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# Developing sustainable entrepreneurial finance ecosystems in an emerging market context: the role of keystone actors in managing competing institutional logics

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## ABSTRACT

Emerging sustainable enterprises thrive when they have access to a conducive environment. While sustainable entrepreneurial finance ecosystems (SEFE) have received growing interest, a lack of understanding remains concerning how they operate in emerging market economies, and how the varied logics of different actors drive or inhibit the necessary development. To address this research gap, we draw on in-depth qualitative research with key ecosystem actors in Brazil. We apply a pattern-matching approach to thematically examine how different actors converge under the operational lens of their different sustainability and commercial institutional logics. The findings reveal that Brazil's nascent SEFE requires significant ongoing support. Drawing from systems ecology, we develop an institutional logic (IL) theory by introducing the concept of "keystone actors" to account for the intermediary boundary-spanning practices, which allow us to combine finance, business and policy actors' sustainability and commercial market logics necessary to provide effective support mechanisms to unlock sustainable entrepreneurship. We conclude that financing sustainable entrepreneurship in emerging economies necessitates multi-level support in the form of keystone actors holding the ecosystem together while cultivating capabilities to harmonize logics. This process can ensure that sustainable entrepreneurship moves from "buzzword status" to a valid, systemic concept for SEFE in emerging market contexts.

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Sustainable finance; entrepreneurship ecosystems; institutional logics, Brazil; emerging markets

## 1. Introduction

There is growing acknowledgment that adequate finance mechanisms need to be in place to ensure that sustainable entrepreneurship can drive solutions that hold the potential to tackle the climate and ecological emergency (IPCC 2023). However, there is a simultaneous lack of understanding of the role of supportive environments and key facilitators that encourage investors and businesses to come together while combining sustainability and commercial agendas. We contribute to understanding by applying a sustainable entrepreneurial finance

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ecosystem (SEFE) approach, examining the interdependence and effective interconnectivity between entrepreneurs, their support organisations, public and private financiers, and policy-makers (Mason and Brown 2014) in Brazil as an emerging market economy. The paper contributes to theories of entrepreneurial finance ecosystems by identifying the roles of intermediaries as “keystone actors” with the capabilities to bring commercial and sustainability logics together to finance sustainable startups.

Current unsustainable business practices have exacerbated pressing environmental issues, including the depletion of natural resources, the erosion of biodiversity, and the imminent climate emergency (Hoekstra and Wiedmann 2014; Schaltegger, Beckmann, and Hockerts 2018), as well as presenting far-reaching societal and sustainable transition issues (Pacheco, Dean, and Payne 2010; Stark, Gale, and Murphy-Gregory 2023). Notably, a focus on profit maximization at any cost does not necessarily lead to greater wellbeing and sustainable prosperity (Isham et al. 2022; Jackson 2016). Instead, ignoring more sustainable entrepreneurship approaches that acknowledge the importance of nature and community in its process has caused natural resource depletion, biodiversity loss, and accelerated climate change (Hoekstra and Wiedmann 2014). However, despite a focus on economic outputs remaining strong, traditional and especially new forms of entrepreneurship have shown increasing concern about sustainable development objectives (Hanohov and Baldacchino 2017). This, in turn, requires greater attention to the role of support and intermediaries who can help entrepreneurs manage commercial objectives alongside sustainability missions (Guerrero, Santamaría-Velasco, and Mahto 2021). This forms the basis for examining the SEFE through the theoretical field of institutional logics (IL), which seeks to understand the behavioural norms of the different entrepreneurial and finance actors in the SEFE (Fisher et al. 2017; Harrer and Owen 2022).

Our study focuses on the funding of these emerging sustainable startups and early-stage ventures in Brazil. Whereas access to finance is a fundamental resource for early-stage growth-oriented firms (Lee, Sameen, and Cowling 2015), *early stage* finance mechanisms are frequently neglected, due in part to the high failure rates facing private and public funding initiatives (Lerner 2010). This relates to ventures’ liability of newness and smallness (Lehner, Harrer, and Quast 2019), exacerbating the information asymmetries (IAs), which exist between the entrepreneurial demand and private finance supply (Carpenter and Petersen 2002).

For innovative sustainability-oriented startups, the challenges of information asymmetry and lack of financing resources are even greater, as they often look at longer horizon returns while operating in relatively new markets. Moreover, they focus less on “conventional” entrepreneurship goals and often require a blend of different funding mechanisms (Lehner, Harrer, and Quast 2019). As such, applying a SEFE angle offers a useful framework for research but has hitherto failed to adequately explore the roles of intermediaries, which connect and develop the market through boundary-spanning practices and the combination of different entrepreneur and financier logics (Harrer and Owen 2022).

We observe an urgent need to address more place-specific understanding of entrepreneurial finance (“entfin”) markets. This is even more the case in regions with weak entrepreneurship support (Bosma and Kelly 2018). Indeed, a criticism of the majority of studies is that they are typically examining mature Western economies, and, as a result, there is a gap in understanding of emerging economies like Brazil, where less established, weaker political and financing institutions exist (Lingelbach 2015). However, while these issues are not exclusive to

Brazil and Latin America, they are particularly relevant in emerging market contexts where financial institutions, government policies, and regulations are often underdeveloped, nascent, fragile, and subject to frequent changes (Lingelbach 2015). In such environments, the challenges related to external finance gaps, especially in the realm of early-stage innovation, are likely to be aggravated (Lerner 2010; Owen and Mason 2019).

This is further accentuated when emerging innovations and business models challenge the prevailing paradigm of adhering to mature market green growth efficiencies, which promise to enhance competitiveness and stimulate GDP growth (Owen et al. 2020; Rodriguez, Pansera, and Cabanelas Lorenzo 2020). In this sense, SEFE building is required to stimulate the pipeline of viable (sustainable) enterprise start-ups and to encourage private investment (Avnimelech and Teubal 2006; Gilson 2003; Owen and Mason 2019). Such system building may involve bottom-up grass root actors as well as overarching authorities implementing top-down strategies (Mazzucato and Penna 2016).

Our study therefore aims to address a research gap concerning the emerging SEFE in Brazil. This is important because Brazil is a vastly influential “continental-country” and emerging economy in Latin America, with influence on social and environmental wellbeing within and beyond its borders. We thus set out to answer the research question: “How do key actors align and harmonise sustainability and commercial market logics to drive sustainable entrepreneurial ecosystems?” We address this question by exploring the emerging SEFE in Brazil with a focus on the interplay between the different IL involved and the role of boundary-spanning key actors, which we refer to as “keystone actors”. An IL lens was deemed suitable to explore the institutional perspectives of different actors as explicators for their interaction within the ecosystem. In this way, we address a wider research gap concerning entrepreneurial ecosystems in emerging economies (Lingelbach 2015). We explore dominant logics and the combination of different logics, which either support or hinder interconnections within Brazil’s wider, yet emerging SEFE. We thereby contribute to the theory of entrepreneurial ecosystems where there are both commercial and sustainability logics by uncovering the supportive mechanisms and roles of intermediaries (Harrer and Owen 2022) that facilitate SEFE.

The paper is structured in six sections. Following the introduction, Section 2 introduces and discusses the concepts of entrepreneurial finance ecosystems and sustainable entrepreneurship ecosystems. Section 3 then introduces the methods before presenting the findings (Section 4). Section 5 discusses the findings derived from the research before we present our conclusions (Section 6).

## 2. Entrepreneurship ecosystems, (sustainable) entrepreneurship finance, and institutional logics

### 2.1. Entrepreneurial ecosystems literature

Entrepreneurial ecosystems (EE) are the networks of interdependent actors that facilitate entrepreneurship (Isenberg 2016; Mason and Brown 2014). Stam (2015) offers a broad, yet useful definition, arguing that EEs contain a “set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship”, noting that “entrepreneurship takes place in a community of interdependent actors” (Stam 2015, 1765). EE provides an overarching umbrella concept that has been adapted from ecological

ecosystems thinking (Cantner et al. 2020), and current conceptualizations of EE have been influenced by research on the spatial dimension of EEs such as clusters (Delgado, Porter, and Stem 2010; Rocha and Sternberg 2005), regional development and innovation systems (Grillitsch 2019), high-growth entrepreneurship (Autio and Rannikko 2016) and sustainable entrepreneurship (Anand et al. 2021; Shepherd and Patzelt 2011), among others.

EE has been described as “highly variegated, multi-actor and multi-scalar phenomenon” (Brown and Mason 2017). According to Mason and Brown (2014), EE success depends on the effective interconnectivity between its actors and the wider context they operate in. This in turn can be problematic due to potential boundary problems since “... ecosystems are neither restricted to nor do they map perfectly onto the boundaries of cities or geo-political regions” (Carayannis et al. 2022, 793). Indeed, Brown and Mason (2017, 8) highlight the importance of quantity and quality of interconnections between actors, arguing that it is the “combination of distinctive localised characteristics – be they social, institutional and relational – within ecosystems, which lend the concept its explanatory power”. That is, while entrepreneurial agency is at the core of the concept, it cannot be viewed in isolation.

EE approaches also include an emerging strand of entrepreneurial finance (“entfin”) ecosystem literature which is central to the study at hand. Whilst alluded to in Lerner’s (2010) seminal work on public policy interventions to develop VC finance markets, interest in the crucial role of finance within EEs was later accelerated by Hwang and Horowitz (2012) in furthering our understanding of how successful entfin ecosystems, such as Silicon Valley’s US West Coast tech finance, operate. Subsequent studies (e.g., Clarysse et al. 2014; Nathan and Vandore 2014; Owen and Mason 2019; SQW/CEEDR 2019) have focused on entfin ecosystems in more mature markets, considering what are the necessary elements and conditions to stimulate entrepreneurial innovation and economic growth. These studies point to requirements for risk finance to address the financing needs of new and innovative ventures to grow. They draw attention to finance gaps which occur due to venture liabilities of newness and smallness (Lehner, Harrer, and Quast 2019), creating information asymmetries (IAs) between ventures and investors (Carpenter and Petersen 2002).

This market failure requires public financing solutions. For instance, Brown and Mason (2014) stress the importance of a support environment which nurtures a pipeline of entrepreneurs whose ventures are attractive to investors. This requires a stable legal and institutional environment that encourages private risk investment, including international inward investment (Lerner 2010) and a suitable mix of risk investors along the finance escalator (e.g., accelerators, crowdfunding platforms, business angels, VCs and public equity markets). It further demands crucial specialist intermediary services (Lerner 2010) to enable a smoothly flowing investment escalator (North, Baldock, and Ullah 2013) and optimal exits (Mason 2018).

Whilst these studies repeatedly point to the importance of local, regional and national context, few examine the requirements for sustainable businesses in *emerging* markets (Owen, Brennan, and Lyon 2018). Indeed, a major criticism of EE research is that most studies focus on well-established EEs (Lingelbach 2015). These studies assume well-functioning legal structures, property rights, and investment markets along with relatively high levels of trust between actors (Spigel and Harrison 2018). Lingelbach (2015) highlights the requirement for emerging markets to establish institutional and regulatory frameworks, which support entrepreneurship and offer the stability and legal support to build the trust of financiers, such as early-stage VC investors. Borges et al. (2018) also highlight considerable constraints from the lack of comprehensive policies to actively promote entrepreneurship as a coordinated

mechanism and an entrepreneurial culture in the country (see also Sarfati 2013). As a result, there is a need for more research on entrepreneurial ecosystems in contexts such as Brazil with its lack of supporting infrastructure (Freire-Gibb and Gregson 2019), marked by extensive and often inefficient bureaucracy, high costs of financing and an overall insufficient provision of support (Alvarez and Grazzi 2018; Bonacim, Da Cunha, and Correa 2009; Cooke 2019).

## 2.2. Sustainable entrepreneurship and entrepreneurial finance

While it remains somewhat unclear if EE foster sustainable development (Audretsch et al. 2024), there is growing evidence that entrepreneurship more generally can substantially contribute to sustainable development (e.g., Hart and Milstein 1999; Lerner 2010; Owen et al. 2020, 2023), offering a significant opportunity for entrepreneurs and innovators alike while correcting market imperfections (Cohen and Winn 2007). Whereas traditional and sustainable entrepreneurship (SE) shows significant overlap, SE diverges with regard to its underlying motivation (Schumpeter 1949), and differs in its overall focus. Indeed, recent increases in awareness of global social and environmental challenges have been accompanied by research interest in how concerned entrepreneurs seek to incorporate social and environmental missions alongside their core business activities (Anand et al. 2021) in a shift towards sustainable entrepreneurship. Similarly, the increasing interest in Environmental, Social, and Governance (ESG) approaches and reporting mechanisms within the broader business community, as noted by Theodoraki, Léo-Paul, and Caputo (2022), further underscores the growing importance of sustainable entrepreneurship.

Shepherd and Patzelt (2011) define “sustainable entrepreneurship” as “entrepreneurship that is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society”. Thus, SE advocates for a reconciliation of objectives while remaining financially sustainable (Hall, Daneke, and Lenox 2010). Through the resultant shift in focus from purely market driven, growth-oriented entrepreneurship, *sustainable* entrepreneurship is increasingly viewed as a means to addressing complex socio-environmental issues – as in the case of Brazil – through the implementation of innovative solutions (Schaltegger, Beckmann, and Hockerts 2018). This has given rise to new emerging forms of sustainable impact investing such as green bonds and crowdfunding (Yacoub et al. 2022), as well as challenger banks, charitable and philanthropic grants, and soft loans (Owen et al. 2020), among others, forming blended finance solutions (Lehner, Harrer, and Quast 2019), which combine green and social purpose with economic and financial return. Owen, Brennan, and Lyon (2018) highlight that the focus on climate change has led to international development finance institutions investing in emerging market infrastructure. However, these initiatives often pay less attention to the development of SEFE and small sustainable businesses.

Entrepreneurial access to early-stage finance is necessary to drive innovation that can tackle sustainability challenges (Lee, Sameen, and Cowling 2015) while driving prosperity. Indeed, the provision of effective entrepreneurial finance mechanisms is essential to deliver the levels of sustainable entrepreneurship required (IPCC 2023). This is pertinent both globally and to Brazil, given that despite the recent growth in global climate investment, it remains at, around half of the estimated \$2.35T in, for instance, clean energy investment that is required

to finance initiatives to stay below the threshold 1.5C target outlined by the IPCC (2023). Whereas Brazil has a mostly green energy matrix (ITA 2023), this case example illustrates the urgent need for a global financing effort to address unsustainable developments. This is perhaps even more the case in emerging market economies such as Brazil.

### *The Brazilian context*

In Brazil, awareness of the importance of sustainable finance provision is nascent. Large companies started issuing green bonds in 2015 aimed at raising money for climate and environmental projects, thus far raising \$9bn (CBI 2021). The first green bond was launched by BRF Foods, followed by Suzano, AES Tiete, Taesa and other mainly agribusiness, and energy companies (Yamahaki et al. 2020). However, this process is not necessarily connected to sustainable entrepreneurship, and is typically being used for large infrastructure projects (Owen, Brennan, and Lyon 2018).

Funding mechanisms, particularly those geared toward sustainability, gained significant traction in the early 2010s. This era saw the emergence of a growing impact investment movement, with private-sector actors establishing funds to support this cause. Its development has been based both on the commitment of some NGOs and on the emergence of venture capital funds oriented towards investments in startups with positive environmental and social impact. For instance, Vox Capital<sup>1</sup>, the first of such funds in Brazil, was founded in 2009, followed by Mov Investimentos<sup>2</sup> in 2012 (Cruz, Quitério, and Scretas 2019). While the portfolio of the former focuses on health and microfinance, the latter addresses mainly environmental issues via recycling, forestry and green energy solutions. In 2021, BNDES, the Federal Government Development Bank, launched “BNDES Garagem”, a call for impact businesses to take part in its startup acceleration and investment programme. This was the first sustainable finance agenda at the federal government level in Brazil. Since then, this movement has gained some traction with the appearance of different accelerators, funds and other intermediary organizations (see section 4). The number of startups increased significantly, albeit with mixed results. While microfinance and clean energy are experiencing an investment boom, in other sustainability fields, interest has been limited (FintechLab 2020; Pischke et al. 2019).

Previously, a lack of government support has created a “hollow middle” policy vacuum (Uyarra, Shapira, and Harding 2016). Borges et al. (2018) also highlight considerable constraints from the lack of comprehensive policies to actively promote entrepreneurship as a coordinated mechanism and an entrepreneurial culture in the country (see also Sarfati 2013). To counter some of the past failures, Brazil’s Central Bank has launched a new regulatory framework favourable to fintechs, allowing for a significant increase in the population with access to bank accounts and credit.<sup>3</sup> The most striking example is Nubank, a FinTech that started trading at Nasdaq in 2021 with a market capitalization of 52 billion dollars. Moreover, following technical improvements, the costs of producing solar and wind energy have declined in the past decade, making them competitive alternatives when compared to other sources of energy. As a result, companies from these fields were able to increase their funding capacity by accessing private equity funds and/or stock markets both in Brazil and abroad.

Notably, there are broader challenges reported to be hindered entrepreneurship in Brazil. The Global Entrepreneurship Monitor report on 54 world economies found that Latin America has the weakest global regional institutional framework for entrepreneurship support (Bosma

and Kelly 2018). Until the 1990s, government and public agencies provided public funds that accounted for approximately 80% of regional science, technology, and innovation expenditure (Bielschowsky 2016). Entrepreneurship policies then shifted their strategy during the mid-1990s in an attempt to spur innovation and economic growth by improving opportunities for entrepreneurs through science parks and new types of public – private partnership to enhance research (Bielschowsky 2016). While these attempts held promise for nurturing entrepreneurial innovation ecosystems, they often remained unimplemented and fell short of expectations, with corporate venturing and other key mechanisms remaining relatively underdeveloped (Arruda et al. 2013).

Furthermore, government contracts remain largely out of reach for SEs and startups working with recycling, health and education, which depend on public procurement to reach low-income markets (Torres 2020). Such entrepreneurs experience greater difficulties accessing capital and are, therefore, frequently found resorting to bootstrapping techniques using their own capital and often struggle to effectively develop their businesses. This has led to reliance on early stage informal funding to support founders (North, Baldock, and Ullah 2013), often referred to in Brazil as “family, friends and fools” (Pipe.Social 2021).

### 2.3. Institutional logics

We employ an Institutional Logics (IL) approach to explore the commercial and sustainability objectives of actors and the tensions in existing and emerging relationships. According to Thornton and Ocasio (1999), IL “provide the formal and informal rules of action, interaction and interpretation that guide and constrain decision makers in accomplishing the organisation’s tasks”. IL therefore provide a conceptual basis that explains how institutions enable and constrain decisions and actions (Thornton, Ocasio, and Lounsbury 2012), providing organizing principles for a research field (Ciuchta et al. 2017; Thornton and Ocasio 2008) that shape beliefs and behaviours. In the context of this study, IL can be viewed as the governing principles by which sustainable entrepreneurs base their business – their “sustainability logic” to support social and environmental matters – as compared to the financial return principles of private investors – their “commercial market logic” (Fisher et al. 2017).

In this study, we contrast two specific IL, namely commercial market logics, as utilised in traditional EE literature, and sustainability logics, as observed in the emerging sustainable entrepreneurship literature. Drawing on the reviewed entrepreneurship literature, we examine the pattern of behaviours and values associated with each of the two specific “ideal type” logics’ (Reay and Jones 2015). Ideal commercial market logics are characterised by a focus on profit generation from private enterprise activity, preferably with minimal regulation and “interference” on the part of government, with an emphasis on business efficiency and economic growth (Autio and Rannikko 2016; Baumol 1990; Stam 2015; Stam and Spigel 2018) and innovation (OECD 2010). Amongst mainstream investors such as formal private VC investors (corporate, family offices and institutions) this logic is related to seeking maximum financial return in the shortest possible time (Fisher et al. 2017). In contrast, sustainability logics are characterized by positive attitudes towards preservation of nature, life support, and community (Shepherd and Patzelt 2011), emphasizing the need to tackle challenges such as climate change, biodiversity loss, and inequality.

Institutional theorists have argued that various logics can co-exist, although particular organisational fields are usually structured by a dominant logic setting standards and

informing behaviours and thinking (Scott 2008; Thornton and Ocasio 1999). While some fields show a central and coherent IL, others are marked by competition and multiple logics that are brought together and combined in hybrid forms of organizing (Battilana and Lee 2014). For Harrer and Owen (2022), bringing together the different investor “market” and “sustainable” entrepreneurial logics is viewed as a necessary hybrid blend, a compromise solution which can be facilitated by key intermediary actors such as government and private business support agencies.

This study specifically explores the gap in research concerning how these logics are brought together in SEFE in an emerging economy. The role of intermediaries is central to any entrepreneurial ecosystem, but they have been overlooked in much of the entrepreneurial finance institutional logics literature (Harrer and Owen 2022). They are particularly important in contexts where the public sector is playing less of a role compared to more developed contexts and where there has been limited or no investment in support infrastructure over time.

