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Developmental Paper

**Understanding the Influence of Strategic Choices on Regional Innovation
(Eco)systems' Performance and Policy: The Case of European Digital Innovation Hubs
(EDIHs).**

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Themes: National and Regional Innovation Systems.

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Abstract

This developmental paper explores how the strategic choices of top managers in European Digital Innovation Hubs (EDIHs) shape the performance of regional innovation ecosystems (RIEs). Drawing on a Strategy-as-Practice (SAP) lens, it investigates how strategy is enacted within diverse policy and institutional contexts and how these micro-level decisions contribute to innovation activities and outcomes. The research proposes a qualitative, longitudinal, and comparative study of multiple EDIHs across Europe, using participant observation, interviews, and document analysis to trace the evolution of strategic practices over time. This study contributes to theoretical debates by integrating SAP with RIE frameworks and offers practical insight into the strategic role of EDIHs as regionally embedded intermediaries. Feedback is sought on the conceptual coherence, the methodological approach, and the clarity of the literature review to guide the completion of the author's PhD and the development of a publishable research paper.

1. Introduction

European Digital Innovation Hubs (EDIHs) have been established as key instruments for driving digital transformation and enhancing the competitiveness of small and medium-sized enterprises (SMEs) and public sector organisations (PSOs) across Europe. Positioned strategically across diverse regional contexts, EDIHs deliver a portfolio of services—including test-before-invest facilities, training in digital skills, and support in securing investment—that are designed to address specific territorial needs.

This research examines the role of EDIH top managers as strategic actors in shaping the development and performance of regional innovation ecosystems (RIEs). It adopts a Strategy-as-Practice (SAP) lens to explore how strategic decisions are made, adapted, and operationalised within complex, multi-level governance environments. The study focuses on the micro-level practices through which strategic choices influence innovation activities, stakeholder coordination, and regional impact. This perspective offers a practice-based approach to understanding how regional innovation is shaped in real time through the agency and decision-making practices of EDIH leaders.

2. Context and Motivation

Regions have become increasingly significant in the governance and delivery of innovation policy across Europe. Within the EU's Smart Specialisation Strategy (S3), regional development is understood not only as a spatial challenge but as a governance issue—requiring strategic coordination across diverse actors and policy levels (Foray et al., 2012; McCann & Ortega-Argilés, 2015). While S3 presents a place-based vision for innovation, its implementation is shaped by the varying institutional capacities and strategic competencies of regional actors (Marques & Morgan, 2018; Hassink & Gong, 2019).

European Digital Innovation Hubs (EDIHs) are central to this landscape. They operate as regionally platforms designed to accelerate digital transformation, especially for small and medium-sized enterprises (SMEs) and public sector organisations (PSOs). Funded through a combination of EU, national, and regional resources, EDIHs are positioned at the interface between top-down innovation policy and bottom-up regional needs. Their operational activities—ranging from test-before-invest services to digital skills training and access to finance—require a careful alignment of policy priorities with context-specific innovation demands.

The strategic decisions made by EDIH top managers play a pivotal role in translating overarching digital and innovation goals into actionable regional activities. These managers operate under significant complexity: they must align with European Commission directives, navigate national frameworks, and respond to evolving regional capabilities and constraints. They are not merely agents of policy delivery but strategic actors whose choices shape the formation, adaptation, and impact of regional innovation activities. Their agency, discretion, and ability to mobilise partnerships are critical to how digital innovation is deployed, adopted, and sustained across all of Europe's diverse regions.

This research is motivated by the need to understand the strategic choices made by EDIH top managers within these complex governance environments. It examines how these choices influence the design and implementation of regional innovation activities and how such choices evolve over time in response to internal and external pressures. This inquiry provides valuable insight into how strategy is constructed and enacted at the regional level, offering a more grounded and actor-centred understanding of regional innovation governance and performance.

3. Literature Review and Theoretical Framework

The conceptual foundation of this research draws on the intersection of Regional Innovation Ecosystems (RIE) and Strategy-as-Practice (SAP) to explore how EDIH top managers' strategic decisions shape regional innovation performance. This section unpacks the evolution of regional innovation frameworks and introduces SAP as a useful lens for investigating the practices of strategic decision-making in EDIHs.

3.1 Regional Innovation Ecosystems and the Role of Strategic Actors

Innovation systems research has shifted from National Innovation Systems (NIS), which emphasise centrally coordinated policy and institutional frameworks (Freeman, 1987; Lundvall, 1992), toward more spatially sensitive Regional Innovation Systems (RIS), which acknowledge the importance of proximity, embedded networks, and regional capacity for innovation (Asheim & Gertler, 2005; Cooke, 1992). However, RIS frameworks tend to assume policy-to-practice linearity and often understate the agency of regional actors.

