

Dekker, Thekla; Günzel-Jensen, Franziska; Scheidgen, Katharina

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Resourcing in Over-Supported Sustainable Entrepreneurial Ecosystems

Thekla Dekker^{a*}, Franziska Günzel-Jensen^b, Katharina Scheidgen^c

^a *University of Göttingen, Platz der Göttinger Sieben 3, 37073 Göttingen, Germany*

^b *Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark*

^c *Brandenburgische Technische Universität Cottbus, Erich-Weinert-Straße 1, 03046 Cottbus, Germany*

Abstract

This paper explores how sustainable entrepreneurial ventures mobilize resources within over-supported sustainable entrepreneurial ecosystems (SEEs). Drawing on 76 interviews and field data from Copenhagen and Stockholm—two mature, sustainability-oriented ecosystems densely populated with entrepreneurial support organizations (ESOs)—the study employs an inductive qualitative design using the Gioia methodology. Contrary to prevailing assumptions that greater ESO density enhances entrepreneurial outcomes, the findings reveal that excessive and redundant support infrastructures generate structural inefficiencies and resource misallocations for ventures. Three distinct resourcing approaches emerge: The Hoarders, who over-engage and become trapped in ESO dependency; The Inverted Resources, who evolve from recipients to exploited ESO assets; and The Instrumentally Engaged, who selectively leverage ESO offerings for targeted gains while maintaining independence. These patterns demonstrate that in munificent ESO landscapes, venture resourcing shifts from acquisition under scarcity to navigation under abundance. The study contributes to ecosystem and resourcing theory by conceptualizing over-support as a paradoxical condition where institutional logics of support invert into extractive dynamics, undermining venture autonomy and ecosystem efficiency. Policy implications emphasize the need for outcome-oriented ESO evaluation and strategic curation over quantitative proliferation of support infrastructures.

JEL: L26, O31, R11, M13

Keywords: Entrepreneurial Ecosystem, Resource Abundance, Resources, Multiple Case Study, Qualitative Study

* Corresponding author. Thekla.dekker@uni-goettingen.de

1. Introduction

The urgent need to address global sustainability challenges and achieve the United Nations Sustainable Development Goals (SDGs) has placed sustainable entrepreneurial ventures at the forefront of solutions for tackling grand societal challenges. By employing various organizational and legal forms (Bacq & Janssen, 2011; Choi & Majumdar, 2014) and using diverse business models (Dohrmann et al., 2015; Raith & Siebold, 2018), sustainable entrepreneurial ventures often demonstrate the flexibility and innovativeness needed to create and pursue opportunities that catalyze social change and scale solutions for maximum impact (Chliova & Ringov, 2017; Hockerts & Wüstenhagen, 2010; Parrish, 2010; Wry & Zhao, 2018). However, sustainable entrepreneurial ventures face inherent complexities that extend beyond traditional venture creation, requiring specialized knowledge, patient capital, and alignment with impact measurement frameworks that can complicate market entry and scaling processes.

Recognizing these unique challenges, policymakers and entrepreneurial ecosystem actors have developed sustainability-oriented entrepreneurial support organizations (ESOs) to provide targeted support for sustainable entrepreneurial ventures (van Rijnsoever, 2022). These ESOs provide both tangible assistance (finance, workspace) and intangible support (advice, mentoring) differentiated across various stages of the entrepreneurial process from pre-startup through growth phases. They are thus an important resource provider for sustainable entrepreneurial ventures, especially in the early stages of their development.

In recent years, EU policies have been strategically pushing for more sustainability-oriented ESOs to enter ecosystems and advance sustainable agendas, potentially creating an overrepresentation of them (Karahan, 2024). Supporting this, recent studies show that the number of ESOs has proliferated over the past decades, “being in the tens of thousands worldwide” (Bergman & McMullen, 2022, p. 689), challenging traditional assumptions about supply and demand in ecosystems. For example, ESOs can be private or public entities, for profit or not-for-profit, which may shape the mechanisms and objective of their engagement, which sustainable entrepreneurial ventures may not be able to adjust or predict, creating uncertainty of returns to engagement (Audretsch et al., 2023; Audretsch & Belitski, 2020). This can lead to the proliferation of munificent ESO landscapes where the support mechanisms created to support sustainable entrepreneurial ventures may inadvertently create structural inefficiencies for them (Cloitre et al., 2024; Serpente et al., 2025; Wurth et al., 2022). While extensive support networks may offer specialized assistance and resources, they simultaneously create substantial costs for sustainable entrepreneurial ventures who must invest significant time and cognitive resources to evaluate, select, and coordinate among multiple offerings, potentially reshaping both the processes and effects of sustainable entrepreneurial venture’s resourcing practices.

Despite the centrality of resource mobilization to entrepreneurial success, current research on ESOs has largely neglected how sustainable entrepreneurial ventures actually mobilize resources within these munificent ESO landscapes. While sustainable entrepreneurial ventures are typically assumed to develop their ventures under conditions of resource scarcity (Aldrich & Fiol, 1994; Clough et al., 2019), especially during early venture development (Freeman, 1984) but we know little about when entrepreneurs navigate dense ESO support landscapes. This knowledge gap has become practically urgent as ESO proliferation accelerates globally (Bergman & McMullen, 2022). Although ESOs are recognized as distinct and important sources of support for sustainable entrepreneurial ventures (Motoyama & Knowlton, 2017; Roundy, 2017; Roundy et al., 2017; Spigel, 2016), existing studies primarily examine ESO activities or system-level effects rather than how sustainable entrepreneurial ventures actually experience and mobilize resources in dense ESO landscapes. This entrepreneur-centric perspective

remains lacking (Bergman & McMullen, 2022; Hruskova et al., 2022). Given these considerations, we ask: How do sustainable ventures mobilize resources within dense ESO support landscapes, and with what effects?

2. Theory

2.1. *Sustainable Entrepreneurial Ecosystems and Entrepreneurial Support Organizations*

Sustainable entrepreneurial ecosystems (SEE) play a pivotal role in promoting both innovation and sustainability. SEE are interdependent actors, institutions, and processes in complex socio-economic structures that support the creation, growth, and sustainability of businesses at local, regional, and national levels (Brown & Mason, 2017) while considering environmental, social, and economic impacts (Volkman et al., 2019). They combine elements of traditional entrepreneurial ecosystems (EE)—such as access to finance, talent, networks, and markets—with sustainability-focused principles like resource efficiency, social equity, and long-term resilience (Bischoff & Volkman, 2018; Volkman et al., 2021). However, it is not the mere presence of actors but rather the interactions between them that determine the success of the ecosystem in supporting entrepreneurial activity (Stam, 2015; Stam & van de Ven, 2021).

