

ANALYSIS OF THE FUNCTIONING OF SOCIAL INNOVATION ECOSYSTEMS AND THEIR VALUE GENERATED FOR SOCIETY PORTO ALEGRE 2023

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INTRODUCTION

The present work consists of a systematic literature review, whose theme is the analysis of the functioning of Social Innovation ecosystems and their value generated for society. The theme was chosen because it is a current issue, in addition because of its relevance, the social importance of this topic is debated in depth in the literature, however there was not a large amount of work focused on this topic found during the research.

Regarding the work, it is hoped that the reader can understand that with the growing need to build knowledge and solutions for people's lives in general, especially those who are on the margins of society, research on the ecosystem in Social Innovation (IS) can provide new ways to combat poverty and social inequality.

During reading, it will be possible to see that social innovation arises due to the lack of capacity of the State, in general, to meet the demands and needs of the population. In addition, of course, to the poor distribution of policies and resources linked to social development. It can also be mentioned that such demands of society are not met through market laws, all this combined with several external factors generates a great social exclusion of a large part of the population.

Regarding the objectives, it can be stated that the general objective is: to understand how the social innovation ecosystem works, highlighting the main elements involved in its development. As for the specific objectives, they are:

1. Identify and analyze the actors involved in social innovation and their respective roles and contributions in the development of the ecosystem
2. Identify the objective(s) of social innovation ecosystems
3. Verify the impacts generated pointed out in the literature

To answer these questions, a bibliographical research was carried out, where 58 (fifty-eight) articles were found, of which a screening was carried out, where 11 were discarded and of the 47 selected, only 21 were chosen to prepare this systematic review. It is possible to see that the chosen topic has scarce literature. These works were chosen in the Web of Science database and in the Scopus database, both were selected due to their credibility in the academic field. The term used for research was: ecosystem of social innovation, since an attempt was made to have a precise search and restriction of contents that did not address the subject. There are numerous works also focused on this topic, however, so that this review could fulfill its objectives more efficiently, the research was not extended, in order not to make the work exhausting.

In the analysis and discussion, it was possible to clarify the objectives, in addition to being possible to identify and analyze the actors involved in social innovation and their respective roles and contributions in the development of the ecosystem, it was possible to identify their objectives, as well as to verify the generated impacts pointed out in the literature. Concluding that this theme is of great importance for society, because through it it is possible to

clarify social changes, assess their impacts, allowing a micro and macro view of the context and explaining how the identified social actors can act to improve them.

It is known that to detect existing problems in a community, it is necessary to carry out studies on the processes that influence it. For this to occur, an in-depth study of ecosystems and social innovation is necessary, carrying out a historical survey of the *modus operandi* of a community.

It is also possible to conclude that the concept of innovation ecosystems is widely articulated and has a wide range of approaches and definitions. Therefore, understanding its full scope and the ways in which the concept is used in the literature becomes a challenge, as the literature presents different types of innovation ecosystems.

Through this systematic review it can be understood that innovation ecosystems are gaining increasingly more relevance, providing interaction between actors from government, academia, industry and the community in general, based on the development of technologies and new knowledge or a specific geographic location. This interaction contributes to the development of collaboration platforms, prospecting of technologies, establishment of strategic alliances between actors, in addition to other actions that seek the convergence of investments for the development of technologies, products and services that increase the economic potential of the region.

This dynamic present in innovation ecosystems can help to overcome the challenges encountered, with the increase of collaborative actions between the actors of the ecosystem, as well as the increase of strategies aimed at research, development, application and transfer of generated knowledge, contributing to the development regional economy in a sustainable way. The selected articles proved this thesis, through the analyzes explained about innovation ecosystems in communities and their impact on the local economy.