### 3. Materials and methods

#### 3.1. Data collection

To address our research question, a qualitative research approach was adopted (Creswell 2019). This involved in-depth, semi-structured interviews conducted with 15 purposefully selected key informant actors, drawn from different roles and parts of the Brazilian SEFE, and an additional eight support recipients in the form of early-stage entrepreneurs and/or micro or small and medium enterprise operating in a variety of fields (Table 1). This approach enabled triangulation of data across the Brazilian SEFE, including the supply-side and demand-side for finance and the intermediary support actors that span between financiers and entrepreneurs. An initial mapping exercise identified key types of actors in the entfin ecosystem, including actors from the public sector, development banks, private investors, and support organisations, covering a range of different activities. Further interviewees were selected following a snowballing approach (Lewis-Beck, Bryman, and Futing Liao 2004), where interviewees recommended other potential interviewees. Here, the inclusion of support recipients allowed for richer insights into what worked and why (Owen, Vedanthachari, and Hussain 2024).

Our approach ensured a broadly representative cross-section of interviewees, and, within the context of this study, the data showed thematic saturation (Guest et al. 2020). Developing a qualitative approach, our primary interview data transcripts were first factually sense checked with the interviewees and then triangulated with relevant online material (e.g., organisational websites), reports and other supporting literature, thus providing further checks regarding the validity of our findings (Creswell and Miller 2000).

#### 3.2. Data analysis

The data were analysed abductively using NVivo 12.2 to identify thematic categories (Bryman and Bell 2015; Dubois and Gadde 2002). An abductive approach both recognises and fosters the interplay between, method, data and theory, simultaneously iterating between them to interpret the emerging themes (Van Maanen, Jesper, and Mitchell 2007).

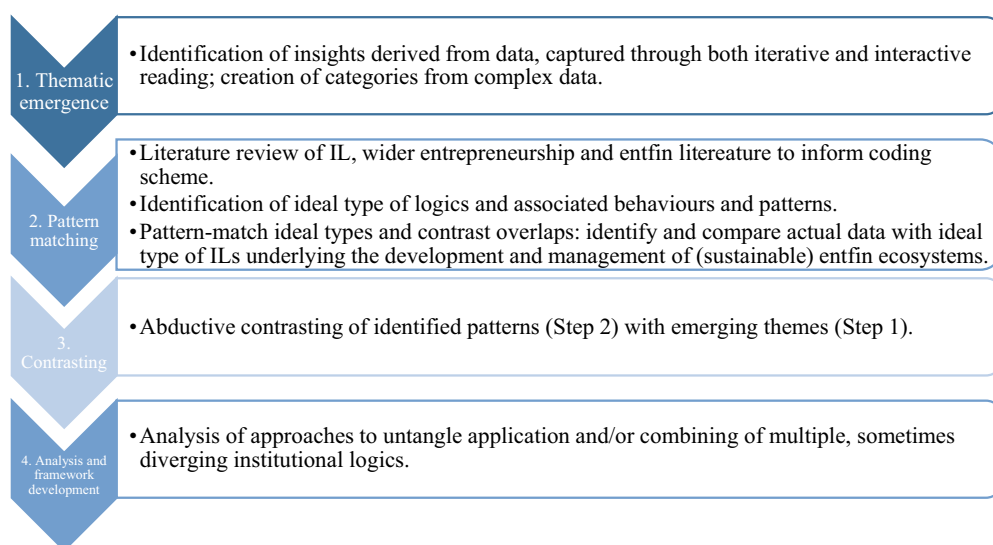
**Table 1.** Overview of interviews with 15 key informants and support providers, and 8 support recipients.

| Unique ID | Role                           | Sector/Type                                         | Role in the ecosystem                                                                                                                |                                         |
|-----------|--------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| EE1       | Senior Management              | Private non-profit organization                     | Provider of infrastructure and services including ideation support, incubation, and acceleration (with limited early-stage finance). |                                         |
| Gov1      | Executive                      | Public sector                                       | Legislator; provider of public funds.                                                                                                |                                         |
| DevBank1  | Middle Management              | Development Bank                                    | Public finance provider; Innovation lab                                                                                              |                                         |
| DevBank2  | Executive                      | Development Bank                                    | Public finance provider                                                                                                              |                                         |
| DevBank3  | Researcher                     | Development Bank                                    | Public finance provider; Innovation lab                                                                                              |                                         |
| Invest1   | Executive                      | Investment fund                                     | Private finance provider.                                                                                                            |                                         |
| Invest2   | Executive                      | Investment fund                                     | Private finance provider.                                                                                                            |                                         |
| Sup1      | Executive                      | Private non-profit organization                     | Support provider.                                                                                                                    |                                         |
| Sup2      | Executive and co-founder       | Private for-profit organization                     | Private support provider incl. early-stage finance and non-financial support.                                                        |                                         |
| Sup3      | Senior management              | Private non-profit organization                     | Support provider incl. early-stage finance and non-financial support.                                                                |                                         |
| Sup4      | Senior management              | Private non-profit organization                     | Private support provider incl. early-stage finance and non-financial support.                                                        |                                         |
| Sup5      | Executive and co-founder       | Investment fund and accelerator                     | Private finance and support provider incl. acceleration programmes.                                                                  |                                         |
| Sup6      | Executive                      | Investment fund and private non-profit organization | Private finance and support provider incl. early-stage finance and non-financial support.                                            |                                         |
| Sup7      | Executive and co-founder       | Support organisation                                | Support provider.                                                                                                                    |                                         |
| Sup8      | Executive and co-founder       | Support organisation                                | Support provider.                                                                                                                    |                                         |
| Unique ID | Role                           | Sector                                              | Role in ecosystem                                                                                                                    | Link to support provider                |
| Rec1      | Founder                        | Agri-food                                           | Support recipient                                                                                                                    | Gov1; Sup1; Sup4                        |
| Rec2      | Executive Director             | Sustainable fuel                                    | Support recipient                                                                                                                    | (other, international support provider) |
| Rec3      | Executive Director and Founder | Health                                              | Support recipient                                                                                                                    | Gov1; Sup3; Sup5                        |
| Rec4      | Executive Director and Founder | Affordable and sustainable housing solutions        | Support recipient                                                                                                                    | Gov1; (Rec8)                            |
| Rec5      | Executive                      | Renewable energy                                    | Support recipient                                                                                                                    | Invest1; EE1                            |
| Rec6      | Executive Director and Founder | Resources/Mining                                    | Support recipient                                                                                                                    | Gov1; Sup4; Sup8                        |
| Rec7      | Co-founders                    | Agri-Food                                           | Support recipient                                                                                                                    | Gov1                                    |
| Rec8      | Director                       | Various                                             | Support recipient                                                                                                                    | Invest1; Sup2–5; Sup7&8                 |

(Abbreviations: EE = Entrepreneurial Ecosystem; Gov = Government; DevBank = Development Bank; Invest = Investor; Sup = Support Organization usually combining financial and non-financial support; Rec = Support recipient, usually an early stage entrepreneur and/or micro or small and medium enterprise).

The process involves systematic combining, where the “researcher, by constantly going ‘back and forth’ from one type of research activity to another and between empirical observations and theory, is able to expand [their] understanding of both theory and empirical phenomena” (Dubois and Gadde 2002, 55), and, eventually, can integrate emerging and unforeseen insights from a variety of sources to develop an understanding of the focal phenomenon. Moreover, the approach also allows us to engage with the existing literature and to iteratively capture new codes (Boyatzis 1998). Overall, the analytical approach encompasses four stages (Figure 1).

In a first step, themes emerged through various rounds of familiarisation with the data through reading the transcripts by the first two authors. In a second step, codes grounded in the existing entrepreneurship literature and IL (as presented in section 2) were developed and



**Figure 1.** Approach to data analysis.

added to the emerging coding scheme. Following Miles and Huberman (1984), the research team adapted this based on an initial analysis of the interviews conducted throughout the research process identifying emerging themes. This allowed the research process to be further refined as it progressed.

A second level of analysis was then undertaken to capture IL. Here, we utilized the technique of “pattern matching” as outlined by Reay and Jones (2015), to describe, evaluate and capture institutional logics. This analytical process is based on the identification of “ideal types” of IL and their comparison with the study’s data findings. It requires the researchers to first establish, from the existing literature, the extent norms and patterns of behaviour associated with ideal types of logics and then to compare the current findings to see how well they match. Importantly, ideal types do not represent social reality *per se*, but, as stressed by Thornton, Ocasio, and Lounsbury (2012, 52), are “tools to interpret cultural meaning” and “help the researcher avoid getting bogged down in merely reproducing the often-confusing empirical situation”. The ideal types of logics draw on from the literature and presented in Table 2 are then compared to the empirical data.

In a third step, we examined and contrasted the identified patterns with emerging themes. In a fourth and final step, we then analysed the different approaches by actors to combine multiple and sometimes diverging IL. This approach allowed conclusions to be drawn regarding the balancing of commercial and sustainability logics, the issue of dominant logics and the roles of different actors in these processes.

## 4. Results

This section outlines the emergent logics which currently underpin SEFE found in Brazil, with a focus on answering our main research question: *How do actors bring together sustainability and commercial market logics in financing sustainable enterprises?* The findings section then

**Table 2.** Ideal types of logics.

|                                                    | Ideal types of logics                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | (traditional) entrepreneurial market logic                                                                                                                                                                                                                                  | Sustainability logic                                                                                                                                                                                                                                                                                                                                                                |
| Higher-order societal logics and value orientation | Profit-driven; neoliberal value orientation; efficiency; economic freedom and deregulation.                                                                                                                                                                                 | Ecological value orientation; Regulation.                                                                                                                                                                                                                                                                                                                                           |
| Source of legitimacy                               | Economic contribution; employment.                                                                                                                                                                                                                                          | Social welfare, wellbeing, environmental preservation                                                                                                                                                                                                                                                                                                                               |
| Mission                                            | Economic gains; high-growth (Autio and Rannikko 2016) and productive entrepreneurship (Baumol 1990; Stam 2015; Stam and Spigel 2018); innovation (OECD 2010); developmental networks (Borges et al. 2018).                                                                  | Alignment of innovation with socio-environmental thinking and non-economic gain (Audretsch et al. 2024; Shepherd and Patzelt 2011); correcting market-imperfections (Cohen and Winn 2007; Hart and Milstein 1999; Mazzucato 2023); realization of UN Sustainable Development Goals (Volkman et al. 2021); progress towards ESG integration (Theodoraki, Léo-Paul, and Caputo 2022). |
| Focus of attention/ Motivation                     | Market; long-term growth ambition (Baumol 1990).                                                                                                                                                                                                                            | Society and environment (Anand et al. 2021; Shepherd and Patzelt 2011).                                                                                                                                                                                                                                                                                                             |
| Investment logic                                   | Market based and professional investor logics (Fisher et al. 2017) exhibited by formal private VC investors, business angels, family offices and corporate/institutional investors seeking maximum financial return in the shortest possible time (Baldock and Mason 2015). | Public sector investment, private philanthropy, long horizon innovation; Consideration of future generations (Owen 2023).                                                                                                                                                                                                                                                           |

explores the second research question: *What support mechanisms facilitate the sustainable entrepreneurial finance ecosystem?*

To answer the research questions, we first examine how IL are evolving within the contemporary Brazilian context studied. This reveals four emerging IL themes: First, a conflict between the dominant commercial market logic of financiers and the sustainability logic of enterprises that are not sufficiently engaging with the commercial requirements of financiers. Second, the emerging role of intermediary services is to bring together and blend the opposing commercial and sustainability IL. Third, sustainability pressures on Brazil's finance markets are coming from the major urban financial centres of São Paulo and Brazil's SouthEast more generally, where there are green-sector clusters and greater awareness and concerns for reputational risk. This leads to the emergence of hybrid logics. Fourth, emerging youth entrepreneurs are driving forward the sustainable enterprise market.

