

Original Article

Beyond what the eyes can see: art as a way of connecting actors and promoting social innovation

Mais do que olhos podem ver: a arte como forma de conectar atores e promover a inovação social

Paola Schmitt Figueiró^I , Bruno Anicet Bittencourt^{II} ,
Nathan Pedroni de Oliveira^I , Katiuscia Thais Flores^I 

^I Universidade Feevale, Novo Hamburgo, RS, Brazil

^{II} Universidade do Vale do Rio dos Sinos, São Leopoldo, RS, Brazil

ABSTRACT

Purpose: This paper aims to understand the relationship between actors' roles in an entrepreneurial ecosystem from the perspective of Quintuple Helix to promote Social Innovation.

Methodology: Participatory action research was carried out during the planning and execution of a project involving University, industry, government, and different actors of society inserted in an entrepreneurial ecosystem.

Findings: The data were analyzed following Kemmis and McTaggart (2007): plan, act and observe, and reflect. Based on the Helix concept, the case is characterized as an entrepreneurial ecosystem with the interaction between a group of actors. The results reinforce the importance of collaboration in the process of social innovation and understanding the role of each actor.

Practical implications: The results can help public, private, and non-profit organizations identify their actions, reflect on potential partnerships, and design initiatives capable of generating Social Innovation.

Social implications: Training of artists to be creators of prints, facilitating their insertion in the job market; integration between students and civil society association; connection between footwear industry and civil society association by the donation of pairs of sneakers for children.

Originality/value: This research can help public, private, and non-profit organizations to identify their actions, reflect on potential partnerships, and design initiatives capable of generating social innovation. We emphasize the importance of engagement, collaboration, and value creation for those involved in social innovation processes.

Keywords: Social innovation; Quintuple Helix; Entrepreneurial ecosystem; Collaboration; Action research

RESUMO

Propósito: este artigo tem como objetivo compreender a relação entre os papéis dos atores em um Ecosistema Empreendedor a partir da perspectiva da Hélice Quíntupla para promover a Inovação Social.

Metodologia: foi realizada uma pesquisa-ação participante durante o planejamento e execução de um projeto envolvendo Universidade, indústria, governo, e diferentes atores da sociedade inseridos em um ecossistema empreendedor.

Resultados: os dados foram analisados seguindo Kemmis and McTaggart (2007): planejar, agir e observar, e refletir. Com base no conceito de Hélice, o caso é caracterizado como um ecossistema empreendedor a partir da interação de um grupo de atores. Os resultados reforçam a importância da colaboração e do entendimento do papel de cada ator no processo de inovação social.

Implicações práticas: os resultados podem apoiar organizações públicas, privadas e sem fins lucrativos a identificar suas ações, refletir sobre possíveis parcerias e projetar iniciativas capazes de gerar inovação social.

Implicações sociais: treinamento de artistas para a criação de estampas, facilitando sua inserção no mercado de trabalho; integração entre estudantes e uma associação da sociedade civil; conexão entre a indústria calçadista e associação da sociedade civil por meio da doação de calçados para crianças.

Originalidade: esta pesquisa pode ajudar organizações públicas, privadas e sem fins lucrativos a identificar suas ações, refletir sobre possíveis parcerias e projetar iniciativas capazes de gerar inovação social. Enfatizamos a importância do engajamento, da colaboração e da criação de valor para os envolvidos nos processos de inovação social.

Palavras-chave: Inovação social; Hélice Quíntupla; Ecosistema empreendedor; Colaboração; Pesquisa-ação

1 INTRODUCTION

The growing social inequality that plagues the lives of billions of people around the world requires the search for alternative ways for transformation. Social Innovation (SI) emerges to question the structures and policies that are not able to eliminate problems of this nature. Thus, SI is seen as a way to solve social issues (Cajaiba-Santana, 2014), from the application of new knowledge and that support the solution of stakeholders' social problems (Ndou & Schiuma, 2020). It is based on changes in which new institutions and social systems are created in a logic that starts from the individual to the collective. It is about social mobilization and impact, and it is increasingly considered as an option to face the challenges of sustainability (Repo & Matschoss, 2020).

There are no defined boundaries for SI, which can take place in the public and private sector or non-profit initiatives. The actions happen precisely through the relationships

between people and organizations in the most diverse areas (Murray, Caulier-Grice, & Mulgan, 2010). It is understood that SI is related to solving society's current problems and creating connections among involved actors to facilitate new forms of action (Bennewordt & Cunha, 2015). Connections are the means to achieve social benefits since they provide stability and reliability (Comini, Fischer, & D'amario, 2022).

Despite the increased attention, the existing literature does not sufficiently consider and differentiate among the different SI actors developing and implementing SIs (Eichler & Schwarz, 2019). Much is known about the characteristics and needs of profit-oriented entrepreneurs (Duchek, 2018; Ratinho, Amezuca, Honig, & Zeng, 2020;). The existing literature suggests Entrepreneurial Ecosystems (EE) as a suitable (if not the best) approach to satisfying those needs and fostering economic growth through profit-oriented entrepreneurial activity (Acs, Estrin, Mickiewicz, & Szerb, 2018; Stam, 2018; Stam & Ven, 2021). In recent years, the literature on the EE has continued to evolve in different directions. Thus, Audrestsch, Eichler and Schwarz (2022) suggest that such an approach also be used to understand the relationships of SI actors.

The EE emerges as a driver of SI (Howaldt, Kaletka, & Schröder, 2017). While the primary focus of EE is often on economic value creation, there is an increasing recognition of its importance towards SI. This type of inter-organizational relation can be considered a set of actors and factors that are interdependent and coordinated to enable entrepreneurship within a given space. This approach emphasizes that entrepreneurship occurs in a community of interdependent actors, focusing on the role of the social context in promoting entrepreneurship (Stam, 2015). The basic idea behind EE is the question of how to satisfy the needs of entrepreneurs and involved EE stakeholders (Isenberg, 2016). A recent literature review revealed that in most definitions, EE have geographically defined boundaries and include different interconnected actors and factors (Alvedalen & Boschma, 2017).

To better understand how the relationship between different actors can promote the creation of SI in the EE, we use the lens of the Quintuple Helix (QH) (Carayannis,

Grigoroudis, Stamati, & Valvi, 2019). Such an approach emphasizes the interaction between governments, universities, businesses, society, and the environment to develop solutions. Agostini, Morás, D'Agostini and Carra (2020) argue that SI is achieved more effectively when the relationship between these different actors occurs. However, few empirical studies show how it takes place. It is noticeable that interactions in the entrepreneurial ecosystem are part of an emerging field of research but are underdeveloped and under-theorized and need to be further explored to clarify the existing uncertainty about its nature and its limits (Adner, Oxley, & Silverman, 2013; Simatupang, Schwab, & Lantu, 2015; Spiegel, 2017). We aim to push the discussions about promoting SI in a different direction in which the relationships of the different actors in an ecosystem are understood.

This paper seeks to fill a gap in the literature by discussing the roles and activities of the actors of a specific EE that promotes SI from the perspective of the QH. Thus, the research question that orient this article is: what are the contributions of the actors involved in an Entrepreneurial Ecosystem to the generation of Social Innovation from the perspective of Quintuple Helix? Therefore, this research aims to understand the relationship between actors' roles in an Entrepreneurial Ecosystem from the perspective of Quintuple Helix to promote Social Innovation.

Participatory action research was carried out during the planning and execution of a project called *Arte da Estampa, The Art of Print*, in English. This initiative was selected because it involved University, industry, government, and different actors of society inserted in an EE for the creation of SI. Based on the adopted method, it was possible to identify how the relationship between the different EE actors occurs and the main elements for SI. Thus, contributing to understanding the key roles and actions led by entrepreneurs, academics, public managers, and civil society in enhancing SI. Our research helps scholars gain a better understanding of how it is possible to develop a project through the support and involvement of different actors. The theoretical contribution is given by the approach between three theoretical

perspectives. In addition, two propositions emerged to emphasize the importance of the entrepreneurial side in the involvement of actors and the generation of value beyond the SI developed in the ecosystem.

This article is organized into four sections, in addition to this Introduction. The first section is the theoretical framework, this is followed by the methodological approach, the result analysis, and final considerations.