REVISION

Social Innovation

Social innovation (SI), according to Pel; Wittmayer; Dorlan and Jorgesen (2019), understood as the introduction of new social relationships, which has become a prominent topic in innovation research. Another definition of social innovation is given through the work of Pinto; Ferreira and Guerreiro (2021), authors conceptualize it as a different set of phenomena when compared to the strict concept of social, that is, it refers to something new and linked to an area in a specific way, as Pel says; Wittmayer; Dorlan and Jorgesen (2019), whose article states that social innovation refers to new forms of social interaction and relationships and behavior of society, such as the use of social networks for communication and socialization, are configured in a change in social relations, therefore being characterized as innovation. Andion's work; Alperstedt and Graeff (2020), also corroborates the importance of social innovation.

The importance of this topic is also discussed by Kim, Lee, Roh and Son (2020), while the authors state that they are responsible for interconnecting partner actors and providing fertile ground for their interaction; Slimane and Lamine (2017) state that social innovation targets a specific social problem and a population group excluded from access to a product or service considered essential for the survival or dignity of the individual and differs from philanthropic or sponsorship initiatives by aiming to create of economic value and autonomous and lasting businesses.

It is valid to state that the study of the IS process is multidisciplinary, since it

encompasses several areas of knowledge, it is impossible to study social changes in isolation, without analyzing all aspects that govern individuals. As the quote below states, there are several elements that influence the process of social innovation.

On the importance of social innovation, one can highlight the article by the authors Cunha; Ferreira; Araújo; Nunes and Ferreira (2022), through this work it is possible to understand that it is the instrument that allows us to understand the changes that society is going through, in addition, this study states that the topic discussed is an approach that

emphasizes how social needs can be addressed within a given community. Promoting this concept are the studies by Bandeira and Thomas (2023), whose content states that social innovation detects the process by which responses to social needs are given that will give the best results for society.

In other words, the literature states that the study of social innovation allows the problems that a given community faces to be clearly identified and, after mapping them, it is possible to define strategies to mitigate them. This can be confirmed through the quote: Social innovations (Iss) contribute to solving or, at least, mitigating many of the most pressing challenges. (Audretsch; Eichler and Schwarz, 2021). Corroborating this information, there is the work of Murillo and Silva-Flores (2022), in which it is stated that this concept has been gaining visibility due to the fact that it has the potential to identify the factors and leverage points that can promote transformative changes in society and in its governance.

The importance of IS is also highlighted by Louceiro; Scallop; Staalduinen and Zanutto (2022) who state that: Social Innovation processes can be useful to understand the role of citizens (or specific target groups) in transforming society. Empowered citizens will be able to be part of the implementation pathways not as recipients of services, but as the leaders and ultimately the owners of (for example) health interventions and programs.

According to the previously mentioned authors, the concept of social innovation launched the idea of creating communities from the perspective of people who actively express their ideas and solutions, especially those that emerge at the grassroots level, thus increasing equity and empowerment. However, for this reality to be achieved, a profound change is necessary in the way a community is governed, as well as in the mentality of the individuals that make it up. It can be said, therefore, that SI is a new solution to a social problem, more effective, efficient, sustainable or fair than existing solutions, as it allows a broad view of social problems to be found.

Furthermore, according to the literature, more specifically according to the work of Pel, Wittmayer, Dorland and Jørgensen (2019), there are critical aspects that contribute to the success of social innovation, these are directly linked to the participation of partner actors and concern to their training, culture, as well as their conduct. According to Gerli, Chiodo and Bengo (2020), This work, through a systematic review, identified the main factors that impact social innovation, these are:

- I. Public policies-According to Murillo and Silva-Flores (2022), it constitutes a powerful instrument to drive social change, being therefore an agent that directly influences the effectiveness of social innovation.
- II. Technological innovations-According to the reviewed articles, technological innovation is a factor that profoundly impacts social relations, so it can be said that it directly influences the process of social innovation. The more access to technology, as well as the knowledge to use it, a community has, the more it will develop.
- III. Economy-The economic policy of a nation has a great impact on the life of the individual as well as on society. The State must create an environment where citizens have the prospect of economic prosperity, as well as where companies have fertile ground to grow. Lozano; Moliner. Murillo and

- Buckland (2019) also highlight the power of the economy in the process of social innovation.
- IV. Culture-culture, according to the articles read, constitutes a preponderant factor for SI, it can be said that culture directly influences the posture of individuals in the face of social changes in their community.
 - V. Co-creation-According to Kumari; Ki-Seok Kwon; Choi (2019) co-creation is the core of the social innovation process that encourages actors to integrate knowledge and assets, which can provide long-term benefits to society. Co-creation makes social actors who were previously supporting players, protagonists, in this way, in the social and organizational context, it makes processes more effective and since it encourages everyone's participation in social, political and economic development.