The second research question addresses what support mechanisms facilitate the sustainable entrepreneurial finance ecosystem. Here, the crucial catalytic role of intermediary "keystone actors" is revealed. A further emerging factor is the patchy and inconsistent role of central government policy and programmes for sustainability. This has created a "hollow middle" (Uyarra, Shapira, and Harding 2016) between external inward investment with sustainable logics and local, regional public and private actors supporting sustainable enterprises, which has stifled the blending of logics and sustainable enterprise development. Here, governments can hold a crucial role that goes beyond correcting market failures and, instead, support the proactive shaping of more collective goals (Mazzucato 2023).

#### 4.1. Bringing together sustainable logics with market/entrepreneurial logics

Our analysis shows that actors are drawing on both sustainability *and* commercial market logics in different ways and, consequently, the SEFE requires an understanding of how the actors bring these together.

The first emerging theme is the conflict between the dominant commercial market logic of financiers and the emerging sustainability logic of enterprises. While there is much discussion and emphasis on the sustainability outcome of enterprise finance from all actors in the SEFE, interviewees voiced concerns that an over emphasis on sustainability can lead to investment propositions that are not commercially viable and therefore not investable. Interviewees emphasised the lack of interest from investors in the past because of this lack of investable propositions and the dependence of businesses and social enterprises on philanthropic sources and donations as the primary means of addressing social and environmental issues:

We didn't have incubators and accelerators prepared to support social enterprises, we didn't have philanthropists that considered investing in impact as a way to solve social and environmental problems. Instead, it's like a cultural perspective that they needed to donate the money if they were going to solve the problems. (Sup6)

Interviewees also reported that many sustainability-focused businesses seeking investment do not have an adequate understanding of their financially viable business models to make them investable. This lack of commercial entrepreneurial *culture* and practical *knowledge* can also be seen as a lack of investment-readiness, pointing towards a significant gap between entrepreneurial logics and sustainability logics:

It's hard to find entrepreneurs ... we look at thousands of companies just to select one. ... And I think things are better now but unfortunately there are a lot of entrepreneurs that start a social impact business thinking that's easy, and they don't know the way the customers work. (Sup4)

In contrast to this overemphasis on the sustainability logic, interviewees reported that much of the investment sector is driven by a dominant commercial market logic with an "overall hostile environment for sustainable entrepreneurs" (Rec8). These investors look to the successful US West Coast investment market without due consideration to the decades of development and place-specific sectors, cultures and government support programmes that delivered success (Lerner 2010). This leads to unrealistic expectations and a lack of investors willing to introduce sustainability logics:

[Y]ou have a lot of Silicon Valley culture here in Brazil, people want to get rich in two years ... The unicorns, which I think has done a lot of bad things for good quality investments for the investment sector. So you need people that are, 'okay, do I really need to get very rich in two years or do I want to do well but also make a good contribution?' This has an implications which is very important. You have to have a pool of investors that are okay with that. (Invest1)

However, a second emerging theme is the existence of *intermediary services actors*. These specialist niche financiers and enterprise support agencies have aimed to find ways to introduce sustainability logics into investment situations, which have been previously dominated by commercial market logics in an attempt to find ways to convince others to follow suit:

[T]wo years ago, we started to look into [the Sustainable Development Goals] and we are in the process of understanding how we are going to position ourselves as a tech park and even our

funding, our ways of working and our structure and strategy. This is a very difficult process because when we talk about that even to the more experienced entrepreneurs (...) and the most important companies in the tech park, they have absolutely no connection, recollection or interest in connecting to anything that has the term social impact or SDGs or anything like that. (EE1)

Most interviewees reported that they were emphasizing the business case or commercial benefits to bring together the sustainability and commercial market logics. This was particularly important where traditional, often powerful actors try to control entrepreneurial activities and suppress emerging logics to maintain the dominant logic commercial market status quo. Interviewees demonstrated awareness of the limitations they operate under and due to their embedded agency commercial market cultures. To overcome these barriers, they try to find new, innovative ways to circumnavigate these by engaging with key stakeholders and by making a business case around, for instance, energy efficiency:

If we can unlock some of the potential in some key stakeholders of each sector or of each sub-sector in Brazil, we can kind of spur some bigger, widespread adoption of specific measures that would be simple and economically feasible. We have seen that happen in some sectors here in Brazil with energy efficiency, so there are a lot of simple and purely economically beneficial energy efficiency measures that have been widely adopted but there's still a lot of potential that could be unlocked if we would be able to stir some of the main agents in the right direction. (Invest1)

DevBank2 suggested that there may be other incentives for combining logics in the future as the cost of finance may be lower for those businesses with stronger sustainability logics alongside their commercial market logics. The interviewee argued that “[i]n the long run, people offering not green or unsustainable business solutions are going to have to pay more” with a knock-on effect on greater awareness regarding “some type of image risk or operational risk, a political risk”. (DevBank2). In the process, key actors with more sustainable IL can “develop the emerging market” (Rec4) of sustainable offerings.

However, an emphasis on presenting commercial market logics as dominant to sustainability logics can result in a mission-drift away from sustainability, as shown by one support provider, reflecting on the potential risk of missing out on sustainability impacts:

We have to be more business, more unicorn ... But not everyone in this sector thinks like we do. We have a more technology start-up way of seeing the sector, others not. Others are very worried about it ... if we go too much as technology start-up business, we're going to miss the impact, so it's like two ways of thinking in the sector. (Sup2)

This text extract demonstrates the importance of understanding the interplay between different logics and the possibilities for them to be combined to realize new *hybrid* logics (Malecki 2011). In this context, support recipients Rec1 and Rec5 stressed the importance of value alignments between support recipients and support providers. Rec1 targeted the Yunus Foundation as support providers as they perceived that their values aligned more with other potential support providers, and Rec5 only decided to pursue further growth once they discussed fundamental values with Invest1 and agreed on a structured support provision including patient capital, demonstrating the deliberate enactment of different logics and the influence from recipients in the process. Rec5 reflected on their work with Invest1, arguing that they are “a great investor who believed in the cause”. Notably, the

value-aligned work resulted in positive knock-on effects that emerged over the years, arguing that “[Invest1] challenged us to be a better community” and to go beyond their usual work by creating a “common conscious inside and outside the business” (Rec5).

A third emerging theme is the development of blended, hybrid logics in the more-established financial centres of São Paulo and SE Brazil, where there is greater flow of information between SEFE actors and awareness of the reputational impacts relating to sustainability (Delgado, Porter, and Stem 2010). There is evidence of more acceptance of SEFE and the combination of logics in particular localities where a critical mass of hybrid activities is already present in bringing together logics. Here, the development of the SEFE infrastructure and the ability to consider both sustainability and entrepreneurial thinking are found to be more apparent in the metropolitan area of São Paulo and, to a lesser extent, in Rio de Janeiro, or states in the SouthEast of Brazil. Actors from these and other metropolitan areas exhibit greater ability to define their sustainability objectives along social issues, demonstrating both the complexity and diversity of the sustainability logic:

The universe of impact in Brazil is in São Paulo, and some in Rio. These are urban movements. So naturally we are dealing with urban issues: Poverty and inequality. (Sup5)

This leads to a fourth emerging theme of bottom-up youth entrepreneurial culture, which is driving forward the sustainability logic in the urban areas of Southeast Brazil, often spurred by the need to tackle poverty and social inequality. Notably, the combination of greater awareness and an emerging SEFE has resulted in a growing bottom-up movement among younger generations, bringing in a logic of sustainability, impact as well as social purpose and mission-oriented business, which is adding to the pace of change:

[The SEFE] is developing quite a lot since we started back in 2005 ... it has grown. There are other funds, there are people willing to invest, there are more business opportunities, companies who are entrepreneurs doing better, students, professionals ... I think human capital in general, students, early graduates, managers, they also are thinking more seriously about integrating purpose in their daily activities. It has improved a lot but it still is very small. (Invest1)

#### 4.2. *Intermediary actors as mediator*

The entrepreneurship literature has been critiqued due to an over emphasis on the assumption that ecosystems can be created by individual actors alone (Isenberg 2016). There are strong arguments in the more recent entfin ecosystem literature to suggest that whilst individuals can play a decisive leadership role (such as local political leaders), it is the *combination* of individuals and organisational networks, combining public and private actors, which deliver effective development (Wurth, Stam, and Spigel 2021). However, the combinations of actors in the entfin ecosystem may differ in their constituency from place to place (Owen and Mason 2019). Within the Brazil context, our analysis underscores the pivotal role of collaborative efforts in building and shaping more integrated systems of entrepreneurial support services (Owen and Mason 2019). They offer, both financial and non-financial intermediary support on a national scale, rather than being confined to local operations alone, in the development of SEFE in Brazil. In other words, these intermediary actors provide catalytic services to assist entrepreneurs, financiers and local organisations – they “meet them where they are” in their SEFE development journey.

Our analysis found that key actors usually follow a sequence of key activities including: (i) *analysis* of the needs and opportunities, (ii) *framework building*, (iii) *connecting* and match-making of actors from different sectors (e.g., entrepreneurs with investors), which (iv) fosters *opportunities* to develop markets and ecosystems, and (v) raises awareness and educates across sectors, including citizens and investors, about the need and potential of sustainable solutions. These key actors thus offer far more than a standard enterprise support service. They provide catalytic support (e.g., Rec8), enacting disproportional influence across the SEFE in different ways and forms. Additionally, a number of them provide seed funding to support early stage entrepreneurial initiatives.

To account for these actors, we apply the concept of “keystone actors”. The term is derived from the concept of “keystone species” in systems ecology (Worm and Paine 2016), which refers to those species in an ecosystem with outsized influence in spite of being relatively few in number.

Moreover, a key characteristic of such keystone actors is how they seek to combine both commercial market logics *and* sustainability logics. For instance, keystone actors focus on “*long-term impact, with short-term pragmatism*” (Sup3). While the role of local institutions undoubtedly matters, so too does the “connectivity between those elements” (Motoyama and Knowlton 2016). Thus, we see an inherent key element of ecosystem construction in the degree of interconnectivity through the interdependence that different actors share (Riandita et al. 2021). Keystone actors in the context of Brazil operate as mediators that “democratize the finance landscape” (Rec8), allowing different actors to interact to close the gap between actual and ideal sustainability logics through the introduction of hybridity and cumulatively co-producing new knowledge and sustainable solutions (Malecki 2011):

In 2014 [institutes and foundations] didn’t invest anything. We brought together a group of them and said: ‘we need you to invest’. They said: ‘what if we create a group of organisations that work together?’ Because their reason for not investing was that it was very risky. What they said is: ‘if it’s risky, what if we put together 20 institutes and foundations, then we put a small amount of money to experiment investing?’ And then they did that for 2 years and then they were so much more confident that they were able to do that. (Sup6)

We developed this programme that’s called ‘For Impact’ that puts together twelve family offices to co-invest in businesses and in all the ranges and levels of maturity and different sectors. And we are now putting this in a book so we can share with other family offices and high net-worth individuals so they can start doing impact investing. (Sup7)

These findings suggest that Brazil’s SEFE are developing through the keystone actors’ ability to draw on and establish strong *collaborative networks*. The interdependent relationships between stakeholders foster their potential (Mack and Mayer 2015) and generate trust, especially through their “involvement in and attention to bottom-up approaches, and early stage entrepreneurship” (Rec1). Although the relatively modest amounts of financial support offered may signal a persisting risk aversion rooted in traditional commercial market logics in Brazil, keystone actors understood this as a starting point – while still insufficient to tackle existing shortcomings. In the absence of larger-scale government programmes, these small-scale support agency actions were made possible through high net-worth individuals and foundations, as well as some level of public funding. As with many early-stage government co-investment programmes in

mature economies (Lerner 2010), group syndicated investment can offer shared risk, investment insights, and demonstration effects to attract private investors.

Consequently, keystone actors are required to grow the emerging SEFE. These provide a number of functions with mediating actions fostering collaboration and a better understanding of their own product or service, the wider market and market entrance requirements:

What we try to do is articulate different actors around a common agenda, with matrix aligned by those actors that are connected at these common agendas and then communicate a lot. Most of the times we do not communicate about our work, we communicate about our agenda that is impact investment now. So we created this common agenda. (Sup6)

Finally, public policy to support SEFE has been inconsistent and insufficient in recent years. This has not only necessitated the niche keystone actor collaborations but also constrained their activities to relatively small-scale national and specific local regional programmes. This can be described as an emergent bottom-up SEFE development approach (Clayton, Feldman, and Montmartin 2023). Greater public sector policy and programme commitment has both the potential *and* responsibility to play a role in bringing together sustainability and commercial market logics. Support can come from publicly owned banks to provide the necessary scale of funds:

[W]e had two clean tech funds here in Brazil in 2011. BNDES decided to start one fund, so they made a call for a proposal. They liked two funds, two proposals and decided to invest in both of them (...). At the time, around \$17 million funds, both of them. (DevBank2)

However, interviewees identified a lack of political interest in sustainability-related issues, particularly from the Federal Government, creating a “hollow middle” policy vacuum (Uyarra, Shapira, and Harding 2016). This has adverse effects on attracting foreign direct investment, since there is no clear pathway programme nationally, which can facilitate inward investment to finding the pipelines of sustainable entrepreneurial ventures. This lack of national policy attention was reported to hold back the development of SEFE in Brazil:

If we have a government that really believes in [sustainable entrepreneurship] and wants to take that turn, I think that it could open several doors for Brazil. (DevBank3)

## 5. Discussion

Our study reveals underlying processes of Brazil's emerging SEFE and unearths how so-called keystone actors align and harmonise sustainability and commercial market logics, recognising the need for an improved understanding of its mechanisms and drivers, as amply stressed by Wurth, Stam, and Spigel (2021). The adoption of an Institutional Logics (IL) lens enabled an exploration of the principles that support the different actors' logics and the ways in which these logics interact between the main actors in Brazil's SEFE. The findings offer a significant contribution to theory, practice and policy. From a theoretical perspective, we develop an understanding of IL in an emerging market (Lingelbach 2015), demonstrating that Brazil's dominant commercial market logics are prevalent and influenced by weak *laissez-faire* governance as well as private investor and entrepreneurial predilections with mature Western economies green growth agendas.

The study also reveals how sustainable entrepreneurs interact with intermediaries, developing on Harrer and Owen's (2022) finding that market supporters play a key role in developing blended and hybrid logics solutions. Furthermore, drawing on systems ecology (Worm and Paine 2016), the study offers a major practitioner contribution, findings that a small number of niche "keystone" intermediary actors offering finance and non-financial support are successfully bringing together sustainable entrepreneurs and sustainable impact mission start-up financiers.

The research revealed that keystone actors engage in a series of vital activities. These include: (i) analysing needs and opportunities, (ii) constructing frameworks, (iii) connecting and facilitating collaborations among actors from diverse sectors (such as entrepreneurs with investors), thereby (iv) stimulating the creation of markets and ecosystems, and (v) promoting awareness and education across sectors, reaching out to citizens and investors alike, to underscore the importance and potential of sustainable solutions.

Finally, our study offers critically important policy findings with regard to the need for the Federal government to create a more attractive inward investment market. The identification of a noticeable gap – referred to as a "hollow middle" by Uyarra, Shapira, and Harding (2016) – attributed to the absence of centralized government programs supporting sustainable entrepreneurship, underscores the disconnect between foreign inward investment and agencies offering entrepreneurial support. This emphasises the potential benefits of implementing a more supportive regulatory framework and public finance network that can seamlessly connect with keystone actors. Eventually, such measures have the potential to significantly boost Brazil's economy and its sustainable entrepreneurship ambitions.

### **Dominant logics**

Whilst Brazil's SEFE interviewees operate in the area of social and environmental entrepreneurship with corresponding shared purposes and motivations, this research highlights the role and force of dominance of both traditional and established entrepreneurial and financiers' commercial market logics inherent in the Brazilian context. These are manifestly embedded notions of financial returns through laissez-faire free market growth and the dominant commercial finance market view that socio-environmental impact will be achieved through technological efficiencies (Harrer and Owen 2022). This follows the current green growth paradigm of influential mature North American and European markets, which fall into the growth efficiency trap with often unintended negative socio-environmental externalities, which can be extended to the example of Brazil's extensive land degradation (Rodriguez, Pansera, and Cabanelas Lorenzo 2020). Brazil's emerging economy demonstrates a lack of both (bureaucratically) efficient and sufficient public sector intervention and arguably "government logics", which balance public good with the market logic of for profit/private enterprise led growth of the economy (Fisher et al. 2017).

Max Weber (1924, 215) noted a century ago the difficulty of changing customs of established fields that consists of "typically regular behaviour that is maintained within traditional limits solely by its habitual character and by 'unreflected imitation'". Similarly, DiMaggio and Powell (1983), refer to isomorphic pressures from existing institutions. Our findings suggest that actors in Brazil's emerging SEFE are not totally constrained by existing institutions but use their agency to gain legitimacy. They do this through an *alignment* of their

combined logics to existing logics of often powerful agents, thus highlighting important contextual and cultural factors and the impact of embedded agency and dominating logics.

### *Aligning and harmonising logics*

Entrepreneurial actor construct and align narratives and specific vocabularies and symbols to combine and harmonise logic in an attempt to find grounding within existing markets to promote and eventually institutionalise their ideas (Hardy and Maguire 2017; Martens, Jennings, and Jennings 2007). This can either reinforce existing logics in an attempt to access resources or change existing logics and eventually lead to deinstitutionalisation, the process by which logics erode and, eventually, disappear (Dacin and Dacin 2008).

The results show how sustainability-motivated entrepreneurs and key intermediaries – keystone actors – endeavour to secure vital support, including entrepreneurial finance and non-financial assistance, by harmonising their sustainability-driven perspectives with conventional entrepreneurial logics. Future research will need to explore if this is of a temporary nature and, as suggested by one interviewee, follows the thinking of “long-term impact, with short-term pragmatism” (Sup3), or, instead, turns out to be wishful thinking with current logics continuing to dominate. We note evidence of how intermediaries enable entrepreneurs to pursue dual objectives that combine both commercial and sustainability missions (Guerrero, Santamaría-Velasco, and Mahto 2021) by coalescing entrepreneurial/commercial market logics and sustainability logics (cf. de Clercq and Voronov 2011). Ideally, future research aims to further integrate different theories, providing a more nuanced understanding of the underlying dynamics (Wurth, Stam, and Spigel 2021).

### *Keystone actors*

To answer the research question, we examined the roles of different stakeholders and introduced the concept of “keystone actors”. Drawing on this systems ecology concept of a particular species “actors” operation to hold an ecosystem together (Worm and Paine 2016), we reveal the boundary-spanning role that intermediary business and finance support actors play, at the meso-level, in facilitating alignment of entrepreneurial sustainability and financiers’ commercial market logics. We find that this support is necessary, not only to overcome the resource-based limitations of new venture start-ups (Ferreira et al. 2012; Lehner, Harrer, and Quast 2019) but also to overcome the signalling gap in the value of sustainability to private financiers. In this respect, we build on and advance the findings of Harrer and Owen (2022) who introduce the important role of intermediary market supporters in developing blended hybrid logics into the SEFE. In addition, keystone actors combine different functions including the provision of early-stage funds and seed investments as well as elements towards building technical and economical capacities into the system (Cassiolato, Lastres, and Peixoto 2013) in an attempt to remove shortcomings and support the development of SEFE and “educate conventional investors” (Rec1). The combination of existing and new processes can facilitate a transformation driven through knowledge spillovers arising from interactions among established firms, research institutions, and new ventures that stimulate innovation and provide a competitive advantage (Blundel 2009).

On a more basic level, keystone actors drive the development of the emerging SEFE. Their specific role is the combining of commercial market logics with sustainability logics. Whereas

motivation and prosocial as well as pro-environmental values are growing in Latin America (Inglehart 2019, 33), the combination of these logics with commercial market logics in investment is still lacking, making the work of keystone actors indispensable.

A key problem has been the misalignment of the logics of high net worth individuals and international investors seeking scale-up and financial return and the social/sustainable logics, which was reported to be particularly prevalent among young entrepreneurs. Keystone actors are required to bridge the huge chasm between these logics. Whilst the SEFE' development is slow, there are signs of network development and collaborations between actors that offer hope for the future through the development of more scalable sustainable ventures that can be matched to domestic and international investment.

SEFE are therefore shaped by multiple relational and spatially embedded processes characterised by distinctive logics and its socially embedded realities. When looking at keystone actors, it is not the *type* of organisation per se, but, instead, the *practices* they enact to foster SEFE. A number of national and/or regional actors provide support in terms of reducing IAs, the provision of early stage and seed funding, and key skills necessary to enhance their "fundability" (Lundström and Stevenson 2005).

