



AN ECOSYSTEM OF SOCIAL INNOVATION? ANALYSIS OF THE ROLE OF THE ACTORS WHO MAKE UP 4H IN THE AVEIRO REGION, PORTUGAL

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ABSTRACT

Objective: Understand the functioning of the Social Innovation Ecosystem (SIE) in the Intermunicipal Community of the Aveiro Region (ICAR) regarding the role of public policies from the University of Aveiro (UA) of social entrepreneurs and their typology.

Theoretical Framework: Social Innovations (SI) are innovations that are social in their ends and means. Due to the positive social results, they enhance the capacity of civil society to act. This mobilization of individuals is present in the Quadruple Helix Innovation System Framework. This model is related to the concept of EIS, which includes social entrepreneurs, investors, beneficiaries, and public policy.

Method: A literature review of national, regional, and local strategic documents. It relies on the results of a national study on the EIS, Sled by the UA, in partnership with the Portugal Social Innovation Mission Structure (PSIMS).

Results and Discussion: Combining the analysis of SI projects supported by PSIMS with the initiatives promoted by regional and local policy and with support from the UA allowed us to obtain the profile of the SIE actors in ICAR and their contribution to the success of the SIE.

Research Implications: This exploratory study is the initial stage of a more in-depth investigation into the role of actors in SIE. It is expected that this mapping will help to build regional and local strategies that facilitate the success of SI initiatives.

Originality/Value: Contributes to the evolution of knowledge within the scope of the functioning of regional SIE in Portugal. Its recommendations and discoveries hope to be integrated into the promotion of improvements to its operation.

Keywords: Social Innovation, Ecosystem, Aveiro Region.

UM ECOSISTEMA DE INOVAÇÃO SOCIAL? A ANÁLISE DO PAPEL DOS ATORES QUE COMPÕEM A 4H NA REGIÃO DE AVEIRO, PORTUGAL

RESUMO

Objetivo: Compreender o funcionamento do Ecossistema de Inovação Social (EIS) na Comunidade Intermunicipal da Região de Aveiro (CIRA), no que diz respeito ao papel: das políticas públicas; da Universidade de Aveiro (UA) dos empreendedores sociais e a sua tipologia.

Referencial Teórico: As inovações sociais (IS) são inovações que são sociais nos seus fins e nos seus meios. Pelos resultados sociais positivos, potenciam a capacidade de atuação da sociedade civil. Esta mobilização dos indivíduos está presente na *Quadruple Helix Innovation System Framework*. Este modelo está relacionado com o conceito de EIS, do qual fazem, parte empreendedores sociais; investidores; beneficiários; políticas públicas.

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Método: Revisão da literatura por documentos estratégicos nacionais, regionais e locais. Conta com os resultados de um estudo nacional sobre o EIS, liderado pela UA, em parceria com a Estrutura de Missão Portugal Inovação Social (EMPIS).

Resultados e Discussão: Conjugando a análise dos projetos de IS apoiados pela EMPIS, com as iniciativas dinamizadas pela política regional e local, e com apoio da UA, permitiu obter-se o perfil dos atores do EIS na CIRA e o seu contributo para o sucesso do EIS.

Implicações da Pesquisa: Este estudo exploratório é o estágio inicial de uma investigação mais aprofundada sobre o papel dos atores no EIS. Espera-se que este mapeamento ajude à construção de estratégias regionais e locais, que facilitem o sucesso das iniciativas de IS.

Originalidade/Valor: Contribui para a evolução do conhecimento no âmbito do funcionamento dos EIS regionais em Portugal. As suas recomendações e descobertas esperam vir a ser integradas na dinamização de melhorias ao seu funcionamento.

Palavras-chave: Inovação Social, Ecossistemas, Região de Aveiro.

¿UN ECOSISTEMA DE INNOVACIÓN SOCIAL? ANÁLISIS DEL PAPEL DE LOS ACTORES QUE CONFORMAN 4H EN LA REGIÓN DE AVEIRO, PORTUGAL

RESUMEN

Objetivo: Comprender el funcionamiento del Ecosistema de Innovación Social (EIS) en la Comunidad Intermunicipal de la Región de Aveiro (CIRA), en lo que respecta al papel de: las políticas públicas; de la Universidad de Aveiro (UA) de emprendedores sociales y su tipología.

Marco Teórico: Las innovaciones sociales (IS) que son sociales en sus fines y medios. Debido a los resultados sociales positivos, mejoran la capacidad de acción de la sociedad civil. Esta movilización de individuos está presente en el Marco del Sistema de Innovación Cuádruple Hélice. Este modelo está relacionado con el concepto de EIS, que incluye a los emprendedores sociales; inversores; beneficiarios; políticas públicas.

