Smart specialisation, a paradigm shift in the EU Outermost Regions?

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A growing body of literature has recently focused on the design and implementation of smart specialisation strategies (S3s) in peripheral regions. Whether considered from a geographic, economic, or political perspective (Nemes-Nagy, 2006), peripherality has traditionally been depicted as an obstacle to regional research and innovation systems' performance and the emergence of a knowledge-based economy. Dominique Foray himself considered that "the lack of entrepreneurial capacities and the weakness of administrative capacities will combine to make the process (of smart specialization) uncertain and almost impossible" (Foray, 2015).

Because of their limited size and historical trajectory, many regions lack the proper resources needed to foster "agglomeration economies" (Benneworth & Charles 2005), notably a dense knowledge base, infrastructures, trained individuals, researchers and entrepreneurs, as well as dynamic clusters (Todtling & Trippl, 2005). Some also inherit from social institutions that reduce the capacity to develop and absorb knowledge, notably rent-seeking behaviours (Jean-Pierre et Rochoux, 2005). Finally, geographical and organizational distances impact the diffusion of (tacit) knowledge, the benefits of interregional spillovers (Maggioni, Nosvelli & Uberti), the potential for regional diversification (McCann & Ortega-Argilés, 2015) as well as the level of R&D funding (Todtling & Trippl, 2005).

Despite such constraints, other studies have questioned geographic determinism and shown the possibility for dynamic research and innovation systems to thrive In peripheral regions (Zukauskaite et al. 2017; McKitterick et al., 2016), notably through dense connections with global R&I networks (Bathelt et al., 2004), the mobilization of foreign workers (Dubois et al., 2017) and the exploitation of digital technologies facilitating remote work (Brydges and Hracs, 2019)

The literature review established by Wibisono (2022) on 22 publications reveals a marked geographic concentration of existing publications on continental peripheries, notably in Eastern countries (Healy 2016, Krammer 2017; Ranga, 2018, Varga et al 2020) in Italy (Crescenzi et al. 2020), as well as on sparsely populated areas, notably in Nordic countries (Morales & Laura Sariego-Kluge, 2021; Sörvik et al, 2019**).** Island regions, and more particularly the 9 EU Outermost Regions – the Azores, the Canary Islands, French Guiana, Guadeloupe, La Réunion, Madeira, Martinique and Saint Martin) – remain so far a blind spot. This gap appears all the more surprising, for these regions can be seen as extreme peripheries, combining physical remoteness and accessibility issues, with a small size and adverse socio-economic characteristics.

The global aim of our paper is therefore to fill this gap left by literature. This ambition goes beyond the simple desire to cover a geographical area that has not yet been studied with regard to the implementation of S3s. Another main reason for this interest is to apprehend the challenges of S3s in smaller territories, whereas S3s have often been conceived in regions characterized by a fairly large size or included in vast continental areas. This interest in small regions can be very useful in transposing our results and proposals to other regions that are not only remote or isolated, but also, and above all, small. Another contribution of our work is to

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assess the implementation of S3s in contexts that go beyond the usual justifications for continental regions: to breathe new life into regions that have reached an impasse or are undergoing sectoral transformation, such as those exposed to the phenomenon of deindustrialization. Our article focuses on another area of justification for S3s. In the outermost regions, they have been designed to meet the territorial challenges of major transitions (climate, energy) and to strengthen their resilience. Last but not least, another reason for our work is to echo the ambitions of the European Commission. Indeed, breaking away from decades of institutional discourses and policies targeting the "compensation" of "natural handicaps" (Holstein, 2014), the European Commission called in its 2008 Communication for a "paradigm shift" through the advent of knowledge-based economies. Since then, the Outermost Regions and their relays have multiplied declarations to become "technological showcases" (2010), "innovation hubs" and "technological platforms" (2017) providing innovative solutions to neighboring countries. Despite their differences, their respective smart specialization strategies share a common ambition : turn the challenges and vulnerabilities associated with insularity as opportunities to design knowledge-intensive solutions serving the resilience of remote areas.

The aim of this article is therefore to question the implementation and conduct of S3s in outermost regions, and to analyze whether or not these strategies have led to a paradigm shift in their development process. This broadening of expertise on the effects of S3s on outermost economies will shed light on regions facing identical challenges and sharing similar geographical contexts, such as the small size of their economies.

In order to meet this objective, our work will mobilize an in-depth case study approach on 7 outermost regions: Azores, Canarias, Guadeloupe, Guyana, Madeira, Martinique and La Réunion. Three sources of information will be examined: firstly, a study of the strategic planning documents that led to the implementation and management of the S3s in each of the outlying regions. Secondly, a review of the projects funded in relation to the objectives set out in the S3s. Finally, interviews with S3 managers, policy makers and beneficiaries of S3 schemes.

More precisely, using these framework combining case-studies and qualitative approaches, this paper proposes to highlight :

- the factors influencing the adoption, implementation and results of smart specialisation strategies (S3) in the EU Outermost Regions, notably the influence of geographical determinants;
- the convergence and divergence among the different Outermost Regions, notably in terms of governance models;
- the existence of an "island specificity" impacting smart specialisation strategies and the contribution of island regions to decipher more global trends.

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