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# RTOS and Territorial Fragility in FP10

Strategic Instruments for Bridging the Innovation Divide in the 2028-2034 Programming

**ABSTRACT**

As the European Union prepares for its 10th Framework Programme (FP10) for Research and Innovation (2028-2034), addressing persistent regional disparities remains a critical challenge. This paper examines the potential of Applied Research Organisations (RTOS) to serve as strategic instruments in mitigating "territorial fragility." Analysis of current frameworks, particularly Horizon Europe, reveals a widening innovation divide where funding disproportionately benefits developed regions, exacerbating the "development trap" in lagging areas. By leveraging Smart Specialisation Strategies (S3) and fostering "quadruple helix" collaborations, RTOs can drive regional economic resilience. We argue that FP10 must explicitly integrate place-based RTO mechanisms to counter the geography of discontent and ensure territorial cohesion.

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## 1 Introduction

The European Union's cohesion policy has long aimed to reduce disparities between regions, yet significant economic divides persist. As the EU looks towards the 2028-2034 research programming period (Framework Programme 10, or FP10), there is a growing recognition that "territorial fragility"—characterized by structural economic stagnation and social discontent—requires novel policy interventions. While previous framework programmes like Horizon Europe have excelled in promoting scientific excellence, they have inadvertently widened the gap between innovation leaders and lagging regions [1].

Applied Research Organisations (RTOS) occupy a unique position at the interface of public policy, academic research, and industrial application. This paper explores the case for positioning RTOs as central actors in FP10's strategy to address territorial fragility. By synthesising recent evidence on the "geography of discontent" [2] and the limitations of current funding mechanisms [3], we argue that RTOs can provide the necessary "connective tissue" to translate research investments into regional economic resilience.

## 2 Conceptualizing Territorial Fragility

The concept of "territorial fragility" in the EU context has evolved beyond simple GDP metrics to encompass broader structural vulnerabilities. Recent scholarship identifies "development traps" as a primary manifestation of this fragility, where regions experience prolonged periods of low growth, weak productivity, and employment stagnation relative to their national and European peers [2]. This economic stagnation fuels a "geography of discontent," creating political instability and anti-systemic voting behaviour in "places left behind" [2].

Current cohesion policies often struggle to address these deep-seated issues because they lack the granularity to tackle specific "wicked problems" in these areas. The notion of "territorial cohesion" itself has been criticized for failing to prevent the rise of spatial injustices, where certain regions are systematically disadvantaged by the concentration of

resources in metropolitan hubs [4]. Consequently, “fragility” is not merely a lack of resources but a structural inability to retain talent, attract investment, and generate endogenous innovation.

### 3 The Role of RTOs in Fragile Regions

RTOs are increasingly viewed not just as technology developers but as “entrepreneurship instruments” capable of catalyzing regional innovation systems [5]. In fragile or lagging regions, the private sector often lacks the absorptive capacity to utilize advanced research directly. RTOs bridge this gap by acting as intermediaries that de-risk innovation for local SMEs and facilitate knowledge transfer.

#### 3.1 RTOs and the Quadruple Helix

A key mechanism for RTO impact is their ability to orchestrate “quadruple helix” collaborations involving government, academia, industry, and civil society. In the context of Smart Specialisation Strategies (S3), RTOs help identify regional competitive advantages and align research agendas with local industrial needs [6]. This role is particularly crucial in lagging regions where “institutional voids”—the absence of effective market supporting institutions—impede development. RTOs can substitute for these missing links by providing essential public goods such as specialized training, testing facilities, and market intelligence [6].

#### 3.2 Mechanisms of Resilience

Specific mechanisms by which RTOs enhance resilience include:

- Knowledge Spillovers: RTOs facilitate the diffusion of Industry 4.0 technologies to traditional manufacturing sectors dominant in many lagging regions [6].
- Extra-regional Connectivity: RTOs connect local firms to global value chains and international research networks, breaking the isolation often associated with territorial fragility [5].
- Capacity Building: By engaging in S3 platforms, RTOs help build the institutional capacity of regional governments to design and implement effective innovation policies [7].

## 4 Bridging the Innovation Divide in FP10

Despite the potential of RTOs, current EU research funding structures have often failed to leverage them effectively for cohesion purposes. An analysis of Horizon Europe reveals a “Matthew effect,” where funding is heavily concentrated in a few leading regions, effectively subsidizing the already wealthy at the expense of the periphery [3]. This concentration accentuates regional inequalities, as lagging regions lack the administrative capacity and co-financing resources to compete for excellence-based grants [3].

### 4.1 Limitations of Horizon Europe

The “excellence-only” criterion of Horizon Europe, while meritorious for scientific advancement, has proven insufficient for territorial development. It assumes a “trickle-down” innovation model that empirical evidence contradicts [1]. The disparity is stark: the vast majority of Horizon Europe funds go to the “innovation leaders,” while regions in the “development trap” receive marginal support, often limited to capacity-building funds that are too small to effect structural change [1].

### 4.2 Strategic Imperatives for FP10

For FP10 to successfully address territorial fragility, it must move beyond the “one-size-fits-all” approach. Research suggests a need for “place-based” innovation policies that explicitly fund the intermediation functions of RTOs in fragile regions [6]. This could involve:

- Earmarked Funding: Specific streams within FP10 for RTO-led regional consortia in “development trap” areas.
- Cohesion Testing: Implementing a “cohesion test” for major funding calls to assess their potential impact on territorial disparities [3].
- S3 Integration: Stronger conditionality linking FP10 projects to the implementation of regional Smart Specialisation Strategies, where RTOs play a governance role [7].

## 5 Conclusion

The persistence of territorial fragility and the widening innovation divide pose a threat to the political and economic

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stability of the European Union. As the EU frames the 2028-2034 research programming, there is a compelling case for Applied Research Organisations to move from the periphery to the centre of regional development policy. Evidence indicates that RTOs possess the unique capacity to bridge the gap between high-level research and local economic reality, particularly in lagging regions. However, realizing this potential requires a structural shift in FP10—moving away from blind “excellence” concentration towards a model that values and funds the strategic role of RTOs in building regional resilience. Without such a shift, the “geography of discontent” is likely to deepen.

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