Método: Revisión bibliográfica de documentos estratégicos nacionales, regionales y locales. Se basa en los resultados de un estudio nacional sobre la EIS, liderado por la UA, en colaboración con la Estructura de la Misión de Innovación Social de Portugal (EMISP).

Resultados y Discusión: Combinar el análisis de proyectos de IS apoyados por EMISP, con iniciativas impulsadas por la política regional y local, y con el apoyo de la UA, nos permitió obtener el perfil de los actores de EIS en CIRA y su contribución al éxito de EIS.

Implicaciones de la investigación: Este estudio exploratorio es la etapa inicial de una investigación más profunda sobre el papel de los actores en la EIS. Se espera que este mapeo ayude a construir estrategias regionales y locales que faciliten el éxito de las iniciativas de IS.

Originalidad/Valor: Contribuye a la evolución del conocimiento en el ámbito del funcionamiento de los EIS regionales en Portugal. Sus recomendaciones y descubrimientos esperan integrarse en la promoción de mejoras en su funcionamiento.

Palabras clave: Innovación Social, Ecossistemas, Região de Aveiro.

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1 INTRODUCTION

The concept of Social Innovation (SI) has evolved over time, with over 200 years of theorization. While market-oriented innovations are motivated by private economic ends, SI is driven by the resolution of societal challenges, not met by the market or the State (Audretsch, Eichler & Schwarz, 2022).

Quadruple Helix Innovation System Framework innovation model – civil society, is related to the concept of ecosystem. In this, civil society functions as the beneficiary of the product of the innovations produced, with its innovative role (Carayannis *et al.*, 2014).

The metaphor of the Ecosystem concept, imported from ecology, is based on the existence of a network of actors that actively work to promote the development of social innovation (Granstrand & Holgersson, 2020; Bloom & Dees, 2008). This concept is related to the Social Innovation Ecosystem (SIE). Gatica, Soto & Vela (2015) listed some actors that "gravitate" in the SIE, among them, social entrepreneurs, market/investors, beneficiaries and public policies (PP) that support it. Most SIEs have a local or regional geographic scale, with a strong territorial affiliation (OECD, 2021).

The main objective of this research is to understand the contribution of the actors that make up the EIS, with regard to the 4th helix: public policies; social entrepreneurs; universities or knowledge centers; involvement of civil society.

Combining the analysis of social innovation projects supported by Portugal Inovação Social, initiatives promoted by regional political power and the support of the UA, in the promotion and support of the development of IS initiatives, it was possible to obtain the profile of each of the EIS actors in the Intermunicipal Community of the Aveiro Region (CIRA) and the way in which they contribute to the successful functioning of the EIS.

2 THEORETICAL FRAMEWORK

The paradigm of innovation and innovation systems has been changing. This new framework is based on: (i) the opening of the innovation process and its contribution to the co-creation of solutions ; (ii) orientation towards major societal challenges ; (iii) change in social practices.

In this context, the development model based on the knowledge society - the Triple Helix innovation model and, later, the Quadruple Helix (3H and 4H), relates the Government, the University, and the Industry, with the essential role of civil society (Roman *et al.*, 2020).



This interdependence in obtaining effective solutions presupposes the existence of a "constellation of networks" of actors and institutions (formal and informal), which collaborate to promote innovative social responses and the restructuring of social relations, as well as connections with the territory and its resources (Pinto *et al.* , 2021; OECD, 2021).

Thus, the *Quadruple Helix Innovation System Framework* identifies civil society and culture at the center of innovation and encourages the development of innovations that are relevant to users (civil society). Interaction between individuals or other entities (groups, organizations) plays a fundamental role in articulating and expanding knowledge (Carayannis *et al.* , 2018; Carayannis & Campbell, 2009) . Citizens can and should be active stakeholders who are able to initiate and lead innovation processes. Civil society involvement supports the creation of social innovations, the legitimization and justification for innovations, and facilitates community appropriation and learning of social innovation approaches and projects (Carayannis & Campbell, 2009; Carayannis *et al.* 2018).

In short, the research led by Carayannis suggested the quadruple helix innovation model as a way to foster social innovation, ensure the demand for and legitimization of innovations, and reinforce democracy in decision-making (Carayannis & Campbell, 2009; Carayannis *et al.*, 2018; Roman *et al.*, 2020) . Furthermore, SI allows policy makers and other actors to act in cooperation to improve the formulation and implementation of relevant policies, as well as new programs that explicitly promote the creation of social innovation policies in order to sustain development (Bittencourt & Ronconi, 2016, p.12; Andre & Abreu, 2006) .