The bridging role of key stone actors is particularly important when there is a "hollow middle" (Uyarra, Shapira, and Harding 2016) of missing federal government policies and weak regional government. In the context of emerging markets, there can be greater IAs, more uncertainty and the need for actors to invest more time in building personal relationships and understanding. The public sector therefore plays a key role in SEFE, also playing an intermediary role and bringing together the commercial and sustainability logics under the umbrella of their own logic of public goods (cf. Mazzucato 2023).

Our findings also show the importance of place and regional differences. The emergence of SEFE in Brazil can be seen as part of a larger emerging entrepreneurial ecosystem, especially in São Paulo. Start-ups in areas such as banking, agribusiness and health care are growing fast with access to substantial funding. The SEFE are in the fringes of this larger ecosystem and could not develop without the presence of this larger movement and the support of keystone actors. This raises questions about regional disparities and the need for the public sector to play a role where there is a lack of activity. As stated before, there is an urgent need for greater understanding of the role of federal and state governments and related National Development Bank instruments, which combine sustainability and commercial market logics with their own public sector logics (Mazzucato and Penna 2016).

## 6. Conclusion

Brazil's nascent sustainable entrepreneurial finance ecosystem (SEFE) is currently constrained by a lack of investable sustainable enterprise propositions. Where SEFE are emerging, our research explores the challenges arising when combining sustainable and commercial market logics. The results point towards an emerging role for entrepreneurial support intermediaries – "keystone actors" – spurred by an emerging bottom-up, grassroots entrepreneurial culture and the influence of top-down processes such as (international) investor groups and global/government-backed climate change investment initiatives, among others. The paper demonstrate that in SEFE, keystone actors play a vital role in building the capabilities of others to navigate, balance and combine logics in the context of emerging markets where the public sector or other institutions are not able to play a coordinating role.

Future studies should explore the impact of keystone actors on policies and their impact through case study approaches, providing complementary insights. Importantly, the degree of transferability needs to be understood and the apparent lack of appropriate public sector entrepreneurial finance support needs further exploration.

In time, there is also the possibility that the Federal Government might align policies to attract and support the greater flow of inward investment that appears to be waiting for a “green light!” Future studies should explore the impact of keystone actors on policies and explore their impact through case study approaches providing complementary insights. Importantly, whilst successful cases should be studied and replicated, the degree of transferability needs to be understood and the apparent lack of appropriate public sector entrepreneurial finance support needs further exploration.

We conclude by arguing that sustainable entrepreneurship in Brazil and its current state of SEFE is still in its infancy, requiring multi-level support to move from “buzzword status” to a valid, systemic concept. It can only do so through encouraging sustainable entrepreneurial finance ecosystems that recognise the roles of different actors, enabling transitions (such as intermediaries and government, as well as entrepreneurs and investors), and understanding the different logics that shape the activities of these actors.

## Notes

1. [www.voxcapital.com.br](http://www.voxcapital.com.br).
2. [www.movinvestimentos.com.br](http://www.movinvestimentos.com.br).
3. For a recent article see <https://www.internationaltaxreview.com/article/b1j69rg0lrk2k4/fintechs-in-brazil-give-their-thumbs-up-to-a-tax-sandbox>.

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## References

- Alvarez, R., and M. Grazzi. 2018. “Innovation and Entrepreneurship in Latin America: What Do We Know? What Would We Like to Know?” *Estudios de economia* 45 (2): 157–171.
- Anand, A., P. Argade, R. Barkemeyer, and F. Salignac. 2021. “Trends and Patterns in Sustainable Entrepreneurship Research: A Bibliometric Review and Research Agenda.” *Journal of Business Venturing* 36 (3): 106092. <https://doi.org/10.1016/j.jbusvent.2021.106092>.

- Arruda, C., A. Cozzi, G. Souza, and É. Penido. 2013. "Towards an Understanding of Corporate Venturing Practices in Brazil." *Venture Capital* 15 (2): 135–149. <https://doi.org/10.1080/13691066.2013.791426>.
- Audretsch, D. B., H. Rocha, S. Aggarwal, and A. Bramanti. 2024. "Do Entrepreneurial Ecosystems Foster Sustainable Development?" *International Entrepreneurship & Management Journal*. January. <https://doi.org/10.1007/s11365-023-00916-8>.
- Autio, E., and H. Rannikko. 2016. "Retaining Winners: Can Policy Boost High-Growth Entrepreneurship?" *Research Policy* 45 (1): 42–55. <https://doi.org/10.1016/j.respol.2015.06.002>.
- Avnimelech, G., and M. Teubal. 2006. "Creating Venture Capital Industries That Co-Evolve with High Tech: Insights from an Extended Industry Life Cycle Perspective of the Israeli Experience." *Research Policy* 35 (10): 1477–1498. <https://doi.org/10.1016/j.respol.2006.09.017>.
- Baldock, R., and C. Mason. 2015. "Establishing a New UK Finance Escalator for Innovative SMEs: The Roles of the Enterprise Capital Funds and Angel Co-Investment Fund." *Venture Capital, Taylor & Francis Journals* 17 (1–2): 59–86.
- Battilana, J., and M. Lee. 2014. "Advancing Research on Hybrid Organizing – Insights from the Study of Social Enterprises." *Academy of Management Annals* 8 (1): 397–441. <https://doi.org/10.5465/19416520.2014.893615>.
- Baumol, W. J. 1990. "Entrepreneurship: Productive, Unproductive, and Destructive." *Journal of Political Economy* 98 (5): 893–921. <https://doi.org/10.1086/261712>.
- Bielschowsky, R. 2016. "Fifty Years of ECLAC Thought: A Review." In *ECLAC Thinking, Selected Texts (1948–1998)*, edited by R. Bielschowsky. Santiago: UN. <https://www.cepal.org/en/publications/40881-eclac-thinking-selected-texts-1948-1998>.
- Blundel, R. 2009. "Entrepreneurship, Growth and Public Policy: Prelude to a Knowledge Spillover Theory of Entrepreneurship." *International Journal of Entrepreneurial Behavior and Research* 15 (3): 309–312. <https://doi.org/10.1108/13552550910957364>.
- Bonacim, C. A., J. A. C. Da Cunha, and H. L. Correa. 2009. "Mortalidade Dos Empreendimentos de Micro e Pequenas Empresas: Causas e Aprendizagem." *Gestão e Regionalidade* 25 (74): 61–78.
- Borges, C., É. D. Bezerra, G. Silva, T. Andreassi, and V. Da Rocha Ferreira. 2018. "Entrepreneurship Policy in Brazil: Its Focus and Gaps." *International Journal of Entrepreneurship & Small Business* 34 (2): 183. <https://doi.org/10.1504/IJESB.2018.092026>.
- Bosma, N., and D. Kelly. 2018. Global Entrepreneurship Monitor: 2018/19 Global Report. <https://www.gemconsortium.org/file/open?fileId=50213>.
- Boyatzis, R. E. 1998. *Transforming Qualitative Information: Thematic Analysis and Code Development*. London: SAGE.
- Brown, R., and C. Mason. 2014. "Inside the High-Tech Black Box: A Critique of Technology Entrepreneurship Policy." *Technovation* 34 (12): 773–784. <https://doi.org/10.1016/j.technova.2014.07.013>.
- Brown, R., and C. Mason. 2017. "Looking Inside the Spiky Bits: A Critical Review and Conceptualisation of Entrepreneurial Ecosystems." *Small Business Economics* 49 (1): 11–30. <https://doi.org/10.1007/s11187-017-9865-7>.
- Bryman, A., and E. Bell. 2015. *Business Research Methods*. 4th ed. Oxford, UK: Oxford University Press.
- Cantner, U., J. A. Cunningham, E. E. Lehmann, and M. Menter. 2020. "Entrepreneurial Ecosystems: A Dynamic Lifecycle Model." *Small Business Economics* 57 (1): 407–423. <https://doi.org/10.1007/s11187-020-00316-0>.
- Carayannis, E. G., L. Dezi, G. Gregori, and E. Calo. 2022. "Smart Environments and Techno-Centric and Human-Centric Innovations for Industry and Society 5.0: A Quintuple Helix Innovation System View Towards Smart, Sustainable, and Inclusive Solutions." *Journal of the Knowledge Economy* 13 (2): 926–955. <https://doi.org/10.1007/s13132-021-00763-4>.
- Carpenter, R. E., and B. C. Petersen. 2002. "Capital Market Imperfections, High-Tech Investment, and New Equity Financing." *The Economic Journal* 112 (477): F54–72. <https://doi.org/10.1111/1468-0297.00683>.
- Cassiolato, J. E., H. Lastres, and F. Peixoto. 2013. "The Latin American Structuralist School and the Innovation Systems Perspective: Jorge Katz, Learning and Micro and Macro Connections." In *Learning, Capability Building and Innovation for Development*, EADI Global Development, edited

