



Article

# Testing a Framework to Co-Construct Social Innovation Actions: Insights from Seven Marginalized Rural Areas

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Abstract: Innovation actions within European Horizon 2020 (H2020) projects aim at testing research results in practice. When supporting social innovations in rural areas, such testing requires the alignment of several rural actors in order to entail behavioral changes beyond the individual level. Recently, social innovation has been recognized as an important tool for rural areas, developing new solutions to respond to wicked problems for improving local living conditions at the grassroots level. In this study, we analyzed the use of an operational framework to support the early governance of social innovation actions. This framework was applied to co-construct seven innovation actions across Europe and the Mediterranean basin applied to forestry, agriculture, and rural development. Our results showed that supporting social innovators and local actors at the early stage of social innovation processes is key for efficiently addressing and tackling challenges and opportunities. Additionally, we showed that the process of defining a social innovation is complex and requires recursive engagement, which might lead to evolution through time, especially in the first phases of the process. Lastly, conducting the feasibility assessment enabled strategic thinking on crucial dimensions for designing a promising social innovation action, such as social networks management, financial sustainability, and know-how. Such findings helped us to draw general lessons for the development and governance of social innovation actions in rural areas, potentially applicable to any rural sector.

**Keywords:** agriculture; feasibility assessment; forestry; knowledge co-construction; innovation management; multi-actor approach; participatory approaches; rural development

#### 1. Introduction

Current societies in Europe and beyond are facing complex, multi-scale, and interrelated challenges. These include rural depopulation, demographic changes such as aging, in- and out-migration, youth

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unemployment, increasing poverty and inclusion of vulnerable groups, as well as global issues connected to climate change, energy, and natural resources provision, and food security [1–3]. These issues call for innovative solutions that are able to tackle the challenges in a systemic and holistic way. These global issues are named Societal Challenges under the European framework of research Horizon 2020 (H2020) [4]. Transdisciplinary frameworks and assessment approaches can help develop innovative policies and evaluate investments models to efficiently tackle these challenges and generate effective long-term solutions at local and global scales [5].

Technological, organizational, and social innovations may provide different perspectives to address complex problems, complementing "business as usual" solutions, and allowing the development of policy, scientific, or technological advances [5,6]. In particular, interest in social innovation for transforming or "reconfiguring" existing social, cultural, and economic arrangements has increased worldwide in practice and in the political arena (e.g., the social innovation fund established in the US in 2009 [7]; EU recommendations [8]).

In this regard, social innovation provides approaches to tackle emerging societal or community problems, complementing or sometimes even substituting the services provided by the State and/or private actors—of special relevance in rural areas, where those services are less frequent than in urban zones. However, existing literature has only started to thoroughly assess how social innovation processes are carried out, by whom, and under what circumstances. This leaves a margin for the conceptualization of new tools and approaches that depart from current innovation management strands to embrace social innovation theory. We hypothesize that social innovation initiatives benefit from a systematic support in their design and implementation, and consequently we can analyze success factors for the emergence and consolidation of social innovation. Drawing from social innovation theories, innovation management, and transdisciplinary approaches, we have developed an operational framework, which has been tested in seven different locations across Europe and the Mediterranean basin to initiate and support grassroots initiatives applied to forestry, agriculture, and rural development. These initiatives have been deployed as Social Innovation Actions within a Horizon 2020 project to boost and analyze their initial stages of development [9]. This operational framework aims at accelerating social innovation projects, paying particular attention to the specific context in which the initiative unfolds. In particular, in this paper we focus on testing whether the proposed operational framework succeeded in fostering and accelerating the above-mentioned social innovation initiatives. By looking at the initial phases of the social innovation process (scoping and designing an action), we assess whether the operational framework:

- 1. Enabled to engage with the key local actors and to identify the triggers and needs the local actors aimed to respond to;
- 2. Made it possible to map how an early social innovation idea evolved into a developed social innovation process;
- Succeeded in designing focused and feasible actions, through an assessment of their technological, operational, legal, collaborative, and economic dimensions, which allowed to adjust of the scope of the actions accordingly.

These findings are discussed in light of the emergence of common features across seven social innovation actions. They will help us to draw general lessons for the implementation and establishment of effective social innovations actions in rural areas, which may be potentially applicable to different rural areas and to diverse innovations where social processes are at their core.

#### 2. Theoretical Background

# 2.1. Social Innovation

In order to operationalize and support different innovative social practices in different geographical contexts, we made use of the concept of social innovation. Defining social innovation allowed basic

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criteria to be set for selecting the initiatives to be co-constructed along the proposed framework. While many definitions exist [10–14], we followed the conceptualization of Polman et al. [15], who defined social innovation as, "the reconfiguration of social practices in response to societal challenges, which seeks to enhance outcomes on societal well-being and necessarily includes the engagement of civil society actors". This definition stresses the key role of human agency in reshaping existing practices (attitudes, social networks, or governance arrangements) to improve the collective well-being. These are crucial elements already foreseen by other scholars [10,16–20]. Agency "seeks to change practices to respond to specific needs" [21] by " . . . imagin[ing] new ways of being, new relationships and new ways of doing" [22]. The act of innovating existing practices in favor of new ones is thus interlinked to the actions of motivated individuals and civil society members who collectively seek to alleviate societal challenges or emerging environmental, economic, social, and institutional needs, that may remain unsolved under existing public policies and interventions, or privately-led actions.

For a social innovation action to be designed and implemented, local communities and early implementers draw from emerging needs and triggers and seek solutions that could best address them. Additionally, environmental and geographical constraints can influence successful participation [23], due to varying commitment to the social innovation process, organizational structure, and the community's climate of acceptance and cooperation towards change. Polman et al.'s [15] definition was followed by a theoretical and an evaluation framework, which aims to systematically assess social innovation [21]. The operational framework presented here builds on both frameworks for social innovation, in order to develop an analytical approach geared towards implementing and setting in motion socially innovative initiatives in rural areas.

While social innovation and its drivers have been studied in detail in the urban environment [24,25], scarce information exists for understanding the emergence and impact of social innovation initiatives in rural areas [23]. Rural communities, due to their remoteness from the decision-making centers, also need to support the design and implementation of social innovations as a response to existing complex problems they might face. In particular, in remote and marginalized rural areas, social innovation processes require the participation of several rural actors, often distant from one another, and their alignment around perceived behavioral and structural changes that go beyond the individual level. These forms of collaboration and alignment of actors with different and sometimes divergent interests have been studied in other fields, such as spatial design [26], environmental planning and management [27,28], or sustainable development, more broadly [29]. A deeper understanding of how those processes apply across different types of social innovation remains to be achieved.

#### 2.2. Innovation Management and Transdisciplinarity

Managing innovation implies to coordinate, plan, organize, and control all measures which are related to innovation processes [30]. It is an operational way of thinking which aims at promoting innovation within a given working environment to foster economic, technological, and social benefits to its users. Due to the dynamic nature of innovations, their management requires adaptive approaches that foresee intermediate assessment and consequent redesigning. In current societies and economies, knowledge plays a key role as a resource which needs to be exchanged and transferred. Knowledge-based innovation management thus aims at promoting innovation by aligning and cross-referencing different kinds of knowledge processes retained by different stakeholders. Hidalgo and Albors [31] identified the following challenges which innovation management should deal with in a knowledge-based society: being human-centered, network-oriented, focus on creating adaptive organizational infrastructures, and developing a strategic vision for innovation.

Sharing knowledge for effective innovation management also applies in a social innovation context. Tackling current societal challenges requires transdisciplinary and participatory approaches able to channel knowledge into action and foster existing social networks and social capital for the ultimate economic, social, and environmental well-being of the communities. In social innovation processes, action is often initiated by a reduced group of individuals, which leverage peer-support

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in order to develop solutions for unmet social and human needs [32] Social innovators—similarly to business entrepreneurs—can benefit from a supportive environment, which can assist them in sharing knowledge practices, curtailing technological and financial barriers, improve planning, etc. In other words, in providing a set of management practices, which can support them in the "development, and application of knowledge" [33]. While incubators and acceleration models have thus been developed to support the emergence of business innovation in a systemic and up-scaling way, supportive tools for social innovators are still at an early stage, thus stressing the importance of defining operational frameworks that can assist researchers, practitioners, and local actors alike in fomenting and implementing social innovations.

These operational frameworks should also be built to ensure community participation and involvement at the different stages of the social innovation process: from the diagnosis of the problem and challenges encountered, to the identification and design of appropriate solutions to tackle those challenges. Transdisciplinarity can support in guaranteeing a holistic approach to social innovation management, as it allows cross-sectorial spill-overs, which can foster creativity and the co-creation of innovative solutions [34]. An extensive body of literature has highlighted the benefits of actively involving stakeholders in decision-making processes, spanning from the seminal work of Paulo Freire (1921) on awareness creation of oppressed community, to the characterization of the degree to which communities can and are engaged in decision-making (see Arnstein's ladder of citizen participation in Arnstein p.217, [35]), and to the recent work on participation for environmental management in tourism [28,36]. Some of the cited benefits are: better appraisal of the reality faced by the stakeholders and therefore better identification of adequate solutions; increased rate of adoption of identified solutions; empowerment of the social actors and increase in human capital through social learning processes; increased responsibility of the stakeholders vis-à-vis the innovation identified and its implementation.

#### 2.3. Social Innovation Actions

The European Research programme Horizon 2020 stimulates the establishment of innovation actions as demonstration activities for exploring the technical feasibility of new or improved knowledge in terms of processes, related technology, products, or services—in real world conditions [37]. It constitutes a new multi-actor approach for hands-on practice and the implementation of research, a reason why it is rising in importance within European funding lines. In the Horizon 2020 programme, designing Social Innovation Actions (SIAs) is a rather novel approach. Currently, there is limited knowledge on the supporting tools that could be designed to foster innovation actions dealing with social processes. Moreover, it is not yet clear what the processes are behind SIA implementation, what is the researcher/facilitator's role (from now onwards referred as SIA implementer—the person belonging to a research team in charge of organizing the SIA, whose role varies between facilitation, research, and mentoring) in guiding the co-creation with local actors toward the establishment of an idea, how a social innovative idea and its actors' network evolves from its proposal to its mature phase.

In the following section we present the operational approach we developed to support and catalyze SIAs. Our approach stems from innovation management theories under the rationale that a science-based coach will facilitate a progress in social practices for SIAs. This framework complements other existing methodologies (e.g., rural Living Labs [38]) as these act typically as platforms for catalyzing a portfolio of innovation projects, whereas our framework refers to the operationalization of individual innovation projects.

### 3. An Operational Framework to Co-Construct SIAs

Common guidelines to the SIAs were developed, to standardize the project management conceptualization [39]. These guidelines envision the process to catalyze and sustain rural grass-root initiatives to flow with key milestones in the short-, medium-, and long-term. Following an adaptive project management approach [40], the framework is articulated in four main phases and it includes a

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feasibility assessment, used to evaluate whether an action identified as an SIA is actually viable and can be implemented effectively in the long term. Feasibility was assessed through the Technological, Economic, Legal, Collaborative, Operational, Schedule (TELCOS) assessment model, contextualized based on the specificities of each individual SIA.

The SIA co-construction framework includes: (i) the design phase, aiming at defining the scope of action of the SIAs, by identifying the objectives that the stakeholders wish to pursue, and operationalizing the SIA activities; (ii) the implementation phase, which carries out the planned social innovation activities, including dissemination of the activities, processes, and outcomes to the wider public; (iii) in-itinere evaluation of the initial implementation, with the possibility to redesign the strategy; (iv) the consolidation phase, during which the initiative crystallizes; and finally the evaluation phase (v), where the achievement of the targets (performance) is evaluated (Figure 1). In this paper, we will focus on the design phase. Nonetheless, a short description of the remaining phases is also hereby provided.

Along this process, the collaboration between SIA implementers and local actors might take multiple forms according to the degree of involvement, as described in. Table 1. This involvement applies to all phases and includes the transfer of the best scientific knowledge. In this line, academic works recommend (i) to smartly manage the social networks of rural communities, including bonding, bridging (often this is the role of the SIA implementer), and linking relationships; (ii) a supportive internal governance system to support local actors in their capacities to search for funding options.

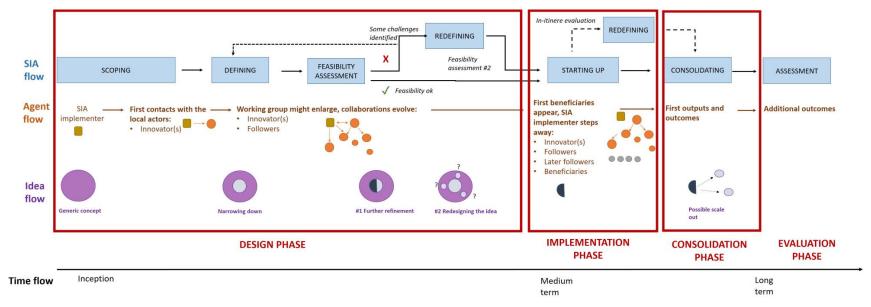
Working Path	Explanation of the SIA Implementer Role	Degree of Involvement of SIA Implementers
Facilitation	Providing tips and practical tools to the local actors enabling the working group to work more efficiently	Low
Mentoring	Active guidance to local actors in the development of the action	Low-Medium
Collaborative management	Direct collaboration in the management of the action	Medium-High
Direct involvement	Members, partners or beneficiaries of the action	High

**Table 1.** Possible relationships developed between local actors and the SIA implementer.

#### 3.1. Design Phase

The design phase is the first step of an SIA. It is the moment during which key local actors and the SIA implementer meet to discuss the challenge to tackle, to brainstorm alternatives, and to identify a suitable SIA. The SIA target is defined through a collaborative and participatory local process (*Scoping*) in relation to the individual and collective needs of the actors and the communities involved, as well as the contextual factors (the social, environmental, legislative, and cultural conditions that might enable or constrain social innovations). Hence, a participatory gap analysis contributes to discern the current and desired scenario, and consequently the opportunities for action.

During the initial collaboration phase, the establishment of a working group needs to include the actors who directly had the idea—the innovators (key leaders and first drivers of innovation [21])—and their close connections—those following and supporting the leaders in the idea's development. The working group and SIA implementers will meet regularly (i) to refine the first social innovation idea, (ii) to operationalize it (e.g., through an adapted Business Model Canvas with the sequence of activities to reach the desired scenario), and (iii) to discuss whether and how the proposed activity falls within the scope of action—e.g., does the idea fit the social innovation definition? (*Defining*).



**Figure 1.** Conceptual flows of the Social Innovation Action (SIA) process through the design, implementation, consolidation, and evaluation phases. SIA flow: the process through which a social innovation idea is developed into a concrete initiative (consolidation); agent flow: the evolution and enlargement of the actors´ network along the SIA process; idea flow: the evolution of the social innovation idea from broad to narrow (i.e., operationalization). Source: own elaboration.