The OECD (2021) corroborates that SI is generally a product of collaboration between several actors, from different spheres, and promotes a bottom-up empowerment approach. In this sense, this interdependence of relationships is directly related to the concept of Ecosystem. Authors such as Bloom and Dees (2008) and Gatica, Soto and Vela, (2015), consider that EIS are central to the permanent satisfaction of the needs of communities and territories, which would produce a favorable change in the economic, social and environmental system.

For Andion et al. (2019), this concept of EIS corresponds to the use of innovation oriented towards social issues or needs. For the ecosystem to be able to achieve transformative and systemic changes, it must be based on collaborative work between academia, the public sector, companies and civil society and, therefore, requires an alignment of local resources that link the ecosystem to the territory (OECD, 2021). Gatica, Soto and Vela (2015) also explain some types of stakeholders in the Social Innovation Ecosystem, among which are those that we intend to explore in this article: social entrepreneurs, public policies, universities and the community.



2.1 THE ROLE OF GOVERNMENTS AND PUBLIC POLICY IN SOCIAL INNOVATION

The traditional approach to PP is forced to change, as it needs to respond to emerging, increasingly complex societal challenges. to deal with complex global issues under the new label of "grand challenges" and "seeks to establish conditions for development and create new paths for growth" (Moulaert, 2013, p. 12). According to Moulaert and colleagues (2013) IS associated with PP is useful to make them more capable of responding to contemporary challenges and, therefore, more effective and efficient than traditional intervention.

The formulation of PP, incorporating mechanisms/merits of IS, becomes particularly relevant, given its capacity to involve the interests of various actors, aiming at the development of an open and incremental process, to face complex social problems and correct social inequalities and citizenship rights (Tricarico *et al.*, 2014).

The incorporation of SI is considered as a common denominator for collective action and social and territorial development, and governments can empower their action to find innovative and resilient solutions that unlock the development potential of territories (European Commission, 2017). If the objective of SI is social change through the transformation of social relations and power at various levels, it is in itself dependent on the broader political, social and cultural context, with the State often playing a key role in promoting, integrating and scaling SI (Pinto *et al.*, 2021).

It is above all with the Europe 2020 Strategy that made it more visible on the agenda by introducing it as a priority (European Commission, 2011) . Priorities remain in the European Union funds for 2021-2027, namely as the EU Program for Employment and Social Innovation (EaSI). This financial instrument seeks to promote decent employment and combat social exclusion and poverty. In the period 2021-2027, the EaSI program will become a strand of the European Social Fund Plus (ESF+).

As regards national governments, they are supported by European strategies, within the framework of which national and regional regulatory instruments are developed. It is mainly at this last level that Governments must facilitate intersectoral relations and create opportunities for networking.

In Portugal, the role of creating territorial and social development falls, in practice, to the 5 Regional Coordination and Development Commissions (CCDR) (one for each region). Each CCDR has powers to coordinate and implement regional development policies, including the management of European and national funds, recently integrating responsibilities previously carried out by Regional Directorates in various areas . Although they gained



visibility mainly after the 2008 crisis (mainly thanks to third sector organisations), the roots of the SI were already present in the editions of the Link between Rural Development Actions (LEADER) programme and the Community Support Framework (QCA) III. As such, the EIS is not robust and is recent (Pinto *et al.*, 2021).

Portugal was one of the first countries in Europe to create, in 2014, a program that uses the European Structural and Investment Funds (ESIF) to promote the Portugal Social Innovation program. This Government Program mobilizes more than 150 million euros from the European Social Fund. Within the scope of the Portugal 2020 Partnership Agreement, this money is channeled to the market through 4 financing instruments designed to finance the Social Innovation and Entrepreneurship Initiative (IIES), including: Training for Social Investment; Partners for Impact; Social Impact Bonds; Social Innovation Fund. Not only in this way, but also, several legal changes were introduced in the social sector, such as the creation of the Social Economy Framework Law, in 2013 (Pinto *et al.*, 2021). In accordance with Portugal 2030, SI will be mobilized in Regional Programs and will focus on disadvantaged communities facing pressing social problems. Its effects are felt mainly at the regional and local level and will be operationalized through:

- a) continuity of the work model of the Portugal Social Innovation Mission Structure (EMPIS), supporting instruments developed by it.
- b) promotion of innovative pilot projects that aim to test social solutions.