Prior research assumes that ecosystems have a balance in (supporting) actors. The balance of actor types is vital for ensuring the robustness, resilience, and sustainability of the SEE. Key factors that influence this balance include actor diversity, collaborative networks, adaptation, and coherence (Isenberg, 2010; Roundy et al., 2017). A healthy ecosystem requires a mix of different actor types fulfilling complementary roles (Stam, 2015). As the ecosystem evolves, the balance of actors should adapt over time. For example, as sustainability becomes a more pressing issue and is politically pushed for, traditional investors may start adopting impact investment strategies, thereby increasing their alignment with sustainable entrepreneurship goals (Cohen & Winn, 2007).

Entrepreneurial support organizations (ESOs)—such as incubators, accelerators, science parks, or co-working spaces (Bergman & McMullen, 2022)—are core components of SEEs that provide resources to entrepreneurs as they seek to initiate and develop their ventures (Bergman & McMullen, 2020; Motoyama & Knowlton, 2017; Roundy, 2017; Spiegel, 2016). ESOs play a critical role for new ventures to access resources during early stages when they lack internal resources, legitimacy (Freeman et al., 1983) and face uncertainty of survival due to their liability of newness and smallness—factors that can deter potential partners from engaging in resource exchange (Aldrich & Fiol, 1994; Fisher et al., 2016). Engagement with ESOs within an ecosystem, specifically for sustainable entrepreneurial ventures, is important as it enables increasing the depth and breadth of knowledge of the market, network and exploit ESO's positioning within an SEE, leading to an enhanced diversification of ideas and resources (Kobarg et al., 2019). Through deeper engagement with ESOs, sustainable entrepreneurial ventures can deepen their ties with other SEE agents and hence validate the products and services, approach potential customers and local suppliers. As it is also important for sustainable entrepreneurial ventures to have heterogeneity in their partnership portfolio (Belderbos et al., 2004), they might engage with multiple ESOs aiming to increase their resource base, their breadth and depth choices and shape their market entry and product validation.

Engagement with ESOs is expected to have a positive effect on startup performance and efficiency, as sustainable entrepreneurial ventures may expand their knowledge base (Chesbrough et al., 2006; Stadler et al., 2022) and develop routines that are widely known and practiced within a specific local ecosystem. Such collaboration lowers entry barriers for new sustainable ventures and reduces time to market (Stam and Van de Ven, 2021), thereby alleviating their liability of (Stinchcombe, 1965). Additionally, ESOs help strengthen connections among entrepreneurs (Hruskova et al., 2022) and facilitate ties—both strong and weak—with various SEE actors,

fostering a sense of community (Breznitz et al., 2018) that is particularly important for ventures prioritizing sustainability, SDGs, and engagement with local communities (Volkman et al., 2019).

Given the urgent need to act on grand challenges, policymakers and ecosystem actors have called for more ESOs to provide targeted support for sustainable entrepreneurial ventures (van Rijnsoever, 2022; van Weele et al., 2018). To address market shortcomings, EU policies have strategically funded sustainability-oriented ESOs to enter the SEEs and accelerate sustainable agendas (van Weele et al., 2018). As a result, recent studies show that the number of ESOs has proliferated over the past decades, “being in the tens of thousands worldwide” (Bergman & McMullen, 2022, p. 689), potentially creating munificent ESO landscapes for sustainable ventures. This proliferation challenges traditional assumptions about entrepreneurial ecosystem balance.

This proliferation of munificent ESO landscapes leads to several structural inefficiencies for sustainable entrepreneurial ventures. First, ESOs increasingly provide entrepreneurial education and training in highly varied forms, creating choice overload for entrepreneurs (Serpente et al., 2024). Second, ESOs act as “knowledge filters” in sustainable, knowledge-driven ecosystems, mediating the flow of information and resources, both enabling and constraining entrepreneurs, depending on how effectively they navigate multiple, sometimes competing, intermediaries (Cloitre et al., 2024). Third, entrepreneurial ecosystems operate through mechanisms of interdependence and feedback loops, meaning that over-representation in one domain can produce systemic effects across the ecosystem (Wurth, 2023). Consequently, sustainable entrepreneurial ventures must navigate an emergent and interdependent support architecture rather than simply choosing among discrete offers. This additional layer of complexity is particularly challenging for sustainable entrepreneurial ventures, who already balance social, environmental, and economic logics while engaging with multiple stakeholder demands (Hoogendoorn et al., 2019). Munificent ESO environments add another layer of complexity: the very infrastructures intended to reduce resource constraints may impose new burdens. The search, evaluation, and coordination required to navigate multiple ESOs consume time and cognitive resources, meaning that sustainable ventures’ resourcing practices must shift from resource acquisition to resource navigation.

2.2. *Resourcing in munificent ESO landscapes*

Entrepreneurship research has long conceptualized venture creation as unfolding under conditions of resource scarcity. Foundational studies stress the liabilities of newness and smallness, where entrepreneurs must struggle to secure legitimacy and access scarce capital, talent, and networks (Aldrich & Fiol, 1994; Freeman et al., 1983). This perspective has shaped the dominant resourcing paradigm: entrepreneurs are viewed as resource-constrained actors who must creatively mobilize what is available to them (Clough et al., 2019). Work has elaborated on these dynamics by highlighting entrepreneurial bricolage and frugality, how ventures learn to “get more from less”, when resources are limited (Michaelis et al., 2022). In short, resource scarcity is treated as the defining entrepreneurial resourcing condition.

Yet, this scarcity-centric view sits uneasily with the evolving reality of SEEs. In many contexts, the rapid proliferation of ESOs has shifted the landscape away from scarcity toward munificent resource environments (Bergmann & McMullen, 2022; Hruskova et al., 2023). Sustainable entrepreneurial ventures no longer face a vacuum of support and resources but a crowded, layered, and often fragmented field of resource providers (Hruskova et al., 2022; Scheidgen, 2021). While such munificent ESO landscapes offer opportunities for tailored support, they simultaneously create transaction and operational costs: entrepreneurs must expend significant resources to evaluate, select, and coordinate among overlapping offers. Thus, instead of resourcing under scarcity, sustainable

ventures increasingly face the challenge of resourcing within munificent conditions. As there is a paucity in the literature on this issue, this paper asks: How do sustainable ventures mobilize resources within dense ESO support landscapes, and with what effects?

3. Methods

To answer the question: How do sustainable ventures resource in munificently supported ecosystems and with what effects? This study adopts an inductive, qualitative approach to explore the dynamics of sustainable entrepreneurial ecosystems (SEEs) in two mature urban regions: Copenhagen and Stockholm.

