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QUADRUPLE HELIX PARTNERSHIPS FOR SOCIAL INNOVATION

A Case Study of the Spanish Region of Castilla-La Mancha

Faculty of Management and Business
Master's Thesis
May 2023

ABSTRACT

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Master's Thesis
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Master in Research and Innovation in Higher Education
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This study explores the state of social innovation (SI) in the Spanish region of Castilla-La Mancha, focusing on its collaborative aspects by employing the Quadruple Helix (QH) model. Using a qualitative approach, it examines the existing support mechanisms for SI, the roles played by the government, industry, university, and civil society, their motivations, and the challenges these sectors face regarding SI. Previous research has indicated a lack of understanding of the conditions that lead to the successful implementation of SI. In addition, the studied region has not received enough attention in research regarding the development of its regional innovation system.

This thesis employs a case study method. Based on a thematic analysis of primary data, consisting of semistructured interviews with regional experts from the four QH sectors, as well as secondary data, which comprises regional policies, this study presents an overview of the SI ecosystem of Castilla-La Mancha. The results suggest that QH partnerships can facilitate the implementation of SI in the region, where each of the sectors can positively contribute to the initiatives. While the QH model for SI does not appear to be established yet, there is a strong motivation for collaboration and a willingness to find solutions to the existing challenges. This diagnosis of the current situation can guide the public administration, as well as the private and third sector, in future endeavours.

Keywords: social innovation, Quadruple Helix, higher education, Castilla-La Mancha, co-creation, social entrepreneurship, regional innovation

Statutory Declaration

I, Ana Parrón Cabañero, hereby declare,

1. that I have written my Master's thesis myself, have not used other sources than the ones stated and moreover have not used any illegal tools or unfair means,

2. that I have not used my Master's thesis or parts thereof as an exam paper in my domestic or any foreign country in any form to this date,

3. that, in case my Master's thesis concerns my employer or any other external cooperation partner, I have fully informed them about title, form and content of the Master's thesis and have his/her permission to include the data and information in my written work.

Acknowledgements

I would like to express my sincere gratitude to those who have contributed to my master's thesis. This work has been possible thanks to their support and guidance.

In first place, I would like to thank my thesis advisor, Dr. David F.J. Campbell. I have felt honoured to work under his mentorship, and his valuable insights and advice have been vital for the completion of this thesis.

Special thanks should also go to the MARIHE consortium and all the professors who have helped me grow academically and personally. Throughout the last two years, they have proved their commitment to excellence, and their teachings have helped me build the foundations which have been crucial for me to write this thesis.

I would like to recognise the support I have received from my friends and family. I am lucky to have friends who are willing to spend long hours reading and giving me feedback on my work. Thanks to my fellow MARIHE students too, specially to those who I can now call my friends.

Finally, I would like to extend my gratitude to the interview participants, who showed the willingness to make some space for me in their busy schedules. Without their insights, this work would not have been possible.

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Abbreviations

EAFRD → European Agricultural Fund for Rural Development

EC → European Commission

ERDF → European Regional Development Fund

ESF + → European Social Fund Plus

ESI → European Structural and Investment

EU → European Union

HEI → Higher Education Institution

JCCM → Junta de Comunidades de Castilla-La Mancha (regional government of Castilla-La Mancha)

KT → Knowledge Transfer

LAG → Local Action Group

OECD → Organisation for Economic Cooperation and Development

PRINCET → Plan Regional de Investigación Científica, Desarrollo Tecnológico e Innovación (Regional Plan for Scientific Research, Technological Development, and Innovation)

QH → Quadruple Helix

RIS → Regional Innovation System

S3 → Smart Specialisation Strategy

SDG → Sustainable Development Goal

SE → Social Entrepreneurship

SI → Social Innovation

SME → Small - Medium Enterprise

TH → Triple Helix

UCLM → University of Castilla-La Mancha

Chapter 1: Introduction

This first chapter presents the background of the selected topic of this thesis, introduces the research problem, the research questions and the significance of the study, and provides an overview of how this work is structured.

1.1. Background and Context

Over time, innovation has been the focus of numerous interdisciplinary studies, making it a central area of research. Human capacity to innovate has been crucial for our civilisations and the larger part of the improvement in our quality of life can be attributed to it. Indeed, innovations have often appeared as a response to societal problems, even when the social dimension of the concept has not always been recognised. However, as noted by Cajaiba-Santana (2014), considering the intended result of an innovation is key to advance towards new paradigms in innovation studies. To this end, the author distinguishes between technical innovation, whose main goal is creating economic value, and social innovation (SI), whose purpose is purely social. Both types of innovation can bring along the result intended by the other, but the initial intention is crucial to grasp the essence of SI. This social dimension of innovation has been present in the evolution of societies, and we can consider that "practices, habits, and institutions such as money, universal suffrage, laws, and the modern state were all social innovations at a certain time" (Cajaiba-Santana, 2014, p. 44). Meanwhile, as the author observes, SI has not become the object of studies until recently. Even then, the concept remains fuzzy and fragmented in literature, as Terstriep et al. (2020) highlight.

The popularity of SI has not only risen in research, but also among policymakers. Political actors like the European Commission (EC) have paid increasing attention to this phenomenon, as it presents itself as an approach to fight against some of the most pressing societal challenges of today. In this context, new constellations of actors are encouraged to work together in order to find a common directionality in addressing grand challenges: by joining policy arenas and public debates, agency has moved from a centralised government to a distributed group that includes civil society (Kuhlmann & Rip, 2018). In these new configurations of actors, the Quadruple Helix (QH) model, which integrates industry, academia, government, and civil society and "media-based and culture-based public" as relevant agents of the innovation ecosystem (Carayannis & Campbell, 2012), can provide an opportunity to enable SI. The authors emphasise the concept of "Mode 3 Knowledge Production System," where "both top-down government, university, and industry policies and practices, and bottom-up civil society and grassroots movements, initiatives and priorities" can lead to a more holistic and smart innovation ecosystem (p.3).

This paper studies the realisation of SI focusing on QH collaboration dynamics in Castilla-La Mancha (CLM), a Spanish region located in the middle of the Iberian Peninsula (see its location in Figure 1). It aims to investigate the state of SI to understand how, and if, it is being enabled, and to discover the challenges found in the process and the motivations of the actors belonging to the four QH sectors.

Figure 1.
Location of Castilla-La Mancha in Spain

Source: VectorStock, n.d.

Regarding the country context, according to a report by Cotec (Fundación Cotec para la Innovación, 2016), social entrepreneurship (SE) and SI have been rapidly growing in the last few years. Nevertheless, the report describes SI as still emerging and the initiatives as modest. Cotec foundation publishes yearly reports on innovation, following a definition of the concept that says: "innovation is every change (not only technological) based on knowledge (not only scientific) which generates value (not only economic)." Only their first yearly report from 2016 dedicates a whole chapter to outline the state of SI in Spain. In this chapter, the report posits that the main challenges for SI in the country are related to the lack of funds to consolidate projects already tested, the creation of strategic alliances, and public-private-citizen collaborations. In addition, it also mentions that the existing ecosystem lacks a regulatory framework to support SI (Fundación Cotec para la Innovación, 2016).

While this report dates back to 2016, our data show that the state in CLM is as described here, whereas some other regions in Spain have seen developments in SI. For example, the neighbouring region of Aragón created a department for citizenship and social rights which includes a subdepartment for open government and SI. They promote SI and public participation through their laboratory of open government of Aragón (LAAAB) (Government of Aragón, n.d.). In another neighbouring region, Andalucía, the province of Málaga is paying increasing attention to SI. In 2013, the provincial delegation created the centre for SI La Noria, whose objective is to respond to current social problems in transformed and innovative ways. The government of Málaga, in collaboration with the non-for-profit association Arrabal, established the Centre InnoSocial Málaga SDG, a space in the city where they provide support to social entrepreneurs and SI projects (InnoSocial Málaga ODS, n.d.). Moreover, the public University of Málaga possesses a vice-rectorate for social innovation and entrepreneurship (Universidad de Málaga, n.d.). Extremadura, bordering CLM to the west, as part of its Provincial Group for the Support of Employment Agents and Local Development, has created a network for entrepreneurship and SI. This network promotes the collaboration of public and private agents with the goal of boosting SI in the region (GPAAEDL, n.d.). Also, the University of Extremadura has a dedicated research

group for Curricular Sustainability and Social Innovation (Universidad de Extremadura, n.d.). All these examples can be considered as enablers to SI in those regions.

1.2. Research Questions and Purpose

The main question that this study tries to answer is as follows:

How is SI being enabled in the Spanish region of CLM?

The main question is explored by answering the following subquestions:

1. How are public policies enhancing SI?
2. What are the challenges faced by the QH sectors regarding SI?
3. What are the roles of the different QH sectors in SI?
4. What are the motivations of QH actors to create partnerships for SI?

By finding answers to these questions, the purpose of this study is to present an overview of the current state of SI in the region of CLM, considering all QH sectors' perspectives and focusing on partnerships. This main goal is tackled by investigating, first, whether SI is present across regional policy documents; second, the challenges that hinder the process, particularly the collaborative barriers; third, the roles through which QH sectors can contribute to partnerships for SI; and fourth, the motivations for building partnerships for SI.

1.3. Significance of the study

The results of this study can be considered of relevance for better recognising the characteristics that potentially lead to the successful implementation of SI, especially in its collaborative aspect. In first place, currently, there are no studies tackling the status of SI in the region of CLM. Therefore, the findings of this work could help regional policymakers attain a deeper understanding of the context, and accordingly devise future steps towards SI.

Second, this study can be helpful in the hands of agents who are involved in SI. They can use it to have a brief overview of regional policies or mechanisms that might be of assistance in their endeavours. Additionally, they might find new ideas when it comes to collaboration dynamics and discover if they are facing the same challenges as others.

Finally, case studies on SI in Spain are scarce. Innovation, overall, is still perceived as a phenomenon which is rather related to technological progress. In this sense, this study could provide inspiration to other Spanish regions, especially those with similar socio-economic backgrounds, to look closer into SI. Indeed, success stories and good practices at the regional level often remain below the radar. The reason behind it is that we tend to focus on national policies, but in some decentralised countries, such as Spain, there is experimentation happening at the regional level. Therefore, it seems highly important to draw attention to how SI is developing in the different regions of the country.

In short, the results of this study do not only offer some initial recommendations to the selected region, but also serve as an example to others, especially those that share similar characteristics

and face similar challenges (e.g., depopulation, unemployment, aging population). These regions could adopt and adapt some of the ideas and practices to their own context and needs.

1.4. Structure of this Work

This thesis is organised into seven chapters. Chapter 1 has introduced the topic and context of the study. The conceptual basis of this work is presented in Chapter 2, which outlines the theoretical framework and introduces the hypotheses. In Chapter 3, a literature review presents previous studies, and is followed by the research gap. Chapter 4 explains the research method and the process of data collection and analysis. In Chapter 5, the findings of the study are described in-depth. Chapter 6 introduces the discussion on the results. Finally, Chapter 7 presents the conclusion.

Chapter 2: Conceptual Framework of Analysis

This chapter introduces the main concepts and theories that are the backbone of this thesis. First, SI is conceptualised to clarify what its main features are in terms of understanding the key ideas in this paper. Then, the QH innovation system is described and the rationale behind using this model to explain SI in a regional innovation system is presented. Additionally, while not having a central role, this work studies an innovation system contained in one region. Therefore, it briefly covers some basic ideas around the concept of regional innovation systems (RIS).

2.1. Social Innovation Theory

Our changing societies are constantly facing challenging problems that are not easy to approach. These complex societal problems are present across the whole world, and include environmental issues, poverty, employment instability, low trust in institutions and issues arising from urbanisation (Carvalho & Mazzon, 2019). These could be referred to as *wicked problems*, as Rittel & Webber (1973) termed this type of issues that are difficult to identify and describe, are unique and contextual, often are a symptom of other problems, and are present in almost every public policy dilemma. These important yet complex challenges require innovative approaches, solutions that consider the complexity and multidimensionality of such intricate matters. In order to attain as broad a perspective as possible, involving varied sectors to identify and provide innovative solutions to such issues becomes imperative. Social innovations can offer new paths towards finding the best answers.

According to Howaldt et al. (2016), SI can be described as a set of new social practices in specific areas, initiated with the objective of trying to answer certain issues in a better way than the established practices allow. Generally, we can say that SI has non-profit goals and seeks common good. In addition, it often involves approaching problems in a collective manner. In the present thesis, the feature that concerns interactions between different actors is key, particularly those included in QH, and will be further developed in the following section. For Pol & Ville (2009), tracing a line between business innovation and SI is necessary in order to use the right methods and avoid mixing the characteristics of one type of innovation with the other. The authors suggest a definition for SI that is fitting for this study: "an innovation is termed a social innovation if the implied new idea has the potential to improve either the quality or the quantity of life" (p.881). The authors suggest that initiatives that improve education, environmental quality or life expectancy can be considered SI. While the innovations might yield economic profits, for it to be considered SI, the goal must be social.

The EU has been paying increasing attention to SI activities, for example, through the project SI-DRIVE that took place from 2014 to 2017. This project, which belonged to the EU's Seventh Framework Programme (FP7), attempted to theorise the concept, map, and study SI initiatives taking place in the EU, and then accordingly draw conclusions with policy implications. According to Howaldt et al. (2016), the partner constellations included in this project show how relevant cross-sector collaboration is for SI. The study also underscores the importance of empowering users and involving them in the process of SI.

Parallelly, the EC, in its Europe 2020 Strategy, acknowledges that today's social, economic, political, and environmental challenges call for the participation of civil society and SI approaches (European Commission, 2020). In the same vein, a decade earlier, in her analysis on SI for the EC, Hubert (2010) discusses how the Lisbon Strategy has evidenced the need to move from the belief that economic growth leads to poverty reduction to a new vision where initiatives are devised not only *for*, but also *by* citizens, an idea that is in line with our definition of SI in this thesis.

As a new approach to innovate, SI is expected to provide better alternatives than the traditional technology-centred approach when facing today's challenges (Terstriep et al., 2020). For this purpose, new governance models should emerge, where political participation and self-organisation become central, there is consistent collaboration between actors, and processes assist in the diffusion of innovation (Howaldt et al., 2016). In this regard, Mumford (2002) puts an emphasis on the configuration of relationships between agents, defining the term SI as "the generation and implementation of new ideas about how people should organize interpersonal activities, or social interactions, to meet one or more common goals," and provides as examples "the creation of the International Monetary Fund, the establishment of the Boy Scouts, or the introduction of flexible work schedules" (p.253). Indeed, as mentioned earlier, this idea of different sectors of society working together towards a common goal is key in the present work.

Regarding the territory and delimitation of SI, it is considered contextual and path-dependent, and is strongly connected with the development of new configurations of social relations, including power relations (Moulaert et al., 2013). As such, a large part of studies in SI take the concept of territory as a central element, where SI leads to the transformation of spatial relations (Van Dyck & Van der Broeck, 2013). For this study, the concept of territory is central, given that the focus is on regional SI that is initiated, developed, and implemented by and for regional stakeholders. In addition, SI as presented by Moulaert & MacCallum (2019) builds on the belief that society can support human needs when there are enough conditions to promote collective action. This collective action is often specific to a territory, where local and regional agents are the ones who encompass the transformation of social relations (Moulaert, 2009).

While, as it has been mentioned, SI seeks common good and has social goals, it can also bring economic profit. The definition of the OECD makes reference to economic development resulting from SI, and encourages political frameworks that enable collaboration between public, private, and non-profit agents to create innovative solutions:

> Social innovation refers to the design and implementation of new solutions that imply conceptual, process, product, or organisational change, which ultimately aim to improve the welfare and wellbeing of individuals and communities. Many initiatives undertaken by the social economy and by the civil society have proven to be innovative in dealing with socio-economic and environmental problems, while contributing to economic development. To fully tap the potential of social innovation, an enabling policy framework is needed to support public, non-profit and private actors to co-construct and implement socially innovative solutions and thereby contribute to address socio-

> economic issues, build stronger territorial resilience and better respond to future shocks (*Social Innovation - OECD*, n.d.).

While this definition seems to have a focus on socio-economic issues, it includes all of the main ideas that have been presented in previous definitions in this section. In short, in this work, SI refers to all the processes, methodologies, products, projects, and generally innovative ideas that are put into practice, whose main goal(s) are addressing societal challenges and that, in one way or another, aim to improve the quality of life of the community, and especially of vulnerable groups. In addition, the aspect of collaboration and co-creation in the innovation process is essential, where civil society should be both the receiver of the solution and an active participant in the process. To explain this collaborative characteristic, the QH model is used, as introduced in the following section.

2.2. Quadruple Helix Model

The Triple Helix (TH) model of innovation explains innovation systems through the collaboration of three helices, that are university, government, and industry. These three agents interplay in complex ways to foster innovation and develop a knowledge-based economy (Leydesdorff & Etzkowitz, 1998). Meanwhile, the Quadruple Helix model of innovation does not only include these three spheres, but also considers civil society and "media-based and culture-based public" as key agents in the innovation ecosystem (Carayannis & Campbell, 2009). In this model, the public is considered as a relevant player towards attaining goals, emphasising the concepts of knowledge society and knowledge democracy (Carayannis & Campbell, 2021). As Carayannis and Campbell explain in their paper, such a fourth helix puts the focus on the relevance of having an innovation culture in order to enable a knowledge-based economy (Carayannis & Campbell, 2009). On one hand, culture and values of civil society can be very relevant for an innovation culture to prosper. On the other, the message that is transmitted by the media has a profound impact on the way citizens see their reality, thus becoming crucial for the role they assign to innovation and knowledge among their priorities. The authors highlight the importance of recognising the relevant role of the public in attaining objectives, a fact that should be reflected in public policies and strategies. In addition, the media has a capital role in raising awareness of innovation policy among the public, given the impact that such public awareness can have on the development of an advanced innovation culture (Carayannis & Campbell, 2009).

As described in the previous section, SI needs collaborative approaches, since it is through multiple perspectives that we can account for as many of the variables of a given issue as possible, thus providing a comprehensive picture of the problem or challenge at hand. When exploring SI processes, it is desirable to observe how these four QH actors are engaging for common goals in the different stages and how their relationships are boosting new social configurations. Nevertheless, authors like Domanski et al. (2020) argue that, despite the evident importance of cross-sector collaboration, QH is still incomplete, underscoring that research organisations are by far less involved in this type of innovation than they are in traditional TH. In this sense, Carayannis & Campbell (2009) introduced the so-called Mode 3 Knowledge Production System,

a key approach to knowledge-creation and diffusion in a QH-like innovation ecosystem. Approaching knowledge production through Mode 3 helps us bridge the gap between vision and reality, in a system where knowledge should be created and diffused by allowing both top-down and bottom-up dynamics (Carayannis & Campbell, 2012). In this system, knowledge production must be understood in a broader way, which implies that the integration of civil society as a stakeholder with a double role both as user and as part of the innovation process is a key feature.

In their literature review about both the Triple and the Quadruple helices, Cai & Lattu (2021) explain that a number of authors (see for example Nordberg et al., 2020) have opted for the latter precisely because of its inclusion of civil society, which can be especially meaningful in the analysis of SI. As the authors highlight, the QH model puts the users of innovations (civil society) at the centre, a feature that aligns with the concept of SI as described in the previous section. As posited in SI theories, SI initiatives are both devised *by* and *for* civil society, which becomes not only a fourth helix, but also contextualises the TH (Carayannis & Campbell, 2018) in an ecosystem where the public is part of both knowledge creation and knowledge application. In addition, as Cai & Lattu (2021) argue in their paper, QH provides enough flexibility, as its fourth helix can be understood as a fluid construct, made up by actors that are by far more heterogeneous than academia, industry and the government, and thus cannot be seen as parallel to these three sectors. Furthermore, in their study as part of the SI-DRIVE project, Butzin et al. (2014) highlight the relevance of using the QH model to study SI, and argue that "certain constellations of actors (triple helix and recently quadruple helix) seem to be a fruitful driver for the generation of knowledge and innovation" (p116). In light of these considerations, in this study, the QH model is used to explain SI as a process of co-creation in networks that include university, industry, government, and civil society, the last one being the most crucial. In the extant literature, there is a general belief that SI requires the collaboration of a number of agents in the form of complex networks, both formally and informally (see for example Howaldt et al., 2014; Nicholls & Murdock, 2012; Unceta et al., 2020). This need for partnerships leads to an increasing number of QH model dynamics when it comes to SI (Bellandi et al., 2021). Therefore, for the sake of this study, we consider SI as an open process that calls for the participation of multiple groups and sectors, namely those included in QH, and as a combination of top-down and bottom-up approaches.

2.3. Regional Innovation Systems

While the concept of RIS does not have a unified definition (Doloreux & Parto, 2005), we can broadly say that it is made up of a set of networks of public and private actors, including policy makers, political institutions, industries and other organisations within a territory (Fernandes et al., 2021). In RIS theories, regions are regarded as the most important delimitations for economic development and innovation (Uyarra, 2010), thus local and regional infrastructure and support is necessary in the process of accumulation and transfer of knowledge (Buesa et al., 2006). In these approaches, economic and social interactions between different actors from both the public and the private sectors are highlighted, as they enable the creation and diffusion of innovation (Asheim et al., 2011). According to Van Dyck & Van den Broeck (2013), spatial-

historical context is an essential element in innovation processes, thus the need to consider both the material and social context. In this social dimension, informal relationships taking place in a limited geographical area can lead to collective learning processes and collaboration that improve the local innovative capacity (Camagni, 1991).

