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Addressing Territorial Fragility in FP10

The Case for a Distinct RTO Mandate in European Innovation Policy

ABSTRACT

As the European Union prepares for the 10th Framework Programme (FP10), the persistence of “left-behind places” challenges the cohesion-competitiveness nexus of European research policy. This paper argues that the emerging policy framework, including the New European Innovation Agenda’s “Regional Innovation Valleys,” remains insufficiently calibrated to the structural deficits of fragile territories. We contend that Applied Research and Technology Organisations (RTOs) possess unique intermediation capabilities that universities and private firms lack in these contexts. However, current funding models—predicated on “excellence” and competitive smart specialisation (S3)—structurally disadvantage RTOs operating in peripheral regions. Drawing on recent evidence from Horizon Europe and S3 evaluations, we propose that FP10 must institutionalize a distinct, capacity-building funding stream for RTOs to effectively anchor innovation in fragile territories, moving beyond the “Widening” paradigm towards genuine territorial resilience.

Contents

1 Introduction

The European Union's innovation policy has long grappled with the "innovation paradox": the regions with the greatest need for innovation to restructure their economies are often those with the lowest capacity to absorb public research funds [1]. As the EU transitions from Horizon Europe to the 10th Framework Programme (FP10), the political urgency of addressing "left-behind places" has intensified, driven by growing discontent and the risks of a multi-speed Europe [2]. While mechanisms like "Widening Participation" and Smart Specialisation Strategies (S3) were designed to bridge this divide, recent assessments suggest they have achieved mixed results in truly peripheral or "fragile" territories [3].

This paper posits that a critical missing link in the EU's territorial cohesion strategy is the specific, place-based role of Applied Research and Technology Organisations (RTOs). Unlike universities, which are often oriented towards global academic excellence, or private firms, which follow market signals, RTOs (e.g., Fraunhofer, TNO, Tecnalia) function as "super-intermediaries" capable of translating global knowledge into local industrial application [4]. However, we argue that the current funding landscape, including the burgeoning Mission-Oriented Innovation Policies (MOIP), fails to provide the stable, non-competitive support necessary for RTOs to operate effectively in fragile regions.

2 Defining Territorial Fragility in the Innovation Context

Territorial fragility extends beyond low GDP per capita. It is characterized by "institutional thinness," where a region lacks the critical mass of intermediaries, firms, and governance structures required to catalyze innovation [5]. Recent literature distinguishes "left-behind places" not just by economic stagnation, but by a long-term erosion of social infrastructure and demographic vitality [6].

In the context of EU research policy, fragility manifests as a structural inability to access "excellence-based" funding. Regions caught in the "development trap" often fail to participate in Framework Programmes not because they lack

potential, but because they lack the administrative and absorptive capacity to compete with established hubs [2]. This “polytrap” creates a vicious cycle: low participation in R&D leads to brain drain, which further reduces the capacity to win future grants [7].

3 The Unique Proposition of RTOs in Peripheral Regions

RTOs occupy a distinct position in the innovation ecosystem. They are “innovation agencies” that bridge the “Valley of Death” between basic research and commercial application [8]. In fragile regions, their role is even more critical.

3.1 RTOs as Intermediaries and Orchestrators

Literature suggests that in peripheral regions, RTOs often substitute for missing private sector R&D intensity. They act as “anchors” that can absorb external knowledge and diffuse it to local SMEs that lack internal R&D departments [9]. Unlike universities, whose primary incentive structure is publication and global ranking [10], RTOs often have a mandate for regional economic impact.

Recent studies confirm that RTOs are more effective than universities in “entrepreneurial discovery”—the bottom-up process of identifying regional strengths central to Smart Specialisation [11]. Their ability to manage “boundary work” between policy, industry, and science makes them indispensable for implementing complex regional strategies [12].

4 Critique of Current Policy Frameworks

Despite the theoretical fit of RTOs for regional development, current EU mechanisms often undermine their potential in fragile areas.

4.1 The Limits of Smart Specialisation (S3)

Smart Specialisation has been the flagship cohesion policy for over a decade. However, its implementation in lagging regions has been hampered by a lack of institutional capacity. Wibisono (2022) notes that less-developed regions often "mimic" the strategies of successful hubs rather than developing genuine place-based priorities, largely due to a lack of local expertise to drive the process [3].

Furthermore, S3 often relies on the existence of a "triple helix" (government, industry, university). In fragile regions, the industry helix is weak, and the university helix is often disconnected from the local economy [10]. RTOs could fill this gap, but S3 funding (via ERDF) is often bureaucratically burdensome and distinct from the "prestige" of Horizon Europe, creating a siloed system where regional relevance is divorced from research excellence [13].

4.2 The "Excellence" Trap in Horizon Europe

Horizon Europe remains dominated by the "excellence" criterion. While "Widening" measures exist, they are often remedial (e.g., teaming, twinning) rather than structural. Analysis suggests that funding continues to concentrate in a "rich club" of regions, exacerbating the innovation divide [14]. Peñalosa and Castaldi (2024) argue that even "green window of opportunity" policies favor regions with pre-existing green tech capabilities, leaving peripheral regions to be mere consumers rather than producers of the green transition [15].

5 The Case for FP10: A Territorial Mandate

As discussions for FP10 advance, there is a recognition that the "innovation divide" is a threat to European unity. The "Regional Innovation Valleys" initiative under the New European Innovation Agenda attempts to link lagging regions with deep-tech hubs. However, without dedicated support for local RTOs, these "valleys" risk becoming extractive relationships where peripheral regions supply data or testbeds while value capture remains in the center.

5.1 Mission-Oriented Policy and Place

The shift towards Mission-Oriented Innovation Policy (MOIP) offers a new opportunity. Missions (e.g., Climate, Cancer) are problem-focused, which should favor place-based solutions. Yet, Priebe and Herberg (2024) warn that without explicit "regioning," missions tend to be spatially blind, defaulting to the most capable actors in the most capable regions [16].

We argue that FP10 should introduce a specific "Territorial Resilience" instrument. This would provide non-competitive, core funding for RTOs in fragile regions, conditioned not on "global excellence" but on "local relevance" and absorptive capacity building. This aligns with the call for "peace-informed" or stability-informed development planning in fragile contexts [17], extending the concept of fragility from conflict zones to economically "left-behind" EU territories.

6 Counter-Arguments and Limitations

Critics of territorial quotas in research funding argue that it dilutes excellence. They contend that R&D funds should be allocated solely on merit to ensure global competitiveness, while Cohesion Policy (Structural Funds) handles regional equity [18].

Rebuttal: This separation is artificial. Innovation is increasingly systemic; "excellent" research that cannot be diffused or applied due to regional weakness represents a failure of the European Research Area [19]. Furthermore, evidence suggests that RTOs in peripheral regions do not lack quality, but rather connectivity and scale, which competitive funding fails to address [20].

Limitations: This argument assumes that RTOs exist or can be easily created in all fragile regions. In reality, some regions act as "innovation deserts" where no such capacity exists [21]. In these cases, the strategy must focus on linking these regions to RTOs in neighboring areas rather than creating sub-scale institutions from scratch.

7 Conclusion

The preparation for FP10 offers a window to rethink the spatial dynamics of European innovation. “Territorial fragility” is not merely a cohesion issue; it is a bottleneck for the EU’s twin transition (green and digital). RTOs are the missing transmission belt in fragile regions, capable of grounding high-level policy in local industrial reality. To succeed, FP10 must move beyond the binary of “excellence vs. cohesion” and recognize that strengthening the institutional capacity of RTOs in left-behind places is a prerequisite for a truly resilient European Innovation Ecosystem.

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