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Once an action is selected, the working groups should check whether it complies with a set of feasibility requirements (*Feasibility assessment*). A widely used method for feasibility study of business projects—the TELOS framework—was proposed to standardize the innovation management strategy across case studies. The TELOS framework takes into consideration five feasibility areas for assessing a given project: technical, economic, legal, operational, and schedule. Due to the key role of social relationships and collaboration networks in social innovation initiatives, an additional component (collaborative feasibility) was added following Taylor [41], hereafter named TELCOS (Figure 2).



**Figure 2.** The Technological, Economic, Legal, Collaborative, Operational, Schedule (TELCOS) framework with the six feasibility areas.

The feasibility check can be of strategic importance for the successful implementation of the SIA, because it allows implementers and relevant local actors to test how realistic and viable their proposals are. The underlying rationale is that the application of the feasibility assessment works as a learning tool, making local actors anticipate and more aware of technical, economic, legal, operational, schedule, and collaborative issues that may hinder the implementation of the SIA. In practice, initial perceptions may change during the development of the feasibility phase, whereas no changes would mean an initial proper assessment of the critical aspects of their project by local actors. The feasibility assessment can have two main outcomes for the social innovation idea, namely a refinement of the proposed concept to overcome possible barriers identified during the appraisal of the idea, and a radical shift from the original concept to the generation of new ideas. The latter can entail: (i) heavily modifying the scope of the proposed action without drifting away from the original concept, (ii) completely abandoning the concept due to unforeseen barriers (e.g., logistic constraints, conflicts).

#### 3.2. Implementation and In-Itinere Evaluation Phases

If the proposed SIA fulfils the needs of the territory and it is seen as effective to properly address the societal issues recognized in the rural area, then local actors can proceed to implement it with the support of the SIA implementers. The period of implementation can vary among SIAs depending on different enabling factors (e.g., seasonality of a given intervention, funding availability, critical mass, and direct support from the local communities and from policy makers). During this phase, the

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working group will seek to involve more specialized people (e.g., managers, communication experts), who will assist in consolidating the social innovation idea.

As activities unfold, benefits and beneficiaries of the SIA start to appear. During the implementation phase, a first assessment of how the implemented initiative evolves (in relation to the objectives identified during the design phase) can be verified qualitatively and/or quantitatively. These can help to understand how the implementation process went: what worked and could be replicated in the future, what did not work and should be avoided in the future, what was missing during the SIA implementation and is suggested to be included in future.

## 3.3. Consolidation Phase

The consolidation phase is developed only in the medium-long term and it indicates that the SIA has achieved maturity and is self-sustained beyond the coaching process. The local actors involved work now independently from the SIA implementers who supported the action in its first steps. Additionally, the first beneficiaries of the initiative become noticeable, as those individuals that benefit directly or indirectly from the project implementation (e.g., consumers, if the SIAs produce tangible products and services). Also, the first outcomes on the wellbeing of the local community start to appear. It might happen that if the initiative is relevant not only to the concrete locality where it is applied, the consolidation phase implies a replication or expansion to other areas.

#### 3.4. Evaluation Phase

This phase is often relevant for the innovators to justify the achievements towards donors and funders, and to advocate for necessary inputs to sustain the initiative. Depending on the expected period of the objectives, the outputs, outcome, or impacts can be identified. The availability of different sources of disaggregated pre-SIA and post-SIA data (e.g. municipal statistics, initial vs final surveys) contribute to build appropriate indicators. This phase is frequently overlooked as per its high resource consumption, and its usual disconnection from programs supporting only the initial steps.

#### 4. Methods: Framework Application and Analysis

#### 4.1. Social Innovation Study Sites

The areas in which the seven SIAs were initiated are located in France (overseas region), Lebanon, Italy, Norway, Spain, and United Kingdom (Figure 3). These different European and Mediterranean areas were chosen to include social innovation processes in a variety of fields (forestry, agricultural, and rural development sectors) and contextual conditions [42]. Common variables across cases were: (i) being a rural or intermediate rural area (using the conceptualization of Price et al. [43]), (ii) presence of one (or more) marginalization indicators, and (iii) whether the initiative could be considered a social innovation according to Polman et al. [15]. Appendix A provides more information on the check-list used. The marginality was assessed using a three-fold perspective [43]:

- presence of physical constraints (e.g., islands, mountains);
- limited access to infrastructure (poor roads or internet networks, etc.);
- social marginality (low incomes, high risk of poverty, high proportion of early leavers from education, high distance from decision-making centers, etc.).

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**Figure 3.** Country and location of the seven Social Innovation Actions. Source: own elaboration based on Google Earth.

In the following, we present a brief description of the context of each area. Having a clearly defined context was crucial, as it represents the conditions that enable or constrain the social innovation, amplifying and echoing communities' needs and triggering factors [21].

Gúdar-Javalambre County, Spain (ES1): The southernmost county of Aragon is considered one of the hotspots of biodiversity in the Mediterranean [44] but is simultaneously one of the most depopulated areas in Spain. With 8328 inhabitants and a density of 3.5 inhabitants/km², it belongs to the so-called "triangle of desert". Its landscape covers a mosaic of pine and evergreen oak forests, agroforestry, cereal crops, and pastures. Yet, mountain agriculture in this area is harsh due to climate (irregular precipitations) and accessibility (steep terrains). The farm economy concentrates around black truffle production and trade, given its predominantly calcareous soil, hence leaving other productions as secondary and less interesting for landowners. The area is a typical location for second homes and rural tourism, mainly from the nearby region of Valencia.

Solsonès County, Spain (ES2): The Solsonès county (Lleida, Spain) is located in central Catalonia and has two well differentiated parts—the north, covered by high mountains, and the south, with flatlands devoted to agriculture, mainly dryland crops. The county has a population of 13,392 inhabitants (2018), out of which over 9000 live in Solsona, the capital. The county population density is 2.3 inhabitants/km². The Solsonès has a Mediterranean—continental climate, with very hot summers and cold winters. Most of the county is covered by oak forests and pine forests.

Gudbrandsdalen, Norway (NO): Gudbrandsdalen makes up half of the county of Oppland and has altogether 71,036 inhabitants, with a population density of 4.6 inhabitants/km<sup>2</sup>. The county hosts seven national parks and offers a unique mountain farm environment with a rich cultural heritage. The valley region faces challenges in the northernmost municipalities related to depopulation, elderly population, unemployment, and a high proportion of inhabitants depending on welfare services and benefits. This challenges the sustainability of the region. Immigration from refugees and work migrants has been an important vector in sustaining or curbing the population decrease over the past 10 to 15 years. At the same time, this has created integration challenges in some areas of the Gudbrandsdalen.

Lancashire-Cumbria, England (UK): Lancashire is a county in Northwest England. The county has a population of 1,449,300, with a density of 470 inhabitants/km<sup>2</sup>. Apart from the coastal towns, Lancashire is largely rural, with the land devoted to vegetable crops and a large nature reserve in

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the northwest corner of the county, straddling the border to the South with Cumbria. Cumbria is a county with a population of half a million in an area of 6678 km², one of the most sparsely populated counties in the United Kingdom, with 73.4 people per km². Cumbria is the third-largest county in England by area and is predominantly rural. However, the region has struggled with a high rural share of deprivation and dependence on welfare services and social benefits, under the themes of an aging population, unemployment, low income, qualifications/skills, housing, and access to services and transportation.