In this context, multilevel structures for governance have emerged, and partnerships have become a key element in local and regional development (Pike et al., 2016). When it comes to policies, national and regional responsibilities also seem to present some general differences in the literature. According to the classification between policies that more frequently fall under national versus regional responsibilities drafted by Guimón (2014), regional policy frameworks are most relevant to support innovation, especially when it comes to building networks and enabling public-private partnerships, both key features for SI. In addition, smaller grants, which can be important mechanisms to finance SI, are also generally provided by regional bodies. These characteristics seem to point to regional public administrations as the main policy enablers of SI.

2.4. Hypotheses

This study devises four propositions that serve to guide the research process and better define the goals. "The traditional approach, often referred to as quantitative research, leads to hypothesis-testing research, whereas the qualitative approach leads to hypothesis-generating research" (Auerbach, 2003, p.13). Therefore, in this qualitative work, the collected data have been used to disconfirm emergent hypotheses as a way to reduce bias (Sofaer, 1999), rather than in an attempt to confirm or reject them as quantitative research would do. In this work, the propositions are aimed to present a description of an event or situation, and hence can be described as attributive hypotheses (Chigbu, 2019).

The hypothetical assumptions that have emerged during the study and that provide a thread throughout this work are as follows:

1. There is an absence of a concrete regulatory framework supporting SI at the regional level in CLM.
2. There are challenges that are hindering QH partnerships for SI in the region of CLM.
3. All QH sectors can play different relevant roles in enabling social innovation in CLM.
4. QH partnerships are perceived as a positive framework to enable SI in CLM.

Chapter 3: Literature Review and Research Gap

This chapter includes two main sections. The first one presents the literature review, where, on one hand, previous studies contributing to the exploration of SI through the QH model are introduced. On the other, we look at the contributions of partnerships to SI at the regional level. The second part introduces the research gap that this work tries to fill.

3.1. Social Innovation and Quadruple Helix in Previous Studies

In this section, the roles of the different QH actors in the development and implementation of SI are explored. Furthermore, it synthesises the challenges and motivations that have been found in previous studies regarding the collaborative aspect of SI processes.

3.1.1. Contributions of Quadruple Helix Actors to Social Innovation

In the last few years, the topic of SI has been studied along with the QH model of innovation in numerous works. Looking at studies which have framed SI under the QH model, this section attempts to define the roles of the QH sectors. A list of the identified roles as described in this section is displayed in Table 1 at the end.

Academia

As far as academia is concerned, Bellandi et al. (2021) address the subject of SI governance in QH collaborations, focusing on the role of universities. In their paper, the authors suggest that university can act as a mediator, on top of the more traditional role of knowledge provider. These roles are in line with the support activities for SI proposed by Benneworth & Cunha (2015), also backed by similar results presented by Milley et al. (2020) and Kumari et al. (2020). Furthermore, Benneworth & Cunha (2015) suggest that universities can provide material resources in the form of available facilities and financial support. In a different study, Bayuo et al. (2020) explore how the three missions of universities integrate SI. For the first mission, they found that both internal demands and external pressures are pushing to integrate SI in the teaching process. Indeed, there are universities that have introduced courses and whole programmes on SI (e.g., the master's programme in Social Entrepreneurship and Management at Roskilde University, Denmark). Regarding research, some countries provide funds for projects where civil society is involved or specifically addressing social issues, such as Sweden through specific calls from the government's agency for innovation, Vinnova. Some universities have specialised centres where foundations and civil society can guide research activities, or centres for SI where universities collaborate with the third sector (Bayuo et al., 2020), and with academics closely working with the community (Benneworth & Cunha, 2015). As far as the third mission is concerned, universities are often seen as agents promoting sustainable development and as resource providers (Bayuo et al., 2020).

Government

Regarding the role of governments, while mechanisms for TH collaboration are more established, public administration should use different approaches when civil society becomes

part of the equation (Roman et al., 2020). Roman and colleagues argue that the civil society sector is highly heterogeneous, and therefore different mechanisms emanating from public administrations should be in place for this diversity of agents. Their study underscores the important role of governments in providing instruments to integrate this helix in RIS. In the same vein, Hasche et al. (2020) employ the QH model to study how relationships between different actors contribute to value creation in regional innovation initiatives. Their results show that the government mainly contributes by providing funds for the projects, in line with the findings of Notarnicola et al. (2022), who also argue the responsibility for public players to create the right environment for SI to flourish and the necessary regulatory framework. In addition, local governments can also have a leading role as facilitators and promoters (Jungsberg et al., 2020; Vercher, 2022). Calzada (2020) found that the public sector is the most represented helix and also the most influential one in SI. Nevertheless, regarding proactivity, aside from the public sector, civil society and the private sector showed high levels, in contrast with their low levels of influence.

Civil Society

Regarding the civil society sector, Nordberg et al. (2020) argue that community-based initiatives can result in successful SI. By looking at how action groups can contribute to the formation of SI networks supporting sustainable rural development, the existence of shared emotional experiences and knowledge was suggested to contribute to such success. In a different study, civil society as a community was found to be highly relevant in the initiation phase by providing ideas, while civil society as an organisation had an important role in decision making (Jungsberg et al., 2020). Biljohn & Lues (2020) found that an essential role of civil society is also providing information about their circumstances in order for stakeholders to better understand the existing problems. Local communities are also important in promoting SI (Vercher, 2022). In addition, in their paper, Yang & Holgaard (2012) found that NGOs have a relevant role as knowledge providers and as mediators. These non-profit actors are also, as found by Notarnicola et al. (2022), changemakers, that is, they introduce new approaches to collaboration. The role of the third sector as an intermediary support structure is posited by Lukesch et al. (2020).

Industry

When it comes to the industry sector, large and small firms see these initiatives as a way to networking and finding new relationships for potential collaborations. While less frequent in the reviewed literature, companies can also be the initiators of SI, as it is shown in the case of a developing company that created "a field for urban development and creative experiments under the premise of converting the former industrial area" (von Schnurbein et al., 2021, p.6), where they put the citizens at the centre. In this case, to answer their needs, citizens were invited to participate and share their ideas on how to make the space useful for them. This role is also evidenced in a different study, where the business sector is described as a promoter, but at the same time, is motivated by market logics (Vercher, 2022). Other studies argue that the business sector can fund initiatives by acting as a donor (Notarnicola et al., 2022). The findings of Martinez et al. (2017) are in line with this role of resource provider. The authors add the role of

knowledge provider, arguing that they have the expertise to manage and scale up processes. Nevertheless, the results of the various case studies by Lukesch et al. (2020) show that the business sector does not appear to be dominant in SI, an element that becomes more emphasised in lagging rural areas.

Table 1.
Roles of QH sectors.

Actor	**Roles**
Academia	• Mediator (Bellandi et al., 2021; Kumari et al., 2020) • Knowledge provider (Bayuo et al, 2020; Bellandi et al., 2021; Kumari et al., 2020; Milley et al., 2020) • Resource provider (Benneworth & Cunha, 2015; Kumari et al., 2020; Milley et al., 2020)
Industry	• Resource provider (Martinez et al., 2017; Notarnicola et al., 2022) • Knowledge provider (Martinez et al., 2017) • Networker (Martinez et al., 2017) • Initiator (von Schnurbein et al., 2021)
Government	• Resource provider (Hasche et al., 2020; Jungsberg et al., 2020; Roman et al., 2020; Notarnicola et al., 2022) • Facilitator (Jungsberg et al., 2020; Vercher, 2022; Notarnicola et al., 2022)
Civil society	• Networker (Yang & Holgaard, 2012) • Knowledge provider (Biljohn & Lues, 2020; von Schnurbein et al., 2021; Yang & Holgaard, 2012) • Changemaker (Notarnicola et al., 2022) • Intermediary support (Lukesch et al., 2020)

Source: Author's own conceptualisation.

3.1.2. The Leverage of Partnerships for SI

This section looks at the challenges in partnerships for SI that have been found in previous works, and at the motivations of stakeholders and the advantages they find in collaborating. The collected motivations and challenges are summarised in Table 2.

Challenges

Regarding challenges, Miller et al. (2016) study knowledge transfer (KT) in QH model ecosystems. In this open innovation context, their results suggest that new challenges emerge due to the diversity of involved stakeholders. Particularly, they argue that KT can be impacted by power relationships, where some actors try to impose their will creating an imbalance of power. This goes against the proposition of an effective QH model, where all actors are mutually interdependent. Nguyen & Marques (2022) explore the perceptions of stakeholders on the implementation of QH collaboration in a living lab, and whether it contributes to regional innovation. Their results emphasize the relevance that civil society participation has in the enhancement of research and innovation in the region. While all the four actors of QH found civil

participation attractive, interactions are complex and require further development for a functional implementation. In addition, the industry was found to show little engagement, and communication was not efficient. In a context where key actors are under pressure for competition and profit-making, this type of partnerships for innovation require new approaches and new forms of collaboration (Martinez et al., 2017). Moreover, when different agents are involved in an innovation process and thus are responsible for it, not having a clearly defined accountability for what is expected from them can hamper the process (Domanski et al., 2020). Some other barriers were found to hamper the process, such as the absence of citizens' trust, a perceived lack of responsiveness from governments, the absence of a strategy, or the lack of institutionalisation of SI (Biljohn & Lues, 2020). Morawska (2022), in her study on the role of universities in SI, observed that the term itself is not clearly defined, in accordance with the findings of Bayuo et al. (2020). The authors suggest that the general absence of a recognised status of SI across HEIs might be a corollary of the existing confusion around the concept. Likewise, Monteiro et al. (2021) studied the status of SI in two Southern European universities, where they discovered that a common feature was the lack of a definition of the term. Along these lines, strategies rarely mention SI, and universities do not possess dedicated SI units or mechanisms (Morawska, 2022). When it comes to engaging external actors in SI, not having a recognised status at the institutional level can be an important obstacle. Another barrier is the lack of incentives for the institution as well as for the academic staff to become involved in SI activities (Bayuo et al., 2020; Monteiro et al., 2021). Generally, institutions do not provide funding for this type of activity, partly due to pressures on prioritising activities that can generate economic returns (Monteiro et al., 2021). In addition, it is likely that SI activities performed by universities are taking place but not being recorded properly (Morawska, 2022). In this regard, there is a lack of indicators to measure SI activities and measuring it is a complex task (Monteiro et al., 2021). Finally, universities should create more mechanisms to support relationships with other QH actors if they are to become relevant agents in the SI ecosystem (Miller et al., 2016). According to Audretsch et al. (2022), one of the issues that emerge when it comes to policies to help create an environment encouraging SI is the short-term thinking in political agendas. The authors suggest that in order to create the necessary conditions for SI to prosper, it needs to be included in agendas and political commitment has to exist. Sector silos and the absence of public support (funds and advice) are challenges for SI as well, according to Lukesch et al. (2020).

Motivations

In relation to the motivations to seek collaboration, a study conducted by Ibanez et al. (2022) found that, in situations where governments' capacity to respond to stakeholders' needs becomes limited, QH actors come together to collaborate as a response. This aligns with the motivations for SI as indicated by Howaldt et al. (2016), that is, it is motivated by the need to respond to specific social demands. In another study, Biljohn & Lues (2020) found that the local government, academia and citizens working together create a positive partnership to generate public value and enhance the delivery of services in the public administration. Furthermore, the involvement of users in the process can lead to higher levels of satisfaction (Verschuere et al., 2012). Vercher (2022) similarly found that new forms of coordination between different actors

are key to the development of SI. In these new social configurations, the author argues that actors that are perceived as being neutral can successfully lead SI processes and contribute to the creation of new networks. In another study, the findings show that it is important to have a "political contact point," that is, someone who is in a position to help social innovators and whose role is to support SI activities and to give it enough visibility, for example in the media (Audretsch et al., 2022). In addition, they argue that creating a culture where people feel safe to give their opinions is essential, since communication and debate are key for new ideas for SI. Moreover, civil society feels motivated to take part in partnerships because they see it as a way to influence regional and local development (Roman et al., 2020), therefore, there is an increased sense of impact (Avelino et al., 2020). Bellandi et al. (2021) argue that QH models for collaboration can provide useful structures for the governance of SI. In this regard, for collaboration to take place and succeed, Domanski et al. (2020) argue that intermediary structures are essential. Another benefit of taking part in QH partnerships for SI is the access to more resources by all stakeholders (Ibanez et al., 2022). Additionally, experience and expertise are shared, facilitating knowledge sharing and diffusion (Kumari et al., 2020).

Table 2.

Motivations and challenges according to the literature.

Motivations	Challenges
• Responding to needs (Howaldt, Domanski, et al., 2016; Ibanez et al., 2022) • Creating public value (Biljohn & Lues, 2020) • Improving delivery of public services (Biljohn & Lues, 2020) • Improving level of satisfaction of users (Verschuere et al., 2012) • Providing structure for the governance of SI (Bellandi et al., 2021) • Creating new networks (Vercher, 2022) • Boosting visibility (Audretsch et al., 2022) • Impact (Roman et al., 2020; Avelino et al., 2020) • Accessing resources (Ibanez et al., 2022) • Knowledge sharing (Kumari et al., 2020)	• Diversity of stakeholders (Miller et al., 2016). • Power relationships (Miller et al., 2016) • Lack of initiative (Biljohn & Lues, 2020; Nguyen & Marques, 2022) • Distrust (Biljohn & Lues, 2020; Miller et al., 2016) • Lack of effective communication (Nguyen & Marques, 2022) • Lack of supporting framework (Audretsch et al., 2022; Biljohn & Lues, 2020; Lukesch et al., 2020; Monteiro et al., 2021; Morawska, 2022) • Lack of understanding (Bayuo et al., 2020; Monteiro et al., 2021; Morawska, 2022) • Absence of incentives (Bayuo et al., 2020; Monteiro et al., 2021) • Measuring of SI (Monteiro et al., 2021) • Silos (Lukesch et al., 2020)

Source: Author's own conceptualisation.

3.2. Research Gap

On one hand, there is a gap in the literature that tackles innovation in CLM. In the European Innovation Scoreboard 2022 (Directorate-General for Research and Innovation, 2022), we

observe differences between the Spanish national average and its regions. Overall, Spain, a moderate innovator, is behind the EU average, but there are highly emphasised differences within the country. While two regions are considered as strong innovators and eight are moderate, seven of them fall under the category of emerging, CLM being one of them. A search on the Scopus database using the query *(("innovation") AND ("castilla?la mancha" OR "castile la mancha"))* in title, abstract, and keywords, provides 36 documents on May 7, 2023. The same search for a Spanish region with a similar population but performing as a strong innovator, the Basque Country, results in 239 documents. Thus, while the status of innovation at the national level and in some specific regions has been broadly studied, it seems that initiatives taking place in emerging innovative regions need more research. CLM is considered a rural-peripheral region (García-Cortijo et al., 2019), and, while studies have mainly focused on well-performing regions and their success stories, the conclusions drawn from those cases can be of limited application in less developed regions (Tödtling & Trippl, 2005). In Spain, autonomous communities like CLM might find different barriers and drivers as compared to strong or moderate innovators, thus needing different strategies and policy approaches. This study tries to contribute, even if in a small way, by providing some conclusions on SI in CLM that could help in future evidence-based policies for innovation.

On the other hand, Howaldt et al. (2021), in their research agenda for SI, suggest prioritising certain topics for future research, one of them being the regional, cultural and social context of SI. Regarding the use of the QH model, until recently, it has been mainly used as a framework to explain macro structures, but studies at the micro level that explore the configurations of the actors according to their goals and roles are still needed to further understand the collaboration dynamics (Bellandi et al., 2021). While the approach of this study could be considered closer to the meso level, the roles of different actors are central to this research, and so is their interaction. This also includes characteristics that correspond to emotions and motivations at a personal level, which can be seen as closer to the micro level. In a different recent study, Morawska (2022) suggests that we look into SI in relation to QH and the roles of the different agents, and that we investigate the level of collaboration.

This work is one of the first papers that studies SI in the region of CLM. By underscoring the relevance of SI in the region, this study aims at awakening the interest in SI initiatives and helping bring them to the attention of stakeholders.

Chapter 4: Research Method

This chapter introduces the method that has been used in order to answer the research questions. It tries to convey how the selected methods align with the questions and fulfil the purpose of the study, providing the rationale behind the chosen instruments.

4.1. Research Context

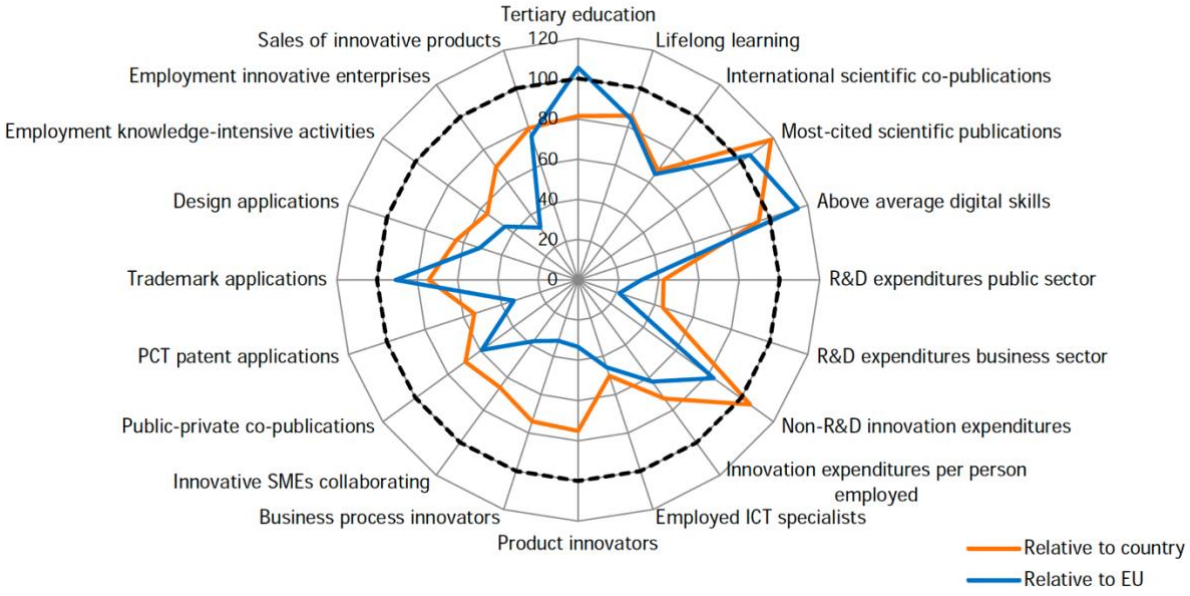
In case studies, understanding the context is of utmost importance. The region selected for this study is located at the heart of the Iberian Peninsula. In terms of geographical extension, it is the third largest region in Spain, whereas, by population, it takes the ninth place out of the 17 autonomous communities and two autonomous cities that constitute the country. Its population is approximately 2.05 million (INE, 2021). There are 919 towns, out of which 739 have fewer than 2,000 people. That means that 15% of the people in the region live in 80% of the towns (JCCM, 2021b). Many of these territories are affected by demographic decline, following the definition of the European Regional Development Fund (ERDF) 2021-2027, "those that have a population density of less than 12.5 inhabitants per square kilometre, or areas that have suffered from an average annual population decrease of at least 1 % of inhabitants over the 2007-2017 period" (Regulation (EU) 2021/1058, 2021).

Regarding GDP, it occupies the ninth position in Spain, with €42,286 million. Nonetheless, when it comes to GDP per capita, it is the fifteenth, thus being one of the regions whose citizens have one of the lowest standards of living in Spain (Expansión, 2021). According to the ERDF classification, CLM is considered in the category of less-developed regions, which are those whose GDP per capita is below 75% of the EU average, for the period 2021-2027 (Ministerio de Hacienda y Función Pública, 2022).

As far as innovation is concerned, while Spain falls into the category of moderate innovator (relative performance between 70% and 100% of the EU average) with a performance at 88.8% in 2022, CLM scored well below that percentage, with 64.4% in the last Regional Innovation Scoreboard from 2021 (DG Internal Market, 2021). This places the region in the category of emerging innovator (relative performance below 70% of EU average). In Figure 2, the radar graph shows the strengths and weaknesses found according to the indicators, in orange relative to Spain and in blue relative to the EU. For example, R&D expenditures of the business sector are extremely low, which can be partly explained if we consider that the industry sector in this region is made up of 98.3% of small enterprises with fewer than 20 employees (97.9% in Spain) (JCCM, 2020), and only 0.09% are large enterprises (in Spain, 0.18%) (del Olmo García, 2022). At the same time, collaboration between innovative SMEs is also low, as is employment in innovative enterprises.

Figure 2.

Regional profile of Castilla-La Mancha, RIS 2021.