It is possible to conclude, in all the works reviewed, the importance of social innovation, as well as the factors that are linked to this concept, Parahoo; Nakeeb and Aendo, also states that these factors make it possible to state that the valorization of social innovation in its capacity to mobilize resources and solve problems, or the orientation towards its social purpose, have been particularly highlighted by some of the most influential authors in this field. domain. The number of works that address this topic is increasing, and it can also be noted that research in this area is recent. As stated by Kruger and David (2020), the authors report that although the term social innovation has a research history, it has recently gained prominence. Furthermore, it was noted that most of the works, almost all of which are foreign studies, Brazilian literature is still scarce on this subject.

The theme above was exposed, so that it could be better understood what ecosystems are in the social process, the objective of this work. In the following topic, this issue will be addressed, bringing concepts from the reviewed articles.

Social Innovation Ecosystem

With regard to innovation ecosystems, for this work the definition of Bengo, Chiolo and Gerli (2021) will be used, the authors conceptualize it as an evolutionary set of actors and relationships with the objective of promoting local innovation performances. As it is a current topic, there is not yet a vast literature, like other subjects, the articles and other works that deal with this area are very specific.

Therefore, it is valid to state that an innovation ecosystem can be seen as an environment, where the actors present aim for innovation and development, these can be human resources, funding lines, universities, incubators, accelerators, investors and people linked to these organizations.

Based on the previous definitions, this topic will fulfill the objective of this work, namely: understanding how the social innovation ecosystem works, highlighting the main elements involved in its development. As well as, the specific objectives will be fulfilled. Regarding the first question, the work of Kumari, Kwon, Lee and Choi (2019) will be used as a basis. The authors state that social innovation ecosystems allow the facilitation of a network of actors that interact and interrelate in various ways. ways to co-create social innovation. Regarding its structure, they stated that it is dynamic and not limited to any geographical border.

Therefore, it is possible to state that social innovation ecosystems are processes that consist of a chain, in which social actors are involved and interact with each other and with other elements, modifying the environment in which they are inserted. As in biology, they work like a chain. As for their objectives, to identify them, the works of Cosimato, Di Paola and Vona (2022) will be used, authors say that ecosystems aim to provide a product/service system, a historically self-organized multilayer social network or managerially designed, composed of

actors who have different attributes, decision principles and beliefs. That is, through these it is possible to elaborate concise solutions to solve the problems of an organization.

In this way, it can be stated that the main objective of innovation ecosystems is to interconnect their actors, allowing a broad view of their roles and tracing the ways in which their performance can contribute to resolve obstacles in an organizational environment.

Another objective is pointed out by Bandeira and Thomas (2023), in their articles they say that social ecosystems are responsible for capturing human and financial resources, among others, to improve the performance of organizations and achieve the ultimate goal of regional economic development.

However, the same authors state that the literature is not clear whether the benefits of localized ecosystems are actually perceived. Since researchers and practitioners have published case studies and best practices for managing innovation ecosystems, but verifying their economic impact remains elusive, this in the context of companies and startups. Still on ecosystems in the context of organizations, Kadyrova (2021) states that it is a term widely used in the innovation and entrepreneurship literature to articulate a set of actors in coevolutions linked by collaborative and competitive relationships that influence innovation and entrepreneurship activity.

This is because studies on this area are recent, so it is possible that knowledge of this area is still shallow, so its benefits are little known, because of this the proportion of organizations, whether public or private, that use the proposed method in studies of social innovation ecosystems is reduced.

Governments still use archaic methods to manage communities, they still do not have deep knowledge of social innovation processes, however the literature in this area is growing and it is hoped that it can be disseminated and fostered in organizations. In this context, the role of social actors in social innovation ecosystems will be analyzed.

