AND BEST PRACTICES

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As a new instrument of Cohesion Policy, the Just Transition Fund (JTF) was introduced in the 2021-2027 programming period, which is the part of the European Green Deal. Its main goal is to make the European Union climate-neutral by 2050. The JTF supports regions with high carbon emissions, and its aim is to manage industrial transition and structural change. The study examines how each region is implementing its Just Transition Fund plans and what innovative funding systems have been developed. In addition, through secunder research, we present model projects that are moving towards a circular economy and economic diversification and are relevant to the regions concerned. Three similar coal regions have been highlighted (Hungary - Baranya County, Czech Republic - Ústí Region, Spain - Asturias Region), which show similar economic and social symptoms. Each of the three regions has approached the problem with very different operational programmes and draft calls for proposals, resulting in different pull projects to support their economies. The aim of the study is to prove the hypothesis that, despite the similarities in the economic environment, programmes can be successfully implemented along the lines of the expected effects of the Just Transition, even under different support schemes.

DOI
https://doi.org/10.18690/um.epf.5.2025.4

ISBN
978-961-286-984-7

Keywords:
regional policy,
regional planning,
economic diversification,
green transition,
circular economy

JEL:
R11,
R58,
Q50

University of Maribor Press

1 Introduction

The **Just Transition Fund (JTF)** was established by the European Union to support regions disproportionately affected by the transition toward a climate-neutral economy (European Commission, 2024a) within the 2021-2027 programming cycle, to slow down climate change The JTF is the first pillar of the Just Transition Mechanism, which is part of the European Green Deal (European Commission, 2024b), and its primary goal is to enable the European Union to achieve climate neutrality by 2050. The Just Transition Mechanism (JTM) consists of three pillars (European Commission, 2024c):

- The Just Transition Fund (European Parliament and Council, 2021a),
- A dedicated Just Transition scheme within the InvestEU program (European Union, 2024a).
- A public sector loan facility in cooperation with the European Investment Bank (EIB) (European Investment Bank, 2024).

Compared to previous support mechanisms linked to the European Green Deal, the Just Transition Mechanism introduces an entirely new approach. It does not solely focus on the industrial transition of regions dependent on fossil fuels and/or regions with high ETS (European Union Emissions Trading System) emissions. Instead, it also seeks to mitigate the negative social, economic, and environmental impacts of climate neutrality measures through local interventions, combining grants and loan-based financial support—not only for the private sector but also for the public sector.

"The EU ETS is a key element of the EU's climate action, aimed at reducing greenhouse gas (GHG) emissions in a cost-effective manner." (Publications Office of the European Union, 2024).

The Just Transition Fund supports regions that, for specific reasons, have particularly high carbon dioxide emissions. To prevent regional disparities and in line with the objectives of the EU's Cohesion Policy, the fund aims to facilitate industrial transition and manage structural changes across all sectors, including transportation, energy, agriculture, the built environment, and industry.

Regions applying for support must demonstrate that their economies are heavily dependent on fossil fuels (such as lignite, coal, peat, oil shale, heavy oil, or diesel) and/or engage in carbon-intensive industrial activities (e.g., cement production). While the Just Transition Fund does not directly finance the transition to climate neutrality, it contributes significantly to its achievement.

In each country, the selection of the affected NUTS3 regions was based on statistical analysis and an assessment of which areas are most impacted by carbon dioxide emissions. This impact stems partly from coal and fossil fuel extraction, their use in power plants, or high ETS (Emissions Trading System) emissions. The assessment also included mapping potential economic and social challenges in the affected areas, taking employment, economic, and environmental indicators into account.

We examined three coal regions struggling with similar fundamental problems, based partly on their Just Transition Territorial Plans and partly with the assistance of experts involved in local planning. All three regions have been classified by the European Union as less developed regions under Article 108 (European Parliament and Council, 2021b), meaning that, in addition to coping with the transition to climate neutrality, they also face challenges arising from their weaker economic conditions (Hungary – Baranya County, Czech Republic – Ústí Region, Spain – Asturias Region). These areas were coal regions before the 1990s, with economies based on lignite mining.

2 Theoretical Background / Literature Review

The Just Transition Fund (JTF), established by the European Union, aims to provide targeted support to those regions that are disproportionately affected by the transition to a climate-neutral economy. This study explores how selected regions are implementing their respective JTF strategies, what innovative funding mechanisms they apply, and which model projects support the shift toward a circular economy. The research is based on secondary sources—including program documents, operational plans, and policy analyses—and uses a comparative approach to present the transition processes of three coal-dependent regions with similar characteristics: Baranya County (Hungary), the Ústí Region (Czech Republic), and the Asturias Region (Spain).

It falls within the competence of the national government to designate which institution participates in regional policy-making, and to determine the degree of involvement granted to subnational actors in the planning and implementation of development programs. Consequently, despite the strict regulatory framework of the European Union, the institutional structures of territorial development vary significantly across member states. These differences are closely linked to each country's political and administrative systems, as well as to historically embedded institutional traditions (Kengyel, 2016).