Source: European Commission, 2021

As far as its higher education system is concerned, there is only one university in the territory – the University of Castilla-La Mancha (UCLM), a public institution that has campuses spread across four of its five provinces.

4.2. Research Design

For this exploratory study, a qualitative research design is employed, specifically a case study, which allows us to observe how different mechanisms and interactions between actors are enabling SI in the region. "Case study research involves the study of an issue explored through one or more cases within a bounded system" (Creswell, 2007). For Creswell, *bounded* is understood as the case being isolated regarding time, place, or some physical boundaries (Creswell, 2012). In this study, the case that is separated out is one region within Spain, CLM. This method has been selected given the high degree of decentralisation of the country and the need for contextualisation of SI. In addition, in Yin's words, case studies investigate "a contemporary phenomenon within its real-life context" (2003, p. 13), again underscoring the relevance of the contextual conditions.

Yin (2003) highlights five elements that can be considered as highly relevant in a case study research design. First, a study's questions: these have already been stated in Chapter 1, and they reveal the qualitative nature of the study. Second, the propositions of the study, which correspond with the hypotheses also outlined in Chapter 2. While qualitative research does not necessarily need hypotheses, the author recommends researchers to rely on theoretical propositions, since these can lead the case study and thus provide a good way to maintain the focus on what the study is meant to find. Third, the unit(s) of analysis of the study, which is the SI ecosystem of the region. Fourth, the rationale that explains how the data collected link to the

propositions. In this study, data collected consist of, on one hand, policy documents; on the other, interviews with regional QH actors. These secondary and primary data, together, are meant to address the propositions. Fifth and last, the criteria that is employed to interpret the findings. In this paper, the hypotheses guided the data collection, and, in the analysis, attention is focused on the relevant data that should provide patterns answering to these, helping the researcher organise the contents and make sense of the collected information.

Lastly, this study uses a questionnaire to cross-check the information obtained through the interviews (see the questionnaire in Appendix 1). This questionnaire was administered immediately after the interview and comprised 12 0 – 10 Likert scale questions. This is meant to be an exploratory inquiry, which can help identify certain patterns, but keeping in mind that the small sample is not representative. For the questionnaire, Google Forms was used, except for the two in person interviews, when a printed version was provided.

4.3. Data Collection

For this study, data have been collected from different sources. On one hand, primary data were collected through one-on-one semi-structured interviews, which served as inputs from QH sectors in CLM. On the other, secondary data were gathered.

Participants

The study used, on one hand, purposeful sampling, in which "researchers intentionally select individuals and sites to learn or understand the central phenomenon" (Creswell, 2012). Stakeholders from industry, academia, government, and civil society are the subjects of the interviews. In order to select participants, contacts available on public websites of the regional and local governments, companies, the university and various third sector entities were used. Additionally, snowball sampling was used, given that interviewees were in a good position to refer us to more potential participants. Most participants were initially contacted by email (see the template that was used in Appendix 2), but also occasionally by phone or instant messaging. In all cases, they were thoroughly informed about the scope and goals of the study in written form (Appendix 3), provided with an interview guide (Appendix 4) and a consent form (Appendix 5). The number of participants who accepted to be interviewed was 11. Three of the interviews were conducted in person, one over the phone, and the rest online. Table 3 summarises the main characteristics of the participants.

Table 3.
Participants and their roles.

Participant	Sector	Role
Aca1	Academia	Technology Transfer employee.
Aca2	Academia	Professor holding a leadership position in a vice-rectorate of UCLM.
Aca3	Academia	Professor at UCLM and coordinator of a collaborative project that promotes and educates in SI.
Civ1	Civil Society	Leadership position in regional delegation of a third sector organisation.

Civ2	Civil Society	Promoter of activities for local engagement in collaboration with other agents.
Civ3	Civil Society	Leadership position in a third sector sub-regional association.
Gov1	Government	Leadership position in a regional-level government department (political).
Gov2	Government	Coordinating position in a regional-level government department (technical).
Ind1	Industry	Social entrepreneur.
Ind2	Industry	Employee in a private business which consistently collaborates with the regional government to provide services to citizens, particularly vulnerable groups.
Ind3	Industry	Social entrepreneur.

Source: Author's own elaboration.

Process

This research used two different types of data: document analysis and interviews. According to Bowen (2009), document analysis is often used in research along with another method in order to seek corroboration and reduce potential biases. This method is "particularly applicable to qualitative case studies" (p.29), since documents provide an excellent source to help the researcher gain a deeper understanding of the context. Documents were collected from official websites belonging to the regional public administration.

Regarding the interviews, they were conducted between February 15 and April 13. All of the participants agreed to be recorded except for one (Aca1). The answers were always transcribed from the audio recordings by the researcher, first using an automatic transcription tool, then revising, correcting and formatting the documents in a way that is easy to follow, such as different text colours to distinguish between questions and answers. All interviews were transcribed and revised within 24 hours after they were conducted. Only one participant asked to see the transcribed interview to verify the content (Aca2), although all were offered this opportunity. On average, each interview lasted 30 minutes and each transcribed text has around 4,000 words.

4.4. Data Analysis

The data have been analysed using the qualitative analysis software ATLAS.ti. This programme facilitates data analysis by applying codes within themes identified in the selected documents. In this study, the programme has been used to analyse both secondary and primary data.

According to Braun & Clarke (2006), "thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail" (p.6). In thematic analysis, coding can have different orientations, which vary from inductive (data-driven) to deductive (theory-driven), but it does not have to be purely guided by only one or the other (Braun & Clarke, 2022). In this thesis, inductive coding was employed, since the starting point to extract themes is the data, and codes emerged from that. Nevertheless, it also has deductive orientations which help the researcher interpret the data

(Braun & Clarke, 2022). In order to systematise the coding strategy, the analysis followed Weber's coding scheme (Weber, 1990):

1. Establish the recording units: in this study, sentences representing ideas are the units.
2. Extract the categories.
3. Try using the code in a text sample.
4. Code all the text.

Through this process, which has not been linear, we have been able to identify similarities and differences in the content, interpret some patterns and finally delineate 20 categories around three main themes: challenges, motivations, and roles. The meaning of themes and categories, together with examples of representative quotations, are described in Appendix 6.

4.5. Credibility and Reliability

Ensuring the accuracy of the results in qualitative research is of utmost relevance. In this study, triangulation, one of the typically used methods by qualitative researchers (Creswell, 2012), has been applied. In Creswell's words, triangulation is used for "corroborating evidence from different individuals, types of data, or methods of data collection in descriptions and themes in qualitative research" (2012, p.283). In order to triangulate the data collected in this work, participants belonging to the four sectors represented in the QH were interviewed. Regarding the types of data, there are primary and secondary data obtained from different sources. Lastly, two methods were used for data collection, documents and interviews. Furthermore, since this study is part of a master's thesis, the supervisor of this work can be considered to have taken the role of an external auditor as described by Creswell (2012). Different professors have also been involved in all the steps of the process and have provided consistent feedback. The cross-check questionnaire can also be considered to enhance the credibility of the data.

In order to ensure reliability, the researcher pre-tested the interview questions with different subjects in a pilot and modified them accordingly. Moreover, all interviews but one, where the participant did not agree, have been recorded, and an accurate transcription has been done accordingly. In the following chapters, extracts of data are presented to make the analysis as transparent as possible, and the whole interview procedure is shared in the appendices. Regarding the validity of the study, the use of different sources guarantees that the collected information takes into consideration different perspectives. Possible biases and limitations that should be considered in this work are described in Chapter 7, ensuring that the readers take them into consideration when interpreting the findings. In addition, all participants were asked to verify the data provided during the interview by reviewing the transcriptions. Notwithstanding, only one of them agreed to go through this process. Finally, in thematic analysis, an important feature that a study needs to provide to ensure reliability is a codebook listing the themes/codes and what each of them is applied to (Braun & Clarke, 2022), which is presented in Appendix 6. Nevertheless, while intercoder reliability and consensus is important, there is a crucial limitation in this study, which is the presence of a single researcher, and therefore only one coder.

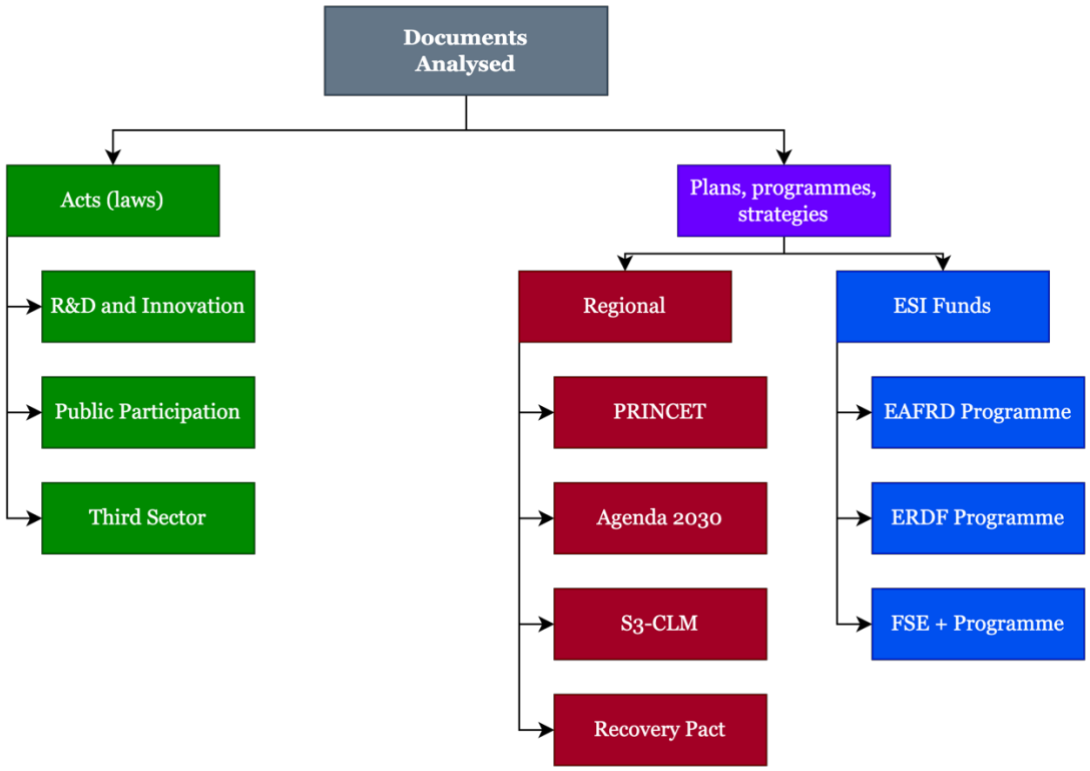
Chapter 5: Findings

This chapter presents the findings of the study. First, it introduces public policies that could potentially enhance SI, addressing research question (RQ) 1. Second, it presents the roles of the QH sectors in SI, tackling RQ2. Third, the challenges in SI as perceived by QH sectors are outlined – this answers RQ3. Fourth, the main factors that motivate QH sectors to seek partnerships in SI are introduced, addressing RQ4. All of these results together attempt to answer the main research question of this study.

5.1. The State of Social Innovation

This section, in order to answer RQ1 and guided by Hypothesis 1, sets out the findings after an exhaustive analysis of relevant regional policy documents. Figure 3 presents a diagram of the documents analysed.

Figure 3.
Regional documents analysed.



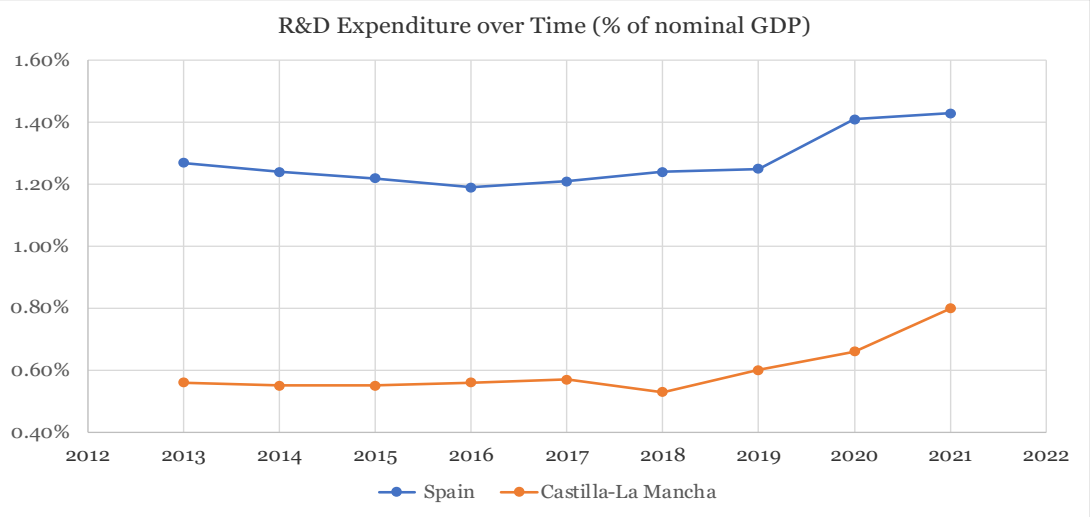
Source: Author's own conceptualisation.

The region of CLM passed its first-ever research, development, and innovation act in July 2020. The introduction of the Act 4/2020, June 10, for the Promotion and Coordination of the Research, Development and Innovation System of Castilla-La Mancha shows the growing focus on these activities. This interest is also reflected in the budget increase concerning public investment in R&D. Figure 4 shows the evolution of public expenditure on R&D since 2013, in

comparison with national data, according to nominal GDP. The budget increase from 2020 to 2021 is significantly higher than the national average. It was the region with the highest investment increase for research and innovation, which grew by 30%, from 261 in 2020 to 340 million euros in 2021 (Consejería de Educación, Cultura y Deportes, 2022).

Figure 4.

Evolution of R&D Expenditure.



Source: Author's elaboration from data from the Spanish Statistical Office.

While the science act does not use the term *social innovation* in the whole document, there are some ideas in the text that seem to be supportive of it. Article 7, entitled "the social path of the regional R&D and innovation system," focuses on the role of the regional government in the diffusion of R&D activities by bringing it closer to citizens, as well as the promotion of participatory instruments to include citizens in the discussions with other agents. Collaboration between businesses and research groups is included in Article 12, which assigns the department in charge of R&D the responsibility to create the appropriate communication channels to boost KT. While KT to business is more emphasised, the document also refers to facilitating KT to the wider society in Article 25. Article 26 establishes the creation of a reward system for people, bodies, institutions or innovative businesses bringing their R&D activities closer to the people. In addition, it underscores the creation of networks for collaboration which include the industry, research bodies, public administrations and civil society (Ley 4/2020, de I+D+i, 2020).

Two more acts have been analysed in order to better understand the role of civil society in the region. CLM has a specific act for public participation: Act8/2019, December 13, for Participation of Castilla-La Mancha (Ley 8/2019, de Participación, 2019), which reflects the willingness to facilitate citizen participation in public processes. It regulates the participation of citizens in public decision making and ensures that everyone is represented, and it also contemplates the implementation of tools to boost collaboration between citizens and the administration. In addition, the region of CLM has been paying increasing attention to the third sector, reflected in

the passing of a specific act. The Act 1/2020, February 3, of the Third Sector of Castilla-La Mancha (Ley 1/2020, Del Tercer Sector, 2020), regulates third sector entities and considers their importance in social intervention activities. In the text, the collaboration between the third sector and other agents in the region is underscored.

Regional plans and strategies are a mechanism to define and implement policies. For this study, seven of them have been analysed. Whereas none of them explicitly mentions any actions directed to enable SI in the region, some of the strategic lines and proposed actions included can be seen as enablers to SI. The most relevant ideas of each document are synthesised below:

- Regional Plan for Scientific Research, Technological Development, and Innovation 2021-2024 (PRINCET from its name in Spanish) is the tool used for the planning, managing and implementation of R&D and innovation in CLM. The Smart Specialisation Strategy (S3) served to guide the elaboration of this plan. To define the S3 areas, that is, areas having the potential for growth in the region, actors from QH participated in the discussion (JCCM, 2022c). The plan contemplates collaboration between agents as a transversal aspect for innovation, as well as social cohesion. Financial support for technology transfer can be granted, and public-private partnerships are highly encouraged. Through the creation of the Agency for Research and Innovation of CLM, KT between agents and support for the dissemination of results is provided. In order to involve citizens in innovation, UCLM should carry out activities addressing such topics with primary and secondary schools. In addition, a new subject is introduced in secondary school: research and scientific development. As in the corresponding law, the plan emphasises KT among businesses, university and research centres, with the financial support of the regional government. Public procurement of innovation is another point in this plan that can benefit both innovators and users.

- The S3 of Castilla-La Mancha 2021-2027 encourages public-private collaboration with a challenge-oriented approach and working with agents so that they can align their interests towards common goals. Within this approach, one of the actions to be implemented is the development of programmes to solve social problems in the region using R&D and innovation. Dissemination and communication to instil an innovative culture is another strategic line in this plan that can be relevant for SI, whose goal is both making people more interested in such activities and also more appreciative of R&D in the region. Public innovation is also included as a strategic line, where one of the actions includes promoting innovative actions guided by the resolution of social challenges which should be approached using open innovation (JCCM, 2022a).

- The Strategy 2030 Agenda of Castilla-La Mancha shows the engagement of the region with the SDGs and provides a tool to make it a reality. The agenda is introduced as a tool for the coordination of different departments across the administration as well as for social participation. The document is presented as proof of CLM's commitment with sustainable development. One of the points it tackles is the need for specific mechanisms that facilitate the creation of partnerships between agents (JCCM, 2022b).

- The Pact for the Economic Recovery and Employment of Castilla-La Mancha 2021-2024 is in itself the result of a partnership, since it has been agreed upon by the government and other groups that include the third sector and business associations and entities. This pact sets out objectives according to strategic lines. Among these objectives, there are aspects that can be seen as supportive of SI: bringing science and innovation closer to the wider society in CLM, facilitating cooperation between different agents to create synergies, capacity building to stimulate the creation of sustainable and inclusive enterprises, or working with third sector entities in all social intervention areas (JCCM, 2021a).

On the other hand, programmes that help the region make use of the European Structural and Investment Funds (ESI Funds) have also been analysed. Particularly, three ESI Funds programmes for regional and urban development projects have been considered as relevant for SI in CLM, including the European Regional Development Fund (ERDF), the European Social Fund Plus (ESF+), and the European Agricultural Fund for Rural Development (EAFRD). These documents, while drafted by regional authorities to address contextual priorities, must be approved by the EC, since they are managed on the basis of partnership agreements between each member state and the EC. The most relevant points for SI are summarised below:

- The Rural Development Programme of Castilla-La Mancha 2014-2020 supports the projects and actions that are co-funded by the EAFRD, as part of the EC common agricultural policy. Part of such funding must go to actions based on the LEADER approach (now also under the broader term Community-Led Local Developmet), "a 'bottom up' approach, in which farmers, rural businesses, local organisations, public authorities and individuals from different sectors come together to form local action groups[1] (LAGs). The LAGs prepare their own local development strategies and manage their own respective budgets" (European Commission, 2023). This working methodology aligns with the main aspects of SI theories as presented in this work, and therefore, can be regarded as supportive of such activities in the region (JCCM, 2023).
- The ERDF Programme Castilla-La Mancha 2021-2027, following the goals established by the EC, further specifies priorities adapted to the region. One relevant point that can help build capacity across the population is the plan to ensure a fairer access to education. CLM is below the national average regarding citizens with a university degree (33.1% against 43%), which makes this point a key aspect for the progress of the innovation system. Other topics included in the programme, like circular economy and better access to health, could also be benefit from SI activities (JCCM, 2022d).

[1] "A Local Action Group (LAG) is a non profit-making composition made up of public and private organisations from rural villages having a broad representation from different socio-economic sectors. Through the European Agricultural Fund for Rural Development (EAFRD), LAGs can apply for financial assistance in the form of grants to implement the Local Development Strategy of their respective territory." https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Pages/LEADER/Local-Action-Groups.aspx

- The ESF+ Programme Castilla-La Mancha 2021-2027 defines priority areas for the regional development of the region in accordance with the 2020 document *Diagnosis of the Socioeconomic Situation of the Region*, which was elaborated through a participative process. It is structured around eight social challenges, which could potentially be addressed through SI initiatives. In addition, the EC encourages member states to employ ESF funds to support SI actions in their regional context (JCCM, 2022e).

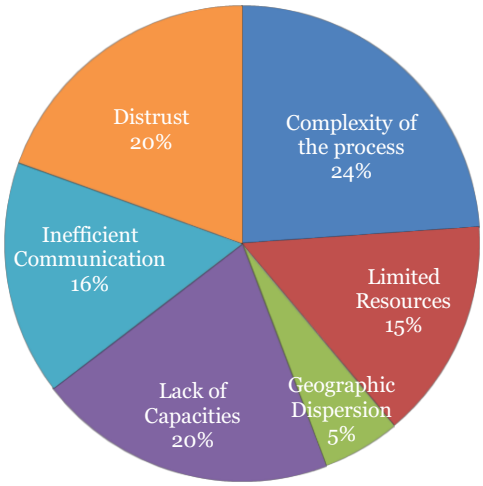
In short, the findings outlined in this section indicate that the present policy framework of CLM considers many aspects that can help SI thrive in the region. Nevertheless, the term has not been found in any of the analysed documents, and there is no plan or programme that specifically tackles SI or QH partnerships.