2.2 THE ROLE OF HIGHER EDUCATION INSTITUTIONS

Existing global challenges raise growing expectations regarding the role of various actors in resolving them, including universities. The EU's New Agenda for Higher Education states that: “without Higher Education Institutions (HEIs) and systems that are effective in terms of education, research and innovation and that are linked to their societies, Europe cannot respond to these challenges” (European Commission, 2017, p. 1, our translation). An illustrative example of the relationship between different actors in promoting the social development of territories is the existence of Collaborative Laboratories (Co-Labs). Based on the implementation of agendas oriented towards the creation of economic and social value, the co-Labs are expected to stimulate the active participation of the scientific/academic, business and public communities in the analysis and solution of complex and large-scale problems (Monteiro *et al.*, 2021, p. 4).



The scientific sector and universities have been repeatedly highlighted as key actors in innovation systems and indispensable for promoting regional development (Burgos & Bocco, 2020). According to Morawska-Jancelewicz (2022), the fact that HEIs combine teaching and research activities enables insertion in the productive environment, as it creates proactive attitudes linked to the labor market. More entrepreneurial university approaches are potentially favorable to social innovation (Cinar & Benneworth, 2020, p.754) .

For Benneworth and Cunha (2015) and Cinar and Benneworth (2020), a fundamental issue for university involvement in social innovation activities is to align the main teaching missions of universities (p.9). Benneworth and Cunha (2015) also frame three types of contributions that HEIs can make to social innovation processes:

- a) provide knowledge that helps progression.
- b) make available its financial or infrastructure resources .
- c) consultancy on the continuation of the social innovation process (p.9).

Universities also play an important role in training social entrepreneurs. Industry must embrace the potential generated by universities and provide funding and support for IS projects, as well as exert pressure on governments and generate patents (Leydesdorff, 2014).

The European Commission also identifies some gaps that need to be filled, especially regarding the participation of HEIs in innovation and development in their regions (European Commission, 2017, p. 4). It also reinforces the need for collaboration between higher education, research and business, as well as the involvement of the civil community. The notion of civic university reinforces the interventionist profile of HEIs in local, regional and social issues: “HEIs should be committed to the development of their cities and regions, whether through contributing to development strategies, cooperating with business, the public or voluntary sectors, or supporting public debate on social issues (European Commission, 2017, p. 8). Cinar and Benneworth (2020) suggest that the rate of participation of universities in SI activities is low, and one of the reasons for these low participation rates may be due to a lack of knowledge about SI.

2.3 THE ROLE OF SOCIAL ENTREPRENEURS

The phenomenon of entrepreneurship and social innovation emerges in the context of crisis and social, economic and environmental challenges faced by contemporary societies. (Parente *et al.*, 2011). The centrality attributed to the role of agents of change, social



entrepreneurs, has to do with their ingenuity in the mission to change society (Andion *et al.*, 2019).

The social entrepreneur is described as someone with expertise in solving problems of great relevance to many people. Dees and Bloom (2008) describe that social entrepreneurs benefit from cooperation with other actors involved in the ecosystem, as well as from the economic, political and social conditions that welcome them. They are entrepreneurs with a social mission.

As an agent of change, it seeks results of social transformation (Parente, 2014). These actors are driven by the desire to satisfy unmet needs, neither by the market nor by the State with the purpose of promoting the creation of social value and well-being, especially of the most vulnerable sections of society, acting for themselves and with each other. (Moualert *et al.*, 2013; Mulgan *et al.*, 2007). Its action is generally of local expression, but of global relevance, not only in themes such as poverty, isolation of the elderly or assistance in illness, but also in its scalability (Santos, 2012).

3 METHODOLOGY

This article is based on a review of the literature on the topic of knowledge-based innovation models and the importance of key actors, namely academia, social entrepreneurs and Governments. The choice of the Central Region of Portugal, and the Intermunicipal Community of the Aveiro Region, in particular, is justified by:

- a) 2nd region with the highest funding within the Portugal Social Innovation Program.
- b) location of the University of Aveiro and ease of obtaining information from stakeholders, by carrying out the social innovation mapping study, led by UA and in partnership with EMPIS.

The collection of information through the municipalities' strategic pages and documents, namely through research on the websites of the municipalities that make up CIRA, allowed us to understand how local and regional governments strategically support social innovation. Initiatives, programs, initiatives/prizes and social investment were analyzed from 2014 to 2023. Regarding social entrepreneurs, information was collected based on the mapping study, carried out by UA, in consortium with Portugal Inovação Social and with the information on the Portugal Social Innovation website (within the scope of Portugal 2020). The information collected in the contribution pillar of higher education, in particular from UA, was made through the pages of projects and curricular units. Furthermore, there are several strategic



documents in which the UA was present in their ideation, in partnership with other actors, namely, with local governments.