Although the three countries began from comparable economic and social baselines, they adopted divergent planning mechanisms to approach the program (Huba-Varga N., Pongrácz A. Zádori I., 2025). The three regions share several characteristics: the gradual decline of previously dominant coal and heavy industries, aging infrastructure, high unemployment rates, and low entrepreneurial activity. The aim of this study is to demonstrate that although the socioeconomic context of these regions provides a similar starting point, their respective operational programs offer different responses to the challenges—yet all show evidence of the potential success of a just transition.

Each of the three regions examined has developed its own development strategy and JTF-related priority axes. These different financial mechanisms - calls for proposals, indirect public support schemes, or even public risk capital funds - have been tailored to the region. This underpins the objective of EU cohesion policy to reduce territorial disparities while providing opportunities to test innovative, local intervention models. In each of the three regions, projects aimed at circularising the economy can be identified. Strong institutions and sound governance correlate with higher fund uptake, whereas political instability or weak administration hinder performance. The importance of institutional frameworks in program implementation across Europe are high (Incaltarau, C., Pascariu, G. C., Surubaru, N.-C. 2020).

3 Methodology

Each of the selected countries has integrated the **Just Transition Fund (JTF)** into its operational programming framework in a distinct manner. The analysis is based on the review of **region-specific Operational Programs**, from which the planned types of interventions, their respective target groups, and the anticipated impacts of these measures were examined.

In **Hungary**, the JTF is not implemented through a stand-alone operational program. Instead, it is embedded as a **specific priority axis within the existing Environment and Energy Efficiency Operational Program Plus (KEHOP Plusz).** Within this framework, dedicated calls for proposals are designed to support transition-related activities. The Hungarian JTF-supported measures aim to promote **economic diversification**, foster **job creation**, enable the **re-skilling of workers**, and support the development of **environmentally sustainable technologies and infrastructures** in the affected regions.

In **Spain**, the Just Transition Fund is implemented through a **dedicated, stand-alone operational program**. In accordance with **EU Regulation 1060/2021**, the **Managing Authority** is the Directorate-General for European Funds under the Ministry of Finance. In the **Asturias Region,** an administrative unit linked to the **Regional Ministry for Ecological Transition, Industry, and Economic Development** operates as an **intermediate body** responsible for the implementation of the JTF Operational Program in that territory.

In **the Czech Republic**, the JTF is also implemented through a **dedicated operational program,** namely the **Spravedlivá transformace Operational Program (OPST).** This program was specifically established to support regions most severely impacted by the transition away from a coal-based economy, including **Ústí nad Labem, Karlovy Vary**, and the **Moravian-Silesian** regions. The OPST sets out a coherent framework for project selection and investment focused on regional restructuring, job creation, environmental restoration, and innovation-driven development.

4 Results

Hungary (Baranya County)

In Hungary, the Just Transition Fund (JTF) is integrated into the national system as part of the Environmental and Energy Efficiency Operational Programme Plus (KEHOP+). Unlike other Member States, no separate regional chapters were created for each affected county. Priority Axis 5 addresses the social and economic impacts of the transition to climate neutrality, targeting the counties of Baranya, Heves, and Borsod, which are most exposed to these changes.

Although its focus is socio-economic, the priority also contributes to reducing greenhouse gas emissions. It supports a wide range of interventions, including economic diversification, environmental rehabilitation, and workforce reskilling. Key intervention types include:

- **Innovation and technology transfer**
- **Energy efficiency in enterprises**
- **Renovation of residential buildings**
- **Smart energy systems and storage**. Developing smart grids and energy storage solutions (e.g. hydrogen, battery systems).
- **Brownfield rehabilitation**. Cleaning up and repurposing contaminated former industrial areas.
- **Labour market adaptation**. Supporting reskilling and job transition for workers affected by the phasing out of fossil fuels.

Target groups include SMEs, workers in carbon-intensive industries, municipalities, research institutions, energy sector actors, and households. (Hungarian Government, 2022)

Spain (Asturias Region)

Asturias has its own regional priority under Spain's stand-alone Just Transition Programme (Programa Transición Justa 2021–2027). The programme addresses the socio-economic and environmental consequences of the climate transition, with a focus on promoting economic diversification, job creation, renewable energy deployment, and social cohesion.

Key thematic intervention areas include:

- Digital transformation (e.g., SME digitalisation, e-commerce)
- Business development (e.g., internationalisation, productivity)

- Renewable energy (solar, biomass, energy efficiency)
- Environmental remediation (polluted sites)
- Education and employment (reskilling, infrastructure)
- Sustainable tourism and heritage preservation

Asturias was allocated €115.1 million in JTF funds, making it one of Spain's largest regional envelopes. Funding is co-financed at 50% by the EU and complemented by national sources. Most support is provided as non-repayable grants, with future use of financial instruments also foreseen. (Ministry for Ecological Transition and the Demographic Challenge Spain, 2021)

Czech Republic (Ústí Region)

In the Czech Republic, the Just Transition Programme 2021–2027 operates as a separate OP, with distinct priorities for coal regions such as Ústí nad Labem. Priority 2.1 addresses the negative impacts of coal phase-out, focusing on employment transitions, economic restructuring, and territorial rehabilitation. Priority areas of intervention:

- Economic diversification (innovation, SME growth)
- New energy technologies (hydrogen economy, renewables, battery production)
- Land rehabilitation (post-mining areas)
- R&D and digital transformation
- Circular economy and waste management
- Education and social inclusion

Support also targets hydrogen infrastructure, lithium-based battery production, energy communities, digital applications, creative industries, and green infrastructure.

Main target groups include SMEs (particularly in energy, chemicals, glass/ceramics), affected workers (through reskilling and support services), public institutions, and vulnerable communities.

Ústí region is allocated over €232 million from the JTF and national co-financing, enabling the implementation of regionally tailored transition strategies. (Ministry of the Environment Czech Republic, 2021)

5 Discussion

The Just Transition Fund (JTF) programming architecture across the three examined countries—Hungary, Spain, and the Czech Republic—reveals notable differences stemming from institutional design, the degree of decentralisation, and the capacity for regional differentiation. In Spain and the Czech Republic, the JTF is implemented through standalone operational programmes. Within these, individual regions—such as Asturias in Spain and Ústí nad Labem in the Czech Republic—possess dedicated priorities and earmarked budgets. This structure facilitates alignment between programming and the socio-economic characteristics of each region, enables region-specific performance tracking, and allows for greater flexibility and strategic revision when needed. It also guarantees that financial resources remain within the designated territories, thereby strengthening the role of regional actors in programme execution.

In contrast, Hungary has opted to integrate the JTF into an existing operational programme—the Environmental and Energy Efficiency Operational Programme Plus (KEHOP+), under Priority Axis 5. Within this framework, the three concerned counties (Baranya, Heves, and Borsod-Abaúj-Zemplén) do not have separate budgetary lines or priority structures. As a result, interventions follow a uniform programme logic, limiting the ability to tailor actions to specific territorial needs. One critical limitation of this approach is the lack of modularity; should regional programme modifications become necessary, adjustments can only occur by amending the entire priority axis.

Overall, the Spanish and Czech approaches provide regions with greater programming autonomy, enhancing the effectiveness of the JTF by allowing for a better fit with local transition challenges—such as economic diversification, the social implications of phasing out coal, and sustainable labour market transformation. The Hungarian model, by contrast, offers less flexibility and may be less responsive to local variance, which could undermine the programme's impact in terms of territorial justice and targeted socio-economic resilience.

6 Conclusions

The findings of the comparative analysis provide strong empirical support for the initial hypothesis that, although the selected regions—such as Baranya (Hungary), Ústí nad Labem (Czech Republic), and Asturias (Spain)—share broadly similar socio-economic legacies rooted in the decline of coal-dependent industries, the implementation of regionally differentiated programming approaches does not obstruct, but rather enables the successful realisation of the overarching objectives of the Just Transition Fund (JTF). In fact, the observed variance in the design and governance of JTF interventions across the cases reinforces the proposition that context-sensitive policy frameworks can be more effective than uniform, top-down models in addressing the complex and territorially embedded challenges of economic and social transformation.

The study illustrates that each country has pursued its own institutional configuration and strategic logic in deploying JTF resources: Hungary embedded JTF measures within the KEHOP Plusz operational programme as a dedicated priority axis; Spain created a stand-alone operational programme at the national level with decentralised implementation in regions like Asturias; and the Czech Republic opted for a fully independent operational programme (OPST) to serve its most affected coal regions. These configurations reflect distinct administrative traditions, political economies, and multi-level governance structures, yet all demonstrate a high degree of alignment with the Just Transition's core objectives, such as decarbonisation, job creation, and the revitalisation of vulnerable territories.

Moreover, the analysis underscores the value of territorial specificity and locally adapted intervention logic as enablers of effective policy implementation. By calibrating actions to the economic profiles, social needs, and environmental conditions of their respective regions, programme authorities have been able to design project pipelines that are both technically feasible and politically legitimate. This affirms the theoretical proposition—frequently emphasised in EU cohesion policy literature—that bottom-up planning, combined with funding flexibility and multi-level coordination, enhances the responsiveness and legitimacy of structural interventions.

In sum, rather than constituting a barrier to coherent implementation, differentiated programming mechanisms rooted in local institutional contexts contribute to a more equitable and territorially just transition process. This highlights the importance of maintaining decentralised governance arrangements and ensuring that future funding cycles continue to allow for customisation and subsidiarity in programme design and execution.

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