To address these limitations, the concept of Regional Innovation Ecosystems (RIE) has emerged. RIEs reflect the complex, multi-actor, and emergent nature of innovation processes at the regional level. Unlike RIS, RIEs recognise that innovation is driven by diverse stakeholders whose strategies and interactions evolve in response to local needs, market signals, and institutional contexts (Carayannis et al., 2018). RIEs are inherently relational and dynamic—built on the interactions between public institutions, universities, SMEs, civil society, and intermediaries such as EDIHs. They accommodate both formal and informal practices and highlight the importance of adaptive governance, making them particularly relevant for understanding the role of EDIH managers in orchestrating innovation in real time.

3.2 Strategy-as-Practice and Micro-Level Decision-Making

While regional innovation frameworks provide a structural view of systems, they often underexplore how individual actors make decisions and shape outcomes. Strategy-as-Practice (SAP) addresses this gap by conceptualising strategy not as a static plan but as something people do through their everyday actions and routines (Whittington, 2006; Jarzabkowski et al., 2007). The SAP framework comprises three interrelated elements: practitioners (those who do the strategising), praxis (the flow of strategic activity), and practices (the tools and routines used to perform strategy).

SAP is particularly well-suited to studying hybrid and complex organisational settings like EDIHs. Here, top managers must make strategic decisions within fluid policy environments, coordinate with multiple actors, and adapt practices in response to ongoing institutional and regional change. These activities are not merely administrative—they represent real strategic work that can either enable or constrain innovation within the region.

Recent studies applying SAP in public sector or multi-level governance contexts emphasise the importance of local discretion, the relational nature of strategic coordination, and the iterative enactment of strategy over time (Suddaby et al., 2013; Seidl & Whittington, 2014). In the context of EDIHs, this involves negotiating between competing priorities, forming and maintaining strategic alliances, interpreting policy demands, and mobilising resources to produce artefacts and activities that address regional needs.

3.3 Linking Strategic Choices to Regional Innovation Outcomes

This research brings RIE and SAP together to investigate the role of strategic decision-making in shaping regional innovation outcomes. The EDIH top managers operate as embedded agents, whose decisions are shaped by and in turn shape, the institutional, economic, and political structures of their regions. Their choices influence which innovation activities are prioritised, how stakeholder collaborations are formed, and how services are tailored to support digital adoption among regional actors.

These choices manifest in the creation of artefacts—such as digital training programmes, test-before-invest initiatives, and strategic partnerships—which serve both as strategic outputs and vehicles for ecosystem development. Over time, the evolution of these artefacts and activities reflects the changing priorities, constraints, and capacities of both the EDIHs and their regional contexts.

By focusing on the strategic practices of EDIH top managers, this study contributes to a deeper understanding of how innovation is governed in innovative ecosystems. It also addresses a key gap in the literature: the lack of empirical insight into how individual actors navigate institutional complexity, make decisions, and shape the evolution of regional innovation systems in practice.

4. Research Objectives and Questions

This study is concerned with understanding how the strategic decisions of top managers leading European Digital Innovation Hubs (EDIHs) influence the development and performance of regional innovation ecosystems. It explores how strategic practices are enacted within diverse policy and institutional contexts and how these decisions shape innovation outcomes over time.

Research Objectives (ROs):

- Identify the strategic choices made by top managers leading European Digital Innovation Hubs (EDIHs).

- Understand how top managers formulate strategies for EDIHs to align with regional needs.
- Evaluate whether the strategic interventions contribute to regional development and innovation performance.
- Examine how and why strategic choices evolve over time, and what internal and external factors influence this evolution.

Primary Research Question (RQ):

- How do the strategic choices of EDIH leaders influence innovation ecosystems' performance in addressing region-specific needs?

Research Sub-Questions:

1. Strategic Decision-Making

- What are the key strategic choices demonstrated by EDIH leaders?
- How do these choices vary across different EDIHs in Europe?

2. Factors Influencing Strategic Choices

- What internal and external factors influence the strategic choices of EDIH leaders over time?
- What barriers constrain or enable their strategic decision-making?

3. Evolution of Strategic Choices

- How and why do strategic choices evolve over time?
- What is the impact of these changes on the performance and orientation of regional innovation ecosystems?

5. Methodological Approach

The longitudinal study, will be grounded in ethnographic principles and informed by a Strategy-as-Practice (SAP) perspective. The objective is to explore how strategic choices made by EDIH top managers unfold over time and influence the development and performance of regional innovation ecosystems.

Access to a network of EDIHs across Europe enables comparative, multi-sited research. The study will combine three primary data collection methods:

- **Participant Observation**
Involvement in strategic planning meetings, innovation workshops, and stakeholder engagement sessions will provide real-time insights into how strategy is performed and negotiated. This ethnographic lens captures the dynamics of decision-making as they emerge within complex governance environments.