3.1. Research setting

These cities were initially selected as exemplary “best practice” cases of SEEs, widely regarded for their well-developed entrepreneurial infrastructures, strong policy support for sustainability, and vibrant innovation cultures (Karvounaraki & Stevenson, 2024a, 2024b), to study how such ecosystems function in practice and to identify the mechanisms that make them successful in fostering sustainable entrepreneurship. However, as data collection progressed, a striking and unexpected pattern emerged: the proliferation of ESOs was frequently mentioned not only as a strength but also as a source of friction. Both ecosystem players as well as entrepreneurs highlighted redundancies in the offering, administrative burden, and entrepreneur’s disengagement from ESOs and the ecosystem, suggesting that ESO abundance may create unintended constraints rather than enablement. This realization shifted the focus of the study toward exploring how early-stage sustainable ventures resource in over-supported ecosystems and with what effects. This study set out to examine Copenhagen and Stockholm. These ecosystems were selected for their international recognition as innovation leaders and for their long-standing institutional efforts to integrate sustainability into entrepreneurship. Both regions are characterized by a high density of ESOs deeply embedded within their national innovation systems and shaped by decades of policy-driven ecosystem development.

The Stockholm entrepreneurial ecosystem is a globally recognized hub for technology and innovation, provides a compelling case study for the development of a mature entrepreneurial landscape. Its trajectory toward a focus on sustainable entrepreneurship began in the late 20th century, catalyzed by proactive governmental policy and strategic investment in technology and education (Andersson & Olsson, 2019). This ecosystem is distinctively characterized by its “unicorn factory” reputation (Björner & Zetterberg, 2019), built upon a dense network of high-growth technology ventures and a robust culture of entrepreneurial recycling, wherein successful founders reinvest capital and expertise back into the ecosystem (Björner & Zetterberg, 2019). The infrastructure supporting this growth is extensive, with a high concentration of ESOs including state-funded incubators (e.g., KTH Innovation), private accelerators (e.g., Antler), and a diverse range of venture capital firms. Policy frameworks, particularly those implemented by agencies like Vinnova, have been instrumental, providing grants and R&D support that de-risk early-stage ventures (Vinnova, 2025).

In contrast, the Copenhagen entrepreneurial ecosystem offers a distinct model, primarily defined by its deliberate specialization in green-tech and sustainable urban solutions (Jensen & Baykal, 2012). This focus is not accidental but a direct result of decades-long municipal and national policy frameworks aimed at achieving ambitious sustainability goals, such as carbon neutrality (Dahl Andersen & Bugge, 2019). The historical development of this ecosystem has transitioned from a foundation of strong small and medium-sized enterprises to a more specialized hub where entrepreneurial activity is intrinsically linked to grand societal challenges. The infrastructure supporting this growth is extensive, with a high concentration of ESOs including state-funded accelerators (e.g.,

Copenhagen Science City), public-private partnerships (e.g., the Danish Tech Challenge), and a diverse range of venture capital firms specializing in sustainable ventures (Hulgård & Chodorkoff, 2019). The policy environment in Denmark is characterized by a strong welfare state, which reduces the personal risk of entrepreneurship and fosters a culture of collaboration over competition.

3.2. *Sampling and Data Collection*

The data were collected in two sequential waves between 2023 and 2024, following the emergent theoretical focus.

Wave One - Understanding the Ecosystem: The first wave of interviews aimed to get a general understanding of the two ecosystems: important actors, their understanding of sustainability, collaborations, strengths and weaknesses. In the first wave, interviews were conducted, field observations, and supplementary material were conducted to get an understanding of the ecosystems.

The first wave focused on understanding the structure and dynamics of the SEEs. We established two main sampling criteria. First, to capture the full spectrum of sustainability-oriented support, we included ESOs based on their involvement in sustainability, categorized as either fully sustainable (supporting only sustainable ventures) or partly sustainable (supporting both sustainable and conventional ventures). Second, to understand broader ecosystem dynamics, we included other ecosystem actors such as public policymakers, intermediaries, university-affiliated actors, and cluster representatives.

ESOs were identified through a combination of ecosystem mapping, stakeholder recommendations, and snowball sampling during initial fieldwork in Copenhagen and Stockholm. The response rate was notably high, with most individuals and organizations contacted agreeing to participate, reflecting both the openness of the ecosystems and the relevance of the topic. To determine whether an ESO had a sustainability focus, we used criteria such as explicit sustainability-related objectives in their mission statements, targeting of sustainable ventures, and engagement in sustainability-specific support programs (as further detailed in Appendices A and B of the paper).

Additionally, during the initial fieldwork, over 20 participant observations were conducted at ecosystem events, accelerator demo days, and support workshops, offering valuable contextual insights into the structure and dynamics of the entrepreneurial ecosystems. These observations supported the triangulation of interview data by enriching the understanding of the lived experiences of ecosystem actors. Events were either audio-recorded or, in cases where recording was not permitted, detailed field notes were taken contemporaneously to ensure accurate documentation and integration into the analysis.

We conducted 51 interviews with ESO representatives (n=29; Copenhagen = 16; Stockholm = 13) and other ecosystem actors (n=22; Copenhagen = 10, Stockholm = 12). The interviews were semi-structured and conducted either in person or virtually. Their goal was to gain a comprehensive view of the ecosystem architecture and its modes of support for sustainable entrepreneurship. Therefore, the interviews focus on mapping actors of the ecosystem, sustainability in the region, and strengths and weaknesses of the ecosystem. We expressly ensured all interviewees' anonymity to increase candor. Interviews lasted on average 46 minutes (totaling 40 hours). Table 1 provides detailed breakdown of participants by type and city.

Table 1: Overview of Interviewees

	Copenhagen	Stockholm
ESOs	16	13
Entrepreneurs	12	14
Ecosystem actors	10	12
Sum	38	39

Wave Two - Entrepreneurial Experience: Building on insights from the initial ecosystem understanding, the second wave of interviews focused specifically on sustainable ventures operating within the two ecosystems. These interviews aimed to explore how entrepreneurs experienced and navigated the support landscape over time. Particular attention was given to their engagement with ESOs, perceived value of support received, and decisions around participation or disengagement. This phase provided a more granular, entrepreneur-centric perspective that complemented and deepened the ecosystem-level understanding established during the first wave.

The second wave of interviews was guided by emergent patterns from the first wave, especially “too much support”, “redundant support offers”, and “confusion for entrepreneurs”. We established specific sampling criteria to ensure alignment with our research focus: (i) different industries to avoid an industry bias, (ii) different ESO engagement to ensure a variety of stories, (iii) different development stages to get a holistic image on sustainable venture along different stages.

The semi-structured interviews with sustainable ventures were conducted to capture the entrepreneur's perspective on navigating the support landscape. The interviewees were identified through a combination of, web search, stakeholder recommendations, and snowball sampling. While the response rate was slightly lower, the interviews yielded rich, experience-based insights that were essential for understanding strategic engagement and disengagement with ESOs.