Actors that Influence Social Innovation

In this topic, the following objective will be fulfilled: Identify and analyze the actors involved in social innovation and their respective roles and contributions in the development of the ecosystem. For this to be possible, articles such as Cosimato, Paola and Vona (2022) were selected, the actors cite in their work different actors who work in social innovation ecosystems, they are:

1. Citizens
2. Government
3. Industry
4. Gym

According to the authors, these actors work together to co-create the future and drive specific structural changes through social innovation (Pel et al. 2020). It should be noted that these actors change according to the environment, as in biology, ecosystems act according to the geographic region where they are inserted.

According to Terstriep; Rehfeld and Kleverbeck (2020), there are four categories of actors involved in social innovation processes:

1. Developers, who are the innovators who have the ability to translate knowledge about unsatisfactory situations, into innovative ideas and projects, which seek to improve such situations, therefore, are at the center of social innovation activities.

2. The 'Promoters' who are involved in the process through the provision of infrastructure, equipment, funding and geography and institutional schools of thought.
3. Supporters who act as facilitators, assisting in the dissemination and diffusion of social innovations.
4. Knowledge providers, or actors who provide innovation-relevant knowledge, are key to increasing the innovation capacity of regional actors and to accelerating and enriching the innovation process. Social innovation actors can perform several of these roles, which are subject to change over time.

It can also be stated, according to Dantas; Dishwasher; Scallop; Van Staaldunin, Zanutto and Mackiewicz (2022), that there are global and regional actors, in a macro view, global actors are those who act at a national and even global level, they are governments, economy, culture that act externally in a ecosystem. In a micro view, regional actors act directly, they are citizens, laws and elements that are intrinsic to a society.

Therefore, it is possible to identify the main actors involved in social innovation ecosystems, as well as clearly define their performance. It is also worth highlighting that according to Cosimato, Paola and Vona (2022) the poor management of ecosystem actors, in which make accidental or intentional misuse of their personal resources or resources from outside or another system, acting inappropriately/unexpectedly, generates profound impacts on society, according to the authors this leads to the so-called co-destruction of value, a process that occurs when actors have incompatible expectations and misinformation about how resources should be created, used and integrated.

Therefore, it is of fundamental importance to understand how ecosystems work, as well as the elements that make them up. Therefore, it is possible to understand that these elements have responsibilities, which define the success of a social innovation process or its failure, depending on its form. of performance.

METHOD

The method used in this article was a systematic review, this method is of great importance for science, since carrying out a literature review avoids duplication of research or, when of interest, the reuse and application of research in different scales and contexts. It also allows: observing possible flaws in the studies carried out; know the resources necessary to construct a study with specific characteristics; develop studies that make a real contribution to a scientific field; propose themes, problems, hypotheses and innovative research methodologies; optimize available resources for the benefit of society, the scientific field, institutions and governments that subsidize science. It is no coincidence that articles that present literature reviews are usually among the most sought after by readers of scientific publications.

Regarding this work, two databases were used: Web of Science and Scopus. Performing the search on the Scopus platform with the title Social Innovations Ecosystems with the article filter, the search returned with 20 articles on June 6, 2023, on the Web of Science platform the search result returned with 38 articles for the same selection criteria on the same date. After carrying out a screening excluding articles that are repeated on both platforms, articles published in magazines that required payments before they could be used and articles that did not deal with social innovation ecosystems were used as a basis, 47 (forty-seven) articles were selected , according to the established criteria, namely: content – they should contain the terms social innovation and innovation ecosystems, academic relevance – the articles should be published in renowned magazines and topicality – they should address the subject in a contemporary way of these 47 (forty-seven) selected articles, 21 (twenty-one) were cited in this work, due to the relevance of their content. For the preparation of this study, the works selected were from the last

five years, for reasons: the literature focused on this topic is recent and with regard to the objectives of this work, the most recent works were efficient in fulfilling them. It can also be said that it consists of research with a qualitative approach.

The steps for preparing this systematic review were:

1. Preparation of the research question;
2. Search in literature;
3. Selection of articles;
4. Data extraction;
5. Assessment of methodological quality;
6. Assessment of the quality of evidence; It is
7. Writing and publishing results.

As this is a recent study, it was not possible to analyze the history in depth, nor analyze the authors' CV, since it is not a well-known area in the scientific world. One of the difficulties of this research was not finding databases that were references.

It can also be stated that the articles chosen were satisfactory for research, however it was possible to observe that the number of publications on this subject is quite limited, a large part of the works also belong to foreign literature, Brazil still has few studies on the subject. theme. It was also possible to observe that the number of publications focused on this subject is increasing. During the research it was observed that there are not only articles, but also monographs, dissertations and theses, however the quantity of works is quite scarce compared to other areas.

With regard to the authors, it was observed that there is no scholar who stands out, like other areas of knowledge, where there are prominent theorists who become references, with regard to works that address social innovation ecosystems, even there are no prominent authors.

Furthermore, it is suggested that there be new studies focused on this topic, mainly by national theorists, given the importance of this work, as seen throughout this work and it is expected that this work can contribute profoundly to the improvement of relevant aspects of society.

ANALYSIS AND DISCUSSION

In this topic, the data collected from this work will be discussed. For this analysis, categories will be defined, which are intended to facilitate the reader's understanding. With regard to social actors, there are two main categories: a) Global actors and b) regional actors. With this analysis, it is intended that this study makes it possible for the reader to understand which elements act in contexts. Follow the settings.

Global actors: Economy, culture, globalization, can be cited as global actors in social innovation ecosystem systems. According to the works chosen, these actors have great influence on society. Furthermore, there needs to be a geographical analysis of the field of activity of these actors. With regard to a community, it is possible to state that these actors are made up of:

1. Public actor-provide regulations, programs and public policies
2. Knowledge actor-educational institutions, researchers and students
3. Institutional actor-organizations that provide specialized assistance to other actors
4. Development actor-banks, government and investors who finance different stages of the ecosystem
5. Business actor-companies providing requirements

Regional actors: With regard to regional actors, it can be mentioned: individuals themselves, there are others, but for this work we will only consider citizens as regional actors who act in social innovation ecosystems. Through the reviewed works, it is possible to perceive that the participation of citizens is still something that is not encouraged and is quite passive. In many locations, citizens are still supporting the process of social innovation.

Dantas' work; Dishwasher; Scallop; Staalduinen and Zanutto (2022) show through research that most of citizen involvement in social innovation is passive or reactive, meaning that citizens simply respond to requests from other stakeholders, while social innovation processes would be greatly enriched if there was a proactive and creative approach by citizens to co-developing and improving their own communities.

Analyzing the chosen articles, it was possible to perceive that the knowledge of individuals is still precarious, with regard to their role in society. The concept of ecosystem and social innovation, is still precarious in communities. In order to arrive at this conclusion, works on social innovation ecosystems in Europe, Africa and Brazil were read, where it was possible to perceive that in developed countries, citizens have more capacity and critical sense.

It was also able to extract, through the literary review, that in urban areas and rural areas, ecosystems act differently, actors change and act differently, as well as the factors that influence them. It is noted that there is a disparity in the application of their knowledge.

By reading the articles, it can be concluded that the ecosystem concept provides a complete framework for socioeconomic development, in which actors with diverse backgrounds and perspectives work collectively to improve the environment to make it conducive to innovation.

It was not possible to delve deeper into the topic, since academic knowledge about social innovation ecosystems is very scarce and the concept is still vague. One of the most important objectives of research in social innovation is to work on the theoretical foundations of the concept and investigate how social innovations are created, introduced into society and maintained.

Although still emerging as a scientific concept, the social ecosystems approach to innovation, according to Domanski; and Kaletkajá (2019) it is possible to note that it has already helped to make the notion of environment for social innovations more prominent in the scientific debate. This is especially important in relation to the question of how social innovations diffuse, how they are adopted, imitated and translated into other contexts.