2 SOCIAL INNOVATION AND THE INTERACTION BETWEEN ACTORS

Social Innovation involves a rupture in the status quo (Andion, Ronconi, Moraes, Gonsalves, & Serafim, 2017) and is presented as an alternative way to achieve a different future for society, recognizing socioeconomic challenges as opportunities to make localities more sustainable through inclusive and cohesive practices (Bignetti, 2011; Sheik, Rooyen, & Mazzei, 2022). It is a concept still under construction, with a significant increase in the number of publications related to the topic (Repo & Matschoss, 2020; Zarelli, Carvalho, & Kock, 2019). There are still gaps to be filled by scholars, mainly because social organizations are not only linked to economic-financial returns but also seek to create social values, such as generosity, strengthening of emotional ties, and inclusion. The understanding of the social relationships established between external actors, such as community and government agencies, in addition to the lack of public policies that are not favorable for the development of SI are relevant as well (Barbosa et al., 2019; Sheik et al., 2022; Rodrigues, Nogueira, & Pinto, 2023).

The SI occurs through boosting agents, and, in general, arises due to government gaps, the final product being the result of societal pressure (André & Abreu, 2006; Bignetti, 2011; Barki, Comini, Cunliffe, Hart, & Rai, 2015; Bonfim, Parisotto, & Miranda, 2019). The interaction between different actors is necessary for SI takes place. Thus, it emerges from a participatory model, where governments, companies, investors, universities, communities, and NGOs are engaged in solving social and environmental

problems, even if the intensity of participation varies according to the type of social innovation created (Segatto, Silva, & Justen, 2019; Rodrigues et al., 2023).

The SI seeks to develop practices that shape social relations in a more democratic and horizontal way (Rodrigues et al., 2023), contributing to change the pathway of local development (Wirth, Tschumi, Mayer, & Bandi Tanner, 2023). It is possible to notice a reduction of dependence on the State, that is, there is a decentralization of public policies, as the organization enables activities that were previously handled only by State (Rodrigues et al., 2023). Regarding to the University, one of the central actors of this research, it is understood that it can encourage mobilization to solve social problems, considering that they empower organizations and communities and strengthen their autonomy (Torlig & Resende, 2019). For SI to be effective and promote sustainable changes, the participation of the beneficiary and different actors in the construction of the solution is necessary (Cloutier, 2003). The social interactions generated from the involvement of different actors promote the exchange of experiences, stimulating knowledge and allowing greater engagement among those involved in projects. The entire collaboration process, combined with social interactions, tends to generate an environment of reliability (Correia, Oliveira, & Gomez, 2016). These actors integrate a system that allows the generation of SI. This system can be defined as an “interconnection of things or actors that develop, disseminate, and use innovation for social issues or needs. It can happen at an institutional, organizational or societal level” (Fulgencio & LeFever, 2016, p. 445).

Cajaiba-Santana (2014) discusses SI as a driver for social change based on legitimate social actions. In other words, these are changes that cannot be created from traditional practices, requiring new ways of thinking, and acting. IS practices involve strategies that organizations can adopt to achieve the proposed objectives. These practices are divided into nine aspects, as presented in Table 1.

Table 1 – Strategies to establish and maintain Social Innovation

Strategies	Description
(1) Co-participation	It is necessary to involve customers, beneficiaries and other stakeholders in the creation of products or services, it is noteworthy that the actors want to share their ideas involving SI, so they look for other actors for support, whether with knowledge, know-how, resources financial or physical space, in addition to the multiple roles they can play.
(2) Generative leadership	Act of building working relationships based on a vision of work and shared responsibility among all, where there is a sense of belonging.
(3) Socially-oriented activities	Primacy of social and community objectives over individual objectives.
(4) Asset-based community development	Connecting people through shared interests, so that they can act on important issues for the group, in this way, they can carry out exchanges on their different dimensions, their contexts.
(5) Cross-subsidization	The search for financial and social balance.
(6) Management of surplus	Use of surplus values to support the organization's sustainability.
(7) Grassroots	Checking what the community needs, what they need, are bottom-up movements, where the community defines, in this aspect there is co-creation, because the community defines what is relevant.
(8) Social relationship	Resource mobilizations such as partnership, co-creation and voluntary support.
(9) Empowerment.	Empowerment is a mediator in the relationship between entrepreneurial practices and the achievement of social objectives.

Source: Adapted from Scoutto, Cicellin and Consiglio (2023); Wirth et al. (2023)

In this context, when compared to other innovation systems, those focused on SI have some particularities, such as a lesser focus on profitable activity, greater involvement of society, and the presence of individuals capable of leading the process of this type of innovation. Thus, these articulations bring to the scene new actors such as society, social entrepreneurs, and private financing institutions (Fulgencio & LeFever, 2016). In this case, the purpose is viewed as a fundamental starting point for the engagement and collaboration of actors in favour of SI, highlighting the importance of the role of the social entrepreneur in the ecosystem (Petrovskaya & Mirakyan, 2017).

The results presented by Repo and Matschoss (2020) reinforce the idea that SI differs from other types of innovation precisely because of its forms of collaboration. This perspective can be related to the innovation generated from different actors that

comprise the logic of the Entrepreneurial Ecosystem and the Quadruple/Quintuple Helix, as shown in the next section.

3 ENTREPRENEURIAL ECOSYSTEM AND THE QUINTUPLE HELIX

In recent years, growing interest in the concept of EE has been identified (Isenberg, 2010; Stam, 2015; Alvedalen & Boschma, 2017). This is motivated by the attention given to entrepreneurship in creating new ventures, promoting social and economic development, and providing a way out of the current financial crisis (Lazzeretti & Capone, 2020).

The concept of EE emphasizes that entrepreneurship occurs in a community of interdependent actors (Stam, 2015). This means that, in isolation, the elements that influence entrepreneurship are insufficient to foster its growth. Therefore, a holistic system is necessary (Isenberg, 2010). For this integration to happen, the actors, as mentioned earlier and elements, must be close. Such proximity favours communication, knowledge sharing, and collaboration, feeding the cycle of discovery, innovation, and creation of new businesses (Zahra, Wright, & Abdelgawad, 2014).

An ecosystem results from a complex environment, whose different domains evolved together and reinforced each other. Therefore, several individuals from companies, universities, government agencies, liaisons, and citizens can work together to generate innovations (Hippel, 1988; Kristensson, Gustafsson, & Archer, 2004; Dahlander & Frederiksen, 2012; Silva & Wright, 2019). However, there is a lack of theoretical basis to understand how and why co-creation among actors generates different value types in the simultaneous search for commercial and social value (Silva & Wright, 2019).

While EE have attracted increasing theoretical interest in the literature, the QH model constitutes a useful theoretical tool for understanding the development of EEs (Carayannis et al., 2019). This model emphasizes how civil society and its environmental considerations (i.e., the environment) play a major role in the knowledge production

system for innovation and entrepreneurship due to the dynamic interplay of EE institutions – university, industry, government, civil society, and the environment.

The QH seeks to answer this question, connecting the interactions promoted by the EE with the SIs generated. The model adds organizations, universities, and government - as seen from the Triple Helix (Etzkowitz & Leydesdorff, 2000) - to users/civil society and the social environment (Carayannis et al., 2019). From these interactions, users or citizens begin to conduct innovation processes. In line with this perspective, new products, services, and innovative solutions are developed through the involvement of users in their role as leading users, co-developers, and co-creators (Carayannis et al., 2019). The fifth helix emphasizes the socio-ecological perspective of society's natural environments, with a focus on interaction, co-development, and co-evolution of society and nature (Carayannis & Campbell, 2010).

Although the QH is aligned with the objective of understanding the phenomenon of social innovation, few studies adopt this approach (Carayannis et al., 2019). Therefore, it is essential to understand the roles and relationships between the actors of an EE (Dedehayir, Mäkinen, & Ortt, 2018). In the next section, the methodological approach is presented.

4 PROMOTING INNOVATION IN ENTREPRENEURSHIP ECOSYSTEMS

In a recent study, Audretsch et al. (2022) seek to explore the relationship of SI and ecosystems. The literature on SI ecosystems is extremely scarce. Searching, e.g., in the Web of Science Database for 'social* innov* ecosystem*', leads to only four results that consider single important aspects of SI ecosystems such as social innovation labs (Lozano, Moliner, Murillo, & Buckland, 2019; Domanski, Howaldt, & Kaletka, 2019). Searching for 'social* innov* system*' leads to 100 results, of which only two articles (Rao-Nicholson, Vorley, & Khan, 2017; Surie & Groen, 2017) slightly broach the SI ecosystem topic. Searching identically for 'social* entrep* ecosystem*' leads to 10 results that also address important single aspects of SI ecosystems e.g.