4 RESULTS AND DISCUSSIONS

In the Central region, where CIRA is located, the Central Regional Coordination and Development Commission (CCDR - C), for its part time, look for follow and the dynamics established and emerging, having produced a document characterizing the social economy and from the IS at level regional, which allows capture one portrait of the main IS initiatives in Region Center. The Smart Specialization Strategy (RIS3) 2014 - 2020, no mentioned IS, but, put other hand, the Research and Innovation Strategy for Smart Specialization of the Central Region (RRIS3) which revised the RIS3, to the period 2021-27 it presents one guidance called: "Promoting Territorial Innovation, combining the "valuation of territories, green and digital transition, social innovation and valorization of environmental and cultural resources and creativity" (CCDR, 2021, p. 15).

The Vision Strategic for the Region Center 2030, advocates one new cycle of support the projects (...) of agreement with one perspective based on SI: "the flexibility of the concept of innovation, adjusting it to the problems of these territories, the extension to the themes of social innovation, the new scope of the response to the climate emergency and the themes of the circular economy adjusted to them constitute promising ways to explore" (CCDR-C, 2020, p. 49). The Central Region has been widely represented in the support of the public initiative Portugal Social Innovation, which suggests that there is an important potential in the region for social responses using more innovative modalities (CCDR-C, 2020, p. 19).

In addition to regional policy instruments, several municipalities adopt programs and create/assist IS initiatives in their social action and territorial development strategies. level municipal, in this article, the incentives were something to research, plans, measures and awards guaranteed by the 11 municipalities what integrate the CIRA: Agueda; Hostel - a-Velha; Anadia; Aveiro, Estarreja; Ílhavo; Murtosa; Oliveira of Neighborhood; Ovar; Sever of Vouga and Vagos. In terms of supporting and promoting IS projects and initiatives, all municipalities that make up CIRA have a Business Incubator.

Some municipalities already have innovation or social entrepreneurship departments (Águeda, Lousã, Pombal and Mealhada). Furthermore, 4 municipalities have initiatives such as Participatory Budgets. Albergaria-a-Velha, Aveiro, Estarreja, Ílhavo, Ovar and Vagos also have



local Strategic Plans, aligned with the principles of IS. In Table 1, the division by categories can be found, between the years 2014 and 2023:

- a) Programs.
- b) Initiatives/awards.

This investigation would be reinforced with future interviews and/or *focus groups*, in order to understand what motivations are present among those involved in the EIS and how they are willing to cooperate in common initiatives. The results of the interviews and/or *focus groups* would enable local and regional public authorities to understand the difficulties of the different actors, and provide conditions that facilitate SI.

Table 1

Accounting for social innovation activities/proposals in CIRA Municipalities (2014-2023).

Municipalities	Programs	Initiatives/awards
Águeda	4	10
Albergaria a Velha	4	7
Anadia	2	11
Aveiro	4	7
Estarreja	5	5
Ílhavo	4	8
Murtosa	3	2
Oliveira do Bairro	4	4
Ovar	3	9
Sever do Vouga	4	1
Vacant	3	7
Total	40	71

4.1 THE ROLE OF HIGHER EDUCATION INSTITUTIONS: UNIVERSITY OF AVEIRO

The University of Aveiro (UA) has participated in the co-creation of several strategic documents for the Aveiro region. The Integrated Strategy for Territorial Development of the Aveiro Region (2014-20), prepared with the coordination UA technique, foresees the Program Intermunicipal Entrepreneurship, Innovation Social and Promotion of Culture Scientific, based in the platform from the Regional Business Incubator from Aveiro, with the support from the Association Industrial of District of Aveiro (AIDA) (CIRA, 2014). Still within the scope of this Strategy, it was released the Program Regional for Innovation, Entrepreneurship and Employment, valuing culture entrepreneurial and IS. carried out for the CIRA, is part of the Support and Enhancement Platform for Entrepreneurship and Innovation – PAVEI, created node scope from the Business Incubator of the Aveiro Region and with the participation from the UA. This program includes :



- a) disclosure of potential of IS in Region of Aveiro.
- b) Alumni integration from the UA and the realization of the Innovation Workshops Social, through mapping of opportunities and resources of the IS.
- c) carrying out Social Innovation Workshops (OIS).

Yet in this framework , highlighting the existence of a partnership between AIDA , CIRA and UA , there is translated in actions as the Partnership Support Territory to the Entrepreneurship of Base Location , namely in your implementation by the Action Groups Location (GAL) Rural North and South, with more of 30 entities locations.