5.2. Challenges of Social Innovation

This section addresses RQ2, guided by Hypothesis 2, by observing the challenges regarding partnerships for SI. Through six different types of challenges, this section attempts to provide an overview of the difficulties that QH agents confront in SI processes.

Figure 5 presents a pie chart showing the frequency of occurrences of each theme in rounded percentages. It is evident that the distribution is relatively balanced across the different categories when we consider the totality of the participants, except for one: by a large margin, geographic dispersion is the least frequently mentioned challenge.

Figure 5.
Distribution according to frequency of occurrence.



Source: Author's own conceptualisation.

Table 4 presents the codes in absolute numbers according to each QH sector. The heatmap, which goes from light blue (less frequent) to dark blue (more frequent), shows that civil society participants have put an emphasis on the *complexity of the process* and the *lack of capacities*, followed by *inefficient communication*. From the government side, *distrust* is highlighted. The academic and industry sectors present a more evenly distributed number of occurrences per

category. It is also noticeable that *geographic dispersion* has not been mentioned by government and academic participants.

Table 4.

Heatmap of code frequency in challenges.

	Complexity of Process	Geographic Dispersion	Lack of Capacities	Inefficient Communication	Lack of Resources	Distrust
Academia	5	0	4	4	1	4
Government	6	0	4	3	5	9
Civil Society	10	5	12	9	6	4
Industry	6	1	3	2	5	5

Source: Author's own conceptualisation.

5.2.1. The Impact of a Lack of Trust and Self-Interest on Relationships

The data indicate that public institutions often do not trust citizens. For example, Civ3 feels that their association had to work really hard just to prove to the public administrations that they were creating value for their community. They explain that "there are always intermediaries, I mean, communities are not trusted. In community processes, there always has to be either a public administration managing the money or a Local Action Group." Adding to this, Ind1 underscores the low level of trust on young people, whose ideas are not always well received. They note that "there is still a long way to have that generational renewal, where you change a bit, you give more responsibility to young people so that they can engage with their ideas." In addition, trust also seems to be scarce in the opposite direction: citizens often can be reluctant to the changes that certain innovative processes imply, as Aca3 observes:

> Sometimes there is mistrust towards what is being done, and there can also be a lack of trust when technology is involved, since people do not really know where it is going. Therefore, there might be processes involving instrumental barriers of mistrust, such as towards new technological applications which, when not explained correctly to the public, can be rejected.

Distrust does not only exist between sectors, but also within groups of the same sector. Specifically, Civ2 notes that their experience working with citizens has shown that individuals do not easily trust each other. When explaining the work that they have been doing to get people together, they state that "there is reluctancy, there is a fear of being judged, of where I'm going, what I'm going to do there."

The fact that distrust is a corollary of self-interests is an underlying idea across the data. Different agents pursuing their own selfish interests can create scepticism towards others, and consequently hamper relationships. Aca2 suggests that there are often political interests, in their words, "politicians prefer, rather than evidence-based policy, policies that they bring from home:

'this is my policy'." Along the same lines, Gov2 and Ind2 also believe political interests can hinder SI. The problem is, as Gov2 elaborates, that SI should be included in long-term agendas for it to prosper, but governments, especially local ones, might not have this long-term vision in their programmes. In their words, "the mayor can tell you 'Listen, what I want is to win the elections and that's it, stop bugging me with thinking about the future in n number of years'." For Gov1, the interests of the business sector are largely financial, and this slows down SI processes, since companies often prefer to keep their innovation to themselves. They state that "there is no willingness to establish this line of collaboration because, perhaps, social participation does not offer what those providing the resources expect." Interests are also present, as Gov2 notes, across civil society. This heterogeneous sector can have largely different interests, and thus, each individual or group of individuals may try to protect their own interests without thinking about the society as a whole. This has been observed by Gov2 regarding public participative processes. Ind2 agrees with this idea and adds that "society is becoming increasingly individual and less collective," and this can impede the development of stronger relationships.

5.2.2. The Challenge of Complexity: Navigating the Social Innovation Process

It is evident from the findings that participants perceive SI as a complex process. First, since innovation is regarded as technological or business-related, public institutions focus on these types of innovation, as Civ1 and Gov2 underscore. This might add to the complexity when it comes to justifying SI projects while applying for resources and financial support. Gov2 claims that, regarding bottom-up and participative processes, "on paper, that looks fantastic. Nevertheless, implementing it is really complicated" and also states that "the perfect conjunction, taking the helices and integrating them, that is very complicated, very complicated," emphasising the complexity of collaboration. Furthermore, there is a regional characteristic that Gov2 mentions: CLM mainly has small businesses, where innovation is often not a priority:

> What happens with SMEs and micro enterprises? That they have enough on their plate balancing their accounts, and that's it. We can't ask much more of them. [...] Freelancers and small businesses are the ones really contributing to delivering growth. Stressing innovation processes in SMEs is extremely complicated.

Aca2 suggests that SI demands for exhaustive analyses in order to deeply understand the context. They believe that there should be more pilots in the policy field, and "with those experiments, at the end, a much more exhaustive knowledge can be achieved, much more first-hand, of things that work and things that don't work in topics related to social innovation." Another aspect complicating the process is highlighted by Civ2, who contends that, as a member of civil society, bureaucracy is a barrier when collaborating with public institutions: "I have found an administrative barrier along the years since I have been trying to offer things," they state. In the same line, Civ3 agrees that administrative barriers are the main element hindering the process, and this creates a gap between the public administrations and citizens. Ind1 notes that:

> In Castilla-La Mancha, there are many grants, both for businesses and associations, which give you financial support for your projects. What is the issue? To apply for those grants, you need to be really well informed about how grants work.

Moreover, the lack of recognition of SI in the region may stop it from taking place. In this sense, Gov1 argues that "there is an absence of a defined programme, with goals for the medium or long term, which could be considered a strategy or plan for social innovation in the region." Aca3 reaffirms the complexity of innovation in general, which is even more emphasised in social affairs. For them, in SI, "processes need to be thoroughly understood, especially when we deal with stigmatised groups, then the process is even more complex and more difficult, because on top of it all you also need to break certain barriers." The barriers that they are referring to are deeply rooted views and habits in our societies.

Sometimes, the lack of initiative complicates the SI process. Civ1 acknowledges that civil society is not always active, also underscored by Civ2, who has noticed little initiative from the public in general. In their experience, Ind1 has found it difficult to mobilise people to participate in SI projects and feels that it requires a dedicated and sustained effort: "you need to make a lot of effort to be present in people's minds, which requires a lot of work. So, I think that it is a very important factor, but also very complicated." This might be partly due to the fact that, as mentioned by Gov2, citizens perceive innovation and science as disconnected from their daily lives, which makes it difficult for them to engage.

5.2.3. The Challenges of Limited Resources in Social Innovation

The analysis revealed that SI stakeholders perceive a lack of resources, mainly human and financial, but also physical spaces and technology. For example, Aca2 finds that there are no spaces for dialogue, which is essential to facilitate cooperation and seek solutions to problems together. Civ1 also deems it an outstanding challenge. Civ2 notes an absence of human resources, with consequences on, for example, scaling up projects. In the same vein, Gov2 states, referring to QH collaboration for SI, that "if we had the capacity to have somebody track it, and through emails, phone calls… we could be coordinated and work. I believe this is the main barrier that we encounter." Adding up to this, Ind1 refers to the lack of young people in rural areas in CLM. This is a problem because they are "those who usually have new ideas, who know about social innovation, who have studied new methodologies at university and then apply their knowledge in their projects, businesses, associations…" The lack of financial resources is discussed by Civ3, who considers that their association does not receive enough funds. They contend that often funds are allocated to the largest third sector entities, those which are present at the national level. Along the same lines, Civ1 refers to an absence of grants or specific support to SI.

5.2.4. The Reality of Capacity Constraints and Unawareness in Social Innovation

Capacity building is a pressing concern for SI in CLM, as many participants have identified a lack of awareness and understanding of the concept of SI as a key barrier. Civ1 believes that the third sector needs more training:

> I also think that we frequently lack training in the third sector to be able to identify that what we are doing can actually be regarded as projects and initiatives that are part of that social innovation, but we don't identify it as such.

Civ1 also adds that training on SI is still missing in UCLM programmes, and believes that including it in the curriculum, for example through elective courses, is desirable. Its inclusion in university programmes is also seen as necessary by Civ3, who claims that, as it is now, students "are hardly able to think about the complimentary values that a business model needs to have." But the first step towards building capacity is raising awareness. Aca2 observes that SI is often happening without the corresponding awareness or dissemination of the concept among those engaged in such activities. Such lack of awareness can also impact the participation of civil society, which might not appreciate the value of SI, as Gov2 observes. Similarly, Civ3 emphasises the need to raise awareness about SI as a prerequisite for promoting active participation among individuals. Moreover, Aca3 suggests that citizens should not only be informed about, but also understand SI processes: "if citizens do not understand the processes that are taking place, they (the processes) will possibly fail." In addition, Gov1 considers that "there is a knowledge deficit in social innovation in the public sphere, not only among employees and experts, but also political actors." Regarding the third sector, Ind3 observes that associations are often unable to generate their own income because it is guaranteed by public grants. This lack of capacity means that "associations are maybe restricted because they do not have someone in charge."

5.2.5. The Challenges in Building Strong Networks for Social Innovation

Another widespread concern is the issue of insufficient communication stemming from an absence of channels or, in some cases, unsuccessful interactions. For instance, Civ1 states that "it is necessary to have, like, more coordination or to put everything in common in all the fields of social innovation where the university is working," underscoring the need for improved communication between civil society and the regional university in order to align their efforts towards SI. At the same time, Civ1 acknowledges that the third sector should better disseminate the work they are doing in order to convey their significant role in regional development to public administrations and the wider society. The lack of communication channels is linked to insufficient resources, as Aca2 observes. They think that UCLM should offer more spaces for discussion, especially with civil society. Sometimes, the problem can be that communication is unilateral, as Aca2 notes: "if someone sends us an email here with some idea, we look at it, but it has to be them who calls us, it is not like engaging in a dialogue from which new topics can emerge." Throughout the collected data, the notion of a unilateral approach to communication rather than a collaborative effort is evident. For instance, Civ2 highlights that, when seeking collaboration from the local government, "I'm the one who initiates contact and directly approaches the social welfare department." Similarly, Civ3 explains that they are always the ones who have to take the initiative to reach out to public institutions:

> For example, I will soon go to a secondary school, because they have an elective subject on entrepreneurship, to give a talk about social entrepreneurship to their pupils who are now in grade ten. But it is a one-time thing, and I'm always the one who goes to them.

The absence of a proficient communication system may result in various adverse effects. As pointed out by Gov2, it can potentially cause financial losses, particularly when the intended beneficiaries are not involved in the process, leading to an increased likelihood of failure. If the

recipients do not perceive SI as a solution that addresses their needs, they might not accept it. From Ind2's perspective, it appears that there is a lack of communication between institutions and citizens due to siloed structures, and most importantly, an absence of robust commitment. Lastly, Ind2 argues that, again, unilateral communication is a problem and urges for a more bilateral approach that involves listening to the needs of stakeholders: "do not inform me, communicate with me, and communicating means bilaterally receiving information: you need to identify needs, and for that you need to listen to me, and that is the challenge."

5.2.6. The Distance Challenge: Geographic Dispersion in Castilla-La Mancha

As outlined in Chapter 4, CLM is a vast region where the population is spread across small towns. When it comes to collaborating for SI, this very characteristic seems to pose a challenge. Civ1 explains that, when intending to offer some kind of service for people in rural areas, the cost becomes much higher than it would be in an urban one. In addition, the service can lose quality: "imagine that someone who offers domiciliary help, for instance, needs to travel between four towns that are 40, 50 and 60 kilometres away. You lose efficacy because you waste time travelling, and thus the assistance you offer is different." For Civ3, distance becomes a problem when remote rural areas are partly ignored by the largest non-profit entities, which "might get there in a very partial manner, with a programme for assistance or some specific programme, but not with the whole range that they offer in urban areas." Moreover, Civ3 notes that these areas cannot be approached with the same criteria as urban ones. Despite this, public administrations do not always adapt their programmes accordingly, indicating a need for greater awareness of the unique challenges facing rural areas in the context of SI. Great distance between towns is also a challenge in terms of reaching people. Ind1 underscores that "it is very hard for us, because the region is so geographically vast that you have a town, 30 minutes, then another town, so it is difficult to make connections between them."

5.2.7. Final Overview

A summary of the challenges that have emerged from the data is presented in Table 5. The lists are in descending order according to the frequency of occurrence.

Table 5.

Challenges in partnerships for SI.

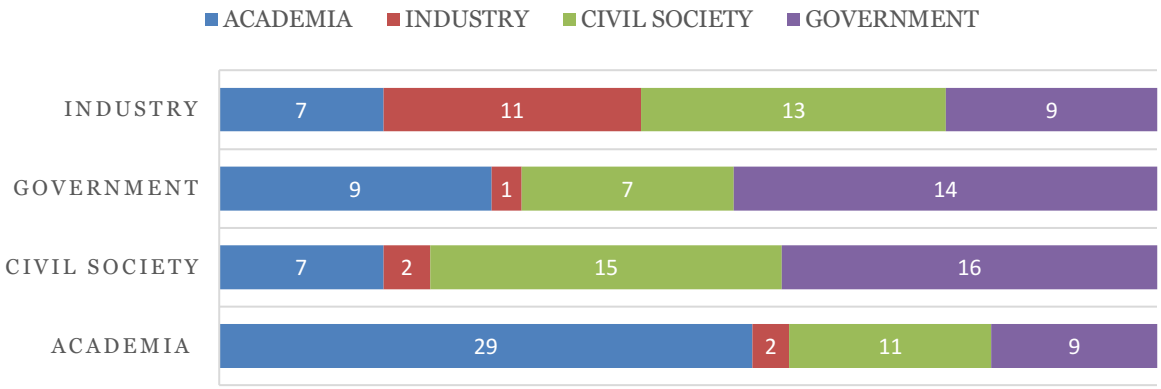
Academia	Government	Civil Society	Industry
• Complexity of Process • Lack of Capacities • Inefficient Communication • Distrust • Lack of Resources	• Distrust • Complexity of Process • Lack of Resources • Lack of Capacities • Inefficient Communication	• Lack of Capacities • Complexity of Process • Inefficient Communication • Lack of Resources • Geographic Dispersion • Distrust	• Complexity of Process • Lack of Resources • Distrust • Lack of Capacities • Inefficient Communication • Geographic Dispersion

Source: Author's own conceptualisation.

5.3. Roles of Quadruple Helix Actors

This section discusses the findings on the contributions of the four agents of QH to the process of SI. Figure 6 shows the number of quotations coded in accordance with each sector being discussed. As illustrated, participants from academia assign their own sector an important role. Contrarywise, the rest of the participants do not give such a central role to university. The data reveal that, aside from participants from the business sector, the other three QH agents do not mention the industry roles often. Civil society is considered important for SI partnerships, and government roles are more present in the discourse of their own sector and that of civil society.

Figure 6.
Number of quotations by sector.

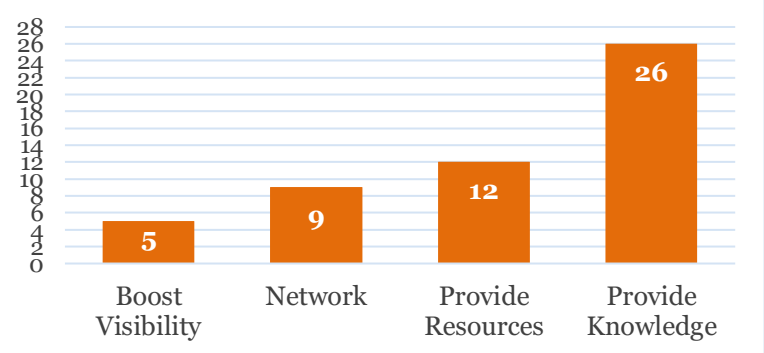


Source: Author's own conceptualisation.

5.3.1. The Role of University

The academic sector in CLM is represented by UCLM. Standing as the sole higher education institution in the region, it plays a vital role in SI partnerships, as the interview data convey. Its relevance is underscored by Gov2, who states that "here at the regional level, our fundamental agent of development is the University of Castilla-La Mancha."

Figure 7.
Frequency of each role assigned to the academic sector.



Source: Author's own conceptualisation.

As shown in Figure 7, UCLM has been predominantly conferred the role of *knowledge provider*. For Aca1, the wisdom and knowledge of university researchers should be transferred to companies, which will use it to innovate. Ind1 finds that having access to knowledge provided directly by researchers facilitates SI, particularly as a social entrepreneur. Nonetheless, as Gov1 highlights, while KT is more focused on university-industry right now, it should expand beyond:

> The academic domain is working on some proposals which logically need to be transferred not exclusively to the business area. As it happens, in the end, they (companies) do not always end up providing benefits to the wider society beyond the benefit that it (KT) might yield to the business itself.

The third sector could also benefit from KT, as suggested by Civ1. In this regard, Aca2 notes the need for research on the topic of SI to ensure that there is enough evidence to boost policies for SI. This aligns with the perspectives of Gov2, who regards UCLM as essential to attain social objectives established by the government. As an example, they explain that the regional government closely collaborates with the university to fight against depopulation, a key challenge of CLM. For Aca3, KT to society is part of the third mission of the university, and they describe it as an obligation. Like Aca2, Aca3 also believes SI should be researched as a topic, prioritising the most pressing challenges of the context where the institution is located. In the context of HE, and especially in UCLM as the single regional university, SI could also be explored from an institutional research perspective, making it part of the strategic positioning of the institution (Parrón Cabañero, 2023). Regarding the teaching mission, the evidence shows that educating is another significant role of the academic sector. Undergraduate and graduate students, as well as individuals external to UCLM, could potentially learn about SI through the different courses offered at the institution, Aca2 observes. In this regard, Civ1 acknowledges that SI is still not really present in the programmes, but this is slowly changing. In their view, "it would be important to strengthen it, for instance through elective credits, collaboration in social innovation projects developed by third sector entities, other organisations, foundations, and so on." In the same vein, Civ3 suggests including SI in degrees such as business administration, economics, or engineering, so that future entrepreneurs can become aware of it.

Another role that the university has been assigned in SI is *providing resources*. In Aca1's view, university agents could provide meeting spaces and mechanisms to work for SI in collaborative dynamics. They also note that, as a public institution, it could offer funds for SI projects. Ind3 refers to existing agreements between universities and companies whereby they provide a working space, often helpful for new entrepreneurs. Furthermore, for Aca3, Gov1 and Gov2, talent is the most important asset of higher education institutions. Therefore, human resources from UCLM are a significant contribution for SI.

Also present along the discourse is the idea of the university as a hub for collaboration which helps *networking*. As Aca3 states, "the university often generates a network, since it has those work… research groups, inside the working dynamics of university, with so many links already generated." As an example of a mechanism that acts as a link between research and social reality, they mention research chairs, which can also be the result of agreements with third sector

associations. Another programme that brings agents together, as Aca2 explains, is *UCLM Rural*, which offers internship placements in rural areas of the region. In addition, Aca2 also notes that by organising different types of events, generally open to the public, the university offers opportunities to networking. Civ2 agrees with this idea of university as a hub. UCLM is also an important channel to connect the government with the other agents since, as Gov2 mentions, UCLM allocates important grants which can help promote SI. In addition, Civ3 highlights that they have occasionally collaborated with UCLM to give talks on SI and entrepreneurship models, and Ind2, through their company, has also taught in some programmes.

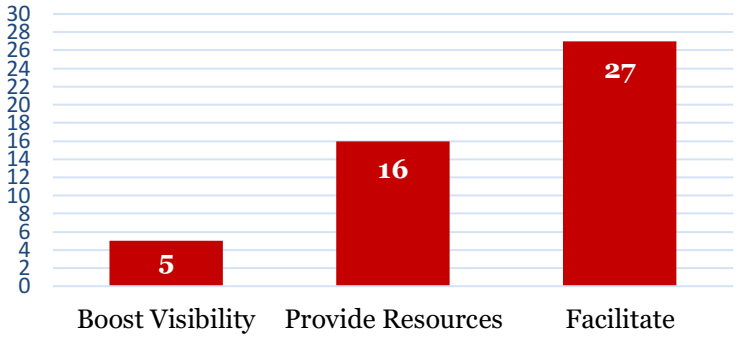
Lastly, *boosting visibility* is another role that university can play. Aca1 believes that universities, through events such as fairs, can disseminate results and let people know about KT. Other events, like conferences, as mentioned by Aca2, can also gather all types of agents, and thus raise awareness on SI. In Civ2's perspective, UCLM could help bring SI initiatives to more people.

5.3.2. The Role of the Government

Regional and local governments are considered to have a relevant role in SI. As mentioned earlier, the business ecosystem of CLM makes it a region where the public administration must engage in R&D and innovation. Figure 8 displays the weight of each one according to coded quotations.