We conducted 25 interviews with sustainable entrepreneurs across both cities (Copenhagen =12; Stockholm =13). The interviews were semi-structured and conducted either in person or virtually. These interviews explored how entrepreneurs experience and navigate the support landscape over time, and how their engagement evolves across different stages of venture development with later interviews increasingly focused on confirming or refining emergent insights. We expressly ensured all interviewees' anonymity to increase candor. To prepare the interviews, and to mitigate retrospective and social desirability bias, we collected comprehensive secondary data comprising organizational documents and materials prepared externally. Interviews with sustainable entrepreneurs lasted on average 40 minutes (totaling 18 hours).

Our final data set comprised 76 interviews (totaling 58 hours) with ecosystem players and sustainable entrepreneurial ventures, 180 single-spaced pages of secondary data on these ecosystems, and 1038 single-spaced pages on the ventures, plus 20 participant observations of the ecosystems. All interviews were recorded and transcribed verbatim.

3.3. *Data Analysis*

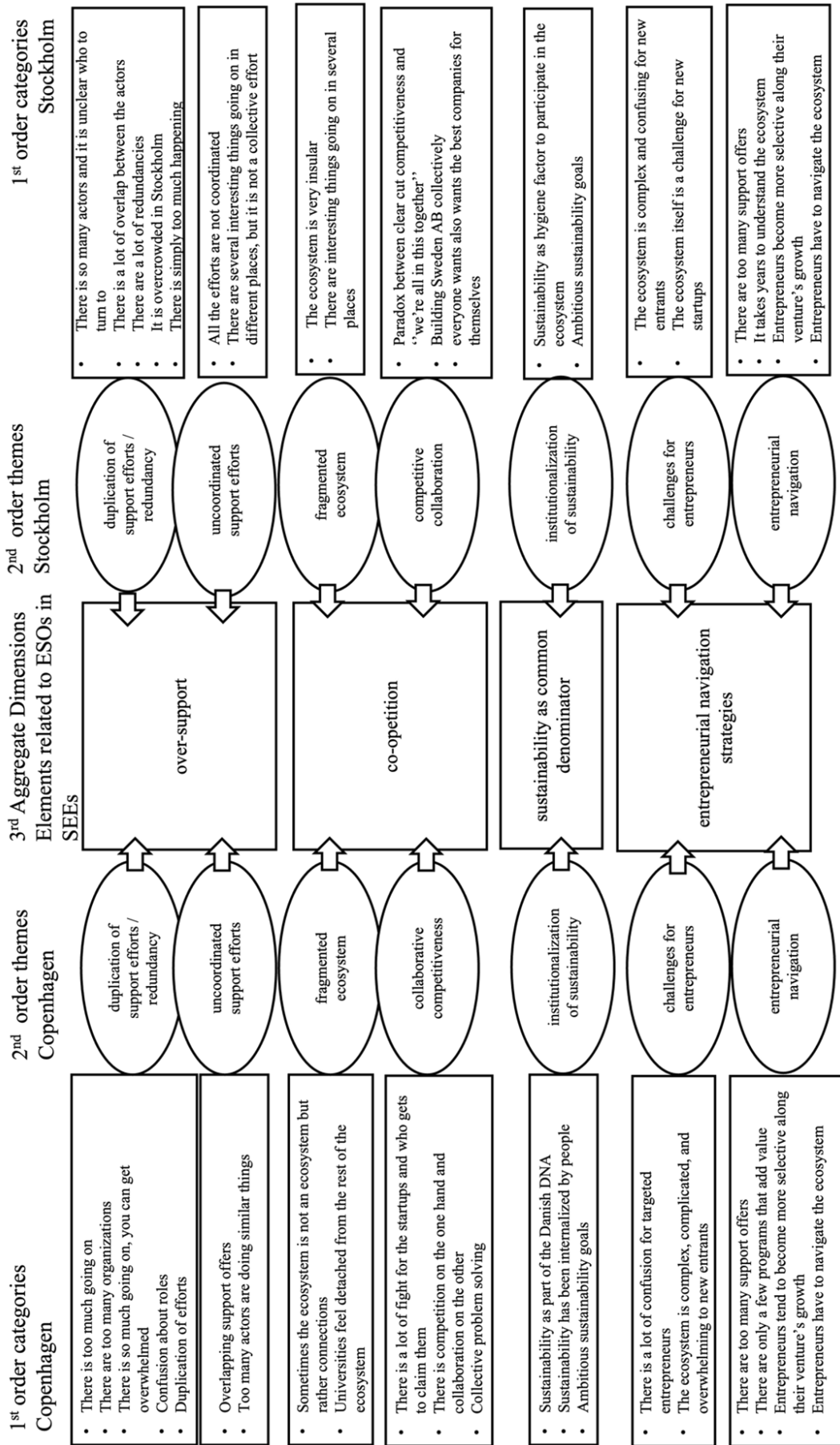
Our analysis followed the Gioia methodology (Gioia et al., 2013), a structured inductive approach that moves from informant-centric codes to abstract theoretical dimensions. The process consisted of three iterative steps.

First-order coding of all interview transcripts was conducted, with procedures continuously discussed among the research team. All discrete instances of venture-ESO interactions and entrepreneur descriptions of their support experiences were coded. Early codes included mentions of “too many programs,” “repetitive support,” “dancing monkey,” “support fatigue,” “being selective,” “they call me persistently,” and “false glorification.” Sustainable venture and ESO characteristics as well as temporal changes in entrepreneur’s attitudes were also coded.

First-order codes were abstracted into second order codes through systematic cross-case comparison. Cases within similar patterns were compared to identify commonalities and across different patterns to understand variance in venture responses to ESO abundance. This cross-case analysis revealed three distinct entrepreneurial response patterns: (i) initial resource hoarding followed by disillusionment due to recognition of ESO self-interest; (ii) strategic showcase participation leading to performance fatigue from continuous legitimacy-seeking activities, and (iii) instrumental, transactional engagement based on resource independence and selective participation.

Finally, through selective coding and repeated theoretical reflection, the three entrepreneurial patterns emerged as distinct approaches to navigating ESO abundance: The Hoarders, The inverted Resources, and The Instrumentally Engaged. Each pattern represents a different trajectory of entrepreneurial resourcing in over-supported ecosystems, characterized by distinct mechanisms of engagement and later disengagement. The resulting data structure (see Figure 1) maps the evolving entrepreneurial experience as ventures move from engagement to eventual disengagement from ESOs in over-supported ecosystems.