- by G. Dutrénit, K. Lee, R. Nelson, A. O. Vera-Cruz, and L. Soete, 37–57. London: Palgrave Macmillan. [https://doi.org/10.1057/9781137306937\\_3](https://doi.org/10.1057/9781137306937_3).
- CBI. 2021. “Mercado Brasileiro de Títulos Verdes Bate a Marca Dos 9 Bilhões de Dólares.” <https://www.climatebonds.net/resources/press-releases/2021/06/mercado-brasileiro-de-t%C3%ADtulos-verdes-bate-marca-dos-9-bilh%C3%B5es-de>.
- Ciuchta, M. P., A. S. Miner, J. Y. Kim, and J. O’Toole. 2017. “Founding Logics, Technology Validation, and the Path to Commercialization.” *International Small Business Journal: Researching Entrepreneurship* 36 (3): 307–330. <https://doi.org/10.1177/0266242617741534>.
- Clarysse, B., M. Wright, J. Bruneel, and A. Mahajan. 2014. “Creating Value in Ecosystems: Crossing the Chasm Between Knowledge and Business Ecosystems.” *Research Policy* 43 (7): 1164–1176. <https://doi.org/10.1016/j.respol.2014.04.014>.
- Clayton, P., M. Feldman, and B. Montmartin. 2023. “Entrepreneurial Finance and Regional Ecosystem Emergence.” *Small Business Economics* 62 (4): 1493–1521. October. <https://doi.org/10.1007/s11187-023-00827-6>.
- Clercq, D. de, and M. Voronov. 2011. “Sustainability in Entrepreneurship: A Tale of Two Logics.” *International Small Business Journal: Researching Entrepreneurship* 29 (4): 322–344. <https://doi.org/10.1177/0266242610372460>.
- Cohen, B., and M. I. Winn. 2007. “Market Imperfections, Opportunity and Sustainable Entrepreneurship.” *Journal of Business Venturing* 22 (1): 29–49. <https://doi.org/10.1016/j.jbusvent.2004.12.001>.
- Cooke, P. 2019. “World Turned Upside Down: Entrepreneurial Decline, Its Reluctant Myths and Troubling Realities.” *Journal of Open Innovation, Technology, Market, & Complexity* 5 (2): 22. <https://doi.org/10.3390/joitmc5020022>.
- Creswell, J. W. 2019. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. Sage Publications.
- Creswell, J. W., and D. L. Miller. 2000. “Determining Validity in Qualitative Inquiry.” *Theory into Practice* 39 (3): 124–130. [https://doi.org/10.1207/s15430421tip3903\\_2](https://doi.org/10.1207/s15430421tip3903_2).
- Cruz, C., D. Quitério, and B. Scretas. 2019. “O Ecossistema de Fomento Aos Investimentos e Negóciosde Impacto: Rompendo Fronteiras.” In *Négócios de Impacto: Como Financiar, Empreender e Apoiar*, edited by E. Barki, G. M. Comini, and H. G. Torres, 25–56. Rio de Janeiro: FGV Editora.
- Dacin, M. T., and P. A. Dacin. 2008. “Traditions as Institutionalized Practice: Implications for Deinstitutionalization.” In *The Sage Handbook of Organizational Institutionalism*, edited by R. Greenwood, C. Oliver, R. Suddaby, and K. Sahlin, 327–352. SAGE Publications Ltd. <https://doi.org/10.4135/9781849200387.n13>.
- Delgado, M., M. E. Porter, and S. Stem. 2010. “Clusters and Entrepreneurship.” *Journal of Economic Geography* 10 (4): 495–518. <https://doi.org/10.1093/jeg/lbq010>.
- DiMaggio, P. J., and W. W. Powell. 1983. “The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields.” *American Sociological Review* 48 (2): 147–147. <https://doi.org/10.2307/2095101>.
- Dubois, A., and L.-E. Gadde. 2002. “Systematic Combining: An Abductive Approach to Case Research.” *Journal of Business Research* 55 (7): 553–560. [https://doi.org/10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8).
- Ferreira, L. F. F., F. L. Oliva, S. A. Santos, C. C. H. Grisi, and A. C. Lima. 2012. “Análise Quantitativa Sobre a Mortalidade Precoce de Micro e Pequenas Empresas Da Cidade de São Paulo.” *Gestão & Produção* 19 (4): 811–823. <https://doi.org/10.1590/S0104-530X2012000400011>.
- FintechLab. 2020. “Edição 2020 Do Radar FintechLab Detecta 270 Novas Fintechs Em Um Ano.” <https://fintechlab.com.br/index.php/2020/08/25/edicao-2020-do-radar-fintechlab-detecta-270-novas-fintechs-em-um-ano/>.
- Fisher, G., D. F. Kuratko, J. M. Bloodgood, and J. S. Hornsby. 2017. “Legitimate to Whom? The Challenge of Audience Diversity and New Venture Legitimacy.” *Journal of Business Venturing* 32 (1): 52–71. <https://doi.org/10.1016/j.jbusvent.2016.10.005>.

- Freire-Gibb, L. C., and G. Gregson. 2019. "Innovation Systems and Entrepreneurial Ecosystems: Implications for Policy and Practice in Latin America." *Local Economy: The Journal of the Local Economy Policy Unit* 34 (8): 787–806. <https://doi.org/10.1177/0269094219896096>.
- Gilson, R. J. 2003. "Engineering a Venture Capital Market: Lessons from the American Experience." *Stanford Law Review* 55:1067–1068. <https://doi.org/10.2139/ssrn.353380>.
- Greenwood, R., C. Oliver, T. B. Lawrence, R. E. Meyer, C. Hardy, and S. Maguire. 2017. "Institutional Entrepreneurship and Change in Fields." In *The SAGE Handbook of Organizational Institutionalism*, 261–280. SAGE Publications Ltd. <https://doi.org/10.4135/9781446280669.n11>.
- Grillitsch, M. 2019. "Following or Breaking Regional Development Paths: On the Role and Capability of the Innovative Entrepreneur." *Regional Studies* 53 (5): 681–691. <https://doi.org/10.1080/00343404.2018.1463436>.
- Guerrero, M., C. A. Santamaría-Velasco, and R. Mahto. 2021. "Intermediaries and Social Entrepreneurship Identity: Implications for Business Model Innovation." *International Journal of Entrepreneurial Behaviour & Research* 27 (2): 520–546. <https://doi.org/10.1108/IJEBR-10-2020-0679>.
- Guest, G., E. Namey, M. Chen, and A. Soundy. 2020. "A Simple Method to Assess and Report Thematic Saturation in Qualitative Research." *PLOS ONE* 15 (5): e0232076–e0232076. <https://doi.org/10.1371/journal.pone.0232076>.
- Hall, J. K., G. A. Daneke, and M. J. Lenox. 2010. "Sustainable Development and Entrepreneurship: Past Contributions and Future Directions." *Journal of Business Venturing* 25 (5): 439–448. <https://doi.org/10.1016/j.jbusvent.2010.01.002>.
- Hanohov, R., and L. Baldacchino. 2017. "Opportunity Recognition in Sustainable Entrepreneurship: An Exploratory Study." *International Journal of Entrepreneurial Behaviour & Research* 24 (2): 333–358. <https://doi.org/10.1108/IJEBR-12-2015-0275>.
- Harrer, T., and R. Owen. 2022. "Reducing Early-Stage Cleantech Funding Gaps: An Exploration of the Role of Environmental Performance Indicators." *International Journal of Entrepreneurial Behavior and Research* 28 (9): 268–288. <https://doi.org/10.1108/IJEBR-10-2021-0849>.
- Hart, S. L., and M. B. Milstein. 1999. "Global Sustainability and the Creative Destruction of Industries." *MIT Sloan Management Review* 41 (1): 23.
- Hoekstra, A. Y., and T. O. Wiedmann. 2014. "Humanity's Unsustainable Environmental Footprint." *Science* 344 (6188): 1114 LP–1117. <https://doi.org/10.1126/science.1248365>.
- Hwang, V., and G. Horowitz. 2012. *The Rainforest: The Secret to Building the Next Silicon Valley*. Los Altos, CA: Regenwald.
- Inglehart, R. F. 2019. *Cultural Evolution: People's Motivations are Changing, and Reshaping the World*. Cambridge, UK: Cambridge University Press.
- International Trade Administration (ITA). 2023. "Brazil – Renewable Energy Infrastructure." In *Country Commercial Guides*. U.S. Department of Commerce. <https://www.trade.gov/country-commercial-guides/brazil-renewable-energy-infrastructure-0>.
- IPCC. 2023. "Synthesis Report of the Sixth Assessment." <https://www.ipcc.ch/ar6-syr/>.
- Isenberg, D. J. 2016. "Applying the Ecosystem Metaphor to Entrepreneurship: Uses and Abuses." *The Antitrust Bulletin* 61 (4): 564–573. <https://doi.org/10.1177/0003603X16676162>.
- Isham, A., C. Verfurth, A. Armstrong, P. Elf, B. Gatersleben, and T. Jackson. 2022. "The Problematic Role of Materialistic Values in the Pursuit of Sustainable Well-Being." *International Journal of Environmental Research and Public Health* 19 (6): 3673–3673. <https://doi.org/10.3390/IJERPH19063673>.
- Jackson, T. 2016. *Prosperity without Growth*. 2nd ed. London, UK: Routledge.
- Lee, N., H. Sameen, and M. Cowling. 2015. "Access to Finance for Innovative SMEs Since the Financial Crisis." *Research Policy* 44 (2): 370–380. <https://doi.org/10.1016/j.respol.2014.09.008>.
- Lehner, O. M., T. Harrer, and M. Quast. 2019. "Building Institutional Legitimacy in Impact Investing." *Journal of Applied Accounting Research* 20 (4): 416–438. <https://doi.org/10.1108/JAAR-01-2018-0001>.
- Lerner, J. 2010. "The Future of Public Efforts to Boost Entrepreneurship and Venture Capital." *Small Business Economics* 35:255–264. <https://doi.org/10.1007/s11187-010-9298-z>.

- Lewis-Beck, M. S., A. Bryman, and T. Futing Liao. 2004. "Snowball Sampling." In *The SAGE Encyclopedia of Social Science Research Methods*, 1044–1044. London: Sage. <https://doi.org/10.4135/9781412950589>.
- Lingelbach, D. 2015. "Developing Venture Capital When Institutions Change." *Venture Capital* 17 (4): 327–363. <https://doi.org/10.1080/13691066.2015.1055060>.
- Lundström, A., and L. Stevenson. 2005. *Entrepreneurship Policy: Theory and Practice*. New York: Springer.
- Mack, E., and H. Mayer. 2015. "The Evolutionary Dynamics of Entrepreneurial Ecosystems." *Urban Studies* 53 (10): 2118–2133. <https://doi.org/10.1177/0042098015586547>.
- Malecki, E. J. 2011. "Connecting Local Entrepreneurial Ecosystems to Global Innovation Networks: Open Innovation, Double Networks and Knowledge Integration." *International Journal of Entrepreneurship and Innovation Management* 14 (1): 36–59. <https://doi.org/10.1504/IJEIM.2011.040821>.
- Martens, M. L., J. E. Jennings, and P. D. Jennings. 2007. "Do the Stories They Tell Get Them the Money They Need? The Role of Entrepreneurial Narratives in Resource Acquisition." *Academy of Management Journal* 50 (5): 1107–1132. <https://doi.org/10.5465/AMJ.2007.27169488>.
- Mason, C. 2018. "Financing Entrepreneurial Ventures." In *The Sage Handbook of Small Business Entrepreneurship*, edited by R. Blackburn, D. De Clercq, and J. Heinonen, 321–349. London: Sage Publications.
- Mason, C., and R. Brown. 2014. "Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship". Paris. <http://lib.davender.com/wp-content/uploads/2015/03%0A/Entrepreneurial-ecosystems-OECD.pdf>.
- Mazzucato, M. 2023. "Governing the Economics of the Common Good: From Correcting Market Failures to Shaping Collective Goals." *Journal of Economic Policy Reform* 1–24. <https://doi.org/10.1080/17487870.2023.2280969>.
- Mazzucato, M., and C. C. R. Penna. 2016. "Beyond Market Failures: The Market Creating and Shaping Roles of State Investment Banks." *Journal of Economic Policy Reform* 19 (4): 305–326. <https://doi.org/10.1080/17487870.2016.1216416>.
- Miles, M., and M. Huberman. 1984. *Qualitative Data Analysis: An Expanded Sourcebook*. Beverly Hills, CA: Sage.
- Motoyama, Y., and K. Knowlton. 2016. "From Resource Munificence to Ecosystem Integration: The Case of Government Sponsorship in St. Louis." *Entrepreneurship & Regional Development* 28 (5–6): 448–470. <https://doi.org/10.1080/08985626.2016.1186749>.
- Nathan, M., and E. Vandore. 2014. "Here Be Startups: Exploring London's 'Tech City' Digital Cluster." *Environment and Planning A: Economy and Space* 46 (10): 2283–2299. <https://doi.org/10.1068/a130255p>.
- North, D., R. Baldock, and F. Ullah. 2013. "Funding the Growth of UK Technology-Based Small Firms Since the Financial Crash: Are There Breakages in the Finance Escalator?" *Venture Capital* 15 (3): 237–260. <https://doi.org/10.1080/13691066.2013.804755>.
- OECD. 2010. *SMEs, Entrepreneurship and Innovation*. Paris. <https://www.oecd.org/cfe/smesentrepreneurshipandinnovation.htm>.
- Owen, R. 2023. "Lessons From Government Venture Capital Funds to Enable Transition to a Low-Carbon Economy: The U.K. Case." *IEEE Transactions on Engineering Management* 70 (3): 1040–1054. <https://doi.org/10.1109/TEM.2021.3094992>.
- Owen, R., T. Botelho, C. Mac an Bhaird, J. G. Hussain, Y. Pierrakis, J. M. Scott, and S. Lodh. 2023. "Editorial Entrepreneurial Finance for Green Innovative SMEs." *IEEE Transactions on Engineering Management* 70 (3): 942–949. <https://doi.org/10.1109/TEM.2022.3224870>.
- Owen, R., G. Brennan, and F. Lyon. 2018. "Enabling Investment for the Transition to a Low Carbon Economy: Government Policy to Finance Early Stage Green Innovation." *Current Opinion in Environmental Sustainability* 31:137–145. <https://doi.org/10.1016/j.cosust.2018.03.004>.
- Owen, R., O. Lehner, F. Lyon, and G. Brennan. 2020. "Early Stage Investing in Green SMEs: The Case of the UK." *ACRN Oxford Journal of Finance and Risk Perspectives* 8 (1): 163–182. <https://doi.org/10.35944/jofrp.2019.8.1011>.