Figure 8.

Frequency of each role assigned to the government sector.



Source: Author's own conceptualisation.

The most recurrent role is *facilitator*, which includes promoting and leading SI processes. For Civ2, one way to facilitate SI at the local level would be to scout projects to offer them support. Another way is, according to Gov1, channelling the 2030 SDG Agenda by promoting SI to attain the goals. Gov2 observes that the regional government is already facilitating SI by implementing certain strategic lines and working with other agents on those focus areas. Gov2 adds that "the administration should be a facilitator of other processes that come from other sectors: private, third sector, etc." In their view, facilitating also includes finding consensus. In Civ3's perspective, public administrations, and especially local ones, should walk hand in hand with civil society. In this sense, governments should give more responsibility to their partners, as Civ3 states: "transfer, trust, let us manage resources, fundamentally economic ones." Promoting SI is another

way to facilitate SI. Civ2 suggests creating easier paths to entice civil society to participate in SI, even by providing incentives. In this regard, Gov2 believes that the government could act as a promoter, coordinating actions and leading the process. For Gov2, the unique situation of the region makes the government responsible for providing a strategy, particularly important for an emergent phenomenon like SI. Aca3 is also convinced that the regional government should take a leadership role. For them, this is key in involving civil society in SI, since the government should provide them the means for it. In addition, it can be seen as a way to legitimate SI. Regulating SI activities corresponds to the regional public administrations, and it is considered as one of their relevant roles.

Another relevant role of the government in SI is to *provide resources*. Regarding financial resources, Civ1 reckons that it would be beneficial if the government offered grants specifically for SI. Civ2 also considers that when it comes to scaling up an SI project and taking it further, the government has a capital role. In the case of Civ3, the spaces they use are often given by the local governments of the towns where they work, because "they highly value the work that we do." For Ind1, government funds for SI projects are necessary. Aca3 agrees that the region offers support for processes that can be understood as SI. For Ind2, the role of the government is clearly providing funds. Their company receives public funds to support the government in implementing their social agenda.

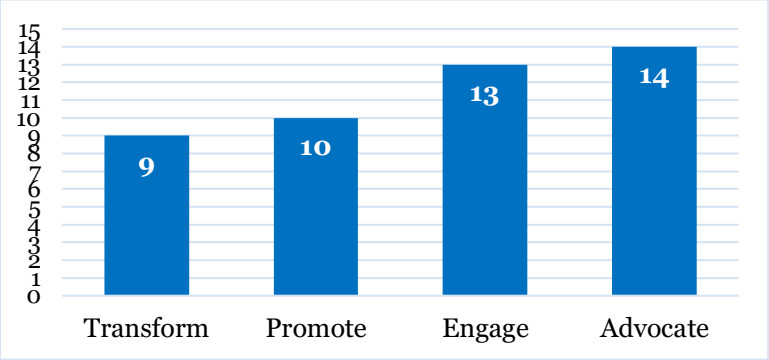
Finally, the regional government of CLM could support SI processes by *boosting visibility*. In Civ1's perspective, SI is not receiving much attention, and they state that they would like to see part of what they are doing in the third sector recognised as SI. In the case of Civ2, they have found that having the support of the local government has highly increased the visibility of their SI projects. In addition, by being able to use the local government's logo in their posters, they think that people have trusted them more. They have also been invited to the local television channel, which can provide a platform to inform people about SI activities. For Ind2, public administrations in the region, along with UCLM, have a marketing role, so the function of disseminating and providing visibility is key. For Ind3, the regional government is already raising awareness and providing visibility to businesses which work in SI projects by providing an award to SE.

5.3.3. The Role of Civil Society

The integration of civil society as an essential element of the QH model serves as a distinctive feature that sets it apart from the TH and establishes it as a comprehensive framework suitable to explain SI processes. Therefore, the role of this stakeholder is central in SI partnerships. Figure 9 presents the role distribution. As the graph shows, the distribution is more balanced than in the rest of the QH agents.

Figure 9

Frequency of roles assigned to the civil society sector.



Source: Author's own conceptualisation.

As the recipients or users of most SI activity, it is evident from the data that civil society should *engage* in SI processes. Civ1 is convinced that "in social innovation, for me, participation of those who will benefit from it, the users, the recipients, the protagonists of the social problems that we are talking about, is essential from the very beginning." They note that users are best positioned to inform about their own problems and preferred solutions. For Aca2, civil society can indeed act as a "driving force by leading, let's say, even guiding public bodies." They acknowledge that it is a positive practice to have civil society provide insights about their challenges to public administrations. In Gov1's view, public bodies should streamline active participation which goes beyond only conveying information:

> I believe that the next step to take is to engage and to offer active participation, active presence. Not just to keep them informed about them (SI initiatives), but also that they can give their opinion, propose, decide, carry out joint programmes with the public administrations, even with the business sector, where they (civil society) provide their vision through their organisations.

In addition, public participation is often a central element in SI, as Ind1 mentions, and thus, their guidance is needed from the initiation phases. They state that "even when the project itself does not need to mobilise people, still their opinions and concerns should be taken into consideration in some way." Since the main goal of SI is addressing social challenges, this guidance can improve the chance of success by ensuring it is covering real needs based on evidence. Not only at the start, but also along the process, civil society is essential. For instance, Aca3 has experienced using real-time feedback from users of an SI initiative. This type of monitoring has served to improve the quality of the service that was being offered. Moreover, as explained by Ind2, it is imperative to maintain a continuous receptiveness towards civil society, given its changing nature. In an organisation chart, they reckon that civil society should be the creative team, that is, the ones providing the ideas: "information, instead of going from the top to the bottom, should go from the bottom to the top. Identifying needs should be key," they state.

One of the roles that emerged from the data, mostly referring to civil society represented by the third sector, is *advocating*. According to Civ1, third sector organisations can act as a bridge

between social reality and policies, giving voice to the people. Gov1 also observes that citizens can take part in innovations through their entities, in this case, third sector ones. For Civ2, social innovators can help build fruitful relationships among the people, stimulating participation in a context where they feel heard. Associations in rural areas, as Civ3 notes, can connect the government with citizens by initiating SI activities, given that public administrations might not have the capacity to reach and adapt to the specific context in all the corners of the region. In their words, "we channel citizens' demands that would not be absorbed otherwise, not even by social services." For Aca3, civil society has a double role as participant and mediator.

The civil society sector can act as a *promoter* of SI. As Civ1 notes, "we exist as the third sector because civil society organises itself to try to solve problems," and such problems can be tackled by using SI approaches initiated by them. According to Aca2, civil society can become an active promoter of SI by applying for public grants and seeking collaborations. This has been the case of Civ2, who has promoted SI at the local level and has actively asked for support from the local government. Furthermore, Gov2 refers to the EC recommendations:

> In all our proceedings, we are always aligned with the European Commission's guiding principles. The European Commission tells us about the helix. It tells us about giving voice to our citizens and to all the stakeholders, of making bottom-up processes.

In this sense, promotion of SI by civil society should be encouraged and facilitated. For Civ3, promoting initiatives to address social challenges is the reason for their association to exist. Similarly, Ind2 is convinced that civil society is the sector that needs to devise SI initiatives.

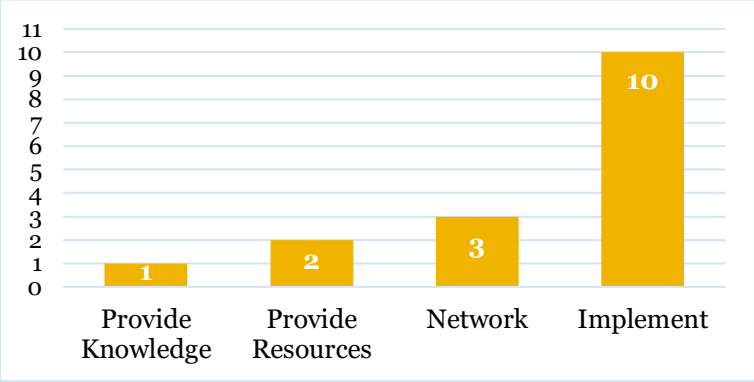
Lastly, participants believe that the ultimate role that civil society can play in SI is becoming change-makers and eventually *transforming societies* in a systemic way. Only by integrating these agents in SI can important changes take place, as Civ3 notes. They use the term *empower* across their interview, emphasising the underlying power that people can have if working together with the right tools. This idea prevails in the discourse of Ind1 as well, who states that "the whole community can have power." For them, SI goes beyond a project, and can go a long way if successfully implemented: "you are creating connections between individuals who talk about the same things in one place, and that can become bigger than you expected." This idea of systematically changing our society is also reflected in the discourse of Aca3, who believes that partnerships in SI can help break barriers by proving that things can be better and that we can do it together.

5.3.4. The Role of the Industry

From the evidence, it appears that the business sector might be less integrated in SI. Figure 10 shows the distribution of the roles assigned to the industry sector.

Figure 10

Frequency of occurrences of roles assigned to the industry sector.



Source: Author's own conceptualisation.

The category that dominates the roles of the industry sector is *implement*. For Civ1, SE is a tool to put SI into practice, and they state that "a social entrepreneur is the one who implements and uses it as a tool for innovation, that is, the one who seeks those solutions to social problems which are developed in their territory." For Ind1, social entrepreneurs are also key, but also more traditional business models which, by collaborating in such projects, can absorb new practices that they can later apply in their work. Ind2 thinks that, in these QH partnerships, businesses should be in charge of implementing the innovations, "but closely listening to the creative team, designing what the creative team has said, that is, citizens." They affirm that business experts have the tools to make those ideas happen. Moving on to a different role, Aca1 refers to businesses as *resource providers*. Ind3 believes in working towards a model of SI that can generate funds, aside from those coming from public grants. In this regard, they believe that it is this sector which could take the role of finding ways to bring income to SI. The role of *networker* was raised by Ind3, since they have experienced it with their business. Social enterprises organically generate connections with the other QH agents, and this helps them identify needs from all sides. In their case, they connected an association with a company, and they are already working to increase this network. Lastly, Gov1 believes that businesses can *provide knowledge and expertise*. Nevertheless, KT from private companies to the wider society is a challenge, since financial gains are often more important for the private sector.

5.3.5. Final Overview

In order to provide an overview of all the categories within the theme described in this section, Table 6 outlines the roles assigned to each QH sector, with the code frequency in brackets, according to participants.

Table 6.

Roles as assigned by participants to each sector.

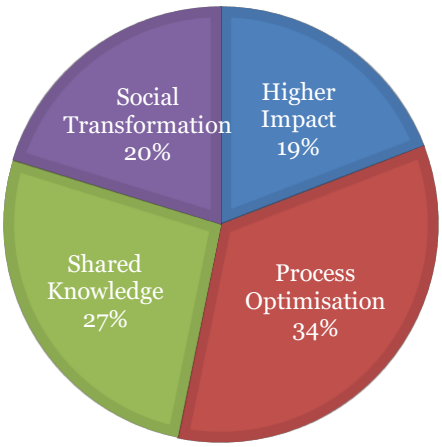
	Roles Assigned			
Participant	**Academia**	**Civil Society**	**Government**	**Industry**
Academia	1. Provide Knowledge (16) 2. Network (5) 3. Provide Resources (5) 4. Increase Visibility (3)	1. Transform (4) 2. Advocate (3) 3. Engage (2) 4. Promote (2)	1. Provide Resources (4) 2. Facilitate (5)	1. Provide Resources (1) 2. Implement (1)
Civil Society	1. Provide Knowledge (4) 2. Network (2) 3. Increase Visibility (1)	1. Engage (6) 2. Promote (4) 3. Transform (3) 4. Advocate (2)	1. Facilitate (7) 2. Provide Resources (6) 3. Increase Visibility (3)	1. Implement (2)
Government	1. Provide Resources (4) 2. Provide Knowledge (4) 3. Network (1)	1.Engage (3) 2. Promote (2) 3. Advocate (2)	1. Facilitate (12) 2. Provide Resources (2)	1. Provide Knowledge (1)
Industry	1. Provide Resources (3) 2. Provide Knowledge (2) 3. Increase Visibility (1) 4. Network (1)	1. Advocate (7) 2. Engage (2) 3. Promote (2) 4. Transform (2)	1. Provide Resources (4) 2. Increase Visibility (2) 3. Facilitate (3)	1. Implement (7) 2. Network (3) 3. Provide Resources (1)

Source: Auhtor's own conceptualisation.

5.4. Motivations to Collaborate in Social Innovation

This section addresses the motivations for taking part in partnerships for SI, that is, what encourages participants to seek collaboration. Four main motivations have emerged from the data, and their presence is distributed as seen in Figure 11.

Figure 11.
Distribution of motivations.



Source: Author's own conceptualisation.

5.4.1. Reaching Further: Collaborating for a Higher Impact

Collaboration across sectors can lead to a greater impact than working in isolation. When QH agents pursue common goals, they can pool their resources and tackle complex problems that would be difficult to address alone. This is a prevalent idea across the data. More specifically, according to Civ1, local development in CLM can benefit from such collaboration:

> Collaborating means that we can involve more agents from the environment, that we can favour local development. Like the example I gave you, if I go to the forest and start growing mushrooms in Guadalajara and I do it all (…), at the end I am generating an initiative, yes, but maybe we need to be aware that there are other agents in that value chain.

Therefore, as Civ1 notes, collaboration is desirable and increases the impact. In Civ2's perspective, partnerships for SI help reach more people by boosting the visibility of an initiative. In addition, Ind3 argues that collaboration can increase the transparency of processes, thereby empowering collaborators to implement the results of their joint efforts more effectively. Similarly, Aca1 suggests that thanks to collaborative activities between the university and business sector, the visibility of their joint activities increases and therefore can have more impact on society. For Ind2, there is no doubt that the impact when working individually can never be as high as when we join efforts. It is also a way to ensure quality and monitor the SI process. Moreover, this inter-sectoral collaboration engenders a network of contacts, thereby creating an additional avenue to reach out to a wider audience, as Ind1 states:

> With a social innovation project, you want to positively influence society. Society comprises many things, many agents, and you, as an association or as a business or as the public administration will never be able to reach them all. And it's not enough for you

to know their needs. Thus, by collaborating you reach further, be it further geographically or further with the goal you have.

5.4.2. Improving the Process and Understanding the Problems

When striving to achieve the same goals, collaborators can combine efforts to attain them more efficiently. As Aca1 mentions, this is the case in most university-industry collaborations. There are various perks that come with partnerships. For instance, Civ1 mentions that stakeholders can streamline the process and reduce costs both for the private and public sector. This is in line with the ideas of Civ2, who reckons that collaborations involve a beneficial exchange of resources. Gov1 endorses this perspective and provides an example of an SI programme which "implies a partnership of businesses with third sector entities and with the public administration. In addition, it does not entail any cost and it benefits the most vulnerable groups." This view is supported by Gov2 and Ind2, who believe that public administrations could risk wasting resources when there is no collaboration. Collaboration is also a guarantee of quality in the process, Civ2 observes. In addition, Civ2 notes, more collaboration means less individual effort for better results. For Civ3, when the goals we pursue are social, it is necessary to involve all of the agents as they are parts of a whole. Ind1 suggests that, as citizens, the more we collaborate, the better it is for the process. They highlight the relevance of civil society in the process, "if you have a connection or contact with the people from the beginning, in one way or another, then you ensure that the needs you are solving are real." Otherwise, stakeholders might realise that they are trying to address the wrong problems too late into the process. For Ind2, understanding the needs also implies collaborating, and especially integrating civil society in SI: "if all projects and ideas come from the top, from let's say the government, the public administration often cannot identify the needs of individual citizens." Aca3 thinks that partnerships ensure that innovations are socially profitable. In the same vein, Ind3 argues that collaboration cultivates interpersonal connections, enabling individuals to better understand each other's needs, and to respond accordingly. Furthermore, Civ3 argues that citizens, businesses and third sector parties are willing to take responsibility in rural areas to cover needs that governments cannot. In other instances, governments can provide services through businesses, as is the case of the company where Ind2 provides their services. Ind2 underscores how social needs are continuously evolving, and thus civil society must be systematically updating the rest of the agents. One last feature added by Ind3 is that, while an established structure might already exist to address specific needs, its efficacy may be limited. Collaborating with a new partner can enhance the effectiveness and provide better coverage for the identified needs.

5.4.3. Sharing Knowledge and Experience

Another incentive for intersectoral collaboration for SI is the opportunity to share knowledge, experience, and expertise. This includes KT, which Aca1 highlights as they find university to industry KT extremely important for companies to innovate. But there is also a need for new dynamics for knowledge co-creation. On that note, Civ1 is convinced that, through such dynamics, generated from the interactions between agents, a collective knowledge and a shared set of practices can emerge. For Civ2, the availability of meeting spaces for such co-creation to

happen is a key point, which can further evolve into strong knowledge networks and beyond: "the idea is, indeed, to have openness in that sense, to generate projects that are oriented towards the common wellbeing." In Gov1's view, these partnerships facilitate the development of multiple intelligences that are more comprehensive than that of a single sector:

> Well, I think that, in the exchange of experiences, one can achieve way more than with one single vision. And, of course, in every project, that exchange of experiences, as happens in the area of scientific literature, it is necessary: not only to correct deviations, opinions that might not be on the right, but also to enrich mutual growth.

Adding to these ideas, Ind1 notes that, in sharing those experiences and knowledge in partnerships, agents can get inspiration from one another, and new ideas can emerge. For Aca3, collaborating means creating a network of agents who are engaged with each other. That means that there is also a shared responsibility, where everyone is committed to providing something in exchange. Ind2 agrees that sharing knowledge is essential in these partnerships, since the sectors are often siloed and can be missing perspectives that can be complemented by cooperating. Ind3 suggests that partnerships are necessary for small businesses and associations. Exchanging experiences is, in their view, the most important reason to work together.

5.4.4. Towards Social Transformation

The transformation of a set of social practices is part of the process of SI, seeking new configurations of relationships and changes in behavioural patterns. All this requires a joint effort and strong commitment. The data show that another motivation for collaborating in SI processes is precisely joining forces to transform our society. Civ1 is convinced that SI should bring about systemic changes rather than solely addressing immediate challenges in a temporary manner. For that, they believe working in partnerships is a must. Another change that SI can entail is building trust between governments and citizens. Civ2 believes that SI is an opportunity for public administrations to show support for grassroot projects, and for people to believe in this type of initiatives as a way to transform society, promoting constructive values and common wellbeing. For Gov1, SI initiatives can show the benefits of collaboration. For example, an assisted-shopping initiative they mentioned showed a way to engage private companies in activities that can be profitable both for them and for the public. They observe that such type of initiatives can change the paradigm and even be escalated to other regions. In Civ3's view, involving local agents is particularly important in SI, since they will later continue the process on their own. They note that collaboration in SI can help transform problems as important as inequality by empowering the people who take part in it. Ind1 is also sure that when different agents collaborate for SI, they can bring about social changes little by little. For Aca3, social transformation is the main goal of any SI, and for that goal to be attained, not just collaboration is needed, but also a strong commitment from all agents: "for me, collaboration is fundamental for social innovation to move forward and to generate a transformation process, which is what we want." There are SIs that can break social barriers by leading by example and proving that things can be done differently. Ind3 agrees with this idea and believes in the power of collaboration. In their perspective, like Aca3, it is important to make SI visible so that it can serve

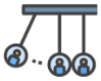
as inspiration for others: “my impact is very small for the scale of the world, but if each small enterprise could do a little, darn, we could improve a lot.”

5.4.5. Final Overview

In order to provide a summary of the findings presented in this section, Table 7 introduces, in its left column, the four main motivations for collaboration in SI that emerged from the data and, on its right side, the reasons why these are seen as drivers by the participants of this study.

Table 7.

Motivations and corresponding rationales for collaboration in SI.

Motivation	Rationale
Higher Impact 	• More sectors engaged. • Access to a wider network. • More dissemination. • Transparency of the whole process: more replicable. • Closer monitoring and quality control. • Connection between different geographic locations.
Social Transformation 	• Systemic changes. • Relationships that change attitudes. • Constructive values. • Project escalation. • Empowering people. • Breaking barriers. • Inspiration for others.
Process Optimisation 	• Cost reduction. • Exchange of resources. • Quality boost. • Collective effort. • Streamlining administrative procedures. • Addressing real challenges. • Sharing responsibilities. • Enhancing existing structures.
Knowledge Sharing 	• Knowledge transfer. • Correcting wrong or biased opinions. • Defining wicked problems. • Making well-informed decisions. • Multidisciplinary expertise. • Learning from experiences. • Complementing perspectives to fill knowledge gaps.

Source: Author’s own conceptualisation.