Valbelluna, Italy (IT): Valbelluna is located in northeastern Italy, in the Veneto Region, along the Piave River, and includes the Dolomiti Bellunesi National Park. It has a population of 142,803 inhabitants, with a density of 106.2 inhabitants/km<sup>2</sup>. The larger towns, supported by manufacturing poles, concentrate two thirds of the population and have witnessed population growth (4.57% over a ten-year period), while the more marginal and rural municipalities located in the foothills have witnessed population loss (–3.51%). Significantly, a large share of employment is taken up by large multinational companies (e.g., eyewear), a smaller share in tourism and services, while the primary sector accounts for less than 1% of productivity. Following the 2008 crisis in manufacturing, unemployment and outmigration rose quite dramatically. More recently, while overall unemployment has started to decrease, youth unemployment has decreased much less sharply and continues to be followed by worrisome trends in youth outmigration, including highly educated professionals.

Deir Ahmar, Lebanon (LB): Deir el Ahmar, North Bekaa, is situated 75 km away from Beirut. The region has 11,000 inhabitants and a population density of 155.7 inhabitants/km². The area has an important pilgrimage site (Our Lady of Bechouat), which attracts visitors all year long, and a florid agricultural sector. Nonetheless, change in the climate, water scarcity, and limited marketing opportunities can pose serious treats to the agriculture production in the village and its future sustainability. The area under study can be considered marginal due to the population aging, migration to the big cities, youth unemployment, an influx of Syrian refugees, and limited access to main services such as public transport. The need to provide alternative solutions to local producers is a key element as to support local development and decrease migration.

Guadeloupe, France (FWI): Guadeloupe is an outermost island region of Europe, located in the French West Indies. With an area of 1628 km², Guadeloupe is one of the 35 Hotspots for Biodiversity in the World [45]. It has a population of 382,704 inhabitants. The economy is mainly a tertiary economy based on services provided by the private and public sectors (85.6% of the added value), while industries, construction, and agriculture contribute to 8.0%, 4.6%, and 1.7% of the added value, respectively [46]. Major constraints to the economy are the ultra-peripherality in relation to European markets, narrow local markets, difficulties accessing export markets and weak cash flow of rural enterprises. When it comes to forestry and agroforestry, the Regional Rural Development program highlights the lack of research and development infrastructure of those sectors, remoteness from the European decision centers adding to the marginalization of the territory and those sectors. With a mainly tertiary economy based on services provided by the private and the public sectors, 23.1% of the population is unemployed, this proportion being of 47% amongst the 15–29 age class population [46]. The local economy is constrained by its ultra-peripherality, which engenders additional costs in relation to food provisioning, very narrow markets due to the size of the territory, difficulties positioning itself on export markets, and weak cash flow of rural enterprises.

## 4.2. SIA Framework Implementation and Analysis

Our research questions were whether the application of the framework: (i) was useful to identify the key local actors, their needs, and corresponding triggers; (ii) made it possible to boost an evolution of the social innovation idea; and (iii) succeeded in designing focused and feasible initiatives. To these ends, the SIA implementers conducted: (i) stakeholder mapping and social networks of the working group, checking their completeness and level of engagement in the initiative; (ii) mapped the evolution

from the original social innovation idea to the actual implementation, hence registering adjustments; and (iii) conducted a comparative analysis of the feasibility dimensions.

In addition, the suitability of the proposed initiatives was analyzed in regard to the social innovation definition, as well as to the social innovation evaluation framework, following Secco et al. [21]. This analysis allowed the identification of the following dimensions for each SIA:

- Triggers, as "punctual events or accumulations of unmet needs causing a response and a change in practices by local communities" [21];
- Needs, as "the demands of vulnerable groups in society" [21];
- The structure of the core group of local actors involved in the SIA;
- The structure of the network the SIA plans to build up;
- The interventions planned (i.e., activities) to conduct and the expected outcomes.

#### 4.3. Data Collection

From 2017 to 2019, seven implementer teams used the SIA operational framework to foster grassroots initiatives in each study area. The heterogeneity of study areas and their respective challenges implied a diverse set of activities implemented. These comprised among other things literature reviews, stakeholder analysis, organization facilitation, and observation of internal meetings with local actors, organization of workshops—for brain-storming, discussion forums, and dissemination—survey development, soft-coaching, or rural hackathons. The internal meetings were organized to discuss the adequacy and operationalization of the activities the local actors were willing to implement within the SIA process, and their corresponding feasibility assessment. The feasibility assessment was formalized in a report [47].

The SIA activities were systematically recorded in a "Social Innovation Action Diary". The SIA Diary was conceptualized as a quasi-ethnographic tool of participant observation, where the SIA implementers registered the progress of the initiative, as well as complementary explanatory observations. Therefore, the SIA implementers not only facilitated and coached local actors, but also "immersed themselves within their chosen empirical setting" for a period, during which "the researcher's experience, in terms of his or her participation and/or observation at the research site, is used to generate a narrative-based interpretation of the events that took place" [48]. The SIA Diaries served then as repository of the steps done, troubles faced, debates, agreements taken, or crises that arose during the SIA process. Based on the diaries and the feasibility reports, a content analysis was performed, contrasting the operational framework presented in Section 3.

## 5. Results and Discussion

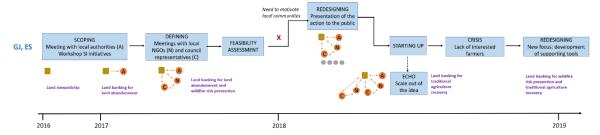
By testing the Social Innovation Action co-construction framework, the suggested process allowed the selection of purposeful actions for each of the study areas. These were:

- 1. Fostering the development of a land banking initiative aiming to revert farmland abandonment, with a specific emphasis on wildfire prevention (ES1);
- 2. Setting the foundation for a pilot project about forests, social networks, and human health (ES2);
- 3. Integrating immigrants, mainly refugees or work migrants, in the rural area by motivating them to join locals in hiking activities (NO);
- 4. Social inclusion of women from disadvantaged backgrounds to provide them with business training and marketing tools to sustain the development of small entrepreneurship initiatives (UK);
- 5. Creating and supporting new networks of local young people interested in building socially innovative and sustainable businesses (IT);

6. Transforming traditional food recipes into standardized and scientifically monitored products, and propose marketing solutions to support local women in developing profitable businesses (LB);

7. Supporting the development of a shared vision of multifunctional forests and enhancing related human and social capital (FWI).

Nonetheless, the process leading to these actions differed across the study areas. Figure 4 shows an adaptation of the co-construction framework to one of the seven study areas (ES1). The remaining six figures are provided in Appendix B. In the next sections we discuss patterns and differences across three main initial stages of the design phase of SIAs: (i) the scoping stage and the first contacts with the key local actors in the area, (ii) the definition of a social innovation idea to develop during the SIAs, and (iii) the feasibility assessment of the idea and further redesigning processes.



**Figure 4.** Adaptation of the SIA conceptual framework to the action implemented in Gúdar-Javalambre County, Spain (ES1) in the period 2017–2018 (design phase only), highlighting the flow of the action, the flow of the agents' group, and the evolution of the social innovation idea.

#### 5.1. Scoping

Meetings with key local actors were held in the different regions. However, for some cases the chosen SIA had to be revised and modified to better adapt to the local context and territorial dynamics (Table 2). These meetings enabled the different SIA implementers to identify main contextual factors, individual and collective needs for each SIA. Additionally, they served to (i) define the scope of the action, (ii) define the core group of local actors involved (working group), (iii) identify the additional actors to be engaged in the SIA, and (iv) start envisioning potential activities to conduct over the course of the years. These initial contacts were mainly held with local authorities (ES1, UK), Local Action Groups (IT, ES1), Operational Groups (FWI), and/or other local actors (NO, LB, ES1, ES2) interested in pursuing a given idea on the territory. Social innovation embryos are often processes known only through proximal networks to the innovators. In order to disclose them, a search through networks on rural development stakeholders (ES2) or a brainstorming workshop (ES1, UK) were conducted.

