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Special Issue/Special Section:

"CRITICAL PERSPECTIVES ON ENTREPRENEURIAL ECOSYSTEMS"

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Entrepreneurial Ecosystems (EE) are the focus of an explosion of research in the area of innovation, entrepreneurship, and regional competitiveness. It seems that few topics these days receive more research attention in the area of Innovation and Entrepreneurship (Alvedalen and Boschma, 2017; Mago and van der Merwe, 2023). EE is the latest wave in a series of theoretical frameworks of regional advantage including National Systems of Innovation (NSI; Lundvall, 1992; Freeman, 1995) and National Systems of Entrepreneurship (NSE; Acs et al., 2014), Regional Innovation Systems (RIS; Cooke et al., 1997; Fritsch, 2001), the cluster-based theory of competitive advantage (Delgado et al., 2010; Moretti, 2021), the Triple-helix approach (Etzkowitz and Leydesdorff, 2000), National Innovative Capacity (Furman et al., 2002), Competence Blocs (Henrekson et al., 2010), environments for entrepreneurship (Malecki, 2018), and many more (Malecki, 2018). Is the EE a passing traveller along the *boulevard of broken dreams* (Lerner, 2009), an intermediate step towards a new framework, or will it stand the test of time?

This Special Issue invites critical examinations of EE theory and its empirical applications, aiming to refine and advance EE research. The special issue is intended to be a 'safe space' for authors to engage in bold thinking and to revisit and challenge existing assumptions using rich data, in an environment that might be more sympathetic to new ways of thinking than the usual journal publication process. It will explore the challenges EE thinking faces, including ambiguities in its definition, the remarkable heterogeneity in empirical applications, and its relevance for policy. In encouraging submissions that address these issues head-on, this Special Issue will serve as a platform for dissecting the theory's current challenges, offering new perspectives, and proposing directions for future research.

EE thinking faces a number of challenges, some of which can be mentioned here:

- Definitional ambiguity: scholars have noted that conflicting definitions of what constitutes an EE can be found in the literature (Alvedalen and Boschma, 2017; Audretsch et al., 2019; Rocha et al, 2022; Morris et al., 2023), which makes it hard to validate the EE concept, and which thus also might lead to a publication bias against papers that attempt to critically evaluate a potentially inconstant theory. In addition, the lack of a shared standardized definition is an obstacle for theoretical and empirical research and hinders knowledge cumulativeness and progress. What is the core definition of an EE, and how many variations are there? A standard definition considers that EEs are sub-national regional units, agnostic to industry composition, that are represented in terms of the ecosystem's inputs and outputs (e.g. Stam, 2015; Spigel, 2017, Sternberg et al., 2019; Stam and Van de Ven, 2021; Coad and Srhoj, 2023). Which schools of thought are associated with which definition? Do authors use different definitions in different papers, and how might this affect the analysis? Do all regions have an ecosystem, or do some regions have no ecosystem? To what

extent is the success of EEs due to 'non-entrepreneurial' large mature bureaucratic firms (Moretti, 2021; Herzog et al., 2024)? If there are typologies of ecosystems, what are their common fundamental characteristics and their specific differences? Is the field converging to a standardized definition?

- Geographical scope**:** Different scholars investigate EE at different geographical units including city-level (Audretsch and Belitski, 2017), NUTS-3 level (Friesenbichler and Holzl, 2020), NUTS-2 level (Leendertse et al., 2021), and others besides. How should we best think of EEs from a territorial point of view, i.e. what is the relevant EE geographical unit, both from a theoretical and an empirical perspective?

- External validity and mismatch: According to a crude (and perhaps unjustified?) stereotype, EE theory is inspired by IPOs in Silicon Valley, and EE empirical applications often focus on high-growth firms in European regions, while EE policy recommendations are sometimes used to justify boosting self-employment in Africa. Are the insights stemming from the empirical and theoretical literature "valid" for all regions across the globe (e.g. Honig et al., 2024), or are there important limitations to consider?

- Measuring EE: recent developments in measuring EE have proposed the use of composite indices based on various proxies for local entrepreneurial culture, access to finance, availability of human capital, innovative capacity, among others (see e.g. Leendertse, et al 2022; Vedula and Kim, 2019). Though they are appealing as they allow for regional comparison, these aggregate metrics provide limited actionable insights for policy-makers when it comes to identifying and acting upon specific elements of the EE to make it function more effectively. Additionally, a frequent shortcoming of this approach is the use of cross-sectional data, which limits the ability to appreciate the evolving nature of EE. As a result, we invite papers that critically evaluate these measurement techniques, and explore alternative methods that might offer more meaningful insights for both national and local policy-making contexts.