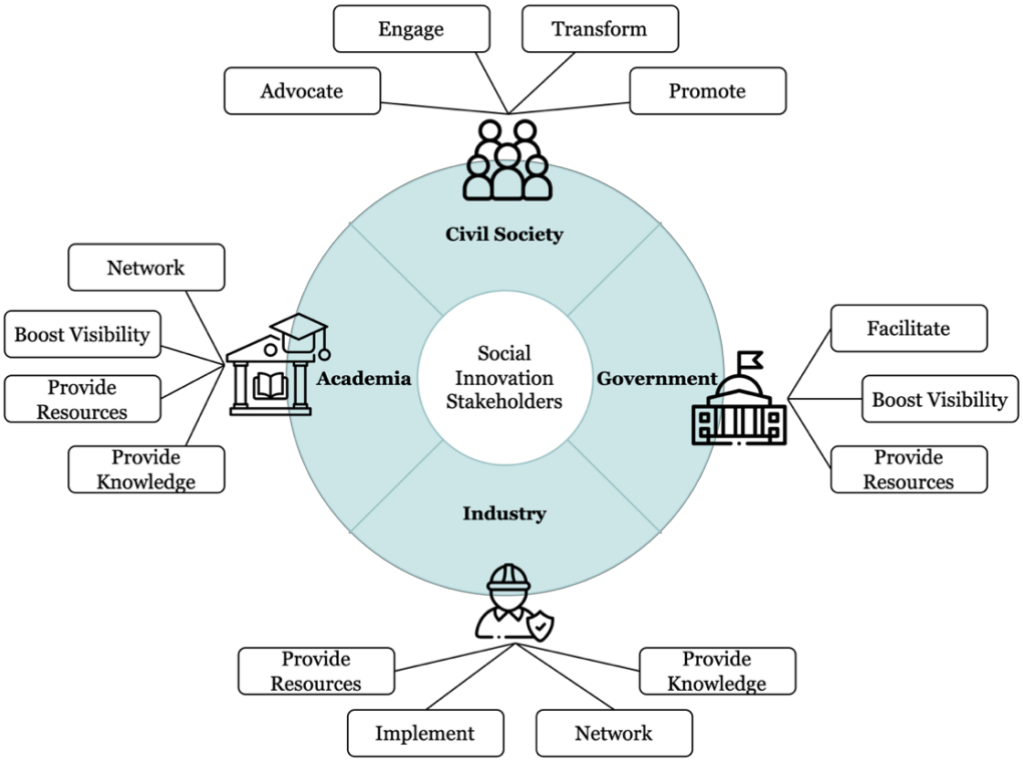
Chapter 6: Discussion

In Chapter 6, the implications of the findings of this study are analysed in relation with the research questions and hypotheses. First, an overview of the main findings is presented. Then, the results are further described in the context of this research, explaining the patterns found in the data and connecting key findings with previous literature.

6.1. Overview of the Findings

The results of the study have shed light on the current state of SI in CLM, particularly regarding the collaborative aspects of this phenomenon. Overall, the findings suggest that there are SI initiatives taking place in CLM where different sectors of QH are collaborating, but SI is still in its nascent phase. This implies that SI is not always being recognised as such. Nevertheless, the document analysis revealed that there are policies that indirectly support SI, that is, they provide a framework that encourages cross-sector collaboration for the resolution of regional challenges, and some of these challenges are purely social, including depopulation, ageing population, or poverty. We also examined the challenges of partnerships for SI as perceived by QH actors involved in SI activities, and the results indicate that there are six main categories: limited resources, the complexity of the process, an inefficient (or even non-existent) communication between stakeholders, a sense of distrust, a lack of capacities among agents, and a last challenge that is the most characteristic specifically to CLM: geographic dispersion.

Figure 12.
Role distribution according to QH sectors.



Source: Author's own conceptualisation.

In addition, the evidence showed that every QH sector can play several roles for the promotion of SI in the region. The distribution of roles is displayed in Figure 12. Most of the roles do not overlap, which suggests that all sectors can have crucial functions in the development of SI.

Lastly, this work also provided insight into the motivations for the collaboration between QH agents. The data suggest that there are four main motivations, namely: process optimisation, shared knowledge, social transformation, and higher impact. There are no emphasised patterns that clearly differentiate the sectors of the QH model according to the interview findings. On the contrary, there are similarities across the discourses of all participants, regardless of the sector they belong to.

6.2. On the State of Social Innovation

The findings suggest that the concept of SI is not generally understood by regional stakeholders, and that it is not recognised across policies at the moment. At the same time, while the QH model is occasionally encouraged across the analysed documents, the TH model dominates the discourse, with more stress laid on public-private partnerships, including government, industry, and research centres, but not civil society. This aligns with the findings of Roman et al. (2020), who found that mechanisms for TH collaboration are more established than QH. The innovation ecosystem that is promoted by such regional policies, while aiming at increasing civic participation in public life to some extent, does not integrally involve civil society. Whereas not present among the challenges that have emerged from the data, previous studies show that this partial inclusion of civil society could accentuate the power relationships between sectors, discouraging civil society from committing to partnerships. In SI, civil society must indeed be given a central role as both promoter and receiver of it, which can only be done if there is a clear framework. In an effective proposition of the QH model, all sectors are mutually interdependent, thus ensuring that every actor is equally important for the innovation ecosystem. However, this is not always the case with multistakeholder frameworks, as Calzada (2020) highlights. The commitment that the regional government claims to have towards citizens needs to be reflected in more enabling frameworks where civil society participation is not simply about public consultations. Moreover, social challenges cannot be tackled in isolation, so joint work between all departments of the public administration is a must in order to generate the right environment for SI to flourish.

6.3. On the Challenges of Social Innovation

In first place, the process of developing and implementing an SI initiative is complex. There is no official recognition of SI in the region, and many regional actors are not aware of the concept; this finding is supported by previous studies, which found that the absence of a definition of SI results in overlooking the concept (Bayuo et al., 2020; Monteiro et al., 2021; Morawska, 2022). As Ibanez et al. (2022) noticed, also backed by Miller et al. (2016), bureaucracy is another challenge that QH partnerships face. This too has been observed in this study as one of the elements adding to the complexity of the process. More precisely, long and obscure administrative processes can potentially discourage stakeholders from seeking to collaborate

with each other. Moreover, the absence of a framework for SI is an extra difficulty. There are grants that offer support to address social challenges in CLM. Nevertheless, obtaining such grants requires extensive knowledge of their operational mechanisms, constant attention to new calls, and thorough call-by-call analyses to identify one that aligns with a given project. Moreover, our findings confirm those presented by Biljohn & Lues (2020) and Nguyen & Marques (2022) that, on one hand, there is a lack of engagement and initiative from some of the participants; on the other, governments are not always responsive, especially to proposals coming from individuals of the civil society. Another aspect that makes SI complex is the fact that it is meant to address social challenges, which implies touching upon sensitive topics. The formulation of the problems is complex in itself, and seemingly unrelated areas can be interconnected. This demands for alternative, flexible approaches that differ from the system's view in the most traditional sense of innovation (like technological or economic).

The lack of capacity is also hampering SI. It is not unexpected to encounter capacity constraints in a field that is only emerging in the region of CLM. Civil society is particularly critical towards their own capacity in the third sector. Notwithstanding this self-awareness, all the participants of this sector showed a clear understanding of SI, and the third sector is the one promoting most initiatives aimed at addressing social challenges in the region. Still, individual civil society actors, as the beneficiaries of SI, must be empowered with the capacities and the knowledge necessary to engage in participative processes (Benneworth & Cunha, 2015; Vercher, 2022). The need for capacity building has also been recognised across policymakers as necessary for establishing a concrete framework to support SI.

The limited availability of financial, human, and physical resources can pose another challenge for SI in CLM. While the literature and the data collected for this study show that one mission of SI is covering social needs that governments cannot meet (Ibanez et al., 2022; Jungsberg et al., 2020; Martinez et al., 2017; Monteiro et al., 2021; Vercher, 2022), we argue that public administrations are still expected to provide financial support for SI initiatives. Partnerships are another tool to ensure enough resources, which can be pooled through collaborative processes. Our findings show that physical spaces to meet and discuss and human resources are also limited in SI in CLM.

Finally, geographic dispersion can be observed as a challenge that is characteristic to the case study region. It is noteworthy that it is not present in the discourses of the government and academic sectors. For the civil society and industry sectors, it becomes a challenge in the implementation phase, given that the nature of some SI initiatives requires physical presence. For example, Civ1 referred to providing domiciliary care to people in need, and Ind1 about organising a sustainable fair to promote local businesses: for that, people need to attend in person. The same barrier appears for Civ2 when they consider taking their project to other towns: they are so far from each other that the time and effort, in addition to the costs of transportation, prevent them from even trying – thus, limited resources are also a cause for this limitation.

6.4. On the Challenges of Partnerships

The diversity of stakeholders, in line with the findings of Miller et al. (2016), is in itself a factor that creates new challenges linked to the collaborative aspect. A study by Domanski et al. (2020) suggests that there is often an unclear distribution of accountability in SI. In this regard, our results suggest that collaborating is not enough, instead there needs to be real commitment of all the involved actors. According to the data, we need to overcome two main challenges in order to successfully cooperate: trust and communication issues.

Regarding communication, two concerns arise from the data. First, there is a need for more channels of communication enabling stakeholders to meet and discuss. Second, participants contend that there is a pattern of one-sided information, which fails to facilitate bilateral and constructive communication. This communication style is inadequate in fostering the type of dialogue necessary for innovative ideas to surface. In a participative process, it is necessary to ensure not only the right to be listened, but also the right to be heard. Nguyen & Marques (2022) also highlight the lack of efficient communication in QH partnerships.

The lack of trust has traditionally been considered a challenge for partnerships, and this is also the case for QH partnerships for SI, aligning with the findings of Miller et al. (2016) and Biljohn & Lues (2020). One reason for distrust is self-interest, which Nguyen & Marques (2022) have found to be common for all sectors, and Benneworth & Cunha (2015), specifically studying the role of universities, have also found to be true. Our work argues that the absence of trust between civil society and governments is underscored in CLM, and it goes in both directions. Civil society has lost trust in public institutions (the 2023 Edelman Trust Barometer shows that only 36% of Spanish citizens trust their governments). Governments, on their part, are focused on short-term goals, as also found by Audretsch et al. (2022), which is even more emphasised for local governments. Aside from the different interests – sometimes even incompatible –, governments not trusting civil society to manage SI projects could be rooted in the belief that they do not have the capacity to do so. Our data display an underlying sentiment arising from civil society that they need to make an extra effort just to prove to public administrations that they are capable.

6.5. On the Roles of Quadruple Helix Actors in Social Innovation

In this section, we use a Sankey diagram (Figure 13) to visually represent the flow of roles assigned by participants, which were grouped by sectors. The diagram allows us to identify the relevance of each sector based on the number of quotations assigned to their roles.

As far as the government is concerned, all sectors have given it an important role in SI. There are two roles that are predominant both in the literature and the interviews. The first one is *facilitator*, a central role for ensuring that there is collaboration for SI. It involves creating the right environment for agents to interact and be encouraged to innovate, as also highlighted by authors like Vercher (2022). It is also about empowering citizens by helping them develop the necessary capacities, supported by Biljohn & Lues (2020). Creating spaces (both physical and virtual) for actors to meet and discuss is another important function, in line with the findings of Roman & Fellnhofer (2022), with local public actors having a key role, as argued by Jungsberg

et al. (2020). Facilitating in the context of CLM also means advising the rest of the agents, as the evidence shows there is a lack of understanding of SI, as well as developing regional and local strategies that help all the agents work together for the same goals. Therefore, regulating and drafting policies to guide SI and QH partnerships are tools that are included in the role of facilitator. The second-most assigned role is *resource provider*, mainly concerning financial support, as also confirmed by the results of authors like Hasche et al. (2020) and Jungsberg et al. (2020). In this regard, there seems to be a consensus among interview participants: public administrations – including UCLM – should fund SI because they have more financial resources than the rest of the sectors. This might not be the case in other regions, but we have seen that innovation and R&D highly depend on public bodies in CLM.

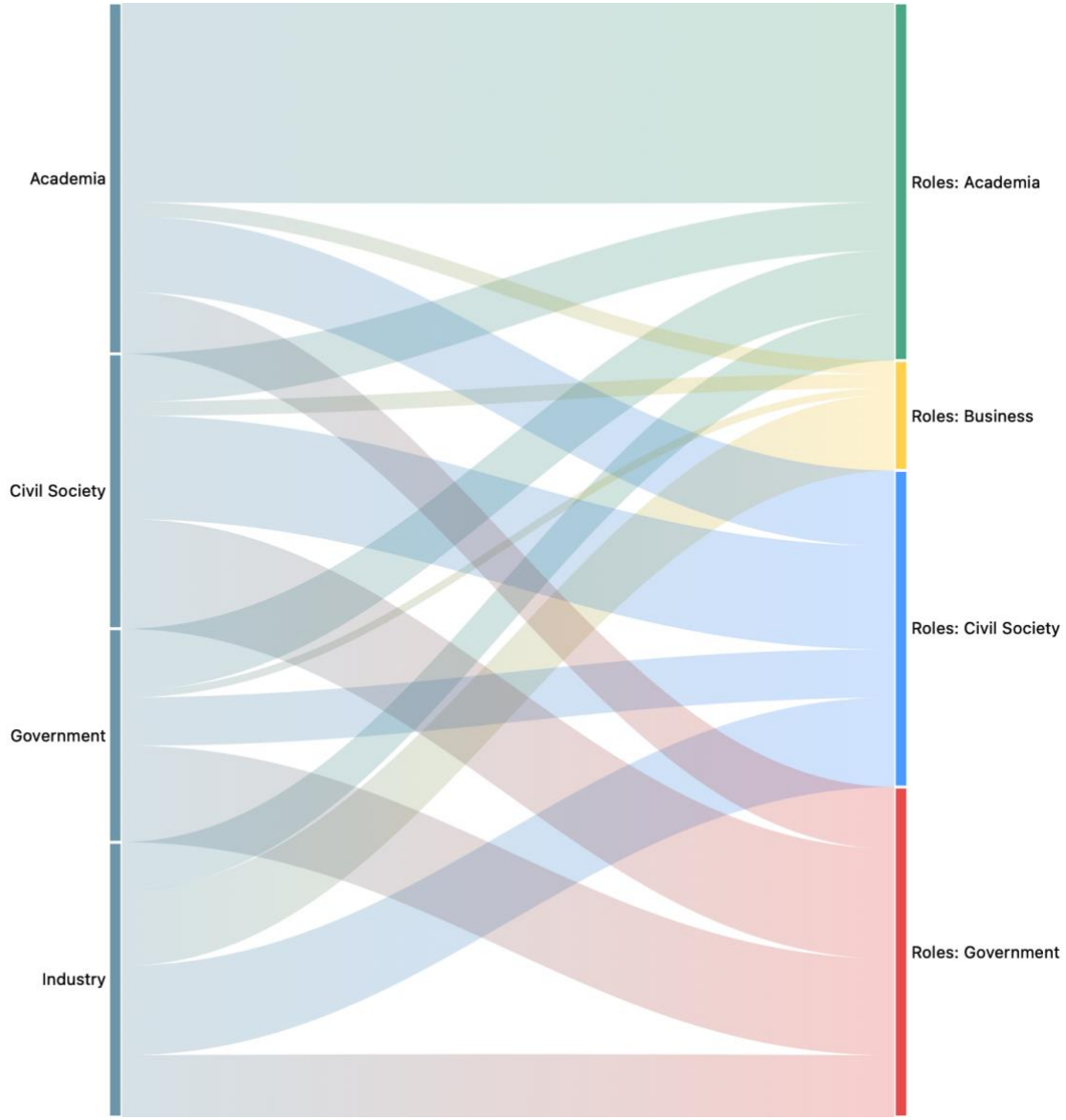
The presence of university in the discourse highlights its relevance in SI. Nonetheless, it is important to note, as shown in Chapter 5, that a large amount of the quotations coded came from the academic sector. The university, like the government, is expected to *provide resources*. However, in this case, aside from funds, UCLM could offer meeting spaces, laboratories, offices, and other material resources, also underscored by Benneworth & Cunha (2015), Kumari et al., (2020) and Milley et al., (2020). It can also act as a *networker*, since the institution can use all the connections it already has in place. But, most importantly, it is a *knowledge provider*: it provides existing and new knowledge to assist in addressing social challenges (research-based) and also in the form of advice or mentorship (as a consultant), in line with the findings of Benneworth & Cunha (2015). In addition, participants of UCLM seem to be very aware of the idea of leading by example as a way of educating others, relevant for SI when it comes to new approaches to challenges like energy shortage. The functions assigned to this institution also include teaching SI by embedding it in the curriculum and providing training for other stakeholders – essential in the context of capacity constraints in SI. Together with the government, universities can help boost the visibility of SI thanks to the large number of connections that they have in place.

The industry sector has been the least discussed in the interviews. That could mean that it is less integrated than the other actors in SI processes, though more research on how businesses are involved would be necessary to correctly interpret this result. Regardless, by far, the most emphasised role for this sector is *implementer*. This can partly be due to the belief that companies have the capacity to transform a vision into tangible results. Existing companies can take over this task, but at the same time, social enterprises can be created with that purpose in mind. In line with previous literature (Nordberg, 2015), *networker* is another role that companies can play, specially by reinforcing connections with other firms and partnering with third sector entities. Social business models can also bridge civil society and public administrations by acting as mediators. Lastly, supported by authors like Biljohn & Lues (2020), von Schnurbein et al. (2021) or Yang & Holgaard (2012), we argue that businesses can *provide knowledge*, which includes the expertise and experience of employees, but also offering training programmes. A final remark can be made regarding the role of SE. As noted by Domanski et al. (2020), "social entrepreneurship oriented approaches (…) have dominated the social innovation discourse for years," and the tendency to equate SE with SI has been evidenced in the discourse

of the industry sector. This is highlighted by Ind3, who largely identifies SI with the creation of new business models aimed at solving social challenges. The idea of a social entrepreneur as someone who realises "otherwise wasted potential" (Mulgan, 2012) is in line with our findings. The business sector has the potential to identify underutilised resources and leverage them through collaboration with other sectors. By doing so, businesses can tap into new sources of value and create mutually beneficial partnerships.

Figure 13.

Sankey diagram representing the flow of roles.



Source: Author's elaboration with interview data on ATLAS.ti

We observe that civil society is considered as having a vital role, probably the most crucial one in SI. Furthermore, the different roles assigned to this sector are more evenly distributed. The two most dominant roles, *advocating* and *engaging*, are generally facilitated by third sector organisations, and we note that the ideas behind them are closely related with findings in

previous literature. For instance, citizens can be engaged with the establishment of a new business in their area (von Schnurbein et al., 2021), given that, as the potential users, their insights are vital. It is also evident that their engagement to identify the root cause of problems is a valuable tool in the diagnosis process (Biljohn & Lues, 2020). In addition, they can provide expert knowledge (Yang & Holgaard, 2012), as they have vast experience in working with social initiatives. In short, the role of engaging involves encouraging civil society to share their ideas and experiences. The advocate role is more related to mediating between different groups of civil society and the other sectors, including the facilitation of policies (Yang & Holgaard, 2012). This thesis also posits that civil society has a key role in *promoting* SI initiatives. This sector should aim to drive social changes and encourage the other sectors to participate in SI. In line with Vercher (2022), we suggest that this role is most important in the first stages of SI, that is, in identifying the problems and developing solutions. In the specific case of CLM, we argue that promoting SI also implies advancing and nurturing the idea of SI as an approach to regional challenges, and thus spreading the concept across the other sectors. Another crucial role is that of the change-maker, since the goal of SI is to bring about *social transformations* by forging new relationships. We contend that civil society must lead this change by championing new ideas and mobilising collective action. We cannot expect to reach every single individual, but when a community reaches a critical mass, it has the potential to drive significant changes. By harnessing the power of social networks, communities can create lasting changes that shape attitudes and behaviours over time.

Finally, it is worth noting the extent to which each sector has discussed its own roles in SI. While civil society and government participants have discussed the four sectors in a balanced way, academia and industry underscore their own roles. This can be explained, on one hand, because they are most familiar with their own activity and thus understand how they could really contribute to partnerships for SI. On the other, they feel that their sectors have a deep responsibility to drive SI in the region. In short, we argue that all QH sectors have equally relevant roles for the development of SI in CLM. We suggest that participants have not emphasised the role of the industry sector as much as the others due to the regional business ecosystem, where micro and small companies prevail. This type of company is not generally expected to generate innovation, which places a greater burden on public administrations.

6.6. On the Motivations for Partnerships

As a motivation for collaboration, *process optimisation* is the most recurrent idea across the interviews, which includes various aspects that are in line with previous literature. For instance, it comprises the quality improvement of the service, process or product that is being offered. In the context of SI, we argue that it is closely related to the enhancement of public services (Biljohn & Lues, 2020; Verschuere et al., 2012). Partnerships provide a structure for the governance of SI, as demonstrated by Bellandi et al. (2021). In this regard, we suggest that the QH model provides a tool to work with new governance structures where power relationships are replaced by an egalitarian distribution. Processes are also optimised thanks to a reduction in costs, which can happen as a result of, first, saving resources by addressing real challenges from the start, and

second, exchanging resources with other sectors. Investing in social innovation has the potential to mitigate existing problems and stop new ones from arising, thereby saving resources and costs in the long run as well.