- **Semi-Structured Interviews**
Interviews will be conducted with EDIH top managers, regional policymakers, innovation practitioners, and other ecosystem stakeholders. These conversations will uncover the strategic logic underpinning key decisions, the rationales for specific interventions, and the contextual factors influencing decision-making.
- **Document Analysis**
Analysis of strategic plans, project proposals, performance reports, and policy guidance documents will contextualise the observed practices and triangulate emerging themes from interviews and observations.

Case Selection Criteria

The selection of EDIH cases will be based on the following criteria:

- **Geographical Distribution:** Including EDIHs in Innovation Leader and Emerging Innovator regions, based on the European Innovation Scoreboard.
- **Sectoral Focus:** Representing different thematic areas such as artificial intelligence, cybersecurity, digital transformation, and public sector innovation.
- **Institutional Configuration:** Covering a range of public, private, and hybrid governance models.

This case variation enables analysis of how different institutional conditions, regional capacities, and ecosystem maturities shape strategic autonomy and the enactment of innovation interventions.

Analytical Approach

The study will adopt an iterative, inductive analytical process. A longitudinal lens will allow the researcher to trace how decisions and interventions evolve over time, including whether they are scaled, adapted, or discontinued. The analysis will consider the interplay between strategic agency and structural constraints across different regional contexts.

The methodological design supports a nuanced understanding of how EDIH leaders formulate, adapt, and implement strategy in real time, and how their choices contribute to the development of regional innovation ecosystems.

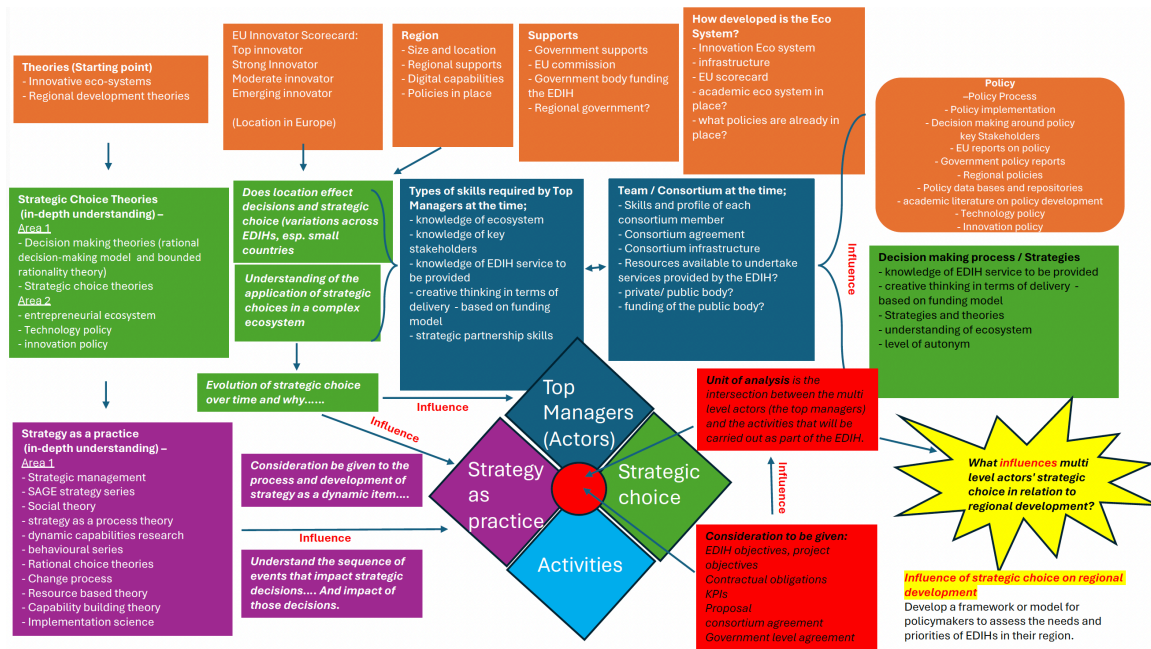


Figure 1. Conceptual framework linking EDIH managers' strategic choices to regional innovation ecosystem outcomes.

6. Expected Contributions

This research will deepen the understanding of how regional innovation is strategically enacted by integrating the Strategy-as-Practice (SAP) perspective with the Regional Innovation Ecosystems (RIE) framework. It addresses a key gap in the literature regarding the role of individual agency and strategic choice in shaping innovation ecosystems.

The study examines EDIHs as emerging strategic forms that operate at the intersection of EU policy goals and local innovation demands. Through comparative, multi-sited case studies, it provides grounded insight into how the EDIHs function as intermediaries in diverse regional settings.

By identifying the conditions and decisions that enable effective innovation practices, the study offers actionable insights for policymakers and practitioners seeking to enhance the design and governance of digital transformation initiatives within regions.

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