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Institutionalizing Innovation for Territorial Fragility

The Case for Applied Research
Organisations (AROs) in the EU
2028-2034 Framework

ABSTRACT

This paper argues for the strategic creation of Applied Research Organisations (AROs) dedicated to addressing “territorial fragility” within the European Union’s 2028-2034 research and innovation mandate. Territorial fragility—defined here as the governance gap in post-urbanization landscapes where demographic shifts have outpaced institutional adaptation—presents a critical challenge for EU cohesion. Drawing on the concept of “Pasteur’s Quadrant” (high utility combined with high fundamental knowledge), we propose that AROs are uniquely positioned to bridge the divide between abstract policy goals and local implementation. By synthesizing literature on “left-behind places,” mission-oriented innovation policy, and public research organisation taxonomies, we demonstrate that a dedicated territorial ARO can operationalize the “regioning” of EU missions, offering a necessary alternative to traditional academic or consultancy models.

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1 Introduction

The European Union stands at a critical juncture as it prepares for the 2028-2034 Multiannual Financial Framework and the successor to Horizon Europe (FP10). While the demographic transition towards urbanization is largely complete, a significant governance gap remains in what are increasingly termed “left-behind places” or fragile territories [1]. These regions, characterized by demographic decline, economic stagnation, and political discontent, face challenges that traditional cohesion policies have struggled to address [2].

This paper builds a case for a specific institutional response: the Applied Research Organisation (ARO). Operating in “Pasteur’s Quadrant”—seeking both fundamental understanding and immediate societal utility [3]—AROs offer a model distinct from the pure basic research of universities and the short-term focus of commercial consultancies. We argue that the EU’s emerging focus on mission-oriented innovation [4] must be “regioned” [5] to be effective. An ARO structure dedicated to territorial fragility would provide the necessary experimental governance capacity to transform these landscapes from liabilities into strategic assets.

2 The Challenge of Territorial Fragility

Territorial fragility in the EU context is not merely a matter of low GDP or geographic remoteness; it is fundamentally a crisis of governance and adaptation.

2.1 Beyond the “Lagging Region” Label

Current EU policy often categorizes regions based on quantitative economic indicators, such as GDP per capita below 75% of the EU average [2]. However, this economic cartography fails to capture the multidimensional nature of fragility. Jones et al. (2020) argue that the “lagging” label obscures the structural causes of inequality and reinforces a deficit model of development. Instead, fragility should be understood through the lens of “left-behind places,” where the withdrawal of public services and the lack of institutional capacity create a vicious cycle of “polytraps”—interconnected social, economic, and ecological barriers to development [6].

2.2 The Governance Gap

A critical aspect of territorial fragility is the mismatch between the completed demographic shift (urbanization) and the static nature of territorial governance. While populations have moved, administrative structures often remain rigid, unable to address the needs of “inner areas” or rural peripheries effectively [7]. This has led to an “implementation gap” in cohesion policy, where centralized strategies fail to gain traction at the local level due to a lack of context-specific knowledge and administrative capacity [8]. The result is a geography of discontent, where perceived neglect fuels political instability [9].

3 The Institutional Solution: AROs in Pasteur’s Quadrant

To address this governance gap, a new type of knowledge actor is required. The Applied Research Organisation (ARO)—often referred to in literature as a Research and Technology Organisation (RTO) or Public Research Organisation (PRO)—offers a compelling model.

3.1 Defining the ARO

AROs occupy “Pasteur’s Quadrant,” a research classification describing work that is simultaneously inspired by the quest for fundamental understanding and considerations of use [3]. Unlike universities, whose primary incentive is academic publication, or consultancies, which are driven by client deliverables, AROs are “hybrid organizations” designed to bridge the gap between science and practice [10].

Cruz-Castro et al. (2021) classify these organizations based on their funding and mission structures, noting that they often serve as critical intermediaries in innovation ecosystems [11]. For territorial fragility, an ARO would function not just as a technology transfer office, but as a “governance innovation lab,” testing new policy instruments and service delivery models in real-world environments.

3.2 The Intermediary Role

Khelfaoui and Bernier (2023) highlight the role of RTOs as “entrepreneurship instruments” that actively shape their environments rather than passively observing them [10]. In the context of fragile territories, an ARO would act as a “super intermediary,” translating high-level EU objectives (e.g., the Green Deal, Digital Transition) into locally actionable pilots. This requires a high degree of organizational autonomy and a funding model that supports long-term experimental research rather than just short-term projects.

4 Strategic Relevance for EU 2028-2034

The upcoming EU research and innovation planning period (2028-2034) offers a unique window of opportunity to institutionalize this approach.

4.1 “Regioning” Mission-Oriented Policy

The shift towards Mission-Oriented Innovation Policy (MOIP) has been a defining feature of recent EU strategies [4]. However, critics argue that MOIP has often been “space-blind,” treating innovation as a placeless phenomenon. Priebe and Herberg (2024) argue for “regioning” mission-oriented policy, explicitly articulating directionality between federal/supranational goals and regional realities [5].

A dedicated ARO for territorial fragility would serve as the operational vehicle for this “regioning.” It would translate the abstract “missions” of the EU (e.g., climate adaptation) into place-based experiments. This aligns with the emerging priorities for the post-Horizon Europe landscape, where there is a growing recognition that R&I must deliver tangible societal benefits to all citizens, not just those in high-tech urban hubs [12].

4.2 FP10 and the Place-Based Mandate

As discussions for FP10 (Framework Programme 10) evolve, there is a clear “conclusion” emerging regarding the need for applied research that strengthens European resilience [12]. Integrating a territorial dimension into this framework is

essential. By funding AROs that specifically target the “innovation paradox” in lagging regions—where those with the greatest need for innovation have the lowest capacity to absorb it [8]—the EU can ensure that the 2028-2034 mandate actively combats territorial fragmentation.

5 Conclusion

Territorial fragility is not a residual problem of the past but a structural challenge of the future European landscape. Addressing it requires moving beyond passive subsidies toward active, experimental governance. This paper has argued that the Applied Research Organisation (ARO), situated in Pasteur’s Quadrant, represents the optimal institutional form for this task. By combining high utility with high knowledge production, such an organisation can bridge the gap between EU missions and local realities. As the EU shapes its 2028-2034 research agenda, the creation of AROs dedicated to territorial resilience offers a rigorous, evidence-based pathway to ensure that no place is left behind.

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