Another crucial motivation is *knowledge sharing*, which encompasses the relevant aspects of problem identification and definition. We contend that the diagnosis process is enhanced by having an interdisciplinary, intersectoral approach, but mostly by giving voice to the people. Sharing knowledge is also concerned with co-creation, which is a goal of SI, since it is believed to promote the generation of new ideas by integrating the knowledge and assets of involved actors (Kumari et al., 2020). We conclude that collective intelligence is not only meaningful to cover knowledge gaps across groups, but also to ensure more inclusive solutions and avoid biases during the process. This is, at the same time, a goal of SI since, in line with Galego et al. (2022), the creation of partnerships including civil society leads to inclusiveness in governance. In addition, and in the same vein, we suggest that QH models boost inclusive innovation (Roman et al., 2020).

Another key motivation for partnerships in SI is the belief that involving multiple sectors can generate a greater *impact*. The possibility to expand the impact of SI initiatives increases thanks to the connections with other actors who are also motivated to transform society. At the same time, the sense of impact is an important element that helps empower the involved actors (Avelino et al., 2020). Additionally, partnering with broader networks entails reaching more people, thus increasing the visibility of SI initiatives, which leads to more public awareness and potentially attract more resources.

Lastly, we presume that driving *social transformations* is a crucial motivation for collaborating in SI. Previous literature argues that successful SI should produce systemic changes (Benneworth & Cunha, 2015; Moulaert et al., 2017; Moulaert et al., 2013). Our data suggest that such changes require partnerships that place civil society in the centre of SI initiatives. This aligns with previous literature that considers that SI should address systemic changes and that the role of actors, networks and governance in SI are key for potential social transformations (Howaldt et al., 2016). In addition, the findings of this study demonstrate that transformation is understood as the advancement of constructive values and attitudes across citizens. It is also perceived as the process of dismantling societal barriers that impede the progress of marginalised groups. Furthermore, transformations entail empowering people to give them the ability to address challenges in a systemic way.

6.7. On the Questionnaire

As mentioned in Chapter 3, a questionnaire was used after each interview as a way to cross-check the data obtained in the interviews and further explore the current state of SI in CLM. The results are not representative, but they can provide interesting insights into the topic. The answers have been clustered according to sectors (the complete results appear in Appendix 7). The questionnaire covered four dimensions:

- SI in general in the region,

- SI in UCLM,
- integration of civil society in SI, and
- collaboration for SI.

For each dimension, three questions were asked (12 in total), where they had to rate:

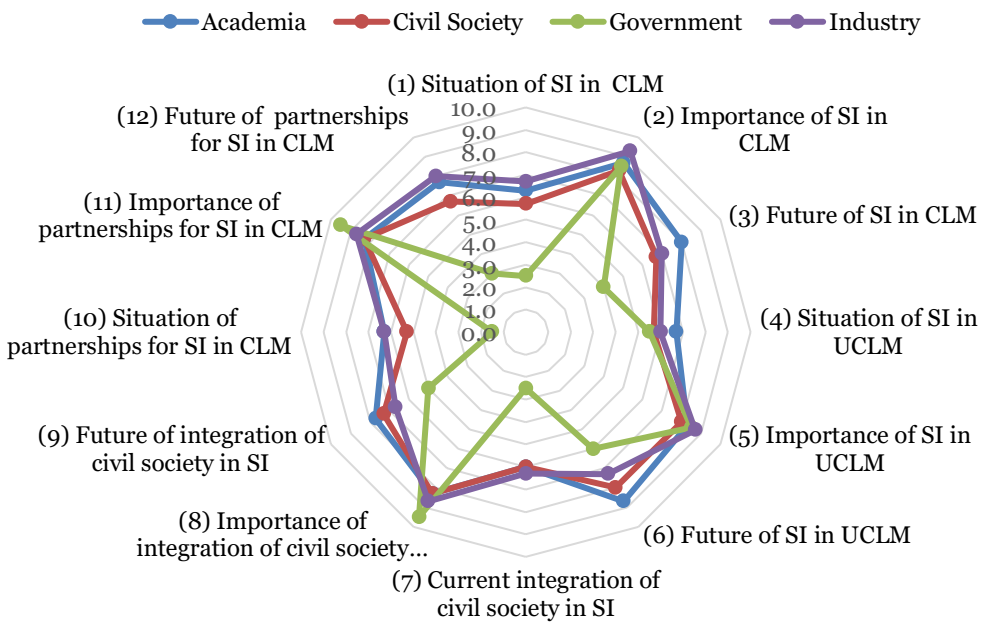
a) the current state,

b) the importance it has for the region, and

c) how it will be in 5 years.

In order to offer an overview of the answers, Figure 14 presents a radar chart, where the average of each sector in each question is displayed. The 12 angular axes correspond to the 12 questions, while the radial axis displays the scale of 0 to 10 employed in the questionnaire. The answers (ratings) are plotted as a series of points along each axis, and then connected to show an overall representation of the perceptions by group. The chart reveals that academia, civil society, and industry present similar patterns in their ratings. We observe that the government stands out as the most critical when assessing the current situation of SI in the region, the current state of collaboration and the integration of civil society. In their assessment of the situation in 5 years from now, they see improvements in the integration of civil society, but they show scepticism towards QH partnerships for SI, even if they rate it as a highly important factor. In contrast, the rest of the sectors show optimism for the future of SI, and they anticipate that UCLM will advance towards a more important contribution to SI.

Figure 14.
Radar chart of questionnaire answers.



Source: Author's own conceptualisation.

Overall, the results of this questionnaire align with the qualitative data obtained. In first place, this study posited that SI in CLM is not supported by a concrete regulatory framework, and the answers about the current state of SI seem to point in the same direction. The government participants, who we can assume are more familiar with regulations and policies, rate the current situation as not developed. We also proposed that all QH sectors have important roles in enabling SI in CLM. This questionnaire, as a short exploratory survey, only asked participants about civil society and university, and both were considered as highly important for SI. Lastly, we argued that QH partnerships are perceived as a positive framework to enable SI in CLM, and the importance that is granted by all groups to all dimensions further supports that idea.

Chapter 7: Conclusion

Throughout this thesis, we have explored the current state of SI in CLM and analysed the challenges and motivations of QH actors. The previous chapters have presented a range of evidence and arguments that have contributed to our understanding of SI in the region. In this final chapter, we synthesise the major findings, assess the hypotheses, provide policy recommendations, acknowledge the limitations, and offer suggestions for future research.

7.1. Major Findings

This study argues that the state of development of SI in CLM is still nascent, with many challenges ahead, but also with a potential for growth and expansion. Efforts and investment are imperative to unlock its full potential, and we contend that QH partnerships are a crucial condition for the success of SI initiatives. In this regard, it is evident from the data that stakeholders belonging to each of the four QH sectors are willing to collaborate, as they see partnerships as beneficial for SI.

In this thesis, we have taken a regional approach which has allowed us to delve deeper into the specific characteristics influencing the innovation ecosystem of CLM. Some of the factors that we have underscored include the presence of a single university in the region, which is in charge of most of the regional R&D in CLM. This leads us to another characteristic, which is the regional business ecosystem. As mentioned in previous chapters and also highlighted in the interviews, the business landscape of CLM is largely made up of micro and small entities, which do not tend to innovate and rarely have R&D departments. As a result, the role of the regional public administration in science, technology and innovation is more crucial than in regions with a larger share of medium and big companies. These features are reflected in the collective discourse, where roles assigned to public institutions, comprising the regional and local governments and UCLM, are the most dominant across all sectors. This could also explain why the industry sector is not considered to currently have a role as crucial as the other three sectors of QH. In relation to the role of civil society, the protagonist of SI, it has been proved that all sectors are conscious of the need to include it right from the first stages of SI initiatives, while acknowledging that, at the moment, there might not be enough mechanisms to really integrate this sector as we should.

Implementing SI initiatives can sometimes be a challenging task, as the data have suggested. In our case study, challenges regarding collaboration include an inefficient communication, as there appears to be an absence of meeting spaces and, more importantly, unfruitful dialogues based on unilateral information. Along with this, distrust is hindering collaboration, which is linked to the belief that stakeholders seek to pursue their own interests in partnerships. Building trust requires establishing efficient communication dynamics, so working on the first challenge could lead to overcoming the second one as well. In more general terms, the results argue that limited resources, capacity constraints, and the complexity of the process are challenges facing SI in CLM. Addressing these challenges requires long-term thinking, especially from policymakers, since efforts and investments need to be made in the present, often only to see results in the far future. Additionally, our analysis shows that the geographic dispersion of the

region presents challenges in the implementation of SI. In this regard, we underscore the relevance of empowering citizens and ensuring that they are in a position to act as change-makers in their areas. This is the only way to guarantee that every town, far and remote as it might be, can take part in SI initiatives.

Throughout this thesis, data have evidenced that QH partnerships have several advantages for the development of SI. First, SI processes are streamlined thanks to the expertise of different involved agents. Second, precisely these differences in expertise and skills are beneficial for the generation of new ideas. Sharing knowledge leads to working with wider perspectives and this, when addressing complex social challenges, is essential to identifying and defining the problem. Third, the sheer number of people involved is advantageous, since it translates into a broader dissemination. As a result, the visibility of SI is boosted and that means that more people are aware of the concept and more initiatives are born. In short, partnerships lead to more impactful results of SI initiatives. Fourth, the commitment of all sectors, and especially of civil society, is necessary to generate social transformations. Partnerships are a tool to address societal challenges in a systemic way, because, in the end, SI aims at solving problems integrally.

7.2. Final Assessment of the Hypotheses

This qualitative research has used hypotheses to guide the process. As mentioned in Chapter 3, they have been employed as a way to lead the case study and maintain the focus on what the study was meant to investigate. This section synthesises the findings in relation to the proposed hypotheses and describes both supporting and counterarguments for each of them (see Table 8).

The findings suggest that SI is not included in the policies of the region, which is consistent with the Hypothesis that there is an absence of a concrete regulatory framework supporting SI at the regional level in CLM (H1). This is evidenced by the results of the document analysis, where it has been noticed that neither legal documents, nor strategies, programmes or plans directly address SI. It has also been confirmed by participants from the government sector, and overall, by the data collected from the interviews, where participants generally feel that the concept of SI is not recognised or understood by QH regional actors – including policymakers. Meanwhile, the results also suggest that SI initiatives addressing key challenges in CLM, like depopulation, are taking place, even when not recognised under the term SI. In addition, we argue that the analysed documents include some elements that could be considered as supportive of SI.

The results are in line with what was proposed in the Hypothesis that there are challenges that are hindering QH partnerships for SI in the region of CLM (H2). There are SI initiatives and social innovators willing to mobilise resources and people in order to change the status quo, but they cannot always succeed due to the obstacles that they find along the way. In addition, the challenges that were mentioned were common between QH sectors, with no specific patterns attributable to each of the groups.

The analysis supports the Hypothesis that all QH sectors can play different relevant roles in enabling social innovation in CLM (H3). The results show that all sectors consider the roles of the others important for SI initiatives, and they are distributed without much overlapping. Since

every sector appears to be assigned a set of roles different from one another, we can infer that SI initiatives can become less efficient when we remove one of them from the partnerships. At the same time, we have noticed that the industry sector is less present in the discourse than the other actors.

The observed patterns appear to be consistent with the Hypothesis that QH partnerships are perceived as a favourable framework to enable SI in CLM (H4). Besides the challenges presented, all the 11 interviewees showed a positive attitude towards collaboration and regarded the QH model as a valid tool to develop SI in the region. By looking at the motivations of stakeholders, the goal was to understand the reasons why (and if) they believe partnerships are beneficial. Indeed, strong arguments were presented by participants to explain what motivates them to seek collaboration, as we have described in previous sections. Nonetheless, the data show that partnerships imply the presence of complex processes.

Table 8.

Assessment of hypotheses.

Hypothesis	Supporting Argument	Counterargument
1. There is an absence of a concrete regulatory framework supporting SI at the regional level in CLM.	• SI is never mentioned in regional policy documents. • There is a lack of understanding of SI by regional stakeholders.	• SI initiatives are taking place in CLM, even if not recognised under such term.
2. There are challenges that are hindering QH partnerships for SI in the region of CLM.	• Similar barriers are mentioned regarding SI: lack of resources, geographic dispersion, the complexity of the process. • There is willingness to collaborate, but some barriers impede it: mistrust and inefficient communication.	
3. All QH sectors can play different relevant roles in enabling social innovation in CLM.	• Participants agree that all QH sectors can play diverse relevant roles. • In general, roles assigned to each sector do not overlap.	• The industry sector is less present in the discourse, in comparison to the other QH sectors.
4. QH partnerships are perceived as a positive framework to enable SI in CLM.	• All participants agree on the need for collaboration for SI. • The integration of civil society in SI is a key element in the discourse. • There are important motivations for partnerships, namely increasing the impact, sharing knowledge, improving the process and driving social transformations.	• Collaboration is complex and requires effort and commitment from all stakeholders.

Source: Author's own conceptualisation.

7.3. Implications for Policy and Practice

The results of this study can inform future policy and practice in the CLM region, as well as in other contexts facing similar challenges and opportunities for SI. Building on the evidence from the data collected, this section outlines the implications of this study and provides some recommendations.

These findings enhance our understanding of the current state of SI in CLM. By identifying the key challenges, motivations, and roles of the stakeholders involved in SI, this research provides valuable insights into the necessary conditions for a successful SI implementation. The prevailing attitudes of QH sectors in CLM suggest a favourable outlook for SI in the region. Although concrete supportive policies are yet to be developed, some regional plans do contain provisions that could contribute to this trend. For instance, PRINCET introducing science and innovation to a wider audience from a young age can have an empowering effect by encouraging citizens to become proactive and conscious agents in innovation processes. That being said, based on the evidence presented, it may be possible to offer further recommendations.

First, the evidence suggests that partnerships are an essential element for SI to prosper. Therefore, practitioners should prioritise building strong networks of collaboration across QH sectors. Previous literature recommends establishing intermediary structures (Domanski et al., 2020), such as living labs or citizen labs. These spaces are meant to involve users in the whole innovation process, and to promote the co-creation of solutions. Our data evidence that stakeholders see universities as a bridge between sectors. Thus, another recommendation is to promote the creation of meeting spaces across the campuses of UCLM. In addition, thanks to its large network, the university could use its contacts to match companies, researchers, students, and third sector organisations, for example by using available data to find similarities and complementary skills. Aside from the university, which only has campuses in six cities, local libraries could offer spaces to meet, since they are present even in small towns.

Second, the results show that there is a lack of understanding around the concept of SI, and it is considered that boosting its visibility would help develop initiatives. As a result, we recommend developing concrete plans for the promotion of SI, where the term *social innovation* is used and clearly defined. It is also desirable to include SI as part of the UCLM curriculum, both through courses and, for example, by offering ECTS to students who get involved in SI initiatives. Regional and local media can play a vital role in promoting SI by raising awareness and disseminating results. This could help generate public interest and support for SI and enable citizens to prioritise and participate in these initiatives. Lastly, a dedicated space in the regional institutional website, containing a database with all finished and undergoing SI initiatives in CLM, could be created to provide guidelines about SI.

Third, it is evidenced from the data that stakeholders believe that capacity-building in SI is an important step to take for it to prosper. To this end, it is recommended that UCLM provide trainings open to all interested parties, enhancing the knowledge and skills necessary for the successful development and implementation of SI. Not only academics, but also agents from

third sector organisations, businesses, and public administrations could take up the role of trainer.

Fourth, it appears that some actions could be taken in order to ease the SI process, particularly in the initiation phase. In this regard, based on data from previous literature, we recommend having a political contact point (Audretsch et al., 2022) where social innovators can get their queries answered, especially in administrative procedures. We additionally recommend that this role could be extended to become an SI scout, especially considering that SI is still incipient in CLM. This way, more SI initiatives could be identified and supported.

Fifth, our results indicate that the availability of more resources could enhance the development of SI in CLM. For this purpose, our recommendation is to provide grants to QH partnerships whose goal is to solve social challenges facing the region through SI. The idea is to give agents enough freedom to co-create and hence, while grants should have some limitations, there should be openness towards the proposals. Whereas there is an economic cost at the start, SI is more likely to succeed if it receives funding, and successful SI leads to changes that can later reduce public spending.

In conclusion, addressing social challenges requires innovative dynamics. QH partnerships for SI, with their human-centred approach, are a useful tool for regions like CLM to engage in this new paradigm for social change. It has been evidenced that a policy mix is necessary to tackle social problems, as the causes and effects of such challenges are interconnected in complex ways. Therefore, understanding and defining the problems by taking into consideration all possible perspectives from all sectors must be considered a priority to advance regional development through SI.

7.4. Limitations

This research is not without limitations. It is important to note that this study adopts a qualitative case study approach. This limits the ability to generalise findings to other settings. Therefore, the findings presented here are specific to the context of CLM and may not be representative of other regions. In addition, interviews are the principal data source of this thesis, with a relatively small sample size of 11 participants. While efforts were made to ensure that the sample was diverse, and the participants belonged to the four QH sectors, it is possible that some perspectives were not fully captured. Particularly, the government sector is represented by two participants, against three for each of the rest of the sectors.

As a qualitative study, this research is subject to the personal biases of the researcher. To minimise bias, efforts have been made to use a rigorous approach to data collection and analysis, including the use of multiple sources of data. However, it is still possible that some level of bias may have influenced the research findings. Additionally, in the thematic analysis, only one coder has been involved, which might have introduced some subjectivity into the analysis. Moreover, it must be acknowledged that this study has been conducted within a specific timeframe and with limited resources. As a result, some aspects of SI in CLM have not been fully explored. Despite

these limitations, this work provides valuable insights into the regional SI ecosystem in CLM and can serve as a basis for further research in this area.

7.5. Future Research

The present work has contributed to our understanding of SI in the Spanish region of CLM, especially in relation with its collaborative aspects. Despite the insights on the topic, there are important avenues for future research that could advance SI studies. We make three recommendations for future research.

The first suggested avenue is conducting comparative studies that underscore the differences between regions that a priori present similar characteristics. As one participant mentioned, SI cannot be simply relocated because it is highly contextual and should rely on local knowledge and resources, and more importantly on local communities. Therefore, understanding how contextual differences can shape the roles and relationships between sectors would cast some light on the conditions that can make it successful. At the same time, this would provide important insights on how SI can be scaled up by adapting initiatives to the context.

A second topic that has emerged from this study is how traditional businesses fit in SI as compared to social enterprises, and it would be interesting to see if their roles differ and how each can contribute in different ways. For this purpose, multiple case studies could be conducted, selecting SI projects where companies have been involved and observing their contributions and how they believe that SI benefits them as businesses.

Finally, future studies could use a quantitative approach. A mixed-methods approach could be employed, with more in-depth interviews, focus groups, observations, and further literature review. Using the results, mechanisms to systematise the study of SI, such as questionnaires, could be developed in order to collect larger sets of data and generalise findings.

7.6. Closing Remarks

In completing this work, I have gained a deep appreciation for the potential of SI to help us address pressing challenges facing our society. Thanks to the insights provided by the interview participants, I have been able to explore the current situation of the case study region, the challenges that stakeholders face in the process of developing and implementing SI initiatives and in building partnerships, as well as the motivations of stakeholders to pursue collaboration. As I reflect on this journey, I hope that my small contribution to the existing body of knowledge can help build further research and awake the interest in SI in the region of CLM.

Overall, this thesis demonstrates the need for continued investigation in SI and in how to develop the necessary conditions to enable all agents, and specifically civil society, to work together towards a better world. A last reflection that I would like to share is that, after this study, I am convinced that innovations that are social both in their ends and in their process are not meant to provide ready-made solutions; instead, their purpose is to distribute the ability to solve across stakeholders, and specifically civil society. And that is the key to understanding the potential that SI has for deep social transformations.

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Appendices

Appendix 1: Questionnaire about social innovation in Castilla-La Mancha

1) In general, about social innovation in Castilla-La Mancha, please asses:
    a. the current status of social innovation. (0 – not developed at all; 10 – fully developed)
    b. the importance of social innovation. (0 – not important at all; 10 – extremely important)
    c. how developed social innovation will be in 5 years (0 – not developed at all; 10 – fully developed)
2) Regarding social innovation in the University of Castilla-La Mancha, please assess:
    a. the current status of social innovation (0 – not developed at all; 10 – fully developed)
    b. the importance of social innovation (0 – not important at all; 10 – extremely important)
    c. how developed social innovation will be in 5 years (0 – not developed at all; 10 – fully developed)
3) Regarding participation of civil society in social innovation in CLM, please assess:
    a. the current status of participation in social innovation (0 – not developed at all; 10 – fully developed)
    b. the importance of participation in social innovation (0 – not important at all; 10 – extremely important)
    c. how developed participation in social innovation will be in 5 years (0 – not developed at all; 10 – fully developed)
4) Regarding partnerships for social innovation in CLM, please assess:
    d. the current status of collaboration for social innovation (between government, university, industry and civil society). (0 – not developed at all; 10 – fully developed)
    e. the importance of collaboration for social innovation (0 – not important at all; 10 – extremely important)
    f. how developed collaboration for social innovation will be in 5 years (0 – not developed at all; 10 – fully developed)

Appendix 2: Template of contact email for participants

Dear ____,

My name is Ana Parrón Cabañero, and I am contacting you because I am conducting a study on social innovation in Castilla-La Mancha as part of my master's thesis in the MARIHE programme (Master in Research and Innovation in Higher Education), a joint Erasmus Mundus master's degree co-financed by the Erasmus+ program of the European Union. It would be an honour to have your participation through an interview.

Attached to this email you will find three files: information about the study, the interview guide, and a consent form. I would greatly appreciate your participation, as your perspective would be very valuable to this study. In copy, I add my thesis supervisor, associate professor ____.

Please let me know your availability before _____. Also, if the interview with you is not possible, I would appreciate it if you recommended someone you think could provide information in this area. I remain at your disposal for any question. Thank you so much.

Appendix 3: Information about the study for participants

Title of the study: Partnerships for Social Innovation: A Case Study on the Spanish Region of Castilla-La Mancha

Student investigator: Ana Parrón Cabañero (email), University of Continuing Education Krems, Department for Higher Education Research

Faculty supervisor: _

Estimated length: 45 minutes

The interview will be part of a master's thesis project under the Erasmus Mundus programme Research and Innovation in Higher Education (MARIHE). Preferably, the interview will be held online through videocall. If you have any other preferences, please let us know and we will do our best to adapt. If you have any questions, please do not hesitate to contact us. Thank you for taking the time to read this document.

Purpose and significance

The purpose of this research project is to understand the current state of social innovation in Castilla-La Mancha. For that purpose, it will observe how different actors from the government, university, industry and civil society are collaborating to enable social innovation. It will attempt to bring to light some of the factors that can lead to successful collaboration and challenges that can hamper partnerships.

While innovation studies have mainly focused on well-performing regions and success stories, in Spain, regions like Castilla-La Mancha might find different barriers and challenges as compared to strong or moderate innovators, thus needing different strategies and policy approaches. At the same time, relevant collaboration dynamics that enhance social innovation in the region might be taking place but remain under the radar, while they could serve as best practice examples for the autonomous community and beyond. This study will attempt to fill that gap in the literature and to unveil the potential of emerging innovators in developing social innovations.

Your participation in the interview

The student investigator has used purposive sampling to select participants that can offer informed insights into the topic. You have been asked to participate because your role at your institution and/or your involvement in a social innovation process in collaboration with other actors make you a suitable informant.

Interview process

In the interview, you will be asked to share your experience and ideas on social innovation in general and in your region in particular. You will also be asked to elaborate on the contribution of your organisation towards social innovation, and on the factors that you consider as enhancing or hindering its realisation in collaboration with other actors. Lastly, you will try to assess the status of social innovation in the region according to your own perception.

Additional information

The student investigator will conduct the interviews and transcribe the content, so she will be the only one to know your identity and what you said. The transcriptions will use pseudonyms, and therefore your name will never be revealed, all answers remaining anonymous. Only the research team will have access to the anonymised data, which will be securely stored on the university server and protected with a password. The professors involved in the programme's committee at the University for Continuing Education Krems will not be able to identify you by name. Once the interviews are transcribed, you will have the chance to read and endorse the information if you request.

Appendix 4: Interview guide

Interview guide for the research work "Quadruple Helix Partnerships for Social Innovation: A Case Study of the Spanish Region of Castilla-La Mancha"

Expected length: 45 minutes

Contact information: _____

1. What do you understand by the term *social innovation*?
2. Could you describe the status of social innovation in the region of Castilla-La Mancha?
3. How are regional public administrations contributing to social innovation?
4. How is the University of Castilla-La Mancha contributing to social innovation?
5. How can civil society contribute to social innovation?
6. How can the business sector contribute to social innovation?
7. What challenges can the collaborative aspects of social innovation pose?
8. What are the motivations to seek to collaborate in social innovation?

Appendix 5: Consent form

CONSENT FORM

I, ……., agree to participate in the research study *Partnerships for Social Innovation: A Case Study on the Spanish Region of Castilla-La Mancha* as part of Ana Parrón Cabañero's master's thesis for the programme Research and Innovation in Higher Education.

- ☐ The purpose and nature of the study have been explained to me in writing.
- ☐ I am participating voluntarily.
- ☐ I give permission for my interview to be audio-recorded.
- ☐ I understand that I can withdraw from the study, without repercussions, at any time, whether before it starts or while I am participating.
- ☐ I understand that anonymity will be ensured in the write-up by disguising my identity.

Signature of participant:	Place and date:
…….	…….
Signature of researcher:	Place and date:
…….	…….

Appendix 6. Codebook

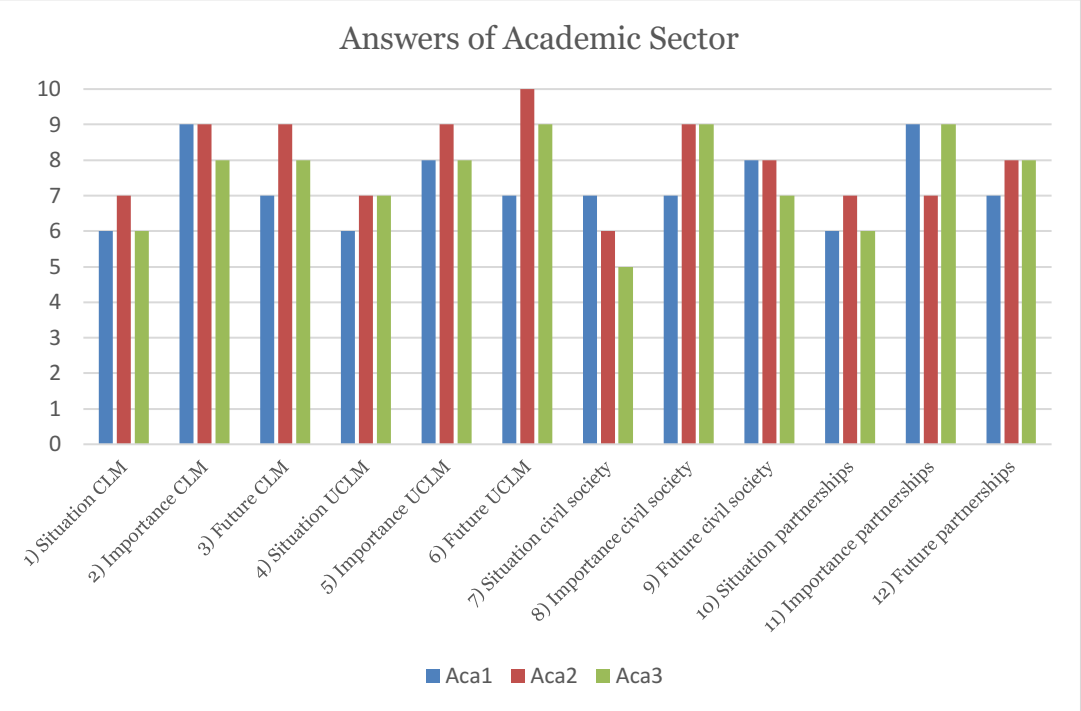
Theme	Codes	Definition	Example
Challenges	Complexity of the Process	The variety of stakeholders, the lack of a recognised status, the structure of the regional business ecosystem, the absence of studies on the topic, bureaucracy in the public administration, the sensitive topics addressed, the lack of initiative, and the lack of structural and legal support.	"One has to be very motivated…very motivated to get things done, because in my experience, I've got disappointed many times, really investing a lot of time, even my own money, just trying to get things done."
	Lack of Capacities	Lack of awareness and understanding of the concept of SI across all sectors of the QH in CLM.	"I believe there is a deficit regarding knowledge on social innovation in the public field, not only from employees, but also concerning political leaders."
	Distrust	Perception that public administrations do not trust citizens, and citizens are, at the same time, wary of their governments. Each sector might have their own interests, resulting in a climate of mutual distrust.	"Sometimes, projects fail because goals are not common and, though they (the goals) are presented as such at the beginning (as common), in the end, the goals that different participants pursue in projects diverge from each other."
	Inefficient Communication	Lack of proper meeting spaces, limited channels of communication between sectors, tendency to inform without listening back, no dialogue is encouraged.	"First, there isn't a strong coordination and work network, where there is real commitment between the different agents. Thus, the structure is very siloed, and as a result we don't generate networks of real commitment."
	Lack of Resources	There is an absence of resources for SI: human resources, financial resources, specific grants for SI, physical spaces to meet.	"If, for instance, we had the capacity to have someone monitoring, through emails, phone calls… we could be coordinated and work. I think that is the main barrier that we find."
	Geographic Dispersion	Perception that projects lose efficiency because of the long distances between towns in CLM.	"We are trying to mobilise citizens to have a more sustainable life, more sustainable business policies. It takes a lot of effort, a lot, a lot… because the towns in the region are so distant,

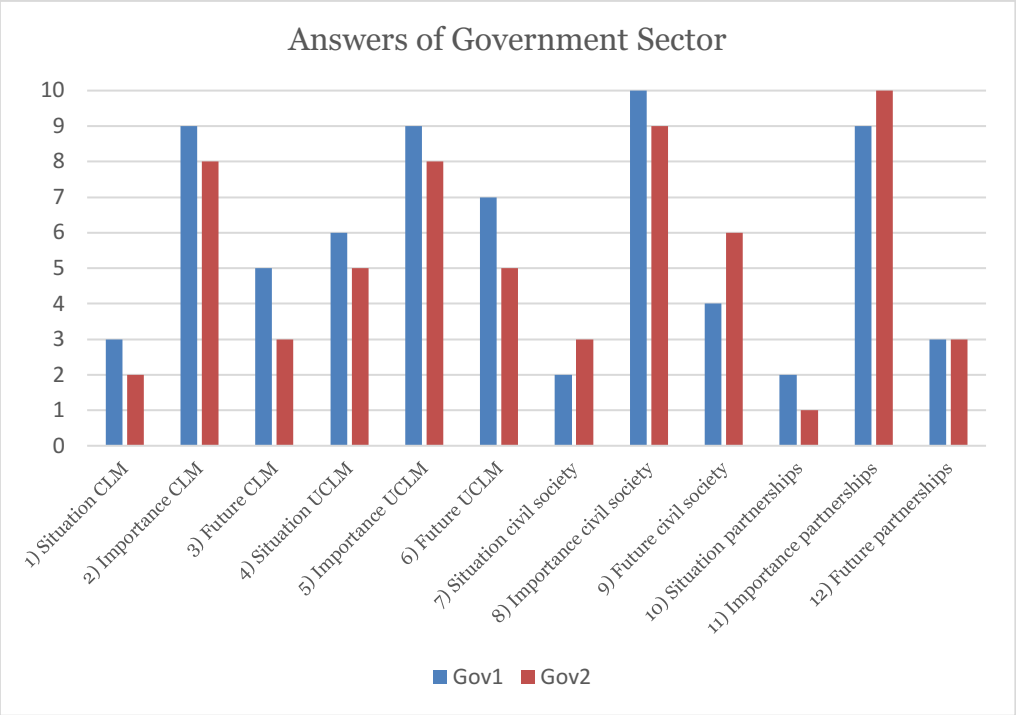
			that you have a town, 30 minutes, another town… So it's very difficult to connect them. They all live in their own little world, and when you want to open it a bit, it's hard."
Motivations	Social Transformation	Motivation to collaborate as a way to produce systemic changes in society.	"I believe that social innovation could bring, like, fresh air to people… like making people trust that social projects can be implemented to generate changes."
	Higher Impact	Partnerships are seen as a way to reach more people, have more dissemination and thus more impact.	"Therefore, collaborating, you reach further, be it geographically or regarding the goals that you pursue for society."
	Shared Knowledge	Participants are motivated to collaborate because it allows them to access new knowledge and expertise, share experiences, and learn from one another.	"Well, I believe that, in exchanging ideas, a lot more can be achieved than having a single vision."
	Process Optimisation	The expertise in different areas of the varied actors can streamline the process.	"If you integrate all efforts, first, when you carry out a project, you really can assess the project and say: it has reached the people it had to reach, and with the necessary quality."
Roles of QH Actors	Network	Connecting actors with each other.	"Very often, the university creates networks, since it already has work groups, research groups (…) and so many links already in place."
	Boost Visibility	Providing more visibility to SI by disseminating and raising awareness of SI.	"They have also organised, for instance, a press conference with a town councillor, and the local tv channel was also there. So appearing on the local channel is also a way of dissemination that favours that people know about it."
	Provide Knowledge	Generate and transfer knowledge on topics concerning SI, provide training on the necessary capacities for SI, teach about SI as part of the curriculum.	"I believe it would be necessary to consider knowledge transfer, and, as a consequence of that transfer, put into practice some proposals regarding topics that are studied in the university and which need, of course, not only to be transferred to the business area."

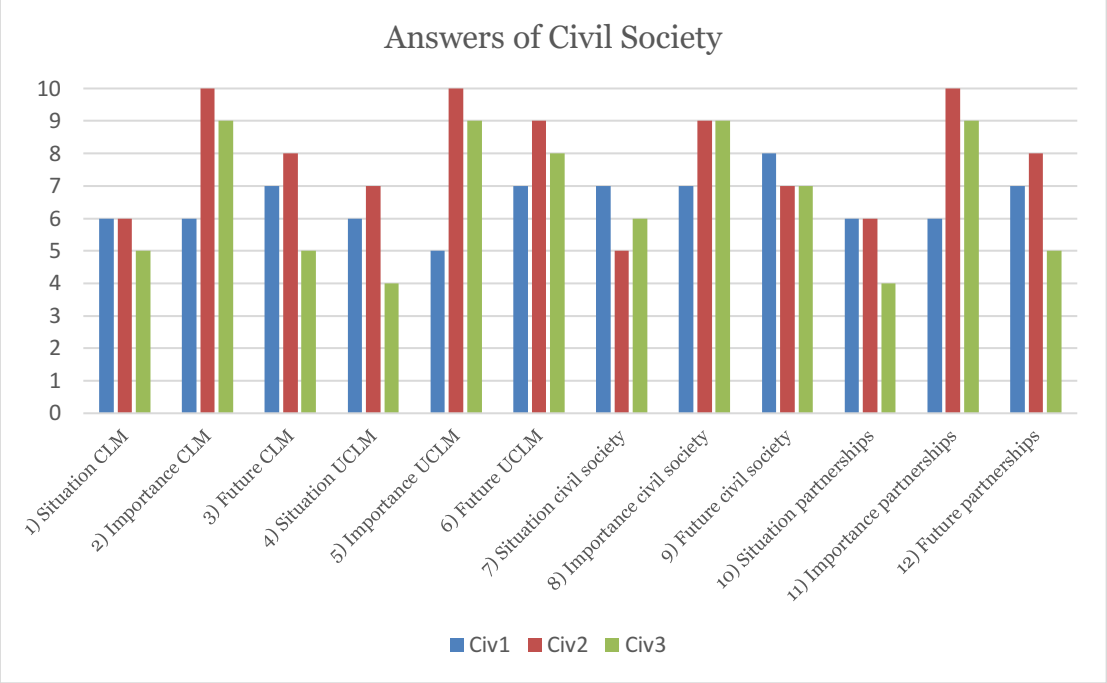
	Provide Resources	Offer support by providing financial, human, and physical resources.	"I do find that I miss, perhaps, more support of concrete grants and mechanisms for social innovation."
	Implement	Put SI initiatives into practice.	"The social entrepreneur, at the end, is the one who implements and uses innovation as a tool, that is, the one who searches those solutions to social problems that are taking place in their area."
	Engage	Get involved in SI initiatives.	"In social innovation, for me, participation of the recipients, the users, the protagonists of those social problems we are talking about, is essential from the start."
	Advocate	Lobbying governments and demanding support to address social problems using all the available tools.	"Social participation is desirable for defending people's rights and having an influence in politics, to search common solutions for projects, or in this case, for specific social problems."
	Promote	Encourage and take action to increase participation and awareness in SI.	"We exist as the third sector because society organises itself to try to solve social problems."
	Transform	Change habits, values, relationships, and generally reshape certain aspects of our society to make it better.	"If you can mobilise people, obviously the community as a whole in one place can be very strong, not only because you are organising something for them, but also because they learn and participate."
	Facilitate	Provide the necessary support, assistance, and tools for SI initiatives to flourish.	"I think that the administration must be a facilitator for other processes that come from other sectors: the private one, the third sector, etc. Therefore, everything that is channelling, facilitating, and helping."

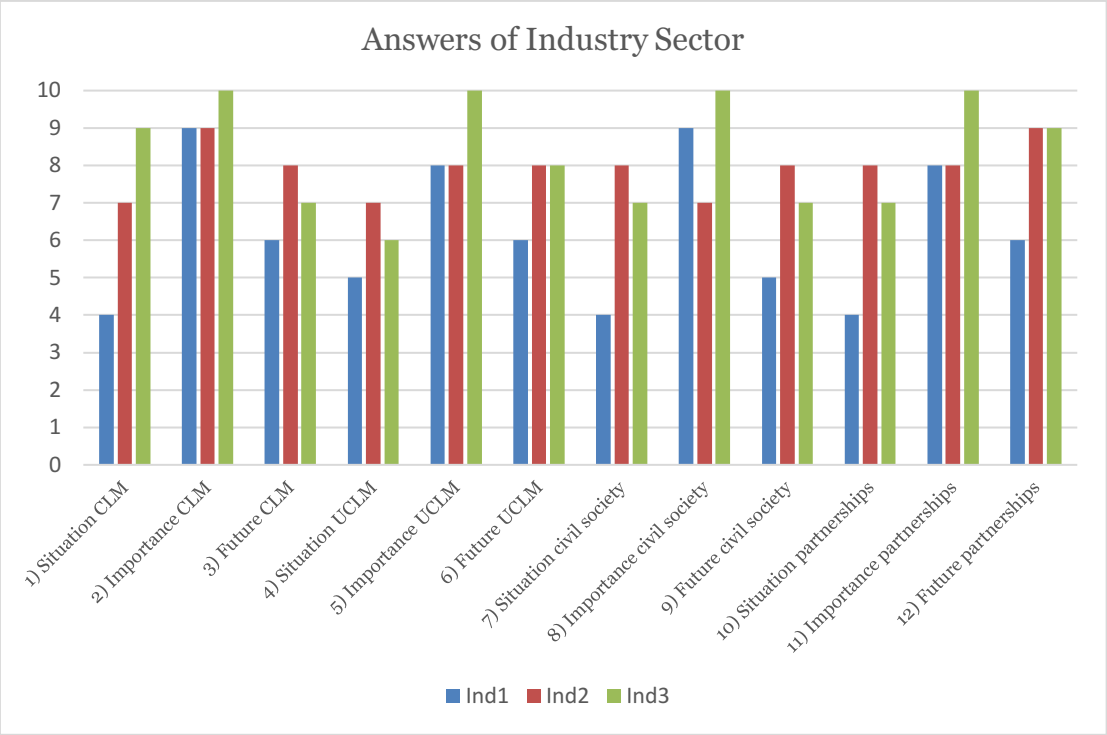
Appendix 7. Questionnaire results

	1) Situation CLM	2) Importance CLM	3) Future CLM	4) Situation UCLM	5) Importance UCLM	6) Future UCLM	7) Situation civil society	8) Importance civil society	9) Future civil society	10) Situation partnerships	11) Importance partnerships	12) Future partnerships
Aca1	6	9	7	6	8	7	7	7	8	6	9	7
Civ1	6	6	7	6	5	7	7	7	8	6	6	7
Aca2	7	9	9	7	9	10	6	9	8	7	7	8
Civ2	6	10	8	7	10	9	5	9	7	6	10	8
Gov5	3	9	5	6	9	7	2	10	4	2	9	3
Gov6	2	8	3	5	8	5	3	9	6	1	10	3
Civ3	5	9	5	4	9	8	6	9	7	4	9	5
Ind1	4	9	6	5	8	6	4	9	5	4	8	6
Aca3	6	8	8	7	8	9	5	9	7	6	9	8
Ind2	7	9	8	7	8	8	8	7	8	8	8	9
Ind3	9	10	7	6	10	8	7	10	7	7	10	9




Answers of Government Sector
10
9
8
7
6
5
4
3
2
1
0
1) Situation CLM
2) Importance CLM
3) Future CLM
4) Situation UCLM
5) Importance UCLM
6) Future UCLM
7) Situation civil society
8) Importance civil society
9) Future civil society
10) Situation partnerships
11) Importance partnerships
12) Future partnerships
Gov1
Gov2


Answers of Civil Society
10
9
8
7
6
5
4
3
2
1
0
1) Situation CLM
2) Importance CLM
3) Future CLM
4) Situation UCLM
5) Importance UCLM
6) Future UCLM
7) Situation civil society
8) Importance civil society
9) Future civil society
10) Situation partnerships
11) Importance partnerships
12) Future partnerships
Civ1
Civ2
Civ3


Answers of Industry Sector
10
9
8
7
6
5
4
3
2
1
0
1) Situation CLM
2) Importance CLM
3) Future CLM
4) Situation UCLM
5) Importance UCLM
6) Future UCLM
7) Situation civil society
8) Importance civil society
9) Future civil society
10) Situation partnerships
11) Importance partnerships
12) Future partnerships
Ind1
Ind2
Ind3