



SIRR

Interreg
North Sea



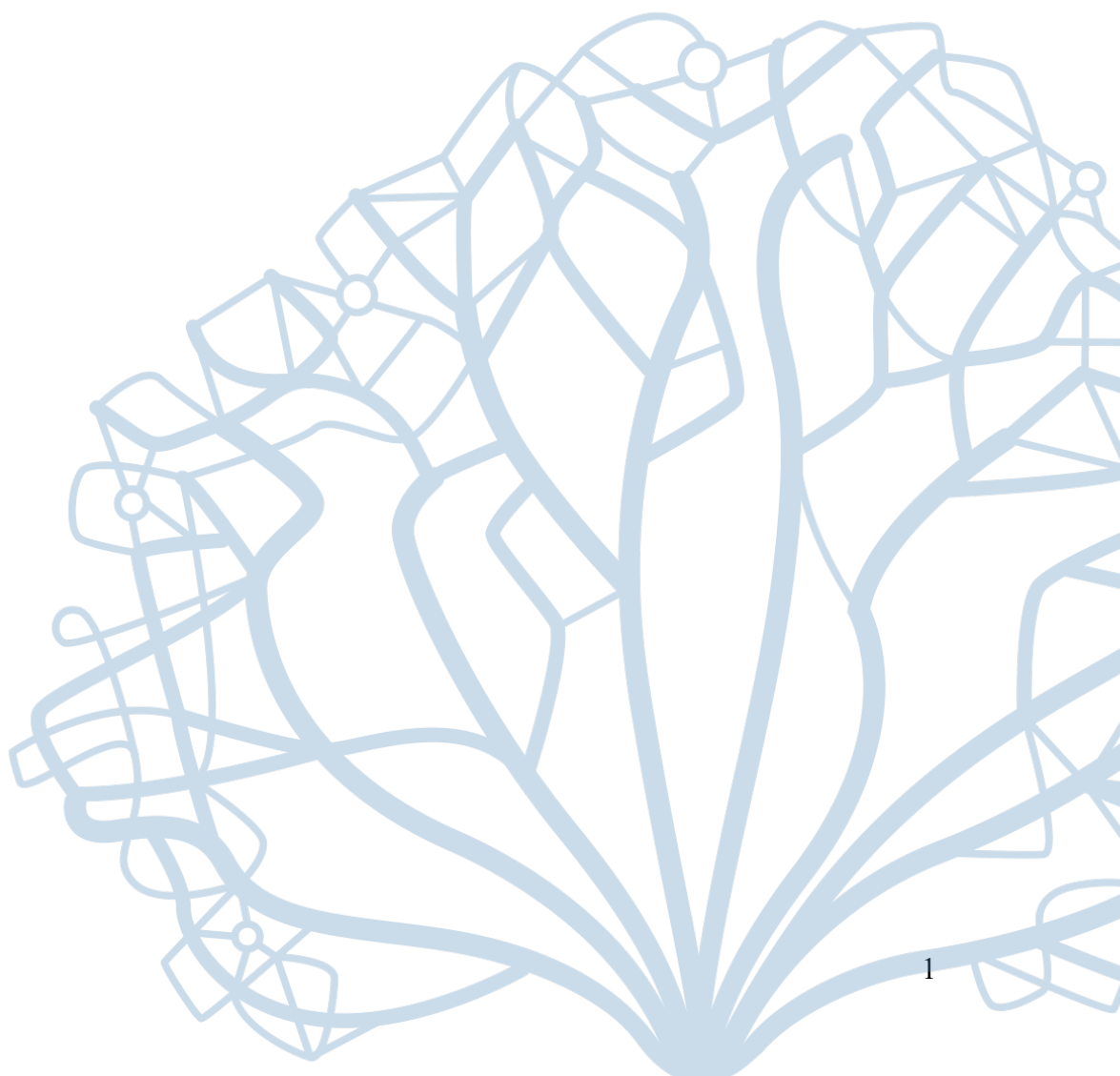
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Empowering Rural Resilience: Unleashing Innovation for Sustainable Futures

An Analysis of Collaboration and Knowledge Transfer in The SIRR Project



Abstract

The provided report collects information about *the Sustainability, Innovation and Resilience in Rural areas* (SIRR) project, co-financed by the European Union. The project, as the name suggests, focuses on finding ways to increase the opportunities of rural areas in an urbanized world using sustainable and innovative solutions. Multi-Helix may be one of the ways of fostering development by including wide-ranging cooperation and exchange of knowledge and experience between the partners. The report is the result of an analysis of available sources and interviews conducted with the project's participants, a year after its official kick-off. Therefore, this is only a preliminary analysis of the collected data, facilitating further considerations. The purpose of this report is to present the communication and collaboration processes between the parties as well as the knowledge transfer that takes place at the initial stage of the project.

Keywords: SIRR, sustainability, resilience, rural areas, Multi-Helix, hub, EU project, international collaboration, knowledge transfer.

Summary

This report is a result of collaboration between University West (Högskolan Väst) and Sotenäs Symbioscentrum, over the *Sustainability, Innovation and Resilience in Rural areas* (SIRR) project, which is a part of the Interreg North Sea Programme. The project is co-funded by the European Union with a budget reaching €5,659,453, kicked off in February 2023 and in its proposal lasting until 2027.

The report aims to provide insight into the project, its main purposes, and goals as well as to present the participants' perception of the project, their partnership and communication processes, resulting in knowledge transfer. There are many terms, definitions and concepts connected to SIRR that needed to be analysed throughout the internship. One of the key aspects of the entire project is rooted in the *Multiple Helix* collaboration, which cannot be found in the source literature per se. Therefore, *Multi-Helix* constitutes an innovative idea for sustainable cooperation between the parties, strongly emphasising the exchange of knowledge and experience.

The internship required getting to know twelve partners, including eight organisations, hereinafter referred to as *hubs*, from four European countries: Sweden, Denmark, Germany, and France. As a part of the internship, the interviews were conducted with the hubs' representatives. Each of them was asked the same questions, falling into three categories: SIRR – Overall Project level, SIRR Project – Individual Hub level, and Reflection & Learning (individual/actor level). Subsequently, an analysis of the answers was carried on, focusing primarily on the broad understanding of the project itself as well as the communication and collaboration techniques used by the participants. The research helped with recognizing hubs' level of engagement, indicating some of their areas of speciality and the strategies for future implementation. Despite the many advantages that the interviews provided, there are also many questions to be answered at later stages of the project.

In conclusion, the report is designed to organize the so far collected knowledge about SIRR including the opinions of individual hubs' representatives at the initial stage of the project. Thanks to this, in the future, it would be possible to conduct a complex comparative analysis and examine changes that have occurred during the five-year lasting endeavours.

