

Regional Innovation Systems and societal outcomes: a configurational assessment

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Abstract

Regional Innovation Systems (RIS) have become the dominant framework through which regional development and competitiveness are understood in Europe. Built around the coordination of knowledge actors and the mobilization of innovation inputs, the framework has proven influential in explaining regional differences in innovation inputs, outputs, processes, and knowledge production. Yet a growing body of scholarship questions whether innovation systems, as currently theorized, are equipped to address contemporary grand societal challenges, including environmental sustainability, social cohesion, and inequality. Whether the traditional RIS framework can account for these broader development outcomes remains an open empirical question.

This study revisits RIS by systematically examining its explanatory power across multiple outcome domains. Using Fuzzy-set Qualitative Comparative Analysis (FsQCA) on a comprehensive sample of European regions, we first test the conventional RIS framework against both innovation and non-innovation outcomes capturing social and environmental performance. This enables us to assess whether the mechanisms historically associated with innovation performance extend beyond economic competitiveness. Responding to recent calls to reorient innovation systems towards societal problem-solving, we then introduce an augmented configurational framework that incorporates additional systemic dimensions reflecting wider territorial capacities and dynamics. We compare the empirical relevance and configurational logic of the conventional and expanded models across both outcome types, identifying where innovation-centered mechanisms remain sufficient and where complementary conditions become necessary.

By empirically exploring the boundaries of the RIS framework, the study contributes to the ongoing discourse on its future direction. Rather than assuming that innovation systems must be replaced or fundamentally transformed, we examine whether their analytical core travels to new domains of regional performance. The findings offer a more nuanced understanding of how regional systems may function not only as engines of innovation but also as potential vehicles for addressing broader societal challenges, with important implications for the direction of place-based policy in Europe.