**Table 2.** The seven Social Innovation Actions and the main features of their networks.

Acronym	Location	Scoping Meetings	Local Actors' Working Group	Working Group Size	Type of Network	Needs/Opportunities
ES1	Gúdar-Javalambre County, Spain	Meeting with local authorities, brainstorming workshop, with the local community	Public, non-profit	10	External relationships among collective actors	Resilient landscape facing wildfires Loss of traditional agricultural varieties Harsh farming and low number of farmers
ES2	Solsones County, Spain	Skype meeting with local agency for rural development, meeting with local action groups, meeting with potential initiative, E-mail brainstorming	Non-profit	1	One person (innovator) weaving new networks	Arrival of external expertise and ideas to the area Insufficient number of social initiatives regarding health, culture, environment, and integration in the county.
NO	Gudbrandsdalen, Norway	Meeting with national trekking association, and non-profit organizations	Public- non-profit	6	External relationships among collective actors	Integration of settled refugees Retaining local population in the area, Increase community involvement
UK	Lancashire-Cumbria, UK	Meeting with local authorities, brainstorming workshop	Private (social enterprise)	1	One person (social entrepreneur)	Support for all women from deprived backgrounds compounded with living in deprived rural areas by setting up their own businesses  Refugee women support to build confidence, ability to earn and socially integrate
IT	Valbelluna, Italy	Meeting with local authorities	Public-private- non-profit	12	External relationships among collective actors	Lack of support for new young-led businesses in cultural, environmental, and social businesses
LB	Bekaa Region, Lebanon	Meeting with potential social innovators, internal meeting to identify social innovations	Private	12	Internal relationships among cooperative members	Overcome cultural, social, political, technical, economic challenges.  Foster changes in the power relations for decision-making at a local level
FWI	Guadeloupe, France	Meeting with a newly formed operational group (VALAB) and the farmers of the SYAPROVAG (Agricultural Union of Vanilla Producers of Guadeloupe)	Representative membership body	19	Internal collaboration within an operational group and farmers' union Internal relationships between union members External relationships between operational group participants	Lack of economic opportunities for vanilla producers and new entrants into forest farming Preserve ecosystem services and biodiversity of the Guadeloupean forest Maintain the socio-cultural heritage

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This shows how the local social fabric is fundamental for identifying unmet territorial needs and related (intentions for) movements to tackle them. Neumeier [23] refers to this first stage of social innovation as "problematisation", which is triggered by "an initial impetus for which an actor or small group of actors decide to change their behaviour and attitudes". In our framework, the problem identification and co-construction of the related intervention (i.e., social innovation) is done by this initial core group, with an external influence (SIA implementers). Literature on action research acknowledges that abiding respect for people's knowledge and understanding and addressing the issues that communities confront is crucial for achieving success [49]. The outcomes of these exercises of envisioning practices that could enhance the community's well-being have also been identified in the literature as way of revealing the unmet territorial needs [50]. This highlights that, often for social innovations, the development of activities is not necessarily preceded by thorough context analysis and formal strategic design. Literature findings also show that policymakers may have a strategic role in strengthening social entrepreneur initiatives [51], therefore creating alliances with them early on in the process may be beneficial for the long-term sustainability of the social innovation initiatives.

The role adopted by the SIA implementers was very similar across all seven SIAs, mainly facilitating the process of designing and implementing the actions (i.e., low degree of involvement, Table 1). In terms of the pre-existing relationships with the local actors, however, there were significant differences. They could be differentiated into three types: (i) pre-existing relationship, when one or several members of the research teams had a well-established collaboration, preceding the starting of the project (IT, NO, LB, FWI); (ii) bridging contacts, when none of the members of the implementers and local actors had had a collaboration before, but they had common contacts (ES1, UK); (iii) no linkage, when SIA implementers and local actors only met each other during the scoping phase (ES2). The strength of the linkages to the territory, the role adopted by the SIA implementers, and the type of pre-existing relationships all play a definitive role during the first steps of the design phase. In particular, our results show how the SIAs with strong connections to the territory and well-established working relationships with the local actors had a smoother process for selecting the social innovation idea to implement.

The degree of participation of the public sector (local councils, counties, and LAGs), private (social business, cooperatives, commerce trade, and cooperative trade associations), and non-profit sectors (local and community foundations, local development agencies) in the SIAs varied significantly. In two cases (ES2, UK), the action was initiated by a single motivated individual, who was seeking support in moving forward the social initiative. In one case (LB), the aim was increasing cooperation of individuals already members of a group (an existing cooperative), while in the other cases (ES1, NO, IT), social networks were newly created, fostered by the H2020 project. This diversity of composition and ways of constructing the social networks reflect the wide diversity that we can find in other well-documented cases of social innovation worldwide [50,52,53].

Lastly, we observed how the needs that each SIA aimed to meet were located at the core of some of the sustainable development pillars. Namely, the environmental domain (e.g., improving the ecological resilience of the landscape, human–nature connection, preserving ecosystem services, and biodiversity), the social domain (supporting institutional void in rural areas and for marginalized sectors of the society, strengthening community involvement), or the economic domain (boost businesses led by marginalized communities). This further aligns with the wide body of literature that supports that social innovation dynamics materialized in a wide range of sociocultural and socio-political contexts, in all their dimensions [10].

## 5.2. Defining

The definition of the main social innovation around which the local actors decide to work to alleviate the needs of the local society is a key milestone of the SIA process. While all actions eventually identified an idea to be developed, the original idea never stopped evolving at any point during the designing phase. As an example, in the ES1 case, the topic of the SIAs changed three times during the

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process of designing (from a broad land stewardship-type of initiative, to land banking for wildfire risk prevention), and was additionally refined during the implementation of the idea (towards farmland recovery for traditional mountain varieties) (Figure 4). Redefining an idea repeatedly during a design thinking approach is widely recognized as a key feature of creativity, and a likely approach to achieve concrete results [54,55].

In the seven SIAs, the idea changed and got adapted in three main situations: (i) when important barriers were identified by the actors involved (ES1, ES2), (ii) when the reaction to the proposed idea by other actors of the community did not reach their expectations (ES1; insufficient interested farmers, reluctant landowners), and (iii) when eventual institutional, economic, technological, and collaborative barriers either emerged during the design process or were existing but not eventually acknowledged properly (ES1, NO, IT). Existing literature confirms these findings as follows. Considering the needs of others and confirmation from early beneficiaries of the proposed ideas emerged as key elements for defining an idea to work upon [56]. Additionally, appropriate technical, financial, and governmental policies can also hinder the implementation of a given action, therefore if additional barriers emerge local actors might be forced to appropriately modify the scope of the action.

This shows how the process of defining SIAs is rather complex and recursive, requiring several contacts with all interested local actors, and might be subjected to a constant evolution through time, especially in the first phases of the process. This is a drawback of those SIAs with a limited timeframe (i.e., project duration), as the potential iterative and reflection process often contrasts with the impacts donors expect by the end of the project—thus requiring due justifications for not proceeding straight from the idea definition to its implementation.

## 5.3. Feasibility Assessment

Six out of seven SIAs performed a feasibility assessment during the designing phase (Table 3) This made it possible to refine the actions, and to identify certain challenges which would need to be tackled during the implementation phase. The feasibility of the proposed actions showed some recurring elements across the analyzed SIAs:

- Technical feasibility—In three out of six SIAs, local actors had the expertise required to perform the tasks listed in each initiative. In two cases, technical support emerged as a key factor for strengthening the initiative (ES1, UK). Additional skills or expertise were to be sought from the SIA implementers involved (i.e., own human resources and soft skills) or through the involvement of external consultant and experts (e.g., professional guidance, communication experts, investment and management skills, marketing skills, IT skills, networking and facilitating skills). This shows the key role of the SIA implementers in supporting local actors with specific skills;
- Economic feasibility—All SIA implementers and local actors recognized that SIAs require continuous financial support for their operational and maintenance costs in the medium- and long-term. Their principal benefits are social (e.g., improving demography, increasing social resilience, fostering gender balance, empowering youth) and environmental (e.g., improving the fire resilience of the landscape), rather than monetary in nature. This entails that their proposed business models hardly cover all the required expenses. Currently, this aid takes the form of national and international grants (e.g., H2020, Erasmus+, LAG funds, European Regional Development Fund (ERDF) funds), which partially cover the planned expenditure of the actions. Such funds are crucial for SIAs;
- Legal feasibility—The legal frameworks at local and national levels, through laws and monetary, information, and coordination policy instruments, supported the implementation of the SIA activities in all cases. Concerning the potential specificities of overseas and non-EU context, no constraining factors emerged, as the FWI case had the same policy framework as the rest of the EU cases, and the LB case operated within a national law that applies the International Cooperative Principles and Values, thus, with strong similarities to an EU cooperative. Nonetheless, in three

cases, ad hoc legal forms could benefit the long-term sustainability of the SIAs through mainly fiscal incentives and tax exemptions (ES1, LB, IT);

- Collaborative feasibility—The majority of the SIA implementers had a positive perception of the
  local actors' participation in the SIA activities. This reflects existing, long-term collaborations (e.g.,
  public-private partnerships, volunteers-public partnerships), and awareness of local actors of the
  need for close collaboration as a prerequisite to the successful undertaking of planned activities.
  Some critical issues emerged in those cases where institutional support declined or was ceased
  (ES1, NO), discouraging the local actors;
- Operational feasibility—Some of the issues which can hinder future implementation of the SIAs were highlighted, including lack of active participation of the stakeholders during the implementation phase (ES1, NO, IT), funding barriers (UK), ad hoc training of staff (UK), and uncertainties over the future prospects of the initiative (IT);
- Schedule feasibility—With respect to timing, all activities planned appeared to be feasible for
  implementation within a project timeframe and as part of its legacy. It is, however, likely that in
  some cases their outcomes will be clearer over a longer time period.

**Table 3.** Results from the TELCOS feasibility assessment of the six Social Innovation Actions. Darker colors indicate stronger feasibility concerns of the different dimensions. An extended table is provided in Appendix C.

Feasibility Dimension	ES1	NO	UK	IT	LB	FWI
Technical Do Local Actors have the technical expertise to complete the projects and its required tasks? Is the project proposition practical?	Support needed	Expertise available	Support needed	Support needed	Support needed	Support needed
Economic  Is the proposal economically viable in the long term, providing benefits that compensate for the costs incurred?	External funds needed to cover costs	Economically viable. Minor bottlenecks	External funds needed to cover costs	External funds needed to cover costs	Economically viable	Economically viable
Legal  Does the current legal framework of the Rural Areas support the Social Innovation implementation?	Supportive framework. Ad hoc new legal forms could be beneficial	Supportive framework	Supportive framework	Supportive framework	Supportive framework. Ad hoc new legal forms could be beneficial	Not applicable
Collaborative Is it feasible to involve all of the key players in the successful implementation of the Social Innovation plan?	Discouragement after facing structural challenges	Good collaboration of actors	New collaborations are needed	Good collaboration of actors	Good collaboration of actors	Good collaboration of actors
Operational Does the proposed Social Innovation work well? Will the factors that are hindering the action be overcome?	Existing hindering factors difficult to overcome	Minor hindering factors possible to overcome	Minor hindering factors possible to overcome	Minor hindering factors possible to overcome	No hindering factors identified	Minor hindering factors possible to overcome
Schedule Is the timescale of the Social Innovation plan feasible?	Feasible timescale	Feasible timescale	Feasible timescale	Feasible timescale	Feasible timescale	Feasible timescale

ES2 feasibility assessment was done on an SIA that had to be almost fully re-designed in order to move it forward, which finally constituted a radical change in the SIA. As such assessment does not correspond to the current SIA taking place in the Solsonès County (Spain), we decided to not present it here.

The feasibility assessment was an efficient assessment tool and motor for future action to be taken. Providing a structured and systematic framework to jointly analyze the current situation and collect the relevant information enabled both the local actors and the SIA implementers to reflect upon some

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of the main challenges faced by the local actors. Indeed, social innovation can be hindered or enabled by a variety of factors, which are underpinned in the different dimensions of this feasibility framework. As an example Živojinović et al. [57] identified poor law enforcement, lack of trust, norms and values as key factors for the Serbian context. Also, Camps and Marques [58] highlighted the role of social capital and its components (structural, cognitive, and relational) on innovation capabilities at the firm level, while Ludvig et al. [59] stressed the importance of well targeted and flexible funding, as well as cooperation and collective efforts, in the development of social innovation initiatives in the forestry sector.

Having a clearer picture of the potential challenges also enabled SIA implementers to reflect upon what they could offer the local actors, both in terms of their own skills as social innovation practitioner (facilitation, mentoring, planning skills), as well as in terms of the boundaries and limits of the project (time, amount of funding, type of action funded). Moreover, because the feasibility assessment comprised six dimensions, it made it possible to conduct a holistic approach to the social innovation initiatives regardless of their nature or the domain to which they applied (rural development, agriculture, or forestry). Moulaert and Mehmood [60] recommend holism as a research methodology and pragmatic collective action, arguing that it enables the researcher to account for relationships between the part and the whole—here, the whole being the overall social innovation and the parts being its different TELCOS dimensions. Indeed, by focusing on understanding how results could be achieved under those different dimensions, the feasibility assessment helped identify interdependencies between different aspects of the social innovation project ideas. As an example, understanding existing actors and networks involved in the FWI case highlighted the necessity to reinforce the collaborative dimension of the initiative before being able to move onto other dimensions, such as the technical dimension. In the UK case, reinforcement of technical capacities such as monitoring and communication will in turn increase the social innovators' capacity to secure future funding.

#### 6. Recommendations and Conclusions

The tested operational framework allowed the initiation (or support in their early stages) of seven SIAs located in different European and Mediterranean areas, dealing with a broad scope of topics. The findings from its testing can be summarized into two main categories: (i) key lessons learnt from the case studies, which helped to understand the critical factors for SIAs to emerge when supported by accelerators programs; (ii) broader key findings, to understand whether the proposed operational framework succeeded in fostering and accelerating SIAs or not, and thus whether the presented lessons learnt can be adapted to other contexts.

#### 6.1. Summary of Key Lessons Learnt

During the design phases, the four main relevant lessons learnt were derived from the seven SIAs: (i) supporting social innovators and local actors at the early stage of social innovation processes is key for efficiently tackling challenges and opportunities; (ii) acknowledging the non-linearity of a social innovation process enables local actors to develop flexibility for adjusting methods and tools; (iii) promptly identifying management failures; and (iv) developing strategic thinking of financial resources and required know-how is crucial to the social innovation initiative.

Conceptualizing frameworks can assist practitioners in identifying bottlenecks for implementing SIA projects and processes. They can also allow standardized processes across study areas, which might differ geographically, economically, or in terms of the initiative taken forward. However, SIAs are also strongly dependent on local dynamics and networks. Communities' customs and norms, formal and unofficial relationships are thus crucial for the success of the SIA, but can often be difficult to envision at the start of the SIA process. Operational frameworks for SIAs should develop tailored exercises for streamlining knowledge exchanges between local communities and external facilitators (e.g., the Drivers-Pressures-Status-Impacts-Response (DPSIR), cognitive mapping, or the Theory of Change). This would make it possible to disentangle how and to what extent the different cultural

and socioeconomic contexts can influence the success of SIAs. Additionally, the "operational" and "collaborative" dimensions of the feasibility framework support in capturing cultural and informal norms and dynamics existing amongst local actors.

Additionally, the needs and triggers supporting SIAs are not static but may change over time, and as such, ideas initially proposed will change, adapting to emerging constraints or new opportunities. Rigid approaches are thus not appropriate when designing and implementing SIAs, but rather support local actors in developing social innovation initiative, who may need to be continuous and flexible. Social innovations require consideration through the entire cycle of the spiral model: from ideas, to prototyping and piloting, to implementation, and up-scaling [61].

The role of the SIA implementer is also key and twofold. On one hand, SIA implementers ought to facilitate local actors in designing a context-appropriate initiative; on the other hand, SIA implementers may observe, help to conceptualize, synthetize, and disseminate the information they gather from the development of the SIA process. These multifaceted positions imply that the role of the external implementers should be clarified at the beginning of the SIA processes, in order to minimize the potential for conflict, and maximize support and cohesion with the local actor group.

As it emerged from the feasibility assessment, continuous external financial support is a key factor for the long-term sustainability of SIAs. Three forms of funding appear to be relevant for SIAs: (a) seed funding, to cover initial establishment costs (e.g., infrastructure, equipment, training, branding); (b) running costs, related to: activities' organization, consumables, travel costs; (c) revenue funding, for the ongoing operations of SIAs over longer time periods (costs related to the time and efforts of the social innovators, and/or the required experts, facilitators, and external consultants). Yet, funds for running costs can rarely be insured by existing national or EU funding agencies, which generally cover costs included in projects on a relatively short time span (i.e., suitable for seed funding, but not for the consolidation phase). It is thus paramount that each SIA identifies a strategy for fundraising over the long term, and selects the business model most suitable to its context. A mix of complementary funding sources is desirable to guarantee the long-term sustainability of the action.

## 6.2. Transferability and Legacy

In order to transfer an operational framework to other contexts, we need to assess its overall performance and whether it succeeded in fostering and accelerating a set of social innovation initiatives. Our results indicate that supporting social innovators in the governance of a social innovation process might help to steer early ideas into strategic action plans that may be implemented in the near future. Providing an analytical structure allows innovators and local actors to reflect upon a series of standardized innovation management tools necessary for handling a project (e.g., identifying economic and technical barriers), but also relevant for encouraging a social innovation process (e.g., reflecting upon their local network and social capital, and identifying possible barriers to cooperation and local resistance towards change). It also allows the organization and storage of information which can be used later to seek complementary funding, qualitatively and quantitatively assess performance indicators, and record the steps achieved and the challenges faced. At the same time, a detailed analytical tool might entail excessive attention to checking lists, possibly hindering local actors' interest and availability. Operational approaches thus require a smart balance between standardization and flexibility.

To assess the value of the operational framework for advancing SIAs outcomes, an evaluation of the progress done by each SIA can be performed, for example, defining a Social Readiness Level (SRL) for a given SIA. The concept of SRL was recently formulated as a counterpart of the Technological Readiness Level (TRL), a widely adopted tool to assess technological innovation uptakes within the EU Horizon 2020 program [62]. The SRL concept emphasizes "the level of societal adaptation of a particular social project, a technology, a product, a process, an intervention, or an innovation (whether social or technical) to be integrated into society" [63]. This would allow better understanding of whether the proposed framework is adaptable to SIAs operating in fields, contexts, and stages of

maturity, different from each other. However, the performance assessment is beyond the scope of the current paper. In our case studies, all SIAs advanced in enabling a social innovation initiative to evolve during this three-year process. In some cases, these advances were notable, such as in the FWI case, where the SIA was apprised as a "game changer" from the perspective of the beneficiaries involved.

#### 6.3. Conclusions

The facilitation process led by the SIA implementers together with local actors provides some hints at how a rural acceleration service of social innovations might look. Indeed, the process of establishing and guiding social innovation actions can be compared to the arrangement and organization of start-up incubators and accelerators. While the existing literature is mainly oriented at business development (e.g., [64,65]), mentoring and aid programs specifically designed for supporting SIA may overlap with start-up incubator services, whereby focusing primarily on social innovation early ideas, local actors are guided into the development stage and are supported on the establishment of their core activities.

While the process of co-constructing allows mobilize interested local actors to join the social innovation idea, broadening and strengthening the scope of the initiative, additional training and mentoring services (such as the hereby proposed feasibility assessment) allow local actors to proactively face issues that can emerge in the early establishment phases of the SIAs. All these tools contribute to strengthening the social innovation initiative into a much more robust one. Yet, much remains to be done to link social innovations with desired policy outcomes [66]. Traditional accelerator units support businesses by providing connections to investors. Similarly, a social innovation acceleration service supports local initiatives by expanding their scope, increasing citizen awareness and, potentially, leading to additional private (e.g., fundraising, crowdfunding campaigns) or public (grants from organizations) expenditure. Nevertheless, at this stage, the information available from the seven SIAs is not enough to validate whether the process undertaken in the SIAs will obtain fruitful outcomes. Further work needs to be undertaken to closely follow the implementation and the consolidation phases of the SIAs, and to attempt to assess the overall impact of this SIA accelerator program.

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# Appendix A

Table A1. Checklist of the conditions that were verified for each study area and SIA. Sources: [20,45].

	Criteria				
	Does it relate to a rural (non-urban) area?				
Marginalization characteristics	Which accessibility does the area have? How profitable are economic activities there?				
	Which indicators show some "marginalization" in that particular area? (e.g., services, depopulation, ageing, unemployment, minorities)				
	Is there a process of reconfiguration of social practices (e.g., relationships, collaborations, networks, institutions, and governance structures) in response to societal challenges, which seeks to enhance outcomes on societal well-being?				
	Does the novelty/reconfiguration take place in new geographical settings or contexts or in relation to previously disengaged social group(s)?				
Social innovation definition	Does the act of novel reconfiguration involve civil society members as active participants?				
	Does the process of reconfiguration result in new social practices that increase the engagement of civil society actors?				
	Does the social innovation arise as a result of a crisis or apparently intractable problem?				
	Can public agency be the initiator and/or driver of social innovation?				
	Can social innovation be initiated by private sector agency?				
	Is the social innovation process driven by certain values and ethical positions?				
	Do new social practices engage voluntarily civil society actors (in relationships, collaborations, networks, institutions, and governance structures) as a result of the social innovation?				
	Do these reconfigurations seek to enhance outcomes on societal well-being, i.e., in relation to society, economy, environment, or any combination thereof?				
	Are trade-offs between types of benefit or beneficiaries likely to arise as a result of social innovation?				

# Appendix B

Adaptation of the SIA conceptual framework to the remaining Social Innovation Actions (ES, IT, NO, UK, LB, FWI), highlighting the flow of the action, the flow of the agents' group, and the evolution of the SI idea results from the TELCOS feasibility assessment of the Social Innovation Actions.

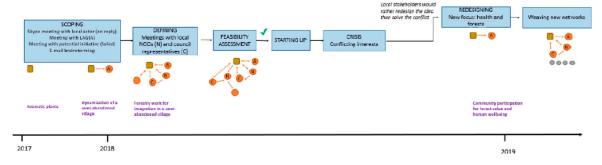


Figure A1. Conceptual framework for the SIA in the Solsonès County, Spain (ES2).

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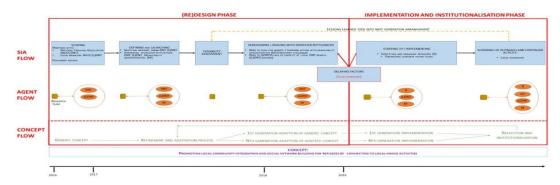


Figure A2. Conceptual framework for the SIA in Gudbrandsdalen, Norway (NO).

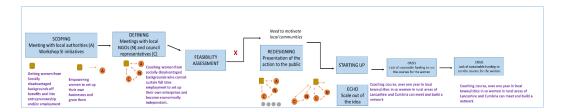


Figure A3. Conceptual framework for the SIA in Lancashire-Cumbria, England (UK).

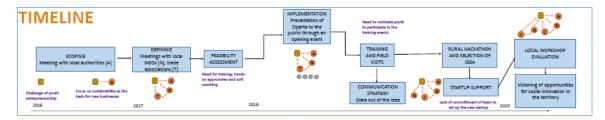


Figure A4. Conceptual framework for the SIA in Valbelluna, Italy (IT).



Figure A5. Conceptual framework for the SIA in Deir Ahmar, Lebanon (LB).

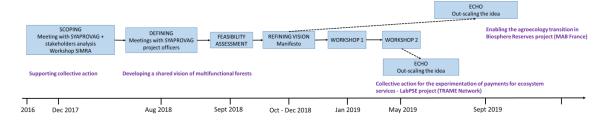


Figure A6. Conceptual framework for the SIA in Guadeloupe, France (FWI).

# Appendix C

**Table A2.** Extended results from the TELCOS feasibility assessment of the six Social Innovation Actions.

Feasibility Dimension	ES1	NO	UK	IT LB		FWI
Technical Do Local Actors have the technical expertise to complete the project and its required tasks? Is the project proposition practical?	Need for supports to local actors in certain tasks which cannot be undertaken with voluntary work (e.g., parcel clearing)	Local actors have the needed technical expertise and requirements.	Need for support in developing measuring instruments for feedback sheets of the programs, and a more efficient website to prove how effective the social enterprise is, which, in return, will help get future funding.	There is some expertise within the local partner Local Action Group, which is valorized and being used. Where the expertise is lacking within the Local Action Group, it is provided by the Implementers or external personnel. From the practical point of view, some difficulty has been found in actively involving the participants, as they often lack self-confidence, feeling insufficiently competent to intervene.	ocal Action Group, which is and being used. Where the is lacking within the Local roup, it is provided by the nters or external personnel. oractical point of view, some has been found in actively the participants, as they often self-confidence, feeling	
Economic Is the proposal economically viable in the long term, providing benefits that compensate for the costs incurred?	Needed a relatively large initial investment, and regular maintenance efforts for achieving long-term viability. Bottleneck: agricultural products are difficult to market competitively	The Social Innovation is economically viable if the refugees become volunteers. This benefits the sustainability of the region if it improves the health and recruitment of refugees.	Difficulty in achieving funding to run each programme. The nature of the Innovation Action is largely dependent on grants. Currently, work in support of women, and tackling social deprivation, is funded by local councils and the private sector, while uncertainties still remain for the future.	It is difficult to say whether the proposal is economically feasible in the long run, as the project is financially expensive. Considering all of the costs, the total budget is above what the Local Action Group can afford as it has limited funds. Hence, in order to be economically viable there is a need for external economic support.	The proposal is economically viable over the long term, benefiting from increased sales and reductions in the cost of energy for production. Combined, this will improve the economic and social situation for the co-operative's members and their households.	Funding obtained by the social innovators for the first phase of their initiative. Future funding and financial capacity will be needed to sustain the social innovation activities in the future. Over the medium to long term, activities developed in the forest understorey will need to be economically viable for the farmers. The framework partly supports the Social Innovation in relation to the activities to be undertaken. Some clarity will be needed on regulations of activities in the forest understorey will be needed for the future of the social innovation though.
Legal  Does the current legal framework of the Rural Areas support the Social Innovation implementation?	The framework supports the Social Innovation in relation to the activities to be undertaken. The challenges relate to the effective fiscal policies for supporting farming start-ups.	The legal framework supports the Social Innovation in relation to the activities to be undertaken.	Yes, and encouraged. The most recent need is a policy for safeguarding participants as some of them have escaped domestic abuse at home or in their communities.	The legal frameworks support the activities programmed, although indirectly in some cases.	The current legal framework supports implementation of the Social Innovation. However, there is a need to find alternatives and to support the implementation of tax exemptions and services.	The framework partly supports the Social Innovation in relation to the activities to be undertaken. Some clarity will be needed on regulations of activities in the forest understorey will be needed for the future of the social innovation.
Collaborative Is it feasible to involve all of the key players in the successful implementation of the Social Innovation plan?	Despite initial enthusiasm by several public agencies and individuals, institutional support is reducing, and association membership is falling as a consequence of discouragement after facing structural and farming challenges.	Yes, the collaboration between the volunteer and the public sector is feasible, as they depend on each other if they want to fulfil the scope of the activities (integration).	Working alongside other charities, NGOs and council will enhance the success of the programs. The key players continue to grow in number and change, again, depending on availability of funding.	There is good collaboration amongst the key actors making their involvement feasible. The main local partner, Local Action Group, is already a public-rivate partnership including a large variety of local entities (23 actors). Consequently, this makes it easier to collaborate with all of them at once, as well as the possibility to take advantage of the network and contacts that the Local Action Group has in the territory.	Yes, almost all key players will be involved in the implementation of the Social Innovation.	There is interest from the local actors in the initiative and the partners of the Operational Group are willing to work jointly and in a coordinated way with the IA implementer. Whether the initiative will sustain itself after this first phase is an unknown and a challenge as the farmers will lack financial and organizational support to pursue their activities.

Table A2. Cont.

Feasibility Dimension	ES1	NO	UK IT LB		FWI	
Operational Does the proposed Social Innovation work well? Will the factors that are hindering the Action be overcome?	Scarcity of existing farmers willing to work new parcels might hinder the operational feasibility of the action	There is a risk that the volunteers, the refugees, and local inhabitants will not follow up or attend the planned activities.  The SIA currently works well. The main factors that hinder the Social Innovation are: (i) Funding in an environment of harsh austerity, which will be an ongoing issue for any such organization; (ii). Getting more staff trained to undertake the work, as currently only one person has the skills required to deliver the programmes		The Social Innovation will motivate and encourage the people of Deir El Ahmar to install solar panels as an alternative and cheaper source of energy.	The activities foreseen within the framework of the Innovation Action will work well. Reaching out beyond the social innovators to other stakeholders in the territory will require more time and other types of activities.	
Schedule Is the timescale of the Social Innovation plan feasible?	The timescale is feasible.	The timescale of the activities proposed is feasible.	The timescale of the activities proposed is feasible. The SIA is an on-going programme with a planned annual rolling programme.	The timescale of the activities proposed is feasible.	The timescale of the activities proposed is feasible.	The timescale of the proposed activities is feasible.

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