According to the work Pel; Wittmayer; Dorlan and Jorgesen (2019), it was also possible to analyze that IS ecosystems can be seen as dependent on three essential types of empowering network constellations. As distinct and mutually complementary constituents of IS ecosystems, these three dimensions specify the concrete actors and empowerment processes involved:

Local Embedding: IS initiatives tend to find fertile ground in their immediate surroundings. Often existing in form including local authorities, NGOs, community organizations, business and educational institutions (Jørgensen et al. 2016). The importance of these local roots is manifested through empowerment processes of (a) legitimacy (meeting local needs); (b) mass critical (for which the neighborhood is also important); (c) provision of accommodation and material resources, and (d) institutional anchorage.

1. **Translocal Connectivity:** In addition to their local incorporation, local IS initiatives are often supported in their attempts at social change through translocal and international collaborations with like-minded local initiatives.
2. **Discursive resonance:** IS ecosystems involve more than local embedding and transnational

connectivity as very immediate support structures of IS initiatives. IS initiatives, and especially the new social relationships they foster, can also be strengthened through broader processes of discursive resonance.

Furthermore, it can be observed that a common feature of an innovation ecosystem is the availability of research and commercial resources, according to Carayaniss; Gricoroudis; Stamati; Valvi (2023). A second common feature, pointed out by Biggeri; Testi; Belluci (2017) why entities in an ecosystem are geographically located and focused on a few overlapping sectors. As well, it's worth noting that a high-priority goal of any innovation ecosystem is the development of robust business and social networks.

In the context of organizations, more specifically business, the literature points out that the definition of ecosystem can contribute to the success of startups, since innovation ecosystems are also supported by a positive “*cluster effect*” because companies with shared ambitions are close to each other. Clustering can facilitate effective networking and knowledge transfer between companies with similar interests, knowledge and experience, important when companies need access to natural resources, complementary skills from other companies and a competent workforce supply.

There is still much to be studied on the subject, however it is noticeable that it is of great relevance, although there are few works focused on this subject, the articles read show that knowledge of the area is a fertile field, where knowing how it works can generate impacts deep

CONCLUSION

Through this systematic review, it was possible to conclude that innovation ecosystems constitute an emerging concept, which require further studies on the area, however the existing literature makes clear its importance, objectively clarifies its concept and its objectives. , fulfilling what was proposed in this work.

Through this study, it is intended to expand knowledge on this subject, so that it is promoted in all social spheres, contributing to more aware and critical citizens regarding their social role and more effective and efficient form of government. Since, through the revised literature, it was possible to understand the importance of social innovation ecosystems for building a more developed community, where it is possible to have a broad view of the problems, as well as the solutions.

The selected articles were based on a profound question, namely: analysis of the functioning of Social Innovation ecosystems and their generated value for society. It is suggested that there is more research focused on this topic, since there is still not a history and a vast literature. It is worth mentioning that in the first screening, articles were selected that contained the theme's keywords, however after a second review it was noticed that not all of them fit the context. However, the selected articles were satisfactory for the objectives of this work.

Furthermore, through the analysis carried out, it is expected that the reader can identify the existing ecosystem in their locality, as well as the actors who work there, identifying their role and being able to define how they should act. As well as identifying the social innovation taking place in your community.

Finally, it is concluded that the present study achieves its purpose of offering an overview of the Brazilian innovation ecosystem, showing who are the main actors and how they act in the ecosystem. For the future, it is suggested to carry out a more in-depth study in relation to the Brazilian innovation ecosystem, after all, this study offers an overview for an initial understanding of the subject.