Figure 1: Data structure



4. Findings

Within the SEEs of Stockholm and Copenhagen, extensive ESO resources surround sustainable ventures. While these ecosystems offer support networks designed to accelerate venture development, the proliferation and redundancy of similar offerings creates complex resourcing dynamics for sustainable entrepreneurial ventures. When attempting to mobilize resources from this over-supported ecosystem landscape, sustainable entrepreneurial ventures develop distinct resourcing approaches that shape their resource acquisition patterns and development outcomes. We conceptualized these three resourcing approaches as The Hoarders, The Resourced, and The Instrumentally Engaged.

4.1. *Stockholm and Copenhagen as over-supported ecosystem landscapes*

The SEEs in both Stockholm and Copenhagen are characterized by a high degree of maturity, setting benchmarks in both entrepreneurship and sustainability. These cities offer a broad array of resources for sustainable ventures particularly favoring technology and high-growth ventures that pursue sustainability goals. This support is delivered through an extensive network of ESOs: Copenhagen contains approximately 100, and Stockholm approximately 110. The sustainable entrepreneurial ventures analyzed in this study were part of 17 ESOs in Copenhagen and 13 ESOs in Stockholm.

In Copenhagen, 11 out of 17 ESOs are publicly funded, while in Stockholm, 11 out of 13 ESOs receive public funding. All ESOs in both ecosystems provide either dedicated sustainability support to sustainable ventures or combined sustainability and conventional support to both venture types. The majority of ESOs in both ecosystems target early-stage entrepreneurship specifically: Copenhagen has 9 out of 17 ESOs and Stockholm has 7 out of 13 ESOs focusing on this development stage.

The funding structure, primarily driven by EU objectives for sustainable entrepreneurship, has resulted in multiple organizations operating with comparable program designs and target populations. These programs typically offer standardized early-stage business development support, including training (17 out of 30), mentorship (20 out of 30), and access to co-working spaces (13 out of 30). In addition, many ESOs provide access to a network (14 out of 30), and investment support (7 out of 30). The sustainability focus adds specialized components such as impact measurement frameworks, ESG compliance training, and connections to green finance networks, but the core business development programming remains largely uniform across organizations, creating repeated exposure to similar foundational content across multiple programs.

4.2. *The disillusioned Hoarders*

The disillusioned hoarding sustainable entrepreneurial ventures are characterized by initial resource hoarding driven by learning needs. These first-time founders with strong technical but limited business capabilities recognize knowledge gaps that ESOs can address through their foundational business development programs, prompting them to pursue simultaneous ESO engagement and accumulate funding, mentorship, workspace, and training across multiple programs. Initially, this resource accumulation appears valuable and creates validation, as founders perceive it as evidence of ecosystem integration and progress. As ventures mature, they recognize and articulate a mismatch between their evolving, specific needs and ESOs' standardized offerings. This recognition leads to disillusionment and frustration when founders realize ESOs prioritize institutional self-interest over venture development, treating ventures as passive resources for metrics rather than as beneficiaries. Despite wanting to disengage or become more selective in their ESO engagement, ventures become trapped by institutional inflexibility and prior commitments, as accumulated ESO support comes with mandatory requirements that make withdrawal

difficult. This results in partial disengagement constrained by ongoing obligations, leading to temporary waste of venture resources and delayed engagement with stakeholders who could have contributed more meaningfully to their development. Only eventually, ventures achieve more complete long-term disengagement from the ecosystem.

The Hoarders are typically first-time founders coming directly from university settings where they have been exposed to entrepreneurship through courses, hackathons, or impact challenges: “I used to study at DTU [...] and during that time we had a project with sustainable entrepreneurship, participated in the Green Challenge with our idea [...] and ended up winning” (Interview Venture 25). Through their university entrepreneurship experiences, these founders develop initial entrepreneurial aspirations and become aware of ESOs as they are highly embedded within university networks. This positions ESOs as the primary gateway through which these founders enter the broader entrepreneurial ecosystem. These ventures get in contact with ESOs at the earliest stages of venture development—often before having a fully formed business concept.

Entering the entrepreneurial ecosystem with strong technical capabilities but limited business experience, these ventures recognize they have knowledge gaps that need addressing. Their lack of familiarity with basic business concepts and tools—from business modeling to pitching and financial planning—creates an acute awareness of how much they need to learn. This recognition drives their high engagement across multiple ESOs simultaneously, as they pursue all available support offers to accelerate their business education.

Multiple ESOs prove receptive to hosting these ventures simultaneously, accepting them into their programs despite offering similar support. As Interview Venture 25 demonstrates: “Some soft funding, some access to hard funding. And then quite a lot of office spaces that we can have,” and they therefore end up “having like eight different mentors at the moment.” The ventures find themselves accumulating resources across various domains—funding, mentorship, workspace, training programs, and networking opportunities—as different ESOs welcome these promising ventures into their portfolios, creating extensive support that addresses their multiple learning needs.

The founders view this resource accumulation positively, perceiving it as evidence of their successful ecosystem integration and progress. Interview Venture 8 reflects: “We were quite lucky in the beginning to receive this kind of funding from various partners”, while “It’s very nice. We get a lot of support” adds Interview Venture 12, and Interview Venture 11 notes, “We were lucky.” This initial experience enforces their understanding that maximizing ESO engagement represents venture development.

However, as these sustainable entrepreneurial ventures progress and their needs become more specific, they begin to recognize and articulate the fundamental mismatch between their evolving requirements and ESOs’ basic business support offerings. Interview Venture 22 exemplifies this shift, telling one organization: “I told them [...] you defocus us.”, while others simply recognize that they get “distracted by all these programs” (Interview Venture 20). The same programs that once provided crucial support now offer diminishing returns, yet ESOs continue engaging ventures in the same offerings. “They’re pushing people to do a lot of different stuff that they don’t necessarily need [to progress their venture].” (Interview Venture 17). The ventures realize that ESOs function primarily for their own institutional purposes—treating ventures as passive resources within the ecosystem rather than companies that they can offer tailored support. “This has become a business. [...] You feel like you’re bare meat and there are wolves around you.” reflects, Interview Venture 22. The disillusionment crystallizes when founders understand: “We’re slowly realizing we’re just becoming another statistic or another like bullet point in

the existing statistics at this point” note Interview Venture 17. ESOs want to retain these ventures not for the ventures’ benefit, but to maintain their own program metrics and funding justifications.

Simultaneously, the initial resource hoarding/sponging approach creates a false sense of security that masks critical business development gaps. The accumulated ESO support—office spaces, mentors, funding, and program participation—provides a comforting impression of progress and validation that proves misleading, as ventures assume their extensive ESO engagement represents genuine business validation when these resources may not constitute real market validation at all. This false security proves particularly damaging because it prevents ventures from seeking authentic feedback and industry access through other channels, making them less likely to pursue the challenging but essential work of engaging directly with potential customers, industry experts, or market-facing stakeholders. The resource hoarding creates an insular environment where ESO validation substitutes for market validation, leaving ventures inadequately prepared.