(e.g. Bozhikin, Macke, & Costa, 2019; Thomaz & Catalão-Lopes, 2019). In the identified literature, the authors highlight the importance of social interaction in the formation of SI ecosystems.

Thompson, Purdy and Ventresca (2018) emphasize that instead of relying solely on top-down approaches commonly used in the implementation of EEs for technological innovations, it is crucial to foster opportunities for social interaction when creating SI ecosystems. Toivonen (2016) highlights the significance of social interaction in SI, such as bringing people together and nurturing a shared culture of change-making. Domanski et al. (2019) acknowledge the importance of reconfiguring the interfaces of cross-sector cooperation and the role of a supportive infrastructure for SIs (Audretsch et al., 2022).

By using the lens of the EE, we can better comprehend that innovations and ventures emerge from the exchanges and interactions among various actors. On the other hand, the QH model allows us to identify the actions undertaken by each actor based on their role within the ecosystem. Therefore, it presents itself as a relevant empirical case for examining how institutional factors influence the entrepreneurial dynamics of the EE space (Lamine, Anderson, Jack, & Fayolle, 2021).

Little research on the institutions that shape EEs has been conducted, and there is a need for a better understanding of the diversity of policy contexts and actors roles (Thomas & Ritala, 2021). Both the EE approach and the QH model include the study of formal and informal institutions regarding socio-technological transformations (Cloitre, Paulino, & Theodoraki, 2022). Lamine et al. (2021) called for more research on the institutional perspective in studies of the dynamic interplay between the helix and EE literature within the context of the space EE. Thus, we seek to fill this gap with action research in a specific EE.

5 METHODOLOGICAL APPROACH

Participatory action research was carried out through a project with developments of a social nature inserted in an EE in the Vale dos Sinos region in southern Brazil.

Different actors were involved from planning to execution, including a company incubated within a University's Technology Park, a civil society association, City Hall, the community, and private companies, as detailed in this section and throughout the analysis of the results. This method was chosen due to the project's transformative action within the community (Kemmis & McTaggart, 2007). Through this methodology, there is no separation between subject and object since the researchers are also subjects of the research and collaboratively participate in its construction.

In addition, this type of research brings together theory and practice, as it takes theory into the field, in such a way that action can be carried out in conjunction with the research participants (Brandão, 1984; Thiollent, 2003; Kemmis & McTaggart, 2007). Additionally, the research is characterized by educational and social transformation since everyone involved learns together. It also includes an emancipatory aspect since, by becoming aware of their situation, the participants began to act more critically concerning the environment in which they are inserted (Kemmis & McTaggart, 2007).

The analyzed project, called *Arte da Estampa*, *The Art of Print*, began through the creation and allocation of a grant by the Secretary of Culture of the Municipality of Novo Hamburgo in the Rio Grande do Sul, south of Brazil, in 2019. The intention was to offer a free pattern creation course to the local community to teach interested community members about illustration techniques and the development of prints.

The project received a grant from the Secretary of Culture to be incubated into Techpark. All the planning and execution of the activities counted on the active participation of the researchers who, in a complementary way, conducted two semi-structured interviews: one with the coordinator of the benefited institution (E1), as will be described in the discussion of the results, and the other interview with the entrepreneur of the company (E2), the proponent of the idea. As such, the research data is based on (i) the participant observation of the authors throughout the entire process of development and execution of the project, as will be detailed in the next section; (ii) the two interviews carried out in the planning stage (E1 and E2); the (iii) feedback

from the entire network involved during the execution (Secretary of Culture, students enrolled in the course and representatives of the companies); and (iv) documents, such as websites, institutional protocols, training material and information from the grant.

For analysis and discussion of the results, the steps proposed by Kemmis and McTaggart (2007) were followed: (1) planning - consists of collecting the necessary data and, jointly, planning the action to be carried out; (2) act and observe - the moment of the action itself, which must be carefully observed in order to generate a wealth of data that will serve to feed the reflection; and (3) reflect - involves reflecting on the action taken and, if necessary, planning a new action. The analysis process brought together the different data collected, showing how the relationship between actors in an EE promotes SI. It is guided by the literature review presented in this article.

6 ANALYSIS AND DISCUSSION OF RESULTS: THE PLANNING OF THE ARTE DA ESTAMPA PROJECT

Seeking to fill the previously mentioned theoretical gap, regarding the understanding of how and why the co-creation of actors generates different types of values in the simultaneous search for commercial and social value (Silva & Wright, 2019), this and the two subsequent sections present and discuss the results of this research. Thus, in line with the first step proposed by Kemmis and McTaggart (2007), the *planning*, this first section brings forth the initial planning of the project and the resulting developments.

Initially, it is important to contextualize the EE in which the project takes place: the Vale dos Sinos region, more precisely in the city of Novo Hamburgo within the Feevale Techpark Technological Park linked to the Feevale University. The area of Vale do Sinos, the cradle of German colonization, can be considered quite entrepreneurial due to the high number of established companies and jobs generated (Sebrae, 2021). In the ecosystem, universities, commercial and industrial associations, and companies operating

in traditional and technological markets stand out. Feevale Techpark plays a crucial role in this scenario. It seeks to promote the University's approach towards companies, encourage the transfer of technology, business competitiveness, and promote new businesses, products, processes, and services (Universidade Feevale, 2022).

In this context, the *A Arte da Estampa* project arises from the idea of its creator to generate social benefits through entrepreneurship. Thus, the founder of Kolmeia Ecosystem identified through the public grant of the Secretary of Culture (Secult) of Novo Hamburgo - *Editais Funcultura*, which aimed at stimulating art and culture, the opportunity to transform the idea into action. Kolmeia is a digital platform with artists who develop exclusive prints for different purposes. Until this moment, the company was in the pre-incubation phase at TechPark.

In this first stage, to submit the project to be considered for the grant, the contents and planning of five meetings were proposed, which would involve the training of artists in the region to be creators of prints and, with that, to have the opportunity to be part of the group that makes up the Kolmeia platform. Thus, 20 positions were created for designers and artists in general, half of which had to be filled by low-income people or not part of the labor market. The project was entered into the "visual arts" category of the grant.

First, the participants would be presented with a challenge proposed by a shoe company also incubated through Feevale Techpark. For the creation of prints, this challenge had its starting point elements, such as the inclusion and diversity of race and gender. The result of this process, that is, one of the prints created in the course, would become a shoe to be marketed by the brand. This was the initial proposal submitted for the grant.

In February 2019, the list of approved projects was released via the Secretary of Culture. The *Arte da Estampa* was granted R\$ 12,000 (around \$2,500) to develop Kolmeia within the Technological Park of the University, be incubated, and cover project execution costs. After the legal procedures, in July of the same year, the project began,

with the course preparation, purchase of materials, and connection with partners (teachers and speakers) who would be part of the project's inaugural class. At this time, the role of the University and the Technological Park became even more evident, considering that the actors mentioned are part of this ecosystem directly or indirectly. In addition, the Technological Park offered all the physical structure to carry out the course and support in publicizing it.

Then, between August and October, the planning and creation of the visual identity and materials for disseminating the course on social media and other places were carried out. It is worth mentioning that, especially for planning the classes and preparing for meetings with potential partners, the entrepreneur had the support and experience of another entrepreneur who had been working in the Fashion industry for a long time. This professional also participated as a speaker at the course's opening, addressing the relationship between Fashion and Purpose.

During this process, the project had a new development, considering the genuine interest of its creator in strengthening the social focus of the proposal. For her,

Kolmeia believes in social design, art, printing techniques, fashion with purpose and would like to bring together companies in the sector and collaborators in a project that could express much more than meets the eye: expressing love (E2).

