## Introduction

Today there is widespread acceptance that places, like companies, should develop and implement strategies to guide their economic development. This relatively recent strategic turn in economic development policy and practice has multiple roots. On the one hand it is related to the re-emergence of arguments for proactive industrial policy (Bailey et al., 2015; Rodrik, 2004; Warwick, 2013), and specifically for a 'new industrial policy' that brings public, private and research knowledge to bear on strategy in ways that moves beyond the government-centric 'old industrial policy'. On the other hand, it has been shaped by the progressive evolution of thinking on innovation policy, which has moved from linear policy rationales based on market failures to additionally embrace systemic and then transformative policy rationales (Schot and Steinmueller, 2018). Moreover, the evolution of both industrial and innovation policy analysis has interacted with the concurrent rise in evolutionary economic geography, itself materialising in the increasingly firm conviction that places and their institutions are critical for understanding economic development possibilities, processes and policies over time (Barca et al. 2012; Boschma and Martin, 2010; Cooke and Morgan, 1998; Kogler et al., 2023).

In European context, the rise in place-based strategy can be seen most strikingly in the ongoing regional experiences with smart specialisation strategies (S3), although these in turn have their roots in earlier experimentation with place-based approaches such as the 'regional innovation strategies' (Landabaso, 1997). S3 emerged from an expert group established in 2005 by the European Commission to provide advice on the contribution of knowledge to sustainable growth and prosperity. Their work highlighted the fragmentation of R&D within the EU alongside the tendency for countries and regions to try to emulate success elsewhere rather than explore original ideas. It suggested that «the European Research Area will only benefit countries and regions with clear visions and strategies for developing distinctive, original and modern areas of specialisation for the future» (Foray and Van Ark, 2008, p. 28). These arguments were rapidly adopted by European policymakers and operationalised by promoting the concept of S3 and encouraging countries and regions to each develop their own, unique S3. Indeed, doing so was a condition for accessing innovation funding under the European Regional Development Fund (ERDF) during the period 2014-2020.

Morgan (2017, p. 559) has described S3 as «a new era in the history of European regional policy» and «the most ambitious regional innovation programme ever introduced in the European Union». As such it has been extremely influential in shaping regional economic development policy practice across Europe, and increasingly also in other parts of the world. While the influence has been most notable in Latin America, where several countries and many regions have adopted an S3 framework to guide their innovation policy (Barrotea *et al.*, 2017; Demblans *et al.*, 2020; Esparza Masana and Ipanaqúe, 2021), there are also examples of applications of S3 in Africa, Asia, North America and Oceania (Dossi *et al.*, 2021; Goedegebuure *et al.*, 2020; Gomez Prieto *et al.*, 2019).

In this context of widespread practical application, S3 has also received a huge amount of attention in the academic literature (Foglia, 2023), including a dedicated special issue of *Ekonomiaz* very early-on on the policy experiment (Navarro, 2013). Indeed, the fact that conceptual understanding and empirical knowledge of S3 have been playing catch-up – or developing in parallel – with policy experimentation in practice, has generated and continues to generate considerable debate, critique and evaluation in the academic literature (see, among many others: Hassink and Gong, 2019; Benner, 2020; Foray, 2019, 2022; Marrocu *et al.*, 2023).

Much of the critique is focused on the role and implementation of the broadbased participatory 'entrepreneurial discovery process' that is the «motor of the S3 methodology» (Periañez Forte *et al.*, 2016, p. 15). Indeed, this is especially challenging because it requires the development of new capabilities across all actors, is highly context dependent, and in terms of government policy requires a paradigm shift from a static 'planning' logic to a dynamic 'process' logic (Aranguren *et al.*, 2017; Periañez Forte and Wilson, 2021). More specifically, criticism of S3 implementation has been levelled at the typically narrow focus on science and technological innovation, the lack of integration of demand-side considerations, the persistence of multilevel governance failures, missing or weak monitoring and evaluation processes, and limited directionality towards societal challenges and sustainability (Aranguren *et al.*, 2023; Benner, 2020; Hassink and Gong, 2019; Uyarra *et al.*, 2020).

This type of criticism of S3 and other approximations to territorial strategymaking is particularly relevant in the context of the environmental, digital and socio-demographic transitions in which all regions are currently immersed. Indeed, the policy landscape at European level is being strongly shaped by the imperative for accelerating the dual green and digital transition, as reflected in overarching strategies such as the *European Green Deal* and the *New Industrial Strategy* and also in the mission-oriented approach of the *Horizon Europe* R&D&I programme. These new policy paradigms are being greatly influenced by the academic literature, which is itself building on different conceptual starting points that include transformative innovation policies (Schot and Steinmuller, 2018) and mission-oriented policies (Mazzucato, 2018, 2019). In addition, economic geography literature has emphasised the role of regions and their policies in these transitions (Coenen *et al.*, 2015; Uyarra *et al.*, 2019; Wanzenböck and Frenken, 2020).