Despite recognizing the mismatch and developing frustration, ventures find their attempts at selective engagement or withdrawal constrained by prior commitments and ESOs institutional inflexibility. The initial resource accumulation, which seemed so beneficial, reveals itself as a trap: office spaces, soft funding, and other benefits come with strings attached such as mandatory attendance requirements and milestone obligations that make disengagement difficult. In addition, institutional inflexibility crystallizes when ventures recognize they have already mastered certain content but are still required to participate. “But even if you [...] have all this covered already, you still have to do it. So, in that sense, that’s a lot of work.” (Interview Venture 17). The contractual boundedness becomes increasingly apparent as founders discover the burden of managing multiple committed relationships. Significant time is required “just to stay on top of things” (Interview Venture 8), and the misallocation becomes stark. “If we wanted to, we could have meetings with people every day, all day.” (Interview Venture 25), which “becomes extremely stressful” (Interview Venture 17). Furthermore, falsely marketed and irrelevant ESO activities reinforce their sense of being trapped: “Why are we standing here? Just so that people can take pictures. It’s a trap.” (Interview Venture 20).

This results in significant resource waste as ventures recognize they have consumed substantial time and attention on activities that fail to advance their business development. The resource loss becomes apparent: “You spent so much time, and then you don’t win it” (Interview Venture 25) and resources “doing stuff that might not be relevant for you” (Interview Venture 17). Over time, ventures manage gradual disengagement, becoming more selective in their ESO engagement to preserve capacity for genuinely useful activities. “We’ve actually stopped a lot of the mentoring that we received” (Interview Venture 25) and become “being selective” (Interview Venture 11). As disengagement progresses, some ventures make more decisive breaks: “We decided that for a long time this is going to be the last one” (Interview Venture 17) and “We didn’t get into any other program [even though we had multiple offers]” (Interview Venture 22). Eventually, ventures achieve complete disengagement from the ecosystem, redirecting their efforts toward more relevant stakeholders. Interview Venture 20 exemplifies this shift, stating that “Partnering with larger firms opened doors to additional resources and credibility” and stating he is “not falling in these traps anymore.”

4.3. *The inverted Resources*

The inverted resourced sustainable entrepreneurial ventures are characterized by initial high engagement and rapid ESO success that transforms them from resource recipients into resources for the ecosystem itself. These ventures quickly gain popularity among ESOs, receiving abundant support offerings and becoming showcased as exemplary cases—the exemplary participants who are invited as speakers and spokespersons to validate ESO

offerings and attract other startups to it. The ventures become resourced by the ecosystem—transformed into assets that ESOs extract from rather than entities they support. This creates obligations and expectations that divert venture attention from market activities to ecosystem-serving activities, generating support fatigue as ventures realize their extensive ESO success does not translate to venture progress or success outside the ESOs (false sense of venture progression). Eventually, they recognize this constrains their development and begin rejecting support offers, opting out of programs, and refocusing on market-driven activities.

The resourced ventures enter the ecosystem with a stronger business background than The Hoarders. They are offered and engage actively with multiple ESO programs simultaneously. As Interview Venture 24 demonstrates: “We got funding from Greenup and [...], Innovation Fund, a program called Innofounder. And now we just got Innobooster, [...] Deep Tech Mentoring. [...] And then we've done from Founder to Leader, Women in Tech, and Dell.” Due to their prior education and experience, they do not experience a steep learning curve like the Hoarders, but they take their first steps in the “real life” ecosystem.

Because of their prior education, they appear to know the rules of the game, which is why ESOs quickly perceive these ventures as exceptional participants of the ecosystem. They get actively selected for showcasing opportunities, serving as ideal examples of program success. This leads to continuous outreach and invitations to events and fairs as presenters, speakers, or spokespeople. Initially, the resourced ventures experience this attention positively. Being selected and featured by multiple ESOs, showered with feedback, advice, and mentoring offers, signals their credibility and validates their status as successful entrepreneurs. Interview Venture 21 explains, “You can go to all these meetings where you present your products.”

The attention and the support coming with it, while flattering, become something that does “not add value” (Interview Venture 24) as it does not match their development stage: “You’re getting this international kind of attention and international status. But before we can utilize that, you need to have the product market fit,” Interview Venture 21 reflects. Soon, the constant demands become “overwhelming” (Interview Venture 23). Interview Venture 24 notes: “They call me persistently,” reflecting the intensive ESO interest in maintaining these ventures as active showcase assets. The persistent invitations to ecosystem events create a performance burden where Interview Venture 21 describes feeling “like the dancing monkey sometimes.”

Over time, a support and performance fatigue set in as they realize that the attention serves ESO interests rather than their venture’s needs. “I’m actually just struggling,” explains Interview Venture 24, while the constant requests become “extremely annoying” as ventures recognize they are providing more value to ESOs than receiving it. The false sense of progression becomes apparent as they understand their glorified showcase role constrains rather than advances their venture development.

The resourced ventures assess their ESO engagement and recognize its constraints on their venture building. “There’s a lot of show. [...] but it does become a little bit shallow, because you're not [...] really helping with the business.” (Interview Venture 21). They begin to understand how ecosystem activities hinder their entrepreneurial journey. As Interview Venture 24 notes: “It was really weird to just continue being forced to do the same steps”. Trapped by ESO activities and events, they feel like they are not advancing their business’s development: “You are going to be stuck as a category startup and not a scale-up for too long”, notes Interview Venture 24.

Following this recognition, the resourced ventures actively disengage from the dynamic where they serve as ESO resources rather than focus on their own development. The ventures increasingly refuse to continue functioning as resources for ESO validation and showcase purposes. They reassess their actual needs and begin asserting control over their ESO engagement. “We were in a program, Sting, but we did not find it useful, so we dropped

out.” (Interview Venture 13), demonstrating their willingness to exit commitments that fail to serve venture objectives. Their approach shifts from legitimacy-seeking to evaluation, with Interview Venture 23 explaining: “We often get opportunities. [...] and we usually evaluate them.” If an opportunity presents itself, they evaluate their current needs, and venture stage. Only if a support opportunity proves valuable to their criteria, the founders are “happy to jump on board.” (Interview Venture 23). Unlike in the past, the founders “wouldn’t just do it for the sake of being part of something”, Interview Venture 23 continues. This represents a departure from their earlier behavior of accepting ESO roles to validate themselves within the ecosystem. However, still dependent on ESO resources, “because we are not immediately revenue generating” (Interview Venture 24), the founders try to find a balance between ESO input and output. Venture 7 explains: “If you can’t attract any private funding in that early stage, with soft money you can get going, you have opportunities,” demonstrating the value ESO resources still hold to the ventures.

They recognize that they need to be tested outside the ecosystem: “We need ambition beyond just intention [...] let’s get validated, let’s get it working, let’s go to the EU [...] How can we export this? [...] and that’s what we need”, claims Interview Venture 21. Interview Venture 24 states: “We are not entering programs anymore, and we are very rarely considering it.” By withdrawing from their role as ecosystem resources, they reclaim their autonomy and redirect their energy toward market-focused activities rather than serving ESO institutional requirements.

4.4. *The instrumentally engaged*

The instrumentally engaged sustainable entrepreneurial ventures enter the ecosystem with relevant prior resources—including entrepreneurial experience, established networks, capital, and industry knowledge—operating in established industries that fall outside traditional ESO programming focus. Initially, they perceive minimal value in ESO offerings, viewing standard programming as irrelevant to their business development needs and existing capabilities. However, these ventures realize over time that ESOs can provide specific valuable services, particularly sustainability-related support and certifications that would be costly to obtain elsewhere. This recognition leads to selective engagement where the ventures knowingly accept the trade-off of sitting through basic programming, they do not need in order to get the lifecycle assessments, ESG credentials, and specialized networks they actually want. ESOs simultaneously learn to value these ventures for their expertise, seeking them as mentors and governance participants—roles that allow instrumental ventures to shape the ecosystem while building their professional reputation on their own terms.

The instrumental ventures enter the ecosystem with more experience and resources than other venture types. These are typically serial entrepreneurs or ventures with at least one co-founder bringing prior experience from the target industry or the region, sometimes even major industry incumbents. “I’ve been working in the [industry] practically my entire life” (Interview Venture 14) and “I went into the entrepreneurial journey, building tech companies of different kinds.” (Interview Venture 5) This experience translates into resource endowments: they bring in capital, assets like office space, knowledge, and networks: “[My co-founder] is an older guy. He really made a lot of this possible by opening doors for me.” (Interview Venture 10).

Consequently, their experience and existing access to resources lead them to view ESO offerings as largely irrelevant to their business needs. “We’re over 50 years old, both of us. And that means that it’s been a long time since we needed all that type of support system.” notes Interview Venture 14. Additionally, they perceive the ecosystem as designed for different types of ventures, focusing for example on artificial intelligence in sustainability and looking to build unicorns. “The ecosystem is mainly about [...] more sexy things, honestly.” (Interview

Venture 3), while further explaining “we work with the industry and that is not too common here today.” (Interview Venture 3).

Despite viewing ESO programming as largely irrelevant, instrumental ventures do engage selectively when they identify specific resource needs that ESOs can uniquely fulfill, particular sustainability-related support that would be costly or difficult to obtain elsewhere. “We wanted to leverage the ESG component of our solution,” (Interview Venture 14) and “We wanted to perform a lifecycle assessment on our solution” (Interview Venture 16) illustrating how ESOs provide specialized sustainability expertise, certifications, and assessments that these ventures cannot easily access through their existing networks. Other times they are not even interested in the primary support ESOs offer, but rather in secondary benefits like specialized networks or credentials. “Each one we have entered; it is not for their advice. It is for the agency [...] itself and the relationship,” notes Interview Venture 10.

Critically, and in contrast to the Hoarders and the inverted Resources, these ventures enter ESO relationships with awareness of the trade-offs involved. They recognize they will waste time on irrelevant programming but consciously accept this inefficiency to extract specific, predetermined value. Interview Venture 10 describes the advice-giving sessions as being “like being mansplained by a date,” while Interview Venture 14 explicitly acknowledges their cost-benefit calculation: “We might spend a lot of time doing [...] worthless things. But we will result in having a life cycle assessment in addition to a lot of contacts.” They are accepting inefficient processes and ESO limitations to extract specific, predetermined value from ESO relationships. For most other resource needs beyond sustainability support, instrumental ventures continue to prefer their established networks. The administrative burden ESOs bring reinforces this preference: “We [...] kept on being self-financed because the documentation for having those programs [...] becomes a strain,” notes Interview Venture 19.

However, while instrumental ventures maintain distance from ESO programming as recipients, they often find value in contributing to the ecosystem in advisory capacities as this aligns better with their experience level: “The current CEO is there quite often to hold lectures as well as attend different meetings,” notes Venture 6. Some take on formal governance roles: “I’m actually on the board of one of the [university incubators],” explains Venture 6. While ESO programming does not match their business needs as recipients at large, serving as mentors and advisors allows them to shape the ecosystem, influence the next generation of entrepreneurs, and build their professional reputation while maintaining independence from formal support services.

5. Discussion and Contributions

5.1. Contributions to Entrepreneurial Ecosystem and ESO Literature

This study contributes to entrepreneurial ecosystem literature by shifting from supply-side analysis of ESO provision to demand-side mechanisms of resource mobilization, challenging the linear assumption that more support infrastructure improves entrepreneurial outcomes (Stam, 2015; Stam & van de Ven, 2021). Our findings reveal that the relationship between support density and venture outcomes is non-linear and contingent on ecosystem maturity, venture absorptive capacity, and ESO differentiation. Beyond a threshold, ESO proliferation generates diminishing marginal returns through program redundancy, institutional inflexibility, and role inversion, where ventures become resources for ESOs rather than vice versa. This ecosystem maturity contingency extends Hruskova et al.’s (2022) work by demonstrating that what constitutes beneficial support density in emergent ecosystems like Glasgow becomes counterproductive oversupply in mature SEEs like Stockholm and Copenhagen. In these mature, policy-driven contexts where sustainability has become politically prioritized (Cohen & Winn, 2007; van Rijnsoever, 2022; van Weele et al., 2018), adding ESOs without addressing redundancy generates negative externalities through transaction cost escalation, knowledge filter overlap (Cloitre et al., 2024), and institutional role

confusion rather than strengthening entrepreneurial connections and fostering community (Breznitz et al., 2018; Hruskova et al., 2022).

Our identification of role inversion—where ventures become resources for ESOs rather than vice versa—reveals critical governance challenges in publicly funded ecosystems. When ESO survival depends on engagement metrics rather than venture outcomes, institutional logics incentivize relationship quantity over quality, creating extractive dynamics that misalign with SEE principles of long-term resilience and sustainable value creation (Bischoff & Volkmann, 2018; Volkmann et al., 2019, 2021). ESOs designed to alleviate liability of newness (Stinchcombe, 1965) and facilitate resource exchange (Aldrich & Fiol, 1994; Fisher et al., 2016) paradoxically create new liabilities when institutional imperatives override venture-centric value creation. This suggests ecosystem orchestrators must monitor not just ESO availability but ESO-venture value exchange symmetry, evaluating actor balance in terms of reciprocal value creation versus extractive dynamics (Isenberg, 2010; Roundy et al., 2017).

