AUTHORS

Research Agent

DATE

December 2025

Bridging the Innovation Divide: The Strategic Role of Applied Research Organisations in EU Territorial Resilience (2028-2034)

A Research Report on Framework Programme 10 Priorities

ABSTRACT

As the European Union prepares for the 10th Framework Programme (FP10) for Research and Innovation (2028-2034), the persistent “innovation divide” between core and peripheral regions remains a critical challenge. This report investigates

the case for centralizing Applied Research Organisations (AROs) and Research and Technology Organisations (RTOs) as primary agents for mitigating “territorial fragility.” Synthesizing recent literature on “left-behind places,” regional innovation systems, and RTO mechanisms, we argue that AROs possess unique capabilities—unlike basic research universities—to translate innovation into regional economic resilience. The analysis suggests that FP10 must move beyond a binary of “excellence” versus “cohesion” and addresses the limitations of current “Widening” instruments by institutionalizing RTOs as key intermediaries in lagging regions.

Contents

1 Introduction

The European Union's innovation policy has long struggled with a dichotomy between "excellence-based" funding (e.g., Horizon Europe), which tends to concentrate resources in already advanced regions, and "cohesion-based" structural funds, which aim to uplift lagging areas. Despite decades of investment, a significant innovation gap persists, exacerbating what recent scholarship identifies as "territorial fragility" or the phenomenon of "left-behind places" [1]. As discussions for the 2028-2034 programming period (FP10) gain momentum, there is a pressing need to re-evaluate the institutional mechanisms used to deliver innovation policy [2].

This report examines the potential of Applied Research Organisations (AROs)—often referred to as Research and Technology Organisations (RTOs)—to serve as strategic catalysts in these fragile territories. Unlike traditional universities driven by academic metrics, AROs are mission-oriented entities designed to bridge the gap between research and market application. We argue that addressing territorial fragility in FP10 requires a paradigm shift: prioritizing the development and support of AROs in lagging regions to solve the "regional innovation paradox" where funding is available but absorptive capacity is low [3].

2 Defining Territorial Fragility in Policy Discourse

The concept of "territorial fragility" in the EU context has evolved from static economic indicators of "lagging regions" to more multidimensional frameworks. Recent scholarship highlights the emergence of "left-behind places," a term that captures not just economic underperformance but also a deep-seated loss of local agency and infrastructure degradation [1]. This "geographical etymology" suggests that fragility is active and relational, often resulting from the withdrawal of state and market functions from peripheral areas.

Policy discourse is increasingly recognizing that standard "territorial cohesion" metrics fail to capture these dynamics. Jones et al. (2020) argue for a shift towards "regional spatial

justice," emphasizing that well-being and resilience require more than just income convergence—they demand the capacity for regions to shape their own developmental futures [4]. Furthermore, new tools such as Territorial Impact Assessments (TIA) are being adapted to measure the innovation potential of large infrastructure projects. Prezioso (2025) demonstrates how TIA can be applied to the Recovery and Resilience Facility to ensure investments do not exacerbate existing inequalities, a methodology critical for future FP10 impact evaluations [5].

3 The Unique Mechanism of Applied Research Organisations

To address this fragility, the institutional vehicle matters. Research and Technology Organisations (RTOs) function fundamentally differently from basic research universities. While universities are primarily incentivized by scientific publication and global rankings, RTOs operate as "mobilizers" of the regional environment, focusing on technology transfer, applied problem-solving, and the "catch-up" phases of economic development [6].

3.1 Translating Innovation to Resilience

RTOs act as "super intermediaries" that bridge the "valley of death" between scientific discovery and commercial viability. Khelfaoui and Bernier (2023) demonstrate that RTOs serve as entrepreneurship instruments, not just by spinning off companies but by providing critical R&D infrastructure that small and medium-sized enterprises (SMEs) in fragile regions cannot afford independently [7]. Their mandate often explicitly includes regional development, compelling them to align their research agendas with local industrial needs rather than abstract global scientific trends.

This function is critical for "left-behind" places, where the primary barrier is often not a lack of ideas but a lack of absorptive capacity—the ability of local firms to understand and utilize external knowledge. RTOs build this capacity by offering "learning-intensive" services and ensuring that innovation funding translates into tangible economic activity rather than leaking out to core regions [6].

4 The Case for ARO Centrality in FP10 (2028-2034)

The upcoming Framework Programme 10 presents a window of opportunity to institutionalize the role of AROs in cohesion policy. The primary justification lies in resolving the "regional innovation paradox": the observation that lagging regions have a high need for innovation investment but a low capacity to absorb public funds effectively [3].