While the consolidation of territorial strategies such as S3 over the last decade represents an important step in a more strategic direction for regional policy, they still lack a focus on the social challenges associated with these transitions. S3 have been oriented mainly towards the transformation of the productive fabric (diversification) based on regional capacities, and this process is not necessarily consistent with the specific directionality required to address major societal challenges. Indeed, climate challenges, in particular, imply new forms of 'green competitiveness' and an economic transformation that raises the spectre of certain trade-offs that may contradict the specifics of individual S3 based on a purely economic rationale. Recognition of this has led to emerging proposals for a new generation of regional strategies (Miedzinsky *et al.*, 2021), such as so-called 'smart specialisation strategies for sustainability' (S4) (McCann and Soete, 2020) or 'partnerships for regional innovation' (PRI) (Pontikakis *et al*, 2022).

Against this background, this special issue explores the some of the characteristics of this new, emergent generation of regional strategies oriented towards key societal challenges and reflects on some of the barriers that need to be overcome for their success. It brings together perspectives and experiences from a wide range of European and non-European territorial contexts, each of which zooms in on different dimensions of the territorial strategies needed to respond to the challenges posed by a fast-changing policy landscape characterised by complex social challenges. The first four papers are more focused on core concepts at the heart of building a new generation of territorial strategies: experimental governance, policy capacities, responsible research and innovation and formative policy evaluation. The latter four papers are then more focused on specific experiences with seeking to foster a new directionality in territorial strategies towards demographic and environmental challenges.

The first paper by **Pedro Marques**, **Carmen Corona**, **Hannia González** and **Mónica García** stress the importance of experimental governance and high-quality institutions for new innovation policy approaches, especially in economically «trapped» regions. Thus, the paper explores the reasons behind the persistence of low-quality governance in certain places through two regional cases: Valencia in Spain and Piamonte in Italy. To do so, the authors focus on the concept of experimental governance as its three pillars can contribute to the development of higher quality institutions. However, the findings of the paper stress the challenges of implementing this approach in lagging regions and how these are not only dependent of governments but also to the users of policies. Issues such as bureaucracies, institutional legacies or political commitment appear to be critical for experimental governance. In addition, the paper not only contributes to the debate by showing

the strengths and limitations of new governance approaches but also introduces a critical view of the importance of being realistic when applying these approaches to regions and the relevance of national and EU support in this realm. Finally, a very interesting contribution of the paper is the proposition that old industrial policies might be still relevant for regions with weak institutions.

Strongly related to governance is the importance of policy capacities for sophisticated regional strategies, which is explored in the second paper by **Ainhoa Arrona**, **Edurne Magro** and **James Wilson**. They argue that policies for transformative change require the involvement of actors other than the state and specifically focus on the institutional arrangements that universities develop to facilitate engaged research in regions. They provide a novel conceptualisation of *regional university-based boundary organisations* combining the literatures on policy capabilities and boundary organisations. Such conceptualisation allows a better understanding of the capacity of specific organisations to perform change agency in institutional and system-wide transformation. Further, they discuss the case of Orkestra-Basque Institute of Competitiveness in the Basque Country and how it is uniquely placed to act as a university-based boundary organisation, for instance through strategies to address the existing talent gaps related to the green transition.

The third paper by Raúl Tabares and Ezekiela Arrizabalaga also has a focus on the role of research, and specifically how RRI can contribute to the re-orientation of S3 towards sustainability. For doing so, the authors reflect on a particular case study of the Spanish region of Cantabria, where a social lab has been developed to introduce the methodology of RRI for a new S3 orientation. The paper argues that this approach can contribute to overcome with the limitations of former smart specialisation strategies. In particular, the paper highlights the need of building collective governance processes in which society is more involved than in previous S3 approaches to give directionality to the strategies. The philosophy of RRI contributes to this aim by adding more reflexivity, inclusivity and diversity to the design and implementation of a new approach of regional innovation policy. The paper also highlights the relevance of experimentation in public policy and the contribution of social sciences to building reflective and critical processes for policy-making. In addition, it puts place-based elements such as culture at the front of the regional innovation policy scene. Therefore, the article contributes with a novel view to the debate around the turn of regional innovation policy towards sustainability.

The fourth paper by Alejandra Boni, Diana Velasco, Míriam Acebillo, M. Lluïsa Sort, Xavier Gironès, Jordi Molas and Tatiana Fernández explores the role that can be played by formative policy evaluation in transformative innovation policies oriented to societal and sustainability challenges. The paper is conceptually rooted in the literature of sustainability transitions and its policy framework. It argues that formative evaluation processes understood as collective actions lead to the identification of mechanisms of change of a transformative innovation policy. These processes are co-created by a team of policy stakeholders and facilitated by researchers and therefore are time and resource intensive and require of certain capabilities which are highlighted in the paper. At the same time formative evaluation processes constitute a learning process contributing not only to policy evaluation but also to policy re-design and implementation. The paper illustrates this approach through a case developed in Catalunya, under the umbrella of the regional smart specialisation strategy. Concretely, it focuses on the Shared Agenda in the health sector, in the county of Bages and constitutes a good example of how transformative innovation policies can be applied at the sub-regional level and the important role of new evaluation approaches to address societal challenges.