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Introduction

Sustainable development, according to the definition created by the United Nations Brundtland Commission in 1987, “seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future” (United Nations Brundtland Commission, 1987). While it is commonly recognised that the conditions, we currently live in are not fixed and the global climate, social and economic changes are most visible, it, therefore, becomes obvious that there is a need not only to adapt to those changes but also to introduce the most effective and up-to-date ideas to make the world a better place, starting with smaller communities. These ideas are aimed at improving reality, but also at surviving in a competitive environment. Thus, referring to the occurring issues through the *Sustainability, Innovation and Resilience in Rural areas* (SIRR) project the solutions can be found by strengthening rural areas' linkage to the regional innovation eco-systems and working with local cohesion (SIRR Final Application, 2022). Accordingly, the project undertakes as a main objective - creating “stronger, more resilient and sustainable rural areas with higher capacity of local innovation, green and circular economy and knowledge partnership” (Specific Objective 1.1 SIRR, 2023).

As part of the project, SIRR assumes the usage of “existing strategic platforms/development programmes as hubs for innovation and carriers of identified local smart specialisation” (SIRR Final Application, 2022). In this meaning, a *hub* can be defined as “the central or main part of something where there is most activity” (Cambridge Dictionary 2024), however, its role doesn't end here. There are twelve partners from four European countries (Sweden, Denmark, Germany, and France) participating in SIRR, among which there can be recognised eight hubs. Those hubs, if we use the framework set out in the project, are to serve as meeting places, a link between various stakeholders, and spots where the development of innovative solutions supporting the sustainable and resilient functioning of rural communities are drawn to the discussion. Nevertheless, the provided definition is not fixed. The hubs are to create a complex structure that will not be left to itself. Data constituting the functioning of the hubs will be collected and subjected to analysis, focusing on such aspects as self-reflectivity, co-creation, resilience-mindness, openness and path-independency (SIRR Final Application, 2022). Moreover, the project brings up an original concept of cooperation and knowledge transfer between parties, namely, the *Multiple Helix*. The aforementioned idea contributes to designing a regional innovation ecosystem, fostering a transactional collaboration.

There are *three work packages* (WP) within which the project operates. Each WP coordinates different aspects. *WP1* focuses on strategic hub development. Its leader is the Municipality of Sotenäs (Sweden) with its hub located in Sotenäs Symbioscentrum. *WP2*, on the other hand, pilots the Multi-Helix implementation and is led by the Skagen Education Center (Denmark). Finally, *WP3* is connected to the knowledge partners with the University of Vechta (Germany) holding a leadership (SIRR Final Application, 2022). *WP3*, thus, provides the development and evaluation of sustainable and resilient concepts, ideas, and support. Other partners participating in SIRR include:

- Sweden: Municipality of Lysekil, Hållbarhetsbyrån HoloHouse and University West;
- Denmark: Læsø Tourist and Business Association, Foreningen Stenvad Mosebrug, Aarhus University;
- Germany: TrENDi (as a hub associated with the University of Vechta);
- France: Agency for Urban Planning and Development of the Saint-Omer Flandre intérieure Region, Community of Communes of the Pays de Lumbres, City of Louvigné du Désert.

SIRR is an ambitious project recognising sustainability, resilience, and innovation as key factors for facing the challenges of keeping rural areas vibrant and appealing, preventing brain drain, promoting multinational collaboration and knowledge transfer, encouraging investments from different stakeholders, and contributing to creating more ecological solutions. Therefore, it is crucial to further dive into the project and depict most understandably its characteristics. For that reason, the answers to the following research questions should be provided:

1. How do the hubs interpret the aims of the SIRR project?
2. What is the nature of collaboration among the hubs at the initial stage of the project?
3. How do the hubs engage in collaboration with the external actors (outside SIRR)?
4. How do the hubs understand and assess their roles and participation in the project?

Questions two and three are strongly connected to knowledge transfer, thus within these questions, it will be also answered whether any new knowledge was created, or any new ideas were implemented in the hubs, either based on the internal (inside SIRR) or external (outside SIRR) collaboration.

This report is structured in the following way. Firstly, a short background of the research internship and the host organisation will be introduced. Secondly, a conceptual discussion regarding the *Multi-Helix* in SIRR and *Work Integrated Learning* will be led. This section will certainly not exhaust the subject; however, it will briefly present the connection between these two terms. Thirdly, the section dedicated to the method of the research will be included, explaining how the data were collected and what method of analysis is being used. Finally, the analysis/results of the research will be presented, focusing on the hubs' input in the project. The culmination of the report will be a summary of the projects initiated as a part of the internship, thus facilitating further analyses of SIRR, the involvement of its participants and the exchange of knowledge that takes place at various levels of cooperation (both inside and outside the project in question).

Background

Nowadays academic education is going through many changes, trying to meet students' expectations of gaining not only theoretical knowledge but also practical experience, which will facilitate subsequent career development. This is particularly important from the social and political science students' perspective, where employment opportunities in many cases require 3 to 5 years of professional experience. It is equally important to acquire skills such as performing research, critical thinking, analyzing data, having proficiency in written and verbal communication, being a team player with leadership abilities and being open to intercultural cooperation. A research internship is, therefore, intended to easier adapt students to a real workplace environment, providing opportunities for personal growth.

The given report was created not only as part of a university course but also to organise the knowledge acquired during research internships at the Sotenäs Symbiosentrum (Sweden), within the *Sustainability, Innovation and Resilience in Rural areas* (SIRR) project frameworks. Sotenäs Symbiosentrum “is a meeting place for companies, academia, schools and the public sector” (Sotenäs Symbiosentrum, 2017). The main field of interest at Sotenäs is to focus on industrial and social symbiosis, thus, contributing to circular economy. As a part of the internship, mentorship meetings were introduced by the university, which facilitated the organization of work and provided inspiration when analyzing available data. The host organization shared not only documents and reports but also made it possible to take part in official partner meetings where progress, challenges, opportunities, etc. are discussed twice a month. Participation in the Vechta Conference (September 2023) was also ensured. The conference fostered, among others, brainstorming between the hubs' representatives regarding themes: sustainable tourism, land use, approaching young people and cultural heritage.

For a student of Work Integrated Political Studies, an opportunity to contribute to the European Union co-financed project is an extremely useful experience. Conducting interviews itself, focusing on the international cooperation between the parties, ensures immunity to various types of communication difficulties. This also provides an opportunity for greater openness in the process of knowledge exchange and its subsequent implementation. The internship consisted of a large amount of individual work; therefore, self-subordination was an extremely

important trait. In analysing data, due to the multitude of available sources, many aspects had to be only mentioned, without developing the topic in depth.