UACOOPERA, a department of the UA, also plays an important role in the interface between the UA and the outside world, “with the function of promoting a culture of innovation and knowledge transfer and supporting the Academy in solving problems and responding to the challenges of companies and society in general. ³” In partnership with the UA, AIDA, and CIRA, the INOV@ IERA Project – Innovation in support of entrepreneurship in the Aveiro Region , seeks to involve the entire territory of the Aveiro Region, trying to foster entrepreneurship and the connection between the business/industrial fabric, entities of the scientific and technological system, entrepreneurs and incubators, with the purpose of facilitating the creation of social and technological innovations. This contact is made, for example, through the Mentors Meetings, as it encourages the sharing of experiences between the various actors in the Aveiro Region . In addition, the main objective of the IDEA Labs is to promote training actions, focused on the entrepreneur and their motivation to move forward with projects.⁴

Still allied to the UA, the Aveiro Science and Innovation Park (PCI) has the mission of promoting knowledge, entrepreneurship and innovation in the Aveiro Region.

Returning more specifically to the context of social innovation and its relationship with the UA, there is the 4iS – Platform for Social Innovation. This aims to boost the development of Social Innovation within the academic community, UA alumni and the Aveiro Region, in strategic areas such as consultancy, support for social entrepreneurship and studies of territorial networks.

The experience of its researchers was also materialized in a Glossary of Social Innovation. This allows consultation by topics adjacent to the theme, through a booklet of concepts. More recently, and with great relevance in the survey of results for this article, the

³Information consulted on the UACOOPERA website: <https://www.ua.pt/pt/uacoopera>

⁴Information consulted on the CIRA website: https://www.regiaodeaveiro.pt/pages/847?event_id=8002



Project related to *analysis of the Social Innovation ecosystem in Portugal, which proposed, in partnership with EMPIS, to produce a mapping of this EIS and contribute to the implementation of a monitoring system for public social innovation policy, centered on the network and actors, in projects and in results and impacts* ⁵.

Also within the scope of projects developed, the European project Social Innovation through Knowledge Exchange (SIKE) ⁶ seeks to contribute to improving the involvement of local communities in the development of social innovations. The UA played a key role in the implementation of the “CENTR(AR)” project, in the health field, for which it was a proponent at Portugal Inovação Social (together with the municipalities of Aveiro, Oliveira do Bairro, Estarreja and Montemor-o-Velho). Also the “Cidadania Lab” project, which had the UA as an implementation partner.

4.2 THE ROLE OF SOCIAL ENTREPRENEURS IN THE CENTRAL REGION AND PARTICULARLY IN CIRA

The Central Region is the second in the country with the largest number of social innovation projects, following the North Region, with 215 projects out of 623 in the national total and more than 30 million euros invested, as per Table 2., below.

Table 2

Financing Typology in the Central Region

Financing Typology	No. of Projects
Partnerships for Impact	125
Social Impact Bonds	5
Training for Social Investment	85
Total	215

Source: Portugal Inovação Social website, accessed in 2024.

This research analyzes Partnerships for Impact. This type of financing becomes particularly important in the topic under study as it allows projects to be involved in a network with other projects. Figure 1. shows the geographic distribution of Partnerships for Impact in the Central Region. In terms of volume of projects, the district of Coimbra is the most representative, followed by Leiria. With the names of the NUT being changed in 2024, the

⁵Information consulted on the website:

https://static1.squarespace.com/static/610d024f64942e362f7abc05/t/64db91b0a691896e8c51e781/1692111285286/Mapeamento+do+Ecossistema+de+Inova%C3%A7%C3%A3o+Social_vfinal+%281%29-tablet.pdf

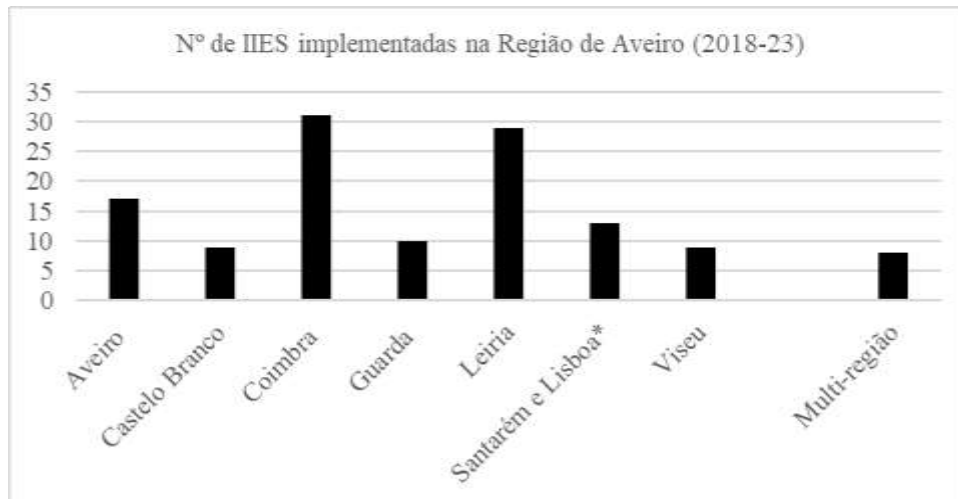
⁶Information available on the website: https://sike.web.ua.pt/?page_id=2320



territories that were part of the districts of Santarém and Lisbon and that belonged to NUT II of the Central Region, now belong to NUT II of Oeste, Médio Tejo and Lezíria do Tejo.

Figure 1

Geographic distribution of PPIs in the Central Region, by state, until 2023.



Regarding the purpose of the projects implemented, concerns about social inclusion and health are predominant (Table 4). This distribution is justified by the high ageing rate (well above the national value). Among the Portuguese regions, the Central Region simultaneously has the lowest proportion of young people (11.8%) and the highest proportion of elderly people, along with the Alentejo (27%). Therefore, the elderly need more and alternative health care, and they also constitute a segment of the population with a higher incidence of poverty and material deprivation. In addition, it is worth noting that CIRA has 7 projects in the area of social inclusion; 6 in health, 2 in education, and a social innovation incubator and a digital inclusion project.

Table 4

Areas of Intervention of Partnerships for Impact in the Central Region

Areas of intervention	No. of Projects
Citizenship and community	7
Education	17
Job	8
Digital inclusion	3
Social inclusion	47
Social innovation incubators	11
Justice	2
Health	30
Total	125



Figure 2 illustrates the municipalities that act as social investors in CIRA. Of the 11 municipalities, those that collaborate most with the IIES are Aveiro, Águeda and Sever do Vouga. On the other hand, the municipalities of Anadia, Ovar and Murtosa do not act as social investors in any of the social innovation projects. In addition to the local government, 24 private entities act as social investors in the 17 projects in the Aveiro Region.

Figure 2

Municipalities as Social Investors in CIRA (2018-2023)



5 CONCLUSION

The concept of EIS is based on a concept of a network of diverse actors, who, driven by a social purpose, seek social change and the resolution of societal challenges. According to some authors, some of the pillars that make up the Quadruple Helix development model are: Governments; Social Entrepreneurs; Academia and Civil Society. Thus, investment by companies in R&D and the development of links between them and universities are important in the use of citizens' know-how and creativity and the absorption and inclusion of these products in public services and public policy. These are important factors for the development of territories and for the sustainable use of their resources. An approach that allows the implementation of collaborative actions is desirable. In this field, social innovation appears to be an added value.



The Portuguese case, considered pioneering in the belief that SI is a driving force for social change, through the creation of a Portugal Social Innovation Government program. However, the Portuguese EIS suffers from a lack of enabling policies that foster social innovation and empower both organizations and citizens to promote social change (Pinto *et al*., 2021).

In the particular case of the Central Region, this article analyzed the contributions of the regional and local Government; of social entrepreneurs and academia and their relationship with civil society, for the success of the ecosystem. Especially with regard to regional and local public policy, emphasis on CIRA's political action, which benefits from cooperation with the AU and AIDA. Public action can foster processes of systemic social transformation. This requires the identification and empowerment of social practices by the community. One would expect, however, greater community involvement and capacity. Future investigations could intervene in a research methodology aimed at collecting information via interviews and/or *focus groups* in order to understand and analyze the reality of those involved in the EIS.

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REFERENCES

- Andion, C., Alperstedt, G. D., & Graeff, J. F. (2020). Ecosystema de inovação social, sustentabilidade e experimentação democrática: Um estudo em Florianópolis. *Revista de Administração Pública*, 54, 181–200. <https://doi.org/10.1590/0034-761220180418>
- André, I., & Abreu, A. (2006). Dimensões e espaços da inovação social. *Finisterra*, 81, 121–141.
- 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. <https://doi.org/10.1007/s11365-021-00789-9>
- Benneworth, P., & Cunha, J. (2015). Universities' contributions to social innovation: Reflections in theory & practice. *European Journal of Innovation Management*, 18(4), 508–527.
- Comissão Europeia, Bureau of European Policy Advisers, Therace, A., Hubert, A., & Dro, I. (2011). Empowering people, driving change: Social innovation in the European Union