For this reason, together with the support of a professor and researcher at the University, a new challenge was created for the course participants: to create prints inspired by drawings made by children who could also benefit in some way from this activity. It was observed that this process was very organic and collaborative. The ideas of possible beneficiaries arose from a brainstorming session that generated some ideas. At this moment, the focus turned to the children assisted by *AMO Criança - Oncopediatrics Assistance Association*. It is a non-profit entity located in the city of Novo Hamburgo that attends children undergoing oncopediatric treatment who, in their majority, require social attention and enduring highly complex treatments.

Thus, the first contact was made with the *AMO* coordinator, considering the close link already existing between the University and the Association, which allowed an immediate approach. Thus, in a few days, the first visit to *AMO* was made to present the project and possible interest in benefiting the institution. During this visit, an interview was conducted with the local coordinator (E1), who accepted the invitation to participate in the project on behalf of the Association. From this moment on, a new actor is introduced to the ecosystem discussed here. It was possible to plan the new challenge launched to the artists enrolled in the course.

It is worth mentioning that the way the actors grew closer with one another occurred differently throughout the process. The point of contact and articulation, in most cases, was the creator of the project. The proximity between the actors favors communication, knowledge sharing, and collaboration, feeding the cycle of discovery and innovation (Zahra, Wright, & Abdelgawad, 2014). Given this, the execution of the project and the resulting developments and interrelations are described in the next section.

7 ACTION AND OBSERVATION: GIVING LIFE TO THE *ARTE DA ESTAMPA*

At this moment, the focus falls on the second step proposed by Kemmis and McTaggart (2007), to act and observe. It is the detailing of the action itself, in a process rich in involvement and generation of data that offered areas for reflection. The challenge proposed to the course participants to develop prints inspired by children's drawings and creations started in a workshop conducted by researchers at *AMO Criança*. The activity was carefully planned considering the ages of each participant. Thus, a workshop was held with six children so that they could express what would be a better and more fun world through collages and drawings co-created between them. Space was provided during the dance rehearsals in the weekly workshop that the Association offers. Figure 1 shows one of the activities developed.

Figure 1 – Workshop held with the children



Source: research data (2019)

From the drawings and collages made during the workshop, the artists (participants enrolled in the course) were invited to create prints' ideas after being given directions. After five meetings that dealt with everything from a historical perspective on the art of printing to techniques and tools for its creation, the prints created were presented to the same children who participated in the workshop for them to choose their favorite (Figure 2). The choice was made through a very informal vote so that the children would feel free to decide.

Figure 2 – Children’s choice of print



Source: research data

The chosen pattern was transformed into fabrics that, in turn, were used in the creation of sneakers (Figure 3). In October, this step was possible because relationships were built with local industries before the course began. After visits and negotiations, a total of five companies joined the project. It is worth mentioning that the negotiation with one of the footwear industries took place through an exchange. In this case, the Kolmeia entrepreneur designed by hand an exclusive print that became a shoe marketed by the said company. Digital influencers widely publicized this footwear. In addition, as part of the agreement, three company employees could participate in the course.

As a result, 14 prints were created (Figure 2) for the *AMO Criança* challenge. Afterward, the pattern chosen by the children was produced by a partner textile industry. This print, in turn, was used for 60 pairs of sneakers produced by another

footwear industry located in the region. All pairs were donated to the children directly served by *AMO* and their siblings, as the family received psychosocial support from the Association.

Figure 3 – Sneakers produced from the pattern chosen by the children



Source: research data

The shoes were delivered at the end of the year's party of *AMO Criança*, held in December 2019, and included all the project participants and a guest clown who accepted to participate voluntarily. His participation was particularly important, making the moment even more relaxed and fun. The interaction with the children and being able to see the reactions of each one of them, as well as their families, was quite enriching for the researchers, considering the approach and interaction with the field throughout the process, aligned with the methodological perspective adopted here. The reflections and lessons learned are brought up in the next section.

8 REFLECTION: THE ENTREPRENEURIAL ECOSYSTEM AND SOCIAL INNOVATION

The third and final step proposed by Kemmis and McTaggart (2007), reflecting, involved the reflection generated during the entire project. This discussion follows the perspective that the EE can be considered a set of interdependent and coordinated actors and factors to enable productive entrepreneurship within a given territory, focusing on the role of the social context in this process (Stam, 2015). The developments generated from the articulation of the entire ecosystem described here are diverse. However, generating changes of any kind is challenging and requires collaboration. When it comes to SI, those involved must be part of a participatory model and engaged in solving social problems (Segatto et al., 2019; Rodrigues et al., 2023). It is about being connected to the same purpose.

In *Arte da Estampa*, the starting point was the interest in effectively putting into practice a genuine desire of an entrepreneur who wanted to connect her business to a social project that would benefit community members. This desire informed the project planning and implementation. The difficulties faced were many, but driven by a greater purpose, such as a desire to achieve community goals, placing them above personal desires (Scoutto et al., 2023), the entrepreneur decided to act, seeing in the municipal government grant the opportunity and the right time to initiate the project. The project can be considered a SI since it is an innovative idea with the potential to improve people's quality of life, and its application is directly linked to local development (Agostini et al., 2020).

At each stage of the project, new actors emerged, with some connections being more natural (Scoutto et al., 2023; Wirth et al., 2023) and others from exhaustive negotiation. For example, in searching for a partner to produce shoes, the project creator reports that she received several declines before being accepted. Thus, although the project took place based on community and union, all the actors'

connections and partnerships were challenging. Once again, collaboration plays a central role: “if it weren’t for people believing [sic] together, I wouldn’t have done anything on my own” (E1). According to this, the entire collaboration process, combined with social interactions, tends to generate an environment of reliability, in addition to allowing more democratic and horizontal relationships, thus enabling local development (Correia et al., 2016; Rodrigues et al., 2023; Wirth et al., 2023). In this way, we identify “informal relationships”, that is, relationships that arise from exchanges, collaborations, and emerging demands that go beyond the institutional roles of organizations. Such finding is aligned with the findings of Cloitre, Paulino and Theodoraki (2022) who brings informal factors as influencing collaborative relationships in the ecosystem.

For Kolmeia, the project was a starting point for new social projects, based on practice and all the learning generated. With each completed cycle, with each new actor that joined the project, new ideas emerged, with iteration cycles that led to the results generated for each actor. It was a time to reinforce contacts that already existed, including customers who, at this moment, became supporters. After all, for SI to be effective and promote sustainable changes, the participation of the beneficiary and different actors in the construction of the solution is necessary (Cloutier, 2003). The project represented the opportunity to generate social value.

Concerning the role of the government, for the creator of the project, the public grants focused on the area of culture are not inclusive for companies that are starting. Thus, the public funding considered here was one of the leading facilitators that allowed the project and the entire process to be detailed in this article. In the view of the Secretary of Culture, the testimony of the person responsible for the evaluation of the project shows that it was a creative project from its conception. For him, it was a project that mixed creativity with social responsibility. Thus, the relevance is mainly because it is “a project that thinks not only on the artistic issue but on the economic issue of art, [...] the community members who participated in the workshops would

also have access to a tool for insertion in the job market, by creating their prints” (Secult). It is perceived that such notice is in line with the emerging demand for public managers to foster innovation to promote sustainable local development (Müller, Silva, & Ribeiro, 2020).

There is the importance of the University and the Technological Park in fostering entrepreneurial practices and as a link between different actors in the same ecosystem, such as instructors (teachers and professors), students, and entrepreneurs. The University and its entire structure have the ample capacity to provide and encourage mobilization to solve social problems by strengthening organizations and communities, strengthening autonomy and empowerment (Torlig & Resende, 2019). In addition, it is understood that future professionals must be better equipped at dealing with problems related to sustainability and their possible solutions beyond the corporate environment (Cruz et al., 2020), and projects like *Arte da Estampa* create an opportunity for that to happen. The Technological Park is inserted in the University's macro environment and, for the project's creator, “being in the Park's environment facilitated connections” (E1).

In addition, this relationship, in some ways, legitimizes the participation and contribution of companies towards these kinds of projects that are funded through public grants. Another point perceived as a catalyst for this project and the relationships formed was the involvement of a researcher and its students through their research project, which facilitated a different type of engagement with the project (E1).

Another point observed was that the partnership with companies does not always happen naturally and only one way. For example, the company that donated the shoes received something in return, as previously mentioned. Nevertheless, the company “believed [in the project] more for its purpose, because they do not work with the creation of shoes from scratch [as seen when they received the print to make the shoes], changing the vision to value those who create, to be in the process since the beginning” (E1). During the process of securing partners for the project, it was

noticed that the essence of the idea touched them, this was what caused a “twinkle in their eyes.” It is worth mentioning that there is already guaranteed support for the next edition of the project. This type of action is related to what Sánchez-Hernández et al. (2020) call sustainable entrepreneurship, which is increasingly necessary for organizations in developing countries, such as Brazil.

As for the training of the artists and the learning itself, social interaction and the formation of a contact network between the participants were allowed. Associated with this, they had the opportunity to give visibility to their work, especially those with low income. It was also possible to notice an increase in confidence as the course progressed. One of the participants was surprised to have her creation praised by the course instructors, as she declared she had no experience in drawing creation processes but described herself with a passion for art.

The whole project was based on a win-win relationship. It was the shared interests that made its development and execution feasible, with the connection of the different contexts that each actor faces (Scoutto et al., 2023). At the end of the course, everyone was asked about their satisfaction with the classes, suggestions for upcoming editions, and perceived difficulties in the learning process. From the feedback received in a structured form, it was identified that the participants were delighted but suggested more course time in an upcoming edition. Thus, it would be possible to go deeper into some techniques. It is interesting to observe the participants' perception of the social focus of the course, as exemplified in the answer: “I believe that the ideal behind an idea makes a big difference in the project” (student 3).

One of the main challenges reported by the creator of the course was that some differences between students were not considered in the planning and, in a way, did not allow for inclusion and connection among participants. An example of this is the difficulty of some with technology. There were classes in the university laboratory, and the instructors were unable to give individual attention to mitigate personal challenges and difficulties.

As more immediate results, two of the course students participated in an interactive opportunity of FIMEC - International Footwear Fair - through the prints created by them for Kolmeia. Illustrations were also made for an event on the World Day of Creativity. Moreover, job opportunities are being generated for artists even during the pandemic. For example, four artists who participated in the course created prints for an American shoe brand, in 2020.

At the end of the project, the coordinator of *AMO Criança* mentioned the creation of value generated from the exchange between the University and a social organization as a two-way street. For her (E1), perceiving children's happiness is what gives meaning to the work done. Both the coordinator and the social worker, who were the liaisons between the researchers and the *AMO* activities, were highly receptive. The researchers were entirely free to interact with the children and propose the activities.

Finally, it is worth mentioning a development that was not initially foreseen. The fashion professional, mentioned in the previous section, became a partner of Kolmeia, offering intellectual capital and investing in technology to leverage the business. In addition, the continuity of projects involving art for social transformation was reinforced.

Considering SI as a driver for social change, based on legitimate social actions (Cajaiba-Santana, 2014), Table 2 shows how each actor present in the EE contributed to the generation of SI, in the perspective of the QH. As brought up in the theoretical framework, this perspective considers organizations, universities, and government - defended by the Triple Helix (Etzkowitz & Leydesdorff, 2000) - to users/civil society and the social environment (Carayannis et al., 2019). The fifth helix emphasizes the socio-ecological perspective of society's natural environments (Carayannis & Campbell, 2010).

Table 2 – Contributions of the Entrepreneurial Ecosystem actors to the generation of Social Innovation in the perspective of Quintuple Helix

Continue...

Helix	Actor	Role	Key Activity	Evidence
Organizations	Kolmeia Ecosystem	Creator and proponent of the project	Project development and execution.	Training of artists through the course.
	Industries	Supporter	Sneaker's fabric development and production.	Donation of fabric and pairs of sneakers.
University	Tech Park	Business incubator	The structure offered for the course. Space to foster entrepreneurship.	Space and physical resources made available for the course; support in dissemination.
	Instructor/ Researcher	Liaison	Liaison and planning of activities with AMO; orientation of activities carried out by students.	Connection with benefited Association. Active learning is provided to students.
	Students	Execution support	Assistance and accompaniment in the classes of the course and activities carried out at AMO.	Opportunity for learning and interaction in different university environments and outside.
Government	City Hall/ Secretary of Culture	Fostering via public grant	Offering financial support for cultural support projects.	Project approval.
Community members/ Civil society/ Social environment	Artists participating in the course	Co-creators	Creation of prints.	Opportunity for learning, visibility, insertion in the market, and income generation.
	Children served by AMO	Co-creators	Participation in the activities that generated the directions for the artists.	Opportunity for social insertion. Benefited from the donation of shoes and interaction at the delivery event.
Sociological perspective	AMO Criança	Supporter and Beneficiary	Space and guidance for conducting activities, offering all the necessary support.	It made it possible for children to participate.

Table 2 – Contributions of the Entrepreneurial Ecosystem actors to the generation of Social Innovation in the perspective of Quintuple Helix

				Conclusion
Helix	Actor	Role	Key Activity	Evidence
Sociological perspective	Children and their families	Beneficiary	Participation in the activities proposed by the project.	Opportunity for social insertion. Benefited from the donation of shoes and interaction at the delivery event.
	Artists	Students participating in the course	Creation of prints.	Opportunity for learning, visibility, insertion in the market, and income generation.

Source: research data (2019)

Based on the identification of the role and key activities of each actor that makes up the EE in promoting SI, two propositions were made to facilitate the understanding of these relationships:

Proposition 1: The entrepreneur’s social purpose generates engagement and collaboration in the ecosystem.

The involvement of different actors is an important dimension of the generation of SI (Correia et al, 2016). However, how to engage them is still a challenge. In the *Arte da Estampa* project, more than ten different actors were involved throughout the process of building the solution. It was identified that the project connected people and organizations from the ecosystem to elaborate future projects. Thus, it was verified by the interviews and observations carried out that the critical factor of this mobilization was the entrepreneur’s social purpose. Therefore, the purpose is viewed as a fundamental starting point for the engagement and collaboration of actors in favor of SI, highlighting the importance of the role of the social entrepreneur in the ecosystem (Petrovskaya & Mirakyan, 2017).

Proposition 2: The involvement of different actors in the development of SI creates value for all involved.

With the participation in the development of the *Arte da Estampa* project, it was possible to observe that in addition to the product created, other values were generated during the process for the different actors involved. Thus, it is argued that the gains generated go beyond the construction of SI, benefiting all actors in the ecosystem. This finding corroborates Bittencourt and Figueiró (2019) findings that brought forth the creation of shared value as essential in the construction and maintenance of an ecosystem. The empirical results show that regardless of the role or activity performed, the ecosystem actors perceived individual and collective value in the involvement with a project. In the next section, the study's reflections and considerations are presented in-depth.

9 FINAL CONSIDERATIONS

This research aimed to understand the relationship between actors' roles in an entrepreneurial ecosystem to promote social innovation. Based on the helix concept, it was possible to show that the case is characterized as an entrepreneurial ecosystem, reinforced by the perspective of the Quintuple Helix, with the interaction between a diverse group of actors. This ecosystem was able to generate social innovation from different perspectives.

The *Arte da Estampa* project involved an entrepreneurial ecosystem composed of several actors who, through collaboration, could generate mutual benefits. The following actors stand out: the government, represented by the Secretary of Culture (Secult) of the municipality of Novo Hamburgo; University, with the Technological Park, structure, instructors, and students; the organizations represented by the company proposing the project (Kolmeia Ecosystem) and the supporting industries (textiles and footwear); civil society through the participation of artists in the course and also of the children and families served by *AMO Criança*.

The main perceived social innovations involve the generation of social value from different perspectives. From the government's stimulus towards culture, there

was an opportunity for technical training for the community, with the potential to generate inclusion in the labor market and income for the course participants. In addition, it was possible to create bonds between participants and increase their confidence. Some of them have already created prints to be sold or participated in local events representing Kolmeia.

AMO Criança was a central actor that allowed the approximation with civil society and the project's social purpose. It was fundamental because it allowed children's participation in the workshops in a welcoming way and the winning print choice. In addition, it was a bridge for the delivery of the donation of the pairs of sneakers at its end-of-year party, in which all the attended families participated. It was an opportunity to feel the emotion and gratitude of the families for the assistance and support they receive. For the group of researchers, it was a unique moment where it was possible to watch the dance presentation that the children were rehearsing during the workshops.

The companies, in turn, played an essential role in the production and donation of the pairs of sneakers. In other words, they made it possible to transform the pattern chosen by the children into a gift for themselves. It was possible to note that this support was centered on the social purpose of the idea rather than the potential economic benefit that it could generate for companies. For the University, especially its Technological Park, the benefits involve strengthening its entrepreneurial ecosystem and getting closer to civil society.

Finally, for the entrepreneur who conceived and planned the project, the benefits were evident, including personal ones. It was possible to experience the organic way new actors emerged, connecting to the purpose and being part of the process and the satisfaction from the collaboration and engagement. Added to this is the opportunity for growth of her company and the experience that the whole process provided, including the clear intention to continue the social focus of the business, whether with a new edition of *Arte da Estampa* or new social projects that will emerge. For her, artists need opportunities for further learning that will allow them to expand

their insertion in the job market. Offering this opportunity is one of the business goals. Still, it depends on the support of the entire ecosystem to happen, especially in countries like Brazil, where government resources for culture are still minimal. Finally, the reflection was latent to contributing to the change in the name of the business called Kolmeia Ecosystem, formerly called Kolmeia Hub Prints.

With that, two propositions emerged from the study carried out. The first argues the importance of the entrepreneur's social purpose for the engagement and collaboration of actors in an ecosystem. Based on the assumption that for both the development of SI and the performance in EE, the involvement and exchange of actors is essential. The findings of this research show that the critical factor is the entrepreneurial purpose. On the other hand, the second proposition indicates that the perceived gains go beyond the developed SI from the participation of multiple actors in the ecosystem. It was identified that the benefits generated in the IS construction process went beyond the product produced, with benefits for all those involved.

As the main contributions, we identify the presentation and description, through a participatory methodology, of a case in which the promotion of social innovation from the entrepreneurial ecosystem is evident. With this, it is possible to reinforce the importance of collaboration in the social innovation process and to understand the relationship and the role of each actor in this promotion. Thus, the article starts a discussion, seldom explored in the literature, about the interactions between actors for social innovation. In addition, it helps public, private, and non-profit organizations identify their actions, reflects on potential partnerships, and design initiatives capable of generating social innovation.

In terms of research limitations, it is worth noting the difficulty of systematizing the volume of data resulting from an intense iteration process. As a suggestion for future research, this project is related to other theoretical perspectives, such as Social Learning, Creating Shared Value, University-Business Interaction, and the Orchestration of Innovation Networks.

REFERENCES

- Acs, Z. J., Estrin, S., Mickiewicz, T., & Szerb, L. (2018). Entrepreneurship, institutional economics, and economic growth: An ecosystem perspective. *Small Business Economics*, 51(2), 501–514. Retrieved from <https://link.springer.com/article/10.1007/s11187-018-0013-9>. doi: <https://doi.org/10.1007/s11187-018-0013-9>
- Adner, R., Oxley, J. E., & Silverman, B. S. (2013). *Collaboration and competition in business ecosystems* (Vol. 30). Bingley, England: Emerald Publishing Limited.
- Agostini, M. R., Morás, C., D'Agostini, M., & Carra, L. V. A. (2020). An overview of the theme of social innovation in the three sectors: a research in the studies of the gaúcho universities. *Revista de Administração da UFSM*, 13, 1571–1590. Retrieved from <https://periodicos.ufsm.br/reaufsm/article/view/44270>. doi: <https://doi.org/10.5902/1983465944270>
- Alvedalen, J., & Boschma, R. (2017). A critical review of entrepreneurial ecosystems research: Towards a future research agenda. *European Planning Studies*, 25(6), 887–903. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/09654313.2017.1299694>. doi: <https://doi.org/10.1080/09654313.2017.1299694>
- Andion, C., Ronconi, L., Moraes, R. L., Gonsalves, A. K. R., & Serafim, L. B. D. (2017). Sociedade civil e inovação social na esfera pública: uma perspectiva pragmatista. *Revista de Administração Pública*, 51(3), 369–387. Retrieved from <https://www.scielo.br/j/rap/a/sM48Ppm4gsfY3DkswsMjp6N/>. doi: <https://doi.org/10.1590/0034-7612143195>
- André, I., & Abreu, A. (2006). Dimensões e espaços da inovação social. *Finisterra*, 41(81). Retrieved from <https://revistas.rcaap.pt/finisterra/article/view/1465>. doi: <https://doi.org/10.18055/Finis1465>
- Audretsch, D. B., Eichler, G. M., & Schwarz, E. J. (2022). Emerging needs of social innovators and social innovation ecosystems. *International Entrepreneurship and Management Journal*, 18, 217–254. Retrieved from <https://link.springer.com/article/10.1007/s11365-021-00789-9>. doi: <https://doi.org/10.1007/s11365-021-00789-9>
- Barbosa, F. V., Coelho, C. N., Vieira, L. M., Araújo, P. M., Torga, E. M. M. F., & Medeiros, R. (2019). Inovação social e empreendedorismo: O caso do Projeto Incluir. *Anais do XLIII Encontro da ANPAD - EnANPAD 2019*, São Paulo, SP, Brasil, 43. Retrieved from <https://repositorio.ufmg.br/handle/1843/56323>
- Barki, E., Comini, G., Cunliffe, A., Hart, S., & Rai, S. (2015). Social entrepreneurship and social business: Retrospective and prospective research. *Revista de Administração de Empresas*, 55(4), 380–384. Retrieved from <https://www.scielo.br/j/rae/a/N4kzrj9jdkxNhjWWVxvbj/>. doi: <https://doi.org/10.1590/S0034-759020150402>
- Benneworth, P., & Cunha, J. (2015). Universities' contributions to social innovation: reflections in theory & practice. *European Journal of Innovation Management*, 18(4), 508–527. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/EJIM-10-2013-0099/full/html>. doi: <https://doi.org/10.1108/EJIM-10-2013-0099>

- Bignetti, L. P. (2011). As inovações sociais: uma incursão por ideias, tendências e focos de pesquisa. *Ciências Sociais Unisinos*, 47(1), 3-14. Retrieved from https://revistas.unisinos.br/index.php/ciencias_sociais/article/view/1040. doi: <https://doi.org/10.4013/1040>
- Bittencourt, B. A., & Figueiró, P. S. (2020). Innovation ecosystems articulation and shared value creation. *Cadernos EBAPE.BR*, 17(4), 1002-1015. Retrieved from <https://www.scielo.br/j/cebape/a/DbYmxGh5SXdNnhY4YRcmSK/?lang=en>. doi: <https://doi.org/10.1590/1679-395174403x>
- Bonfim, G., Parisotto, I. R. S. dos, & Miranda, R. L. de. (2019). Os estágios do empreendedorismo social no Projeto Gastromotiva. *Anais do VIII Encontro de Administração Pública da ANPAD – EnAPG*, Fortaleza, CE, Brasil, 8. Retrieved from <https://pdfs.semanticscholar.org/23c4/40bf8243d4b195fedb2795d4a5760bbe767e.pdf>
- Bozhikin, I., Macke, J., & Costa, L. F. da (2019). The role of government and key non-state actors in social entrepreneurship: A systematic literature review. *Journal of Cleaner Production*, 226, 730– 747. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0959652619311540?via%3Dihub>. doi: <https://doi.org/10.1016/j.jclepro.2019.04.076>
- Brandão, C. R. (1984). *Repensando a Pesquisa Participante*. São Paulo: Editora Brasiliense.
- Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, 82, 42-51. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0040162513001236>. doi: <https://doi.org/10.1016/j.techfore.2013.05.008>
- Carayannis, E. G., & Campbell, D. F. (2010). Triple Helix, Quadruple Helix and Quintuple Helix and how do knowledge, innovation and the environment relate to each other? a proposed framework for a trans-disciplinary analysis of sustainable development and social ecology. *International Journal of Social Ecology and Sustainable Development*, 1(1), 41-69. Retrieved from https://www.researchgate.net/publication/273268696_Triple_Helix_Quadruple_Helix_and_Quintuple_Helix_and_How_Do_Knowledge_Innovation_and_the_Environment_Relate_To_Each_Other. doi: <http://dx.doi.org/10.4018/jesd.2010010105>
- Carayannis, E. G., Grigoroudis, E., Stamati, D., & Valvi, T. (2019). Social business model innovation: A quadruple/quintuple helix-based social innovation ecosystem. *IEEE Transactions on Engineering Management*, 68(1), 235-248. Retrieved from <https://ieeexplore.ieee.org/document/8720229>. doi: <https://doi.org/10.1109/TEM.2019.2914408>
- Cloitre, A., Paulino, V. S. dos, & Theodoraki, C. (2022). The quadruple/quintuple helix model in entrepreneurial ecosystems: an institutional perspective on the space case study. *R&D Management*, 53(4), 675-694. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/radm.12547>. doi: <https://doi.org/10.1111/radm.12547>
- Cloutier, J. (2003). *Qu'est-ce que l'innovation sociale?* Montréal: Crises.