Nevertheless, the report itself, as a result of a research internship, meets quality requirements and draws attention to many factors emphasized by project participants. This is the first document of this type created by a master's degree student, analyzing communication processes and knowledge transfer in the SIRR project, all within the field of study of Work Integrated Learning. Much information is still missing; however, this report is a good start for further discussion and research.

Conceptual Discussion

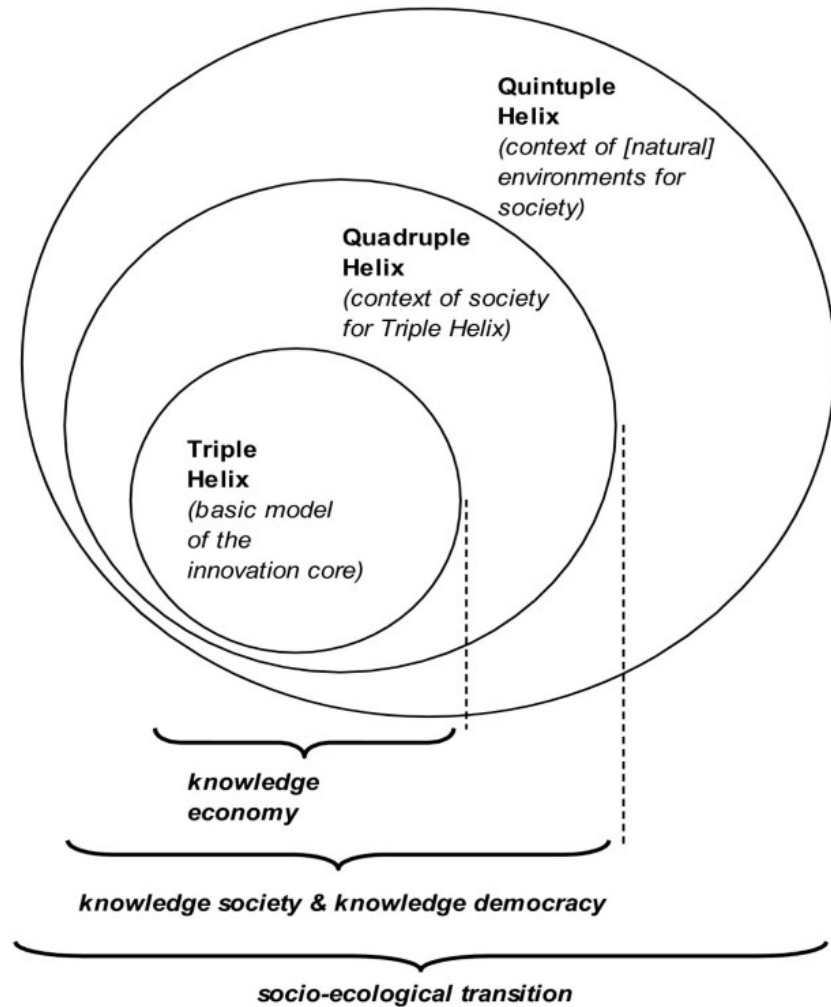
This section of the report will explain the concept of *Multiple Helix* as well as *Work Integrated Learning* (WIL). A definition of both terms will be provided based on the SIRR project's understanding of the helix model and the University's West approach towards WIL. Those two innovative ideas focus on many aspects of trans-sectoral knowledge transfer and creating an efficient collaboration between many parties, where all participants have a sense of purpose and are willing to deepen cooperation to increase their capabilities and therefore profits.

The Multiple Helix collaboration in SIRR

The *Multi-Helix* is expected to be a new model in innovation studies. We can recognise other helix-based types, such as, for example, *Triple Helix*, *Quadruple Helix*, or *Quintuple Helix*. While all of them focus on engaging more than two sectors in the collaboration, Multi-Helix is not limited to the specific number of stakeholders. In its understanding, it is more flexible and adaptable. For example, the Triple Helix model, proposed by Etzkowitz and Leydesdorff, explains the dynamic interactions only between academia, industry, and government for fostering entrepreneurship, innovation, and economic growth in a knowledge-based economy (Cai & Lattu, 2021). Later, the idea of the Quadruple Helix was introduced by Carayannis and Campbell, by adding as a fourth helix the 'media-based and culture-based public' and 'civil society' (Carayannis et al., 2012). The same authors came up with an even more innovative model of the Quintuple Helix when they added another helix to the model, namely, the 'natural environments of society' (Carayannis et al., 2012).

Multi-Helix, therefore, is the most recent creation. Currently, being in the initial stage, its development and implementation constitute the hubs' goal in the SIRR project. It is then in sync with other strategic targets of the hubs. Its functioning, consisting of the multilateral exchange of knowledge, experience, and resources, will enable efficient and consistent coping with difficulties and maximum use of opportunities by the parties.

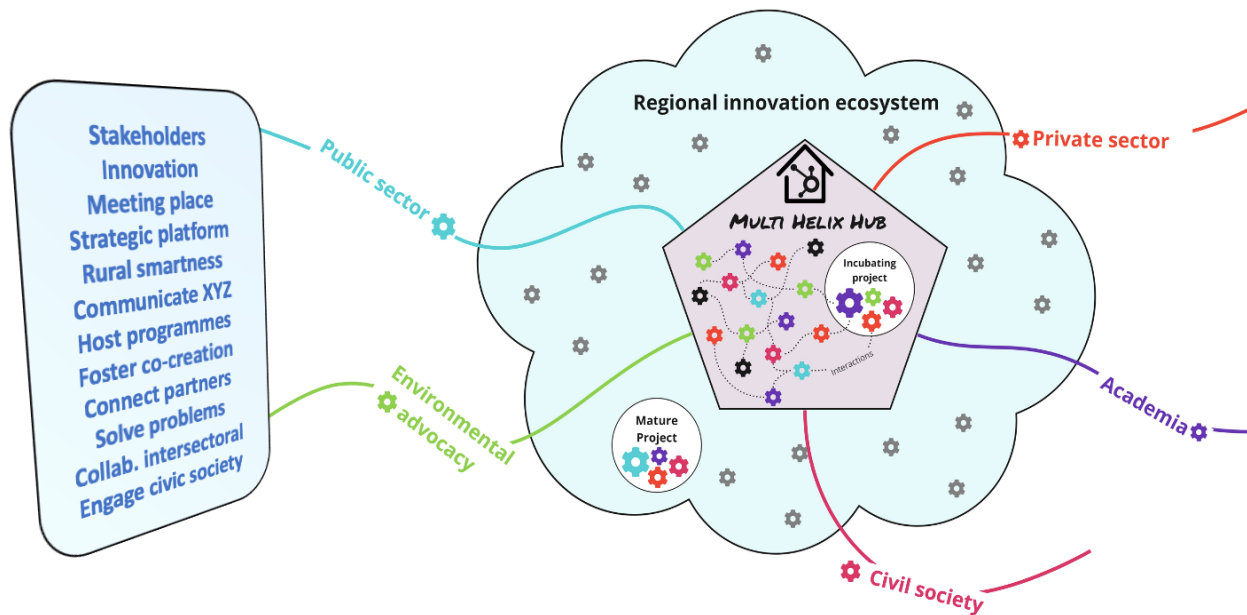
Figure 1. Knowledge production and innovation. Knowledge production and innovation in the context of the knowledge economy, knowledge society (knowledge democracy), and the natural environments of society.



Source: Carayannis, Elias G.; Barth, Thorsten D.; Campbell David F. J. (2012). The Quintuple Helix innovation model: Global warming as a challenge and driver for innovation, *Journal of Innovation and Entrepreneurship*, ISSN 2192-5372, Springer, Heidelberg, Vol. 1, pp. 1-12, <https://doi.org/10.1186/2192-5372-1-2>.

The above-given figure visualizes the characteristics of the previously mentioned helix models. Multi-Helix, however, will significantly expand the discussed topic, to the extent that the graphical representation of its intentions depends on the specific strategic features of individual hubs. At the Vechta Conference (2023/10/12), Dr Alistair Adam Hernández in his presentation entitled: “Multi-Helix Hubs (MHH). How do (too) many cooks improve the broth?”, explained the purpose of the Multiple Helix in SIRR project as follows:

Figure 2. The Multi-Helix Hub in SIRR.



Source: Hernández A.A., Presentation: Multi-Helix Hubs (MHH). How do (too) many cooks improve the broth? University of Vechta, Vechta Conference (October 12th, 2023).

The complexity of this concept and the multitude of participants who are to be involved in it are therefore visible. Dr Hernández in his presentation, also proposed a few coherent elements to the potential definition of the Multi-Helix, which include:

“Multi(-ple) Helix...

- is a main approach and working method in the project [...].
- aims to connect and form partnerships between municipalities, academia and knowledge institutions, local businesses, and civil society.
- is a collaborative approach to problem-solving that involves stakeholders from different sectors working together towards a common goal.
- is based on the belief that by bringing together a diverse group of stakeholders, each with their unique perspectives and expertise, it is possible to develop more innovative and effective solutions than by working in isolation.
- is vital for solving complex problems, but it can also be intricate, particularly when engaging civil society, which often relies on external funding or unpaid involvement” (Hernández, 2023).

The explanations of the Multi-Helix provided here are therefore a large conceptualisation, based on the available literature on helix models, as well as on the general goals that the SIRR project wants to achieve. Therefore, it focuses on the terms already mentioned many times in this report: *sustainability* and *resilience*. All of it to create effective cooperation not only between SIRR participants but especially with their environment and non-project partners, emphasising the importance of civil society.

Work Integrated Learning (WIL)

When bringing up the term *Work Integrated Learning* (WIL), it needs to be pointed out, that there are multiple definitions used by researchers, teachers, administrators, students etc. In this report, WIL is defined from a student's perspective in the following way:

Work Integrated Learning is an educational model that transforms the traditional academic approach by bridging the gap between theory and practice. This hands-on experience enables students to apply their academic knowledge in real-world settings, enhancing existing skills and acquiring valuable life experiences that also shape their university education. WIL operates as a dynamic partnership among academic institutions, employers, and students, fostering intentional learning and skills development in accordance with students' fields of study but not only. Additionally, WIL facilitates the exchange of knowledge and experience among students and teachers, promoting multi-level learning processes.

It should be noted that in this definition the main driving factor of WIL is knowledge production and knowledge transfer between individual parties as well as the acquisition of specific skills and learning processes themselves. Therefore, WIL as an educational model and Multi-Helix as a concept in innovation studies have many things in common. It can be said that the Multi-Helix approach in SIRR is at some point a strategy of Work Integrated Learning, where the participants specializing in different sectors, with different backgrounds, and approaches are joining a multidimensional collaboration. In this collaboration, communication processes play a key role in building trust and mutual understanding that further contributes to deepening the exchange of knowledge and experience. These processes take place between many parties in many ways, but their result is undoubtedly related to broadening horizons, improving methods of dealing with problems and coming up with various types of innovative ideas aimed at improving the situation of rural areas.

Method

The data provided in this report comes from both primary and secondary sources. Primary sources include notes from WPs meetings, notes from the SIRR Conference in Vechta (Germany) and transcripts of conducted interviews with the hubs' directors. On the other hand, the secondary sources consist of official documents and presentations such as the 1st Project Activity Report, the 1st Survey of the hubs in SIRR ("inner circle") or SIRR Final application; academic literature, Interreg North Sea SIRR website (<https://www.interregnorthsea.eu/sirr>) as well as websites of each of the participants and the municipalities.

This report used a qualitative method of analysis of the one-on-one, semi-structured interviews and other materials created for the project, focusing on thematic analysis - identifying common themes, ideas, challenges, and opportunities among the participants of the SIRR project. Using a deductive approach, the report is a collection of reliable data, ensuring the understanding of the hubs, their needs, and their long-term perspectives. It also supports a coherent explanation of the core concepts within which SIRR operates, such as the innovative Multi-Helix model.

Analysis/Results

In November 2023, interviews were conducted with nine representatives of the hubs participating in the SIRR project. After the interviews, many similarities were identified in the partners' approach to both the project itself and the general way in which the partnership takes place. Many comments were given concerning the communication processes and the exchange of information/knowledge, which is still in its initial phase. Representatives emphasized the ambitions behind SIRR but also raised awareness that the project had started relatively recently and some of the hubs had not even been officially opened yet. Due to the fact that the hubs are at different stages of development, differences in thinking and immediate strategic goals can be noticed. Before specific answers to the interview questions can be analyzed, it is first necessary to provide a concise summary of the hubs, making it easier to understand the reasoning behind the representatives' approach.

Hubs Overview

Table 1. Summary of the hubs participating in the SIRR, mainly based on project notes and interviews conducted in November 2023.