- Owen, R., and M. Mason. 2019. "Government Venture Capital Policies in Smaller Peripheral Economies: Lessons from Finland, New Zealand, and Estonia." *Strategic Change: Briefings in Entrepreneurial Finance* 28 (1): 83–93. <https://doi.org/10.1002/jsc.2248>.
- Owen, R., L. N. Vedanthachari, and J. Hussain. 2024. "The Role of the University Entrepreneurial Ecosystem in Entrepreneurial Finance: Case Studies of UK Innovation Knowledge Centres." *Venture Capital* 26 (3): 351–375. <https://doi.org/10.1080/13691066.2023.2205606>.
- Pacheco, D. F., T. J. Dean, and D. S. Payne. 2010. "Escaping the Green Prison: Entrepreneurship and the Creation of Opportunities for Sustainable Development." *Journal of Business Venturing* 25 (5): 464–480. <https://doi.org/10.1016/j.jbusvent.2009.07.006>.
- Pipe.Social. 2021. "Mapa de Negócios de Impacto – Social e Ambiental". São Paulo. [https://mapa2021.pipelabo.com/downloads/3\\_MapadeImpactoRelatorioNacional.pdf](https://mapa2021.pipelabo.com/downloads/3_MapadeImpactoRelatorioNacional.pdf).
- Pischke, E. C., B. Solomon, A. Wellstead, A. Acevedo, A. Eastmond, F. De Oliveira, S. Coelho, and O. Lucon. 2019. "From Kyoto to Paris: Measuring Renewable Energy Policy Regimes in Argentina, Brazil, Canada, Mexico and the United States." *Energy Research and Social Science* 50 (April): 82–91. <https://doi.org/10.1016/j.ERSS.2018.11.010>.
- Reay, T., and C. Jones. 2015. "Qualitatively Capturing Institutional Logics." *Strategic Organization* 14 (4): 441–454. <https://doi.org/10.1177/1476127015589981>.
- Riandita, A., A. Broström, A. Feldmann, and R. Cagliano. 2021. "Legitimation Work in Sustainable Entrepreneurship: Sustainability Ventures' Journey Towards the Establishment of Major Partnerships." *International Small Business Journal: Researching Entrepreneurship*: 1–26. <https://doi.org/10.1177/02662426211056799>.
- Rocha, H., and R. Sternberg. 2005. "Entrepreneurship: The Role of Clusters Theoretical Perspectives and Empirical Evidence from Germany." *Small Business Economics* 24 (3): 267–292. <https://doi.org/10.1007/s1187-005-1993-9>.
- Rodriguez, M., M. Pansera, and P. Cabanelas Lorenzo. 2020. "Do Indicators Have Politics? A Review of the Use of Energy and Carbon Intensity Indicators in Public Debates." *Journal of Cleaner Production* 243 (January): 118602. <https://doi.org/10.1016/j.jclepro.2019.118602>.
- Sarfati, G. 2013. "Estágios de Desenvolvimento Econômico e Políticas Públicas de Empreendedorismo e de Micro, Pequenas e Médias Empresas (MPMEs) Em Perspectiva Comparada: Os Casos Do Brasil, Do Canadá, Do Chile, Da Irlanda e Da Itália." *Revista de Administração Pública* 47 (1): 25–48.
- Schaltegger, S., M. Beckmann, and K. Hockerts. 2018. "Sustainable Entrepreneurship: Creating Environmental Solutions in Light of Planetary Boundaries." *International Journal of Entrepreneurial Venturing (IJEV)* 10 (1): 1–16–1–16. <https://doi.org/10.1504/IJEV.2018.090990>.
- Schumpeter, J. A. 1949. "Economic Theory and Entrepreneurial History." In *Essays: On Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism*, edited by J. A. Schumpeter. New Brunswick, NJ: Transaction Publishers.
- Scott, W. R. 2008. *Institutions and Organizations: Ideas and Interests*. 3rd ed. Thousand Oaks, CA: SAGE.
- Shepherd, D. A., and H. Patzelt. 2011. "The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking 'What is to Be Sustained' with 'What is to Be Developed'." *Entrepreneurship Theory and Practice* 35 (1): 137–163. <https://doi.org/10.1111/j.1540-6520.2010.00426.x>.
- Spigel, B., and R. Harrison. 2018. "Toward a Process Theory of Entrepreneurial Ecosystems." *Strategic Entrepreneurship Journal* 12 (1): 151–168. <https://doi.org/10.1002/sej.1268>.
- SQW/CEEDR. 2019. "Entrepreneurial University Ecosystems: Evidence from London Literature Review." [https://www.ncub.co.uk/images/reports/Entrepreneurial\\_University\\_Ecosystems\\_-\\_Literature\\_Review\\_Paper\\_FINAL.pdf](https://www.ncub.co.uk/images/reports/Entrepreneurial_University_Ecosystems_-_Literature_Review_Paper_FINAL.pdf).
- Stam, E. 2015. "Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique." *European Planning Studies* 23 (9): 1759–1769. <https://doi.org/10.1080/09654313.2015.1061484>.
- Stam, E., and B. Spigel. 2018. "Entrepreneurial Ecosystems." In *The SAGE Handbook of Small Business and Entrepreneurship*, edited by R. Blackburn, D. De Clercq, and J. Heinonen. London: SAGE.
- Stark, A., F. Gale, and H. Murphy-Gregory. 2023. "Just Transitions' Meanings: A Systematic Review." *Society & Natural Resources* 36 (10): 1277–1297. <https://doi.org/10.1080/08941920.2023.2207166>.

- Theodoraki, C., D. Léo-Paul, and A. Caputo. 2022. "Building Sustainable Entrepreneurial Ecosystems: A Holistic Approach." *Journal of Business Research* 140 (February): 346–360. <https://doi.org/10.1016/j.jbusres.2021.11.005>.
- Thornton, P. H., and W. Ocasio. 1999. "Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958–1990." *American Journal of Sociology* 105 (3): 801–843. <https://doi.org/10.1086/210361>.
- Thornton, P. H., and W. C. Ocasio. 2008. *Institutional Logics*. Edited by C. Oliver and R. Suddaby. Handbook of Organizational Institutionalism Sage.
- Thornton, P. H., W. Ocasio, and M. Lounsbury. 2012. *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process*. Oxford: Oxford University Press.
- Torres, H. G. 2020. *Políticas Sociais e Startups: O Potencial Inexplorado Das Inovações*. São Paulo: Plano CDE. <https://www.planocde.com.br/publicacao/livro-politicas-sociais-e-startups/>.
- Uyarra, E., P. Shapira, and A. Harding. 2016. "Low Carbon Innovation and Enterprise Growth in the UK: Challenges of a Place-Blind Policy Mix." *Technological Forecasting and Social Change* 103:264–272. <https://doi.org/10.1016/j.techfore.2015.10.008>.
- Van Maanen, J., S. B. Jesper, and T. R. Mitchell. 2007. "The Interplay Between Theory and Method." *Academy of Management Review* 32 (4): 1145–1154. <https://doi.org/10.5465/amr.2007.26586080>.
- Volkman, C., K. Fichter, M. Klotzen, and D. B. Audretsch. 2021. "Sustainable Entrepreneurial Ecosystems: An Emerging Field of Research." *Small Business Economics* 56 (3): 1047–1055. <https://doi.org/10.1007/s11187-019-00253-7>.
- Weber, M. 1924. *Economy and Society*. Berkeley, CA: University of California Press.
- Worm, B., and R. T. Paine. 2016. "Humans as a Hyperkeystone Species." *Trends in Ecology & Evolution* 31 (8): 600–607. <https://doi.org/10.1016/j.tree.2016.05.008>.
- Wurth, B., E. Stam, and B. Spigel. 2021. "Toward an Entrepreneurial Ecosystem Research Program." *Entrepreneurship Theory and Practice* March. <https://doi.org/10.1177/1042258721998948>.
- Yacoub, G., P. Mitra, T. Ratinho, and F. Fatalot. 2022. "Sustainable Entrepreneurs: What Drives Them to Engage in Different Crowdfunding Types?" *International Journal of Entrepreneurial Behavior and Research*. (ahead-of-print). <https://doi.org/10.1108/IJEBR-05-2021-0321/FULL/PDF>.
- Yamahaki, C., A. V. Felsberg, A. C. Köberle, A. C. Gurgel, and J. Stewart-Richardson. 2020. "Structural and Specific Barriers to the Development of a Green Bond Market in Brazil." *Journal of Sustainable Finance and Investment* 12 (2): 389–406. <https://doi.org/10.1080/20430795.2020.1769985>.