REFERENCES

- Andion, C., Alperstedt, G.D., Graeff, J.F. (2020). Social innovation ecosystems, sustainability, and democratic experimentation: A study in Florianópolis, Brazil. *Public Administration Magazine*, 54(1):181-200.
- Audretsch, D.B., Eichler, G.M., Schwarz, E.J. (2021). Emerging needs of social innovators and social innovation ecosystems. *International Entrepreneurship And Management Journal*, 18(1), 217-254.
- Bandeira, C., Thomas, E.O. (2023). Role of Innovation and Capital Ecosystems in the survival of startups. *IEEE Transactions on Engineering Management*, 66(4), 542-551.
- Biggeri, Mario; Testi, Enrico; Bellucci, Marco. (2017). Enabling ecosystems for social enterprises and social innovation: A capability approach perspective. *Journal of Human Development and Capabilities*, 18(2), 299-306.
- Bragaglia, F. (2023). 'Let's do it together': Fostering social innovation through a university-community collaboration. The Grandangolo project in the Aurora neighbourhood in Turin. *Urban Research & Practice*, 16(2), 301-305.
- Carayannis, E.G., Grigoroudis, E., Stamati, D., Valvi, T. (2023). Social business model innovation: Based on quadruple/quintuple helix of social innovation ecosystem. *IEEE Transactions on Engineering Management*, 88(1), 235-248.
- Cosimato, S., Paola, N.D., Vona, R. (2022). Digital social innovation: How healthcare ecosystems face Covid-19 challenges. *Technology Analysis & Strategic Management*, 1-16.
- Cunha, J., Ferreira, C., Araujo, M., Nunes, M.L., Ferreira, P. (2022). Social innovation projects link to sustainable development goals: Case of Portugal. *International Journal of Sustainable Development & World Ecology*, 29(8), 725-737. Informa UK Limited.
- Dantas, C., Loureiro, J., Vieira, J., Van Staalduinen, W., Zanutto, O., Mackiewicz, K. (2022). SHAFE mapping on social innovation ecosystems. *International Journal of Environmental Research and Public Health*, 20(1), 118.
- 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.
- Gerli, F., Chiodo, V., Bengo, I. (2020). Technology transfer for social entrepreneurship: Designing problem-oriented innovation ecosystems. *Sustainability*, 13(1), 20.
- Kadyrova, A. (2021). Exploring Structures of Urban Social Innovation Ecosystems: cases of Manchester, Utrecht, Stockholm, Sofia and Budapest. *Journal of Social Entrepreneurship*, 1-23.
- Kim, M.G., Lee, J.H., Roh, T., Son, H. (2020). Social entrepreneurship education as an innovation hub for building an entrepreneurial ecosystem: The case of the KAIST social entrepreneurship MBA program. *Sustainability*, 12(22), 9736.
- Kruger, D., David, A. (2020). Entrepreneurial education for persons with disabilities-A social innovation approach for inclusive ecosystems. *Frontiers In Education*, 5(1), 1-17.
- Kumari, R., Kwon, K.S., Lee, B.H., Choi, K. (2019). Co-Creation for Social Innovation in the Ecosystem Context: the role of higher educational institutions. *Sustainability*, 12(1), 307.
- Lozano, V.A., Moliner, L.A., Murillo, D., Buckland, H. (2019). Understanding the effects of social capital on social innovation ecosystems in Latin America through the lens of social network approach. *International Review Of Sociology*, 29(1), 1-35.
- Parahoo, S.K., Al-Nakeeb, A.A. (2019). Investigating antecedents of social innovation in public sector using a service ecosystem lens. *International Review On Public And Nonprofit Marketing*, 16(2-4), 235-253.
- Pel, B., Wittmayer, J., Dorland, J., Jorgensen, M.S. (2019). Unpacking the social innovation ecosystem: An empirically grounded typology of empowering network constellations. *Innovation: The European Journal of Social Science Research*, 33(3), 311-336.
- Pinto, H., Ferreira, S., Guerreiro, J.A. (2021). The emergence of a Social Innovation Ecosystem in Portugal: an exploratory approach based on the perspective of strategic stakeholders. *European Public & Social Innovation Review*, 2(6), 15-34.
- Slimane, K.B., Lamine, W.A. (2017). Transaction-based approach to social innovation. *The International Journal Of Entrepreneurship And Innovation*, 18(4), 231-242.
- Terstriep, J., Rehfeld, D., Kleverbeck, M. (2020). Favourable social innovation ecosystem(s)?-An explorative approach. *European Planning Studies*, 28(5), 881-905.

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