Partner	Setting	Main regional industries	Role in SIRR	Contact person in SIRR	Important activities/ideas brought up in the interview	Strengths	Challenges
Sotenäs Municipality with hub situated in Sotenäs Symbioscentrum.	Rural/Coastal area in the Västra Götaland County (Sweden). Located by the North Sea.	Maritime activities. Tourism. Fishing.	WP1 leader. Leading partner.	Stina Gottlieb, Emma Ek.	Industrial and social symbiosis map. Open house.	The symbiosis network. Implemented Triple Helix model. Strong academic and science park support. Good collaboration with SMEs. Knowledge about participating/managing EU co-financed projects.	Lacking civil society. Excessive emphasis on individual-level collaboration with specific representatives of the organization rather than fostering a broader organizational engagement (personal business attachment). Issues with engaging young citizens. Housing problems.
Skagen Education Center (SUC).	Rural/Coastal area in the region of North Jutland, Frederikshavn municipality (Denmark). Located on the border of the North Sea and the Baltic Sea.	Fishing. Tourism.	WP2 leader. Assistant lead partner.	Helle Røntved, Jens Lundholm, Michael Ax and Peder Key Kristiansen.	SKAL Contemporary (artistic initiatives of young people).	Expertise in management and financial administration of European projects. Supplying with network access. Providing help and support in making project concepts. Facilitating the search for project funding. Strongly supporting culture.	Engaging public authorities. Dropping the label "Skagen Education Center upskilling the unemployed" to "Skagen an innovative hub assisting local companies and organizations with their development plan". Housing problems.
Community of Communes of the Pays de Lumbres with a hub in the Maison des services de Lumbres (CCPL).	Rural area consisting of 36 municipalities in the northern part of France.	Agriculture. Service and trade. Concrete, paper and glass industry.	Partner.	Clémence Dermenghem.	Land use. Mobility. Waste management.	Involving civil society. Cultural and recreational component.	Territorial planning. Issues with national law. Implementing ecological transitions. Approaching young people. Lacking academic support. Environmental challenges (e.g. floods).
Agency for Urban Planning and Development of the Saint-Omer Flandre intérieure Region (AUD) with hub shared with CCPL.	Rural area in the northern part of France.	Agriculture. Service and trade. Concrete, paper and glass industry.	Partner.	Julie Velay.	Land use. Mobility.	Consulting role between public authorities and civil society. Integrity with CCPL. Good at approaching stakeholders.	Issues with national law. Lacking academic support. Not too much experience with working with economic actors.
City of Louvigné du Désert (LDD).	Rural area in the Ille-et-Vilaine department in Brittany in northwestern France. Located on the Cadomian chain.	The exploitation of granite. Manufacturing.	Partner.	Guillaume Foucault.	Digital museum (Micro-Folie). "Hub of users". Multi-Helix Committee.	Social inclusive aspect (strong civil society component). Promoting culture, sport and social activities. Offering training in social entrepreneurship. Heritage components.	Lacking academic support. Issues with engaging young citizens.

Source: Own elaboration.

Partner	Setting	Main regional industries	Role in SIRR	Contact person in SIRR	Important activities/ideas brought up in the interview	Strengths	Challenges
TrENDi (the central contact point for "Entrepreneurship Education" at the University of Vechta).	Rural area, located in Lower Saxony, Germany.	Agriculture and agricultural services.	Partner.	Iris Rickhoff-Fischer.	Hub as a "think tank" (an idea hub). TrENDi newspaper.	Providing different tools for start-up projects implementation. Experience in participating in EU projects. Strong academic support. Triple-Helix model implemented.	Lacking civil society. Difficulties with involving SMEs. Housing problems. Hardly noticeable tourism.
Læsø Touristand Business Association (LTE).	The largest island in the North Sea Bay of Kattegat (Denmark).	Fishing crayfish. Tourism.	Partner.	Jens Rulle, Louise Aagaard.	Læsø Business Network. A "sub-hub". V-LAB.	Strong civil society component. Strong connection with the municipality. Working towards a Quadruple Helix model. Good collaboration with SMEs. Providing help to start-ups. Branding and marketing.	Limited workforce. Environmental challenges (e.g. dependent on weather, location of the island makes it more isolated). Housing problems.
Lysekil Municipality.	Rural/Coastal area in the Västra Götaland County (Sweden). Located by the North Sea.	Fishing. Stone industry. Oil refineries (Preemraff Lysekil). Tourism.	Partner.	Anne Gunnäs.	Hub as a "facilitator". Bringing up social initiatives (e.g. reaching out to citizens in their everyday life routines like shopping).	Strong academic and science center support. Good at working with associations and business centers. Having old industries which currently go through the transformation. Many connections to the Triple and even Quadruple Helix model.	Housing problems. Issues with engaging young citizens.
The Association Stenvad Mosebrug.	Rural area located in Central Jutland Region and belongs to Norddjurs Municipality.	Agriculture. Tourism.	Partner.	Dorthe Lyk, Ikki Knudsen.	Emphasising the historical meaning of the place – storytelling. Expanding the idea of biodiversity. "Project café".	Strong cooperation with the municipality. Working with volunteers.	Housing problems. Citizens still identify the hub with its previous role (museum, old factory). Issues with engaging young citizens. Limited resources.

Source: Own elaboration.

Worth emphasising is that the above analysis is still incomplete. There is more information that needs to be gathered and more studies need to be done on the participants, especially those who joined the project later (Lysekil Municipality) and those who opened their hubs recently (LDD, CCPL, Stenvad Mosebrug). Therefore, updating this table is more than advisable. However, it can be used as a coherent collection of basic information about the hubs, providing insight into the extensive scope of the project.

Understanding of SIRR

The following aspects were indicated as the main objective of the SIRR project:

Stronger, more resilient and sustainable rural areas with higher capacity of local innovation, green and circular economy and knowledge partnerships. Local cohesion is stronger and acts as an alternative to urbanisation. Local hubs connect companies, associations and citizens to the innovation eco-system social innovation, and green transition (Specific Objective 1.1 SIRR, 2023).

Analysing the conducted interviews, it can be concluded that the project participants became well acquainted with its main objective. They all pointed to the enormous importance of increasing the opportunities of rural areas in an urbanized world. When answering the question “How do you understand and view the aims and goals of the SIRR project?”, the interviewees paid special attention to increasing the involvement of civil society and sustainable solutions in the social, economic, and environmental spheres. The desire to develop methods and tools enabling sustainable transformation among societies was highlighted. Michael Ax from Skagen Education Center described SIRR’s aspirations as coming up with ideas on how to use resources that the local communities have, to make them sustainable and resilient through the innovative Multiple Helix collaboration, which would be one of the few empirical examples of its implementation (Ax, 2023). Moreover, Julie Velay from AUD in her interview also mentioned the concept of *fairness* (Velay, 2023), since the motto of the project is “all onboard in rural societies for a fair future!”, then no one can be left behind in the perspective of a rapidly advancing world. Therefore, the process of learning and gaining knowledge in the field of cooperation both inside and outside the project will contribute to introducing more sustainable changes in rural areas and increasing the involvement of different stakeholders.

Internal collaboration

Internal collaboration applies only to participants in the SIRR project. The partners use various tools and platforms to facilitate and improve their communication, but it should be noted that the exchange of information between them is still in the development stage. It usually comes down to Work Packages meetings on Microsoft Teams (every two/three weeks), Financial Group meetings, phone calls, e-mails and planned once or twice-a-year conferences. Overall,

due to language barriers and better understanding between partners from the same country, collaboration at the national level prevails.

Stenvad Mosebrug is more often contacting Aarhus University (e.g. working together on the initiative Visit Aarhus) and Skagen Education Center. The learning processes are most visible within the issues of how to work with an EU project. For Stenvad Mosebrug this is particularly troublesome, as is the very fact of running the hub, considering that it has only recently been opened. When asked about the knowledge their participation brought to the project, hub representatives Dorthe Lyk and Ikki Knudsen stated that their experience in working with volunteers could be a useful skill for other project partners (Lyk & Knudsen, 2023). On the other hand, the interview with Louise Aagaard for LTE, emphasised the desire to increase cooperation with other Danish partners, which was also mentioned by Michael Ax from SUC (Aagaard, 2023). The so-called national coordination meetings are therefore to be an important aspect of cooperation. However, as this is an international project, it is also necessary to strengthen ties with others. Skagen Education Center holds frequent meetings with Sotenäs Symbioscenter to discuss, for example, the possibility of creating smaller networks inside SIRR (Ax, 2023), narrowing the group of participants to individual hubs, thus giving them the opportunity to discuss specific problems and solutions directly. The idea of creating a Nordic Triangle is also worth mentioning, as there are many similarities between Sotenäs, Skagen, Læsø and Lysekil (once it is officially up and running). This assumption would result in even more dynamic cooperation in the northern part of the project.

Stina Gottlieb from Sotenäs Symbioscentrum in her interview, paid particular attention to building trust among sides. As she stated, “We still need to get them to be colleagues not only partners in a project” (Gottlieb, 2023 November 1). The WP meetings, fulfil their role of “having information going”, but more frequent meetings still need to be arranged, of a more one-on-one nature. During these online gatherings updates from the hubs are given as well as the good and bad news are shared. For instance, the idea of social and industrial symbiosis from Sotenäs started inspiring Skagen, Stenvad Mosebrug or the French partners. As it was mentioned by Michael Ax “the idea of social symbiosis is of course also to have social sustainability and have a sustainable society on all levels and the same goes for resilience. If you want to make a resilient community you need to be able to make it also sustainable on all levels and for all stakeholders both environmentally, economically and socially. You do need to think of the society as an ecosystem” (Ax, 2023). Not only new challenges that partners must

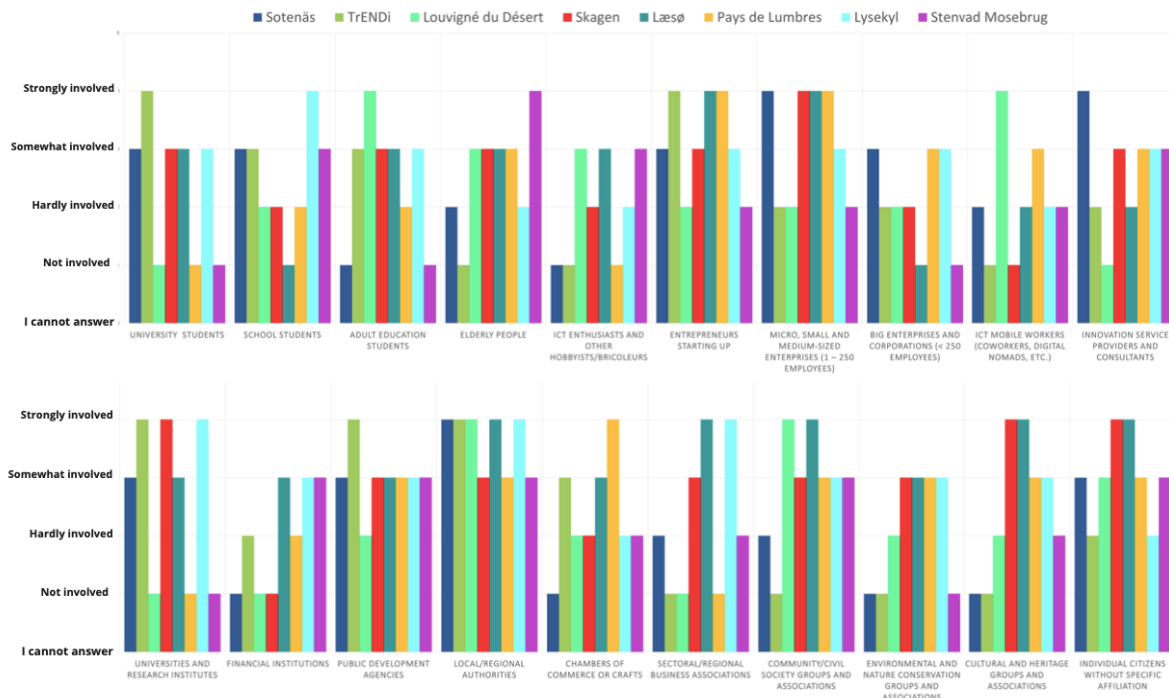
face are being noticed, but also the differing approaches to various phenomena. A good example would be the perception of sustainability that varies among French, Swedish, and Danish partners, with the former emphasizing the social aspect and the latter two focusing more on the environmental perspective (Gottlieb, 2023 November 8).

The French partners in the SIRR project agreed that for now there is not much exchange of knowledge between participants. This usually happens in case of specific problems related to running the project or the hub itself. When doing so, meetings are scheduled with the WP1 & 2 leaders (Sotenäs and Skagen) or specifically with the WP3 leader Alistair A. Hernández from the University of Vechta. CCPL, for instance, collaborates closely with AUD and together they introduced the issue of land use into the SIRR project. It has been noted by Clémence Dermenghem, that a shared document should be created showing how individual hubs deal with various problems, e.g. approaching young people, waste management, establishing relations with SMEs etc. (Dermenghem, 2023). This would make it easier to contact only a specific partner, instead of all project participants. Recalling the words of Guillaume Foucault from City of Louvigné du Désert, “It feels like every partner is in this project for something real (...). So, it's going to work” (Foucault, 2023).

External collaboration

External collaboration focuses on the relations between the hub and its connected partners (outside SIRR). Many stakeholders need to be taken into consideration while analysing the hubs' strategies in the project. As it was noticed by Stina Gottlieb “The old hubs are more like academia, science park, municipality, companies. The new hubs are more civil society, local companies and municipality” (Gottlieb, 2023 November 1). It is therefore confirmed by the interviews with the hubs' representatives as well as by the first survey on the topic of “Multi-Helix-Hubs in SIRR” (Graph 1). Creating a Multi-Helix hub requires maintaining strong connections with both the public and private sectors as well as directly engaging civil society. There are also environmental aspects that contribute to extending the helixes that cannot be forgotten. Different approaches must be taken and adjusted to the individual hub's needs. For the project's participants, attracting specific stakeholders is still a big challenge, this especially applies to approaching civil society and influencing an effort to make young people stay in the rural areas.

Graph 1. What kinds of user groups participate to what degree in innovation activities in and round the hub?

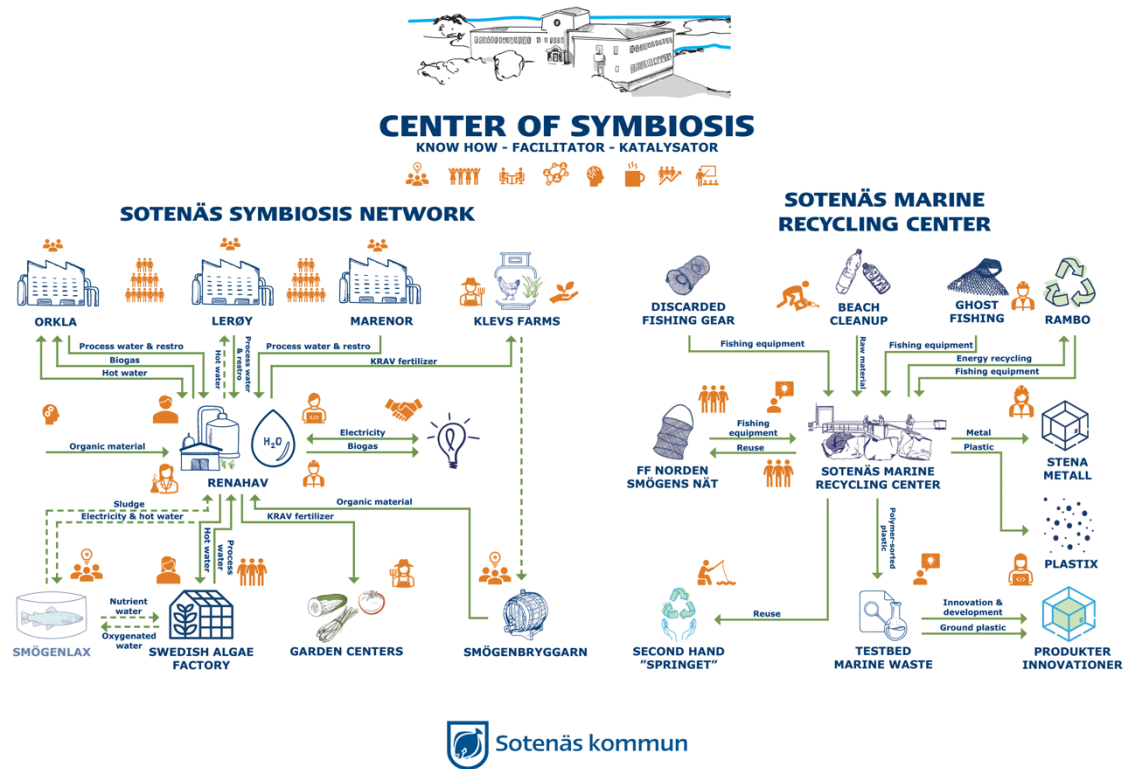


Source: Vechta University (2023). 1. Survey - Multi-Helix-Hubs in SIRR.

Each of the project partners is trying to come up with ideas on how to approach different stakeholders. Some of the hubs have well-known methods of cooperation, such as file sharing, surveys or community engagement initiatives, but that doesn't mean they can't be improved, especially assuming there's always room for new people. Answering the interview question “Are any relevant actors missing?”, the hubs’ representative agreed that there will always be someone missing, however, that is the point of SIRR – pushing rural areas into an innovative world, where collaboration is a key to growth.

Developing a reliable relationship between parties requires a high level of trust, however, building it is a very delicate issue and consists of, among others, lots of meetings and active listening, trying to find common ground and aiming for a win-win situation. What is more, in Michael Ax's answer to the question about trust, he explained that *added value* needs to be offered to the stakeholders. They need to feel that they get something out of this partnership (Ax, 2023). Stina Gottlieb added that “collaboration could sometimes be of equal value as doing a good business” (Gottlieb, 2023 November 1), thus it is crucial to create a trustworthy network, in which partners feel a sense of mutual reliance.

Figure 3. Industrial and social symbiosis in Sotenäs.



Source: Sotenäs Symbiosentrum, <http://symbiosentrum.se/>.

The social and industrial symbiosis map presents the collaboration processes within the symbiosis network of Sotenäs. This is one of the examples of how the hubs are integrating with the surroundings, using available resources. In an interview with Stina Gottlieb, she stated that map updates are necessary and that there are still 15 ideas that haven't been started or fulfilled yet (Gottlieb, 2023 November 8). A strong network is also visible in Læsø Tourist and Business Association. Louise Aagaard explaining the conditions within the hub operates, concluded that, since Læsø is a small island, everybody knows each other and “almost everybody has a business of some sort” (Aagaard, 2023). Therefore, a Læsø Business Network was created, aiming to utilize the knowledge and experience that many house owners have (Aagaard, 2023).

Building this trustful network, however, is a challenging task. Some hubs in the SIRR project have never been working much with the overall economic sector (AUD), others are still struggling with getting involved small and medium-sized enterprises (TrENDi, Louvigné), and some have issues collaborating with public authorities (Skagen, CCPL), civil society (Sotenäs, TrENDi) or academia (CCPL, AUD, Louvigné).

It is also worth mentioning the tools used by hubs to maintain efficient relations with their stakeholders. These include not only meetings and phone calls but also organizing open houses, and workshops, going out to people, preparing, and exchanging reports or the increased use of informal contracts, basing the collaboration on personal relations. The partners in SIRR are aware that nowadays they need to be innovative in their activities and take care of their reputation so that the local community knows about them and uses their services. For that reason, many initiatives are being tested. A good example is the TrENDi Newspaper or opening accounts on LinkedIn and Instagram for the SIRR project.

Individual perception of the hubs

Each partner joined the SIRR project hoping to achieve specific goals oriented towards the development of rural areas. As for Sotenäs the main goal is to move from the already established Triple Helix model into the Multi-Helix one, acknowledging the process which will get them to that point. Therefore, the *reflective aspect* is extremely important. Asking questions, exchanging knowledge and experience are the key factors driving Sotenäs Symbioscentrum. Currently, awareness-raising discussions are going on, trying to focus on the parts of civil society that can be easily connected to the hub. During the interview, Stina Gottlieb stated that people in Sotenäs are of conservative values (Gottlieb, 2023 November 1), thus, they need to be convinced that embracing changes is a matter of survival. Companies also need to adjust their agendas to the new values and expectations that young people have. Sotenäs Symbioscentrum is there to help them with it.

Skagen Education Center, on the other hand, aims to find tools on how to deal with occurring challenges. It has been noted, that although Danish society is wealthy, they still have their issues. The population is decreasing and people are getting older. Solutions need to be found. SUC mission as a hub is not fixed, currently, the ideas are being brought into the daylight by focusing on using the strengths of the hub, making it a place where problems will be solved and innovative initiatives implemented. With over 30 years of experience, SUC has special skills in supplying network access, providing help and support in making project concepts and facilitating the search for project funding (Ax, 2023).

In the case of Læsø Tourist and Business Association, the goal is “to establish a much stronger and wider network of collaboration” (Aagaard, 2023). LTE has been up and running for quite some time now, thus they have well-organized relations with the stakeholders connected to the hub. The idea is, however, to learn how to be more resilient and sustainable in a small society, since usually when learning about sustainability at the university, the lectures focus on a much bigger scale (Aagaard, 2023). For LTE, one of the main tasks they focus on is communicating to the public what the hub is doing and how to best use it.

When analysing TrENDi, it must be remembered that they are coming from a startup service. The approach towards the hub’s role is then a bit different. As Iris Rickhoff-Fischer explained: “The aim is that the hub is perceived more as a think tank, an idea hub (...) and a marketplace where ideas can meet and be developed by the different stakeholders to broaden up the approach” (Rickhoff-Fischer, 2023). Thus, the strategies towards this goal are currently being analysed.

Other, more new hubs in the project also started defining their role by using specific characteristics. Dorthe Lyk and Ikki Knudsen from Stenvad Mosebrug, want to emphasise the historical aspect of the hub which previously served as a factory and then a museum (Lyk & Knudsen, 2023). The transformation into an innovative hub could be an example of how profound change nowadays must be made. In Lysekil hub is supposed to play the role of a facilitator and a platform. In an interview with Anne Gunnäs, she brought up the idea that the hub should be perceived as the whole municipality (Gunnäs, 2023). Participation in this project has many cons, but from Lysekil’s perspective, it provides the legitimacy to work more with civil society, politicians, businesses etc. Therefore, attempts to influence politicians in the region with the SIRR project are currently being implemented.

Moving to the French partners, all of them have a strong support of civil society, however, other sectors are missing. In Louvigné du Désert the *Multi-Helix Committee* has been created and it is working very well, bringing cohesion into the collaboration with different stakeholders (Foucault, 2023). What is more, all the French partners see the role of the hub within the social frameworks, as a place that makes people feel more included. Pays de Lumbres and Agency for Urban Planning and Development, thanks to their participation in the project gained more courage to start having more frequent consultations with the citizens. The changes in partners’

operations are small, but visible, however, everyone agrees that in the long run, this collaboration will be very fruitful.

Conclusion & Reflection

In a given report an analysis of the *Sustainability, Innovation and Resilience in Rural areas* project (SIRR) has been carried out, focusing on the aspect of internal and external collaboration and the knowledge exchange between the partners. Specific data has been provided, showing that due to the initial stage of the project, the cooperation is still in the development phase. The main parties involved in communication processes narrow down mostly to the Work Packages leaders. Sotenäs Symbiosentrum and Skagen Education Center come up with strategies on how to engage other partners in a more efficient exchange of knowledge and experience. However, group meetings are being arranged as well as one-on-one meetings between the participants. Everyone agrees that without established trust, this project will not fulfil its purpose. Therefore, great attention is paid to creating a favourable environment connecting the partners.

As for the current stage, all the hubs know and understand the aim of the project. Issues included in the main objective of the project are being recalled. The hubs wish to become meeting spots, places for innovative ideas and for connecting various actors, making them aware of the need to change. It is assumed that the knowledge of the hubs will contribute to the implementation of sustainable solutions and transform local communities into more resilient, helping them to survive in the urbanized world. Therefore, the aim itself is not problematic for the partners, but the strategy on how to reach it is still being discovered.

Analysing the external collaboration, it can be noticed that some partners have strongly developed networks, and their relations with stakeholders are fixed, but there is still room for more. Other partners, start from zero, thus they need to pay more attention to the aspect of bringing different actors together. The first case concerns hubs that have been operating efficiently for several years, but sometimes they have to struggle with the problem of separating their functions from the innovative task they are currently intended to serve. In the case of new hubs, they do not have this problem. In the beginning, their stakeholders recognize them as

centers for meetings and exchanging ideas, but they must, even more than older hubs, offer specific values to convince local actors to cooperate.

In terms of the hubs' self-perception, they hope to contribute to the project, make use of the knowledge they have and support each other in overcoming the difficulties that rural areas have to face. However, many of them have not yet started introducing new initiatives/activities. For now, most of them focus on creating an action strategy. This is only the first year of the project, so it is difficult to talk about any significant changes. From the point of view of the analysis contained in this report, it is important to create a common document based on how partners deal with specific difficulties, how they approach them and what they actually specialize in. An update of this document would be necessary. This would make it easier to follow up with other partners.

Concluding, this report is only an introduction to a more extensive analysis of the project and its participants. Key information from interviews and other available official sources is included here but is not exhaustive. Learning processes are best visible through the cooperation of individual partners with project leaders since they have many years of experience not only in EU projects but also in the functioning of hubs. Older hubs are willing to focus on cooperation that is more coordinated with specific ideas. New hubs are still being introduced to the working conditions of the EU project. Thus, the hubs themselves have not yet had time for a stronger exchange of knowledge and experience. Currently, cooperation focuses mainly on developing an action strategy.

SIRR is a project with huge potential. The participating partners are aware of this. They know that cooperation is the key to development and survival. Mutual learning from each other is therefore an extremely important aspect since it brings partners closer to achieving the intended goal of creating a Multi-Helix hub. The project has many challenges ahead, but as long as there is a communication channel between the parties (both internal and external), all difficulties can be overcome. Mutual trust, however, must be developed, as well as individual hubs devoting significant attention to reflecting on their actions. The willingness to share information must also become more visible, updating what is the hub's priority at a specific time. All within the framework of the slogan: "All onboard in rural societies for a fair future!".

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