4.1 Critiquing the Limits of "Widening" Instruments

Current attempts to bridge the innovation divide, such as the "Widening Participation" instruments in Horizon Europe (e.g., Teaming, Twinning), have shown mixed results. While they successfully foster partnerships between lagging and advanced regions, Pato et al. (2023) argue that they often fail to build sustainable indigenous capacity. The funding frequently flows back to the advanced partners who provide the expertise, leaving the "widening" country dependent on external validation rather than developing its own autonomous ARO infrastructure [8]. FP10 must therefore move beyond partnership-based "twinning" towards direct institutional capacity building.

4.2 Beyond the Excellence/Cohesion Binary

Current funding models often perpetuate the divide. Excellence-based schemes favor regions with strong existing institutions, while cohesion funds often lack the strategic direction to build new ones effectively. Muscio et al. (2015) argue that Smart Specialisation Strategies (RIS3) can only overcome this paradox if there are competent local intermediaries to execute them [3].

Borrell-Damián (2025) highlights the necessity for Horizon Europe's successor to support a diverse ecosystem of institutions, implying that a stronger integration of research and industrial policy is required [2]. By explicitly designating AROs as the primary delivery nodes for place-based innovation in FP10, the EU can ensure that "lagging regions" are not merely passive recipients of transfers but active participants in the innovation economy [9].

4.3 Addressing Governance Risks

Centralizing AROs in fragile regions carries the risk of "local capture," where institutions serve the interests of local elites rather than broader economic development. To mitigate this, FP10 funding for AROs should be conditional on rigorous governance standards and independent performance evaluations, ensuring these organisations remain mission-oriented and responsive to market needs rather than political cycles [1].

5 Conclusion

The case for centralizing Applied Research Organisations in the 2028-2034 research programming is grounded in the necessity to move beyond passive cohesion transfers and the limitations of current "Widening" instruments. Territorial fragility is a structural trap that basic research funding alone cannot unlock. The evidence suggests that AROs are uniquely positioned to translate innovation policy into regional resilience by acting as stable, mission-oriented intermediaries [7]. For FP10 to succeed in mitigating the innovation divide, it must prioritize the creation and strengthening of these organisations, treating them not just as research performers but as essential infrastructure for regional spatial justice.

Bibliography

[1] A. Pike *et al.*, "'Left behind places': a geographical etymology," *Regional Studies*, vol. 58, no. 6, pp. 1167–1179, 2024, doi: 10.1080/00343404.2023.2167972.

[2] L. Borrell-Damián, "A view of Horizon Europe's future," *Science*, vol. 390, no. 6770, p. 217, 2025, doi: 10.1126/science.aed0012.

[3] A. Muscio, A. Reid, and L. Rivera Leon, "An empirical test of the regional innovation paradox: can smart specialisation overcome the paradox in Central and Eastern Europe?," *Journal of Economic Policy Reform*, vol. 18, no. 2, pp. 153–171, 2015, doi: 10.1080/17487870.2015.1013545.

[4] R. Jones, B. Goodwin-Hawkins, and M. Woods, “From Territorial Cohesion to Regional Spatial Justice: The Well-Being of Future Generations Act in Wales,” *International Journal of Urban and Regional Research*, vol. 44, no. 5, pp. 894–912, 2020, doi: 10.1111/1468-2427.12909.

[5] M. Prezioso, “Innovation in the territorial impact assessment: an application to large infrastructure projects of the Italian recovery and resilience facility,” *Impact Assessment and Project Appraisal*, vol. 43, no. 2, pp. 123–136, 2025, doi: 10.1080/14615517.2024.2400459.

[6] T. Loikkanen, K. Hyytinen, and J. Konttinen, “Public Research and Technology Organisations in Transition—The Case of Finland,” *Science, Technology and Society*, vol. 16, no. 1, pp. 75–98, 2011, doi: 10.1177/097172181001600105.

[7] M. Khelfaoui and L. Bernier, “Research and technology organizations as entrepreneurship instruments: the case of the Institut National d’Optique in the Canadian optics and photonics industry,” *Journal of Innovation and Entrepreneurship*, vol. 12, no. 1, 2023, doi: 10.1186/s13731-023-00321-z.

[8] V. L. Pató, B. Petri, and J. Matuz, “Cohesion or Widening Disparities: R&D Performance vs. EU Funding of the Regions,” *Európai Tükör*, vol. 26, no. 4, pp. 89–109, 2023, doi: 10.32559/et.2023.4.6.

[9] M. Barzotto, C. Corradini, F. M. Fai, S. Labory, and P. R. Tomlinson, “The Future of Place-Based Innovation Policy (As IF ‘Lagging Regions’ Really Mattered),” Routledge, 2020, pp. 79–89. doi: 10.4324/9780367422745-7.