- Comini, G. M., Fischer, R. M., & D'amario, E. Q. (2022). Social business and social innovation: the Brazilian experience. *Innovation & Management Review*, 19(2), 140-155. Retrieved from <https://www.revistas.usp.br/rai/article/view/197011>. doi: <https://doi.org/10.1108/INMR-06-2020-0081>
- Correia, S. É. N., Oliveira, V., & Gomez, C. R. P. (2016). Dimensions of social innovation and the roles of organizational actor: the proposition of a framework. *RAM, Revista de Administração Mackenzie*, 17(6), 102-133. Retrieved from <https://www.scielo.br/j/ram/a/HwLymtzCxtW7wQshNGxrMFg/abstract/?lang=en>. doi: <https://doi.org/10.1590/1678-69712016/administracao.v17n6p102-133>
- Cruz, T. S. da, Gomes, S. S. M., Figueiredo, P. S., Sampaio, M. S., Dias, J. M., Fº, & Ferreiro, J. V., Neto (2020). Factors Influencing the Attitudes of Individuals in Favor of Sustainable Development: A Study with Students in the Field of Management. *Revista de Administração da UFSM*, 13, 1133-1153. Retrieved from <https://periodicos.ufsm.br/reaufsm/article/view/42707>. doi: 10.5902/ 19834659 42707.
- Dahlander, L., & Frederiksen, L. (2012). The core and cosmopolitans: A relational view of innovation in user communities. *Organization science*, 23(4), 988-1007. Retrieved from <https://www.jstor.org/stable/23252445>
- Silva, M. de, & Wright, M. (2019). Entrepreneurial co-creation: societal impact through open innovation. *R&D Management*, 49(3), 318-342. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/radm.12362>. doi: <https://doi.org/10.1111/radm.12362>
- Dedehayir, O., Mäkinen, S. J., & Ortt, J. R. (2018). Roles during innovation ecosystem genesis: A literature review. *Technological Forecasting and Social Change*, 136, 18-29. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0040162516307867>. doi: <https://doi.org/10.1016/j.techfore.2016.11.028>
- Domanski, D., Howaldt, J., Kaletka, C., (2019). A comprehensive concept of social innovation and its implications for the local context – on the growing importance of social innovation ecosystems and infrastructures. *European Planning Studies*, 28(3), 454-474. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/09654313.2019.1639397>. doi: <https://doi.org/10.1080/09654313.2019.1639397>
- Duchek, S. (2018). Entrepreneurial resilience: A biographical analysis of successful entrepreneurs. *International Entrepreneurship and Management Journal*, 14(2), 429–455. Retrieved from <https://link.springer.com/article/10.1007/s11365-017-0467-2>. doi: <https://doi.org/10.1007/s11365-017-0467-2>
- Eichler, G., & Schwarz, E. (2019). What Sustainable Development Goals Do Social Innovations Address? A Systematic Review and Content Analysis of Social Innovation Literature. *Sustainability*, 11(2), 522. Retrieved from <https://www.mdpi.com/2071-1050/11/2/522>. doi: <https://doi.org/10.3390/su11020522>

- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations. *Research policy*, 29(2), 109-123. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0048733399000554>. doi: 10.1016/S0048-7333(99)00055-4
- Fulgencio, H., & Fever, H. L. (2016). What is the social innovation system? A state-of-the-art review. *International Journal of Business Innovation and Research*, 2(10), 434-452. Retrieved from https://www.researchgate.net/publication/286012958_What_is_the_social_innovation_system_A_state-of-the-art_review. doi: <http://dx.doi.org/10.1504/IJBIR.2016.074837>
- Howaldt, J., Kaletka, C., & Schröder, A. (2017). Social entrepreneurs: Important actors within an ecosystem of social innovation. *European Public & Social Innovation Review*, 1(2). Retrieved from <https://pub.sinnergiak.org/esir/article/view/43>. doi: <https://doi.org/10.31637/epsir.16-2.4>
- Isenberg, D. J. (2016). Applying the Ecosystem Metaphor to Entrepreneurship: Uses and Abuses. *The Antitrust Bulletin*, 61(4), 564–573. Retrieved from <https://journals.sagepub.com/doi/10.1177/0003603X16676162>. doi: <https://doi.org/10.1177/0003603X16676162>
- Isenberg, D.J. (2010). How to start an entrepreneurial revolution. *Harvard business review*, 88(6), 40-50.
- Kemmis, S.m & Mctaggart. (2007). Participatory Action Research. In N. K. Denzin, & Y. Lincoln. *Handbook of qualitative research* (3rd. ed.). Thousand Oaks, CA: Sage Publications.
- Kristensson, P., Gustafsson, A., & Archer, T. (2004). Harnessing the creative potential among users. *Journal of product innovation management*, 21(1), 4-14. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/j.0737-6782.2004.00050.x>. doi: <https://doi.org/10.1111/j.0737-6782.2004.00050.x>
- Lamine, W., Anderson, A., Jack, S. L., & Fayolle, A. (2021) Entrepreneurial space and the freedom for entre-preneurship: institutional settings, policy, and action in the space industry. *Strategic Entrepreneurship Journal*, 15(2), 309–340. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/sej.1392>. <https://doi.org/10.1002/sej.1392>
- Lazzeretti, L., & Capone, F. (2020). The role of education in the entrepreneurial ecosystem: the case of'Made in Italy Tuscany Academy'in the Florence fashion city. *International Journal of Entrepreneurship and Small Business*, 40(2), 270-290.
- Müller, L., Silva, T. L. da, & Ribeiro, L. A. (2020). Sustainable community development - applicability and global contextualization of urban indicators. *Revista de Administração da UFSM*, 13, 1441–1458. Retrieved from <https://periodicos.ufsm.br/reaufsm/article/view/45233>. doi: <https://doi.org/10.5902/1983465945233>
- Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The open book of social innovation*. London: The Young Foundation.

- Ndou, V., & Schiuma, G. (2020). The role of social innovation for a knowledge-based local development: insights from the literature review. *International Journal of Knowledge-Based Development*, 11(1), 6-25. Retrieved from <https://ideas.repec.org/a/ids/ijkbde/v11y2020i1p6-25.html>
- Petrovskaya, I., & Mirakyan, A. (2017). A mission of service: social entrepreneur as a servant leader. *International Journal of Entrepreneurial Behavior & Research*, 24(3), 755-767. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/IJEBR-02-2016-0057/full/html>. doi: 10.1108/IJEBR-02-2016-0057
- Rao-Nicholson, R., Vorley, T., & Khan, Z. (2017). Social innovation in emerging economies: A national systems of innovation-based approach. *Technological Forecasting and Social Change*, 121, 228-237. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0040162517303359?via%3Dihub>. doi: <https://doi.org/10.1016/j.techfore.2017.03.013>
- Ratinho, T., Amezcua, A., Honig, B., & Zeng, Z. (2020). Supporting entrepreneurs: A systematic review of literature and an agenda for research. *Technological Forecasting and Social Change*, 154. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0040162518311399?via%3Dihub>. doi: <https://doi.org/10.1016/j.techfore.2020.119956>
- Repo, P., & Matschoss, K. (2020). Social innovation for sustainability challenges. *Sustainability*, 12(1), 319. Retrieved from <https://www.mdpi.com/2071-1050/12/1/319>. doi: <https://doi.org/10.3390/su12010319>
- Rodrigues, M. D. C. A., Nogueira, C., & Pinto, H. (2023). Inovações sociais para a utilização sustentável da água. Experiências de pequena escala em Lajedo de Timbaúba (Brasil) e Tamera (Portugal). *Cidades, Comunidades e Territórios*, 55-73. Retrieved from <https://estudogeral.uc.pt/handle/10316/107289>. doi: <https://doi.org/10.15847/cct.28095>
- Sánchez-Hernández, M. I., Dorado-Mayorga, E., Pereira-Álvarez, G. A., Osorio-Atehortúa, U., Malavera-Pineda, S. M., & Montoya-Quintero, J. A. (2020). Sustainable entrepreneurship and new business models: A market research in Colombia. *Revista de Administração da UFSM*, 13(4), 875-894. Retrieved from <https://periodicos.ufsm.br/reaufsm/article/view/55278>. doi: 10.5902/1983465955278
- Scuotto, A., Cicellin, M., & Consiglio, S. (2023). Social bricolage and business model innovation: a framework for social entrepreneurship organizations. *Journal of Small Business and Enterprise Development*, 30(2), 234-267. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/JSBED-02-2022-0094/full/html#abstract>
- Sebrae. (2021). Mapeamento de Startups Digitais do Rio Grande do Sul 2016. Brasília: Sebrae. Retrieved from <https://www.sebraers.com.br/images/pdf/MAPEAMENTO%20-%20STARTUPS%20-%20RS%20-%20COMPLETO.pdf>