We advance this entrepreneur-centric perspective by documenting how coordination and transaction costs escalate as ESO engagement intensifies. While existing research examines ESO activities (Bergman & McMullen, 2020, 2022) and system-level effects (Spigel, 2016), we document how sustainable entrepreneurial venture's development is actually affected by their interactions with ESOs. By identifying three distinct resourcing patterns—The Hoarders, The Inverted Resources, and The Instrumentally Engaged—we demonstrate empirically that the expected positive effects of ESO engagement (expanding knowledge bases, lowering entry barriers, alleviating liability of newness, fostering community; (Breznitz et al., 2018; Chesbrough et al., 2006; Hruskova et al., 2022; Stam & Van de Ven, 2021; Stinchcombe, 1965) are contingent on engagement intensity. Initial ESO relationships deliver these benefits, but beyond a threshold, navigation and coordination costs erode marginal value.

5.2. *Contributions to Resourcing Theory*

This study challenges the dominant scarcity paradigm in entrepreneurship research, which emphasizes liabilities of newness and smallness where entrepreneurs struggle to secure scarce resources through bricolage and frugality (Aldrich & Fiol, 1994; Clough et al., 2019; Freeman et al., 1983; Michaelis et al., 2022). The rapid proliferation of ESOs—now numbering in the tens of thousands worldwide (Bergman & McMullen, 2022)—has shifted some contexts toward munificent resource environments where sustainable ventures face crowded, fragmented fields of resource providers (Hruskova et al., 2022; Scheidgen, 2021). Here search, evaluation, and coordination required to navigate multiple ESO options fundamentally shift resourcing practices from resource acquisition to resource navigation, creating transaction costs that consume time and cognitive resources.

We identify hoarding and instrumental engagement as novel resourcing mechanisms emerging in resource-abundant contexts. Hoarding represents ventures accumulating ESO relationships as insurance, pursuing heterogeneity in partnership portfolios (Belderbos et al., 2004) without strategic filtering, ultimately generating diminishing returns as coordination costs escalate. Instrumental engagement represents strategic selectivity where ventures deliberately limit ESO portfolio breadth and extract high-specificity value while avoiding relationship decay. The identified resourcing patterns demonstrate that the same munificent ESO landscape produces systematically different outcomes based on venture engagement, with effects intensifying when ESO collaboration is homogeneous and replicative (Hruskova et al., 2022).

5.3. *Practical Implications for Policy and Ecosystem Design*

Our findings suggest policymakers must calibrate interventions to ecosystem maturity, recognizing that approaches effective in emergent contexts become counterproductive in mature SEEs. In Stockholm and Copenhagen, EU policy-driven ESO funding (van Weele et al., 2018) has created systematic oversupply. Future ecosystem design in these settings should facilitate transition pathways from exploratory breadth engagement toward selective depth engagement, with explicit mechanisms helping sustainable entrepreneurial ventures recognize when engagement complexity becomes counterproductive. ESO performance metrics must shift from engagement volume to venture outcomes, with ESO mandates explicitly discouraging role inversion and aligning incentives with venture-centric value creation consistent with SEE principles (Bischoff & Volkmann, 2018; Volkmann et al., 2021). While urgent grand challenges justify targeted support for sustainable entrepreneurial ventures (van Rijnsoever, 2022), effective support requires strategic curation rather than indiscriminate proliferation.

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Appendices

Appendix A: Copenhagen ESO Support Structure

Copenhagen - ESOs	Target Group	Sus- tain- ability	Gover- nance	Office Space	Soft Funding	Trai- ning	Men- tor-ing	Venture Capital	Access to Network	Investment Support
Bloxhub	Entrepreneurship in the built envi- ronment	•	Private	•						
KU Light House	Student Entre- preneurship	(•)	Public	•		•				
DTU Mentor- ing Program	Student Entre- preneurship	(•)	Public		•	•	•			
DTU Skylab	Student Entre- preneurship	(•)	Public	•	•	•	•			
Tuborg Foun- dation	Sustainable En- trepreneurship	•	Private		•					
Erhvervshus Copenhagen	All Entrepre- neurship	(•)	Public			•	•			
Copenhagen School of En- trepreneurship	Student Entre- preneurship	(•)	Public	•	•	•	•		•	•
DTU Science Park	Student Entre- preneurship	(•)	Semi- Public	•		•	•			
Realdania Foundation	Entrepreneurship in the built envi- ronment	•	Private		•				•	
Copenhagen Capacity	All Entrepre- neurship	(•)	Public				•			
Circular Co- penhagen	Sustainable En- trepreneurship	•	Public				•		•	
Innofund	Student Entre- preneurship	•	Public		•	•	•			•
Medicon Val- ley	Life science En- trepreneurship	(•)	Private						•	
NovoNordisk Foundation	Life science En- trepreneurship	•	Private	•						
GreenUp	Student Entre- preneurship	•	Semi- Public	•						
PreSeed Ven- tures	All Entrepre- neurship	•	Semi- Public					•		
Antler	All Entrepre- neurship	(•)	Private	•		•		•	•	

Appendix B: Stockholm ESO Support Structure

Stockholm ESOs	Target Group	Sustainability	Governance	Office Space	Soft Funding	Training	Mentoring	Venture Capital	Access to Network	Investment Support
Stockholm School of Entrepreneurship	Student Entrepreneurship	(●)	Public			•	•			
RISE	All Entrepreneurship	(●)	Public			•	•			
SU	Student Entrepreneurship	(●)	Public			•	•			
KTH Innovation	Student Entrepreneurship	(●)	Public	•	•	•	•		•	•
SSE Business Lab	Student Entrepreneurship	(●)	Semi-Public	•	•	•	•		•	•
City of Stockholm	All Entrepreneurship	(●)	Public	•		•	•			
Impact Invest	Sustainable Entrepreneurship	•	Semi-Public			•	•		•	
Stockholm Science City	Life Science Entrepreneurship	(●)	Public	•	•		•		•	•
Cradlenet	Sustainable Entrepreneurship	•	Private			•	•		•	
Stockholm Business Region	All Entrepreneurship	(●)	Public				•		•	•
Tilläxtnätverket	All Entrepreneurship	(●)	Public		•	•	•		•	
Almi	Sustainable Entrepreneurship	•	Public		•			•	•	•
Norrskens	Sustainable Entrepreneurship	•	Private	•			•	•	•	
VINNOVA	All Entrepreneurship	•			•			•		