The next group of papers reflect on what a range of different experiences can tell us about the search for new directionality in the new generation territorial strategy processes. The first of these four papers, by Iñigo Calvo-Sotomayor, Ekhi Atutxa and Teresa Laespada, considers how a territory might respond strategically to the societal challenge of demographic change. An ageing population presents a complex set of challenges related to the demography of the labour force and of businesses themselves. These challenges have profound economic and social implications that currently resonate strongly with many territories, especially in Europe, and will increasingly be central to territorial strategy-making. The process of business ownership transfer in this context is a particularly sensitive issue, given its implications for the continuity of SME activity and the strategic desire to maintain business ownership structures rooted within territories. The paper analyses the development and implementation of a concrete policy the seeks to avoid the closure of sustainable businesses by facilitating ownership transfer in the Basque province of Bizkaia. Alongside concrete implications for the design of such policies, its findings suggest that there was a latent demand to support SME transition in Bizkaia and that this is reflected in positive initial policy outputs.

The next paper, by **Belén Barroeta** and **Jonatan Patón**, takes a broader approach to directionality, focusing more generally on the issue of embedding sustainability within territorial strategies. It does so through a parallel discussion of the evolution of S3 to S4, adding a sustainability dimension, and the relevant lessons learned from the translation of European experiences with S3 to Latin American contexts. The paper highlights the strong impact that the S3 approach has had across Latin America to date, but also the need to move beyond S3 in Latin American territories that are characterised by large environmental (and other social) challenges. This offers opportunities for continued experimentation and mutual learning across the continents as S3 evolve into new sustainable strategies. However, the paper also finds that that are significant barriers to this evolution in Latin American territories in the form of unequal development of social capital, under-developed governance systems and persistent degrees of in-

formality in the economy. Indeed, the paper highlights the heterogeneity that exists in territorial contexts, which generates a series of risks and opportunities that are likely to condition the path from S3 to S4. An important implication is that, while the transfer of S3 methodologies from Europe to Latin America to date has been quite positive, future success will depend on the capacity to move beyond a 'standard transfer' of concepts and processes to a more sophisticated, tailored mutual learning process.

The paper by Calvin Jones continues with the theme of sustainability, taking a deep dive into the practical challenges of re-orienting a territorial strategy towards environmental sustainability. The focus is Wales, a region that has pioneered a legal duty of public bodies towards sustainability through its innovative Well Being of Future Generations Act. The paper positions the development and impacts of this Act in the context of an analysis of the history and current state-of-art of innovation and innovation strategy in Wales. It then analyses the current innovation strategy of the Welsh Government, published in 2023, to assess its potential to provide a step-change in the scale, impact and direction of Welsh innovation towards addressing the enormous climate and ecological challenges we are facing. The assessment is not optimistic and points to the existence of deep structural barriers to the radical strategic change needed to make our economic systems environmentally sustainable. In the cases of Wales, and perhaps other peripheral regions, these enduring barriers include gaps in regional autonomy, in capacity within the private sector, in public finance, and in control over key economic and regulatory levers. An implication for the new generation of territorial strategies is that our approach to innovation – and to economic development more generally – may need to be conceptually and structurally transformed to bring about the wider transformation needed to become environmentally sustainable.

The final paper of the issue by **Bruce Wilson** also tackles the environmental sustainability dimension of territorial strategies. It analyses a series of cases from Australia, where an ongoing experiment with adopting and adapting S3 has been (in part) prompted by and is interacting with sustainability challenges. As well as extending the S3 approach to a very different regional policy context in Australia, the paper explores the application of S3 in a much more localised sense than has been the case in Europe or elsewhere where it has been applied. Analysis of the cases highlights the possibilities that new generations of territorial strategies can open in territories and communities for socio-ecological innovation, and for looking beyond the traded economy to a renewed focus on the everyday economy (or foundational economy). Moreover, the context of sustainability interventions provided by the cases (relating to energy emissions and native forest logging) provides a new perspective on the application of S3 at local level that offers potential for learning among European regions grappling with implementing the *European Green Deal*.

In the Other Collaborations section, Pablo Arrillaga, Enekoitz Etxezarreta and Aitor Bengoetxea give an overview of how and to what extent the Social and Solidarity Economy has been introduced in regional development strategies in the Basque Country. Although, in general, there has not been a stable integration of the Social and Solidarity Economy in the regional development strategies of the Basque Country, increasingly regional strategies and local public policies aim to promote it. The new eco-social challenges we face require innovative strategies where the potential of the Social and Solidarity Economy and its benefits, in terms of business roots, the distribution of wealth or the quality and resilience of work, among others, can make a substantial contribution.

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