- Segatto, A. P., Silva, R. L. M., & Justen, G. S. (2019). Configuração de parcerias em inovação social nos contextos brasileiro e britânico. *Anais do XLIII Encontro da ANPAD - EnANPAD 2019, São Paulo, SP, Brasil*, 43. Retrieved from https://www.researchgate.net/publication/336283993_Configuracao_de_Parcerias_em_Inovacao_Social_nos_Contextos_Brasileiro_e_Britanico
- Sheik, A., Rooyen, D. van, & Mazzei, M. (2022). Social innovation in South Africa: building inclusive economies? *Social Enterprise Journal*, 19(1), 1-22. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/SEJ-07-2021-0060/full/html>. doi: 10.1108/SEJ-07-2021-0060
- Simatupang, T. M., Schwab, A., & Lantu, D. (2015). Introduction: Building sustainable entrepreneurship ecosystems. *International Journal of Entrepreneurship and Small Business*, 26(4), 389-398. Retrieved from https://www.researchgate.net/publication/323905829_Building_Sustainable_Entrepreneurship_Ecosystems. doi: <http://dx.doi.org/10.2139/ssrn.3161598>
- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship theory and practice*, 41(1), 49-72. Retrieved from <https://journals.sagepub.com/doi/10.1111/etap.12167>. doi: <https://doi.org/10.1111/etap.12167>
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. *European Planning Studies*, 23(9), 1759-1769. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/09654313.2015.1061484>. doi: <https://doi.org/10.1080/09654313.2015.1061484>
- Stam, E., & Ven, A. van de. (2021). Entrepreneurial ecosystem elements. *Small Business Economics*, 56(2), 809-832. Retrieved from <https://link.springer.com/article/10.1007/s11187-019-00270-6#citeas>. doi: <https://doi.org/10.1007/s11187-019-00270-6>
- Surie, G., & Groen, A. (2017). The importance of social entrepreneurship in national systems of innovation — An introduction. *Technological Forecasting and Social Change*, 121, 181-183. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0040162517306170>. doi: <https://doi.org/10.1016/j.techfore.2017.05.010>
- Thiollent, M. (2003). *Metodologia da pesquisa-ação*. São Paulo: Cortez editora.
- Thomas, L. D. W., & Ritala, P. (2021). Ecosystem legitimacy emergence: a collective action view. *Journal of Management*, 48(3), 515-541. Retrieved from <https://journals.sagepub.com/doi/full/10.1177/0149206320986617> <https://doi.org/10.1177/0149206320986617>
- Thomaz, I. F., & Catalão-Lopes, M. (2019). Improving the Mentoring Process for Social Entrepreneurship in Portugal: A Qualitative Study. *Journal of Social Entrepreneurship*, 10(3), 367-379. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/19420676.2018.1561497>. doi: <https://doi.org/10.1080/19420676.2018.1561497>

- Thompson, T. A., Purdy, J. M., & Ventresca, M. J. (2018). How entrepreneurial ecosystems take form: Evidence from social impact initiatives in Seattle. *Strategic Entrepreneurship Journal*, 12(1), 96–116. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/sej.1285>. doi: <https://doi.org/10.1002/sej.1285>
- Toivonen, T. (2016). What is the social innovation community? Conceptualizing an emergent collaborative organization. *Journal of Social Entrepreneurship*, 7(1), 49-73. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/19420676.2014.997779>. doi: <https://doi.org/10.1080/19420676.2014.997779>
- Torlig, E. G. D. S., & Resende, P. C., Jr. (2019). Framework de Inovação Social em uma Abordagem Integrativa: Dos Desafios Sociais aos Resultados em uma Perspectiva Universidade-Governo-Comunidade. *Anais do XLIII Encontro da ANPAD - EnANPAD 2019, São Paulo, SP, Brasil*, 43.
- Universidade Feevale (2022). Feevale Techpark: inovação, desenvolvimento tecnológico e empreendedorismo. Retrieved from <https://feevaltechpark.com.br/sobre-o-parque-tecnologico/>
- Hippel, E. von. (1988). *The sources of innovation*. Oxford: Oxford University Press.
- Wirth, S., Tschumi, P., Mayer, H., & Tanner, M. B. (2023). Change agency in social innovation: an analysis of activities in social innovation processes. *Regional Studies, Regional Science*, 10(1), 33-51. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/21681376.2022.2157324>. doi: <https://doi.org/10.1080/21681376.2022.2157324>
- Zahra, S. A., Wright, M., & Abdelgawad, S. G. (2014). Contextualization and the advancement of entrepreneurship research. *International Small Business Journal*, 32(5), 479-500. Retrieved from <https://journals.sagepub.com/doi/10.1177/0266242613519807>. doi: 10.1177/0266242613519807
- Zarelli, P. R., Carvalho, A. P., Kock, M. L. (2019). Inovação social: Análise em habitats de inovação. *Anais do XLIII Encontro da ANPAD - EnANPAD 2019, São Paulo, SP, Brasil*, 43.

Authors

1 – Paola Schmitt Figueiró

Institution: University of Feevale
Novo Hamburgo, Rio Grande do Sul, Brazil
PhD and Master in Business from University of Rio Grande do Sul
Orcid: <https://orcid.org/0000-0002-5160-9831>
E-mail: paolaadm@gmail.com

2 – Bruno Anicet Bittencourt

Institution: Universidade do Vale do Rio dos Sinos
São Leopoldo, Rio Grande do Sul, Brazil

PhD and Master in Business from University of Rio Grande do Sul
 Orcid: <https://orcid.org/0000-0002-6499-3588>
 E-mail: brunoabittencourt@gmail.com

3 – Nathan Pedroni de Oliveira

Institution: University of Feevale
 Novo Hamburgo, Rio Grande do Sul, Brazil
 Master's student (2022) and graduation (2020) in Administration from Feevale University.
 Orcid: <https://orcid.org/0000-0002-7471-073X>
 E-mail: nathan_pedroni@hotmail.com

4 – Kátiuscia Thais Flores

Institution: University of Feevale
 Novo Hamburgo, Rio Grande do Sul, Brazil
 Graduation in Design from Feevale University
 Orcid: <https://orcid.org/0000-0002-9233-3149>
 E-mail: flores.katiuscia@gmail.com

Contribution of authors

Contribution	[Author 1]	[Author 2]	[Author 3]	[Author 4]
1. Definition of research problem	√			
2. Development of hypotheses or research questions (empirical studies)	√	√		
3. Development of theoretical propositions (theoretical work)	√	√		
4. Theoretical foundation / Literature review	√	√	√	
5. Definition of methodological procedures	√	√		
6. Data collection	√		√	√
7. Statistical analysis				
8. Analysis and interpretation of data	√	√	√	
9. Critical revision of the manuscript	√	√		
10. Manuscript writing	√	√	√	

Conflict of Interest

The authors have stated that there is no conflict of interest.

Copyrights

ReA/UFSM owns the copyright to this content.

Plagiarism Check

The ReA/UFSM maintains the practice of submitting all documents approved for publication to the plagiarism check, using specific tools, e.g.: Turnitin.

Edited by

Jordana Marques Kneipp