- Choice of EE input: The influential framework by Stam (2015) puts forward 10 inputs (physical infrastructure, demand, intermediaries, talent, knowledge, leadership, finance, formal institutions, culture, and networks). Has EE theory really selected the most important variables as EE inputs? Is there any standardization in how these inputs are measured? Which important variables have been left out? Is it possible to formulate a prioritization of those inputs, or also a prioritization of combinations of those inputs to support EE outputs?

- Choice of EE output: Productive entrepreneurship, often proxied by the regional-level share of high-growth firms, is widely considered as the primary outcome of an EE (Stam, 2015). However, the EE literature has used a variety of ways to measure high-growth firms (Coad et al., 2023), and more in general, productive entrepreneurship based on different definitions and data sources. The lack of a standard and widely applicable approach makes it hard to produce robust and generalizable evidence. What is the ideal EE output? Self-employment, new firm formation, high-growth firms, venture capital-backed firms, unicorns, or something else? This is an important topic, because e.g. economic development is *positively* associated with venture capital-backed firms but *negatively* associated with higher self-employment (Henrekson and Sanandaji, 2014). Also, different factors may matter for self-employed entrepreneurs vs venture-capital backed firms. To what extent has the previous literature taken different indicators of the EE output, and does this matter?

- Testing predictions of EE theory: to what extent are EE predictions testable? It has been suggested that regional policy makers (as well as academics) may have a preference for regional policies that are difficult to evaluate (regardless of whether such policy interventions are effective), so that they are under less scrutiny (Storey, 2000; Haskel and Westlake, 2018, p148). How far can EE go beyond case studies and ex post rationalizations towards developing reliable predictive power? How far can EE interventions be analyzed using sophisticated evaluations (Storey, 2000)? What are the useful insights and predictions that have been made by EE, that are rigorously established and were not known from previous work?

- Empirical implementation: Testing predictions from EE theory implies various choices in terms of operationalizing the theoretical framework which might have profound impacts on the results based on statistical (regression) analysis. Those issues range from e.g. finding adequate and representative data, the normalization of (output) indicators (see e.g. Coad et al, 2023) to finding the correct time-lag between cause (e.g. increase in input A) and its correlation with the output variable. Which implementations have emerged as "best practice" in the field in terms of reliability and robustness? With regard to the statistical analysis, what would be the best ways to address endogeneity concerns stemming from the various (causal) interrelationships between EE inputs and EE outputs? What would an "ideal" empirical framework look like? In this context, what can EE learn from rigorous causal evidence surrounding entrepreneurship interventions such as González-Uribe and Reyes (2021)?

- EE insights as guidance for policy making: The EE framework has gained wide popularity in policy-making circles. However, our understanding of how this framework has shaped the design and implementation of national and regional policies remains limited (Brown and Mawson, 2019). How did policy-makers interpret and incorporate this theory in thinking about entrepreneurial and industrial policy? Did this approach help policy-makers when designing policy? The same limited understanding can be found in terms of whether policies stemming from this framework have proven to be effective or not. Did the EE framework inspire specific policies and what do we know about their effectiveness? Given the holistic nature of the EE approach, a solid econometric identification presents several challenges. Can EE-inspired policies be evaluated leveraging state-of-the-art evaluation techniques? Do EE-inspired policies produce any unintended consequence?

- Bibliometric analysis: How has the EE literature base evolved? Are there various schools of thought? How are EE authors inter-connected? What are the intellectual roots of EE thinking? How does this relate to the dynamics of previous theories of competitive advantage? Is HARKing (Hypothesizing After Results are Known) a problem for EE studies? Can publication bias be detected in the field of EE? Can the existing evidence base be analysed in meta-regressions?

- Replication studies: Replication studies play a useful role in strengthening the evidence base, and can often generate valuable insights and learning opportunities. How do influential EE papers survive replication?

- Towards a future research agenda: What are the current ''blind spots'' of the literature, and which of those are most pressing? What are the most promising ways forwards to address the current limitations of the literature, including finding representative samples and robust (statistical) methods?

DEADLINES

Initial submissions: from 1st May 2024 until 31st October 2024. Initial submissions should be emailed to Professor Alex Coad at: alex.coad@gmail.com with the title of the special issue in the subject line.

Authors can submit not only full drafts of papers, but also extended abstracts (although a preference will probably exist for full drafts of papers).

Guest Editors reserve the right to promptly desk-reject initial submissions that are not well motivated in the context of the existing literature. Guest Editors see the value in all disciplinary and methodological approaches, but may have a preference for econometrics and the pursuit of causal inference compared to qualitative research.

PEER REVIEW

There will be one or two online paper development workshops during the peer review process in an effort for authors to collect encouraging developmental comments from an audience of experts (i.e. authors comment on each other's papers; to complement the usual peer review process), to enhance the coherence of the SI, and to foster knowledge cumulativeness while avoiding repetitions.

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