- (Eds. A. Therace, I. Dro). Publications Office. <https://data.europa.eu/doi/10.2796/13155>
- Bittencourt, B., & Ronconi, L. (2016). Políticas de inovação social e desenvolvimento: O caso da Bolsa de Terras. *Revista de Administração Pública*, 50(5), 795–817.
- Bloom, P., & Dees, J. (2008). Cultivate your ecosystem. *Stanford Social Innovation Review*, 47–53.
- Burgos, A., & Bocco, G. (2020). Contribuciones a una teoría de la innovación rural. *Cuadernos de Economía*, 39(79), 219–247.
- Carayannis, E. G., & Campbell, D. F. J. (2009). ‘Mode 3’ and ‘Quadruple Helix’: Toward a 21st century fractal innovation ecosystem. *International Journal of Technology Management*, 46(3–4), 201–234.
- Carayannis, E. G., Grigoroudis, E., Campbell, D. F. J., & Stamati, D. (2018). The ecosystem as helix: An exploratory theory-building study of regional co-opetitive entrepreneurial ecosystems as quadruple/quintuple helix innovation models. *R&D Management*, 48(1), 148–162.
- Cinar, R., & Benneworth, P. (2020). Why do universities have little systemic impact with social innovation? An institutional logics perspective. *Growth and Change*, 52, 751–769. <https://doi.org/10.1111/grow.12367>
- Comissão Europeia. (2010). *EUROPA 2020: Estratégia para um crescimento inteligente, sustentável e inclusivo (Vol. 3)*. <https://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:52010DC2020>
- Comissão Europeia, Direção-Geral da Investigação e da Inovação. (2017). *Uma nova agenda da UE em prol do ensino superior*. Publications Office. <https://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:52017DC0247&from=CS>
- MacCallum, D., Moulaert, F., & Leubold, B. (2017). Social innovation as a trigger for transformations: The role of research. In D. MacCallum, F. Moulaert, B. Leubold, & A. Mehmood (Eds.), Publications Office. <https://data.europa.eu/doi/10.2777/68949>
- Gatica, S., Soto, W., & Vela, D. (2015). *Ecosistemas de innovación social: El caso de las universidades latinoamericanas*. Santiago de Chile: Ashoka.
- Godin, B. (2012). Social innovation: Utopias of innovation from c. 1830 to the present. *Intellectual History of Innovation*, 1–52.
- González-Martínez, P., García-Pérez-De-Lema, D., Castillo-Vergara, M., & Bent, P. (2021). Systematic review of the literature on the concept of civil society in the quadruple helix framework. *Journal of Technology Management & Innovation*, 16(4), 85–95. <https://dx.doi.org/10.4067/S0718-27242021000400085>
- Granstrand, O., & Holgersson, M. (2020). Innovation ecosystems: A conceptual review and a new definition. *Technovation*, 90–91. <https://doi.org/10.1016/j.technovation.2019.102098>



- Leydesdorff, L. (2014). The triple helix, quadruple helix, ..., and an n-tuple of helices: Explanatory models for analyzing the knowledge-based economy? *Journal of the Knowledge Economy*, 3(1), 25–35.
- Monteiro, S., Isusi-Fagoaga, R., Almeida, L., & García-Aracil, A. (2021). Contribution of higher education institutions to social innovation: Practices in two southern European universities. *Sustainability*, 13(7), 3594. <https://doi.org/10.3390/su13073594>
- Morawska-Jancelewicz, J. (2022). The role of universities in social innovation within quadruple/quintuple helix model: Practical implications from Polish experience. *Journal of the Knowledge Economy*, 13(3), 2230–2271. <https://doi.org/10.1007/s13132-021-00804-y>
- Moulaert, F., MacCallum, D., Mehmood, A., & Hamdouch, A. (Eds.). (2013). *The international handbook on social innovation: Collective action, social learning and transdisciplinary research*. Cheltenham: Edward Elgar Publishing.
- Mulgan, G., Tucker, S., Ali, R., & Sanders, B. (2007). *Social innovation: What it is, why it matters and how it can be accelerated*. Working Paper, Oxford Said Business School, 1–52.
- OECD. (2021). *Building local ecosystems for social innovation: A methodological framework*. OECD Local Economic and Employment Development (LEED) Papers, No. 2021/06, OECD Publishing. <https://doi.org/10.1787/bef867cd-en>
- Parente, C. (2014). *Empreendedorismo social em Portugal*. Porto: Universidade do Porto - Faculdade de Letras. ISBN: 978-989-8648-16-7.
- 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*, 6(2), 15–34.
- Roman, M., Varga, H., Cvijanovic, V., & Reid, A. (2020). Quadruple helix models for sustainable regional innovation: Engaging and facilitating civil society participation. *Economies*, 8(2).
- Santos, F. (2012). A positive theory of social entrepreneurship. *Business Ethics Quarterly*, 111, 335–351. <https://doi.org/10.1007/s10551-012-1413-4>
- Tricarico, L., Vidovich, L., & Billi, A. (2021). Situating social innovation in territorial development: A reflection from the Italian context. *Smart Innovation, Systems and Technologies*, 178, 939–952.