



UNIVERSITÄT FÜR BODENKULTUR WIEN  
University of Natural Resources  
and Life Sciences, Vienna

# Master Thesis

## Amplifying Impacts of Social Innovations in the Forest Sector

submitted by

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## Affidavit

I hereby declare that I have authored this master thesis independently, and that I have not used any assistance other than that which is permitted. The work contained herein is my own except where explicitly stated otherwise. All ideas taken in wording or in basic content from unpublished sources or from published literature are duly identified and cited, and the precise references included.

I further declare that this master thesis has not been submitted, in whole or in part, in the same or a similar form, to any other educational institution as part of the requirements for an academic degree.

I hereby confirm that I am familiar with the standards of Scientific Integrity and with the guidelines of Good Scientific Practice, and that this work fully complies with these standards and guidelines.

Vienna, May 2022

Elaine Anne Chavez PARLADE

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To God be the glory.

## Abstract

Social innovations play a crucial part in supporting the forest sector towards the fulfillment of its role in the envisioned bio-based future. A range of social innovations are found in the forest sector; however, they are often limited in time and space which in turn limits their contributions to sustainability transformations. To explore the impact amplification strategies of social innovations and identify the factors that influence these processes, selected case studies of forestry-related initiatives in Europe were conducted following a proposed framework called the “*Ecosystem of Amplifying Social Innovation Impacts*” (EASII). The main findings from the comparative analysis suggest that effective impact amplification entails: (1) the adoption of a combination of strategies; (2) the employment of constant amplification processes within the initiative; and (3) the shift in the behavior and values of innovation actors. Further reflections from applying the ecosystem framework revealed two key leverage points to reinforce the amplification of impacts. The first is for the innovation carriers to develop a strong sense of agency to ideate, innovate, and amplify. The second is for them to foster robust relationships across the network of innovation actors in the ecosystem. With this in consideration, support should therefore be directed by policy actors towards the establishment of a creative enabling environment and the provision of access to more innovation platforms that allow organizations to learn, convene, and exchange resources. Ultimately, accounting for the identified intervention areas implies that innovation actors and related institutional organizations ought to recognize that approaches to impact amplification should be locally adapted and holistic at all times.

**Keywords:** *Social Innovation, Scaling, Sustainability Transformation, Case Studies, Europe*

## Kurzfassung

Soziale Innovation spielen eine wichtige Rolle für die Sicherstellung der forstlichen Nachhaltigkeit. Während es zahlreiche Beispiele für soziale Innovationen im Forstsektor gibt, sind sie in ihrer zeitlichen und räumlichen Ausgestaltung oft sehr begrenzt. Damit ist ihr Beitrag zur Transformation unserer Gesellschaft in Richtung Nachhaltigkeit ebenfalls begrenzt. Um Strategien zur Verbreitung sozialer Innovationen zu untersuchen und Faktoren zu erheben, welche diese Amplifikationsprozesse beeinflussen, wurden drei Fallstudien waldbbezogener Initiativen durchgeführt. Dafür wurde ein Analyserahmen mit dem Namen „Ökosystem zur Amplifikation der Wirkungen sozialer Innovationen“ (EASII) entwickelt. Die vergleichende Analyse ergibt, dass eine wirksame Weiterverbreitung (Amplifikation) drei wichtige Aspekte beinhaltet, nämlich (1) die Kombination unterschiedlicher Amplifikationsstrategien, (2) das stetige Verfolgen von Amplifikationsprozessen innerhalb einer Initiative, und (3) einen Wandel von Werten und Verhalten der jeweiligen Kern-Akteure. Weiters können zwei zentrale Hebel genannt werden, die zur Amplifikation sozialer Innovationen wichtig sind: Erstens ist es notwendig, dass die Träger der Innovation ein Bewusstsein über ihre „Selbstwirksamkeit“ hinsichtlich ihrer Fähigkeiten zu Kreativität, Umsetzung und Weiterverbreitung ihrer Ideen und Anliegen entwickeln. Zweitens müssen sie stabile und aktive Beziehungen in den Akteurs-Netzwerken der Innovationsökosysteme herstellen. Unterstützung durch politische Akteure sollte dementsprechend an der Schaffung von förderlichen Rahmenbedingungen für Lernprozesse orientiert sein, sowie am Zugang zu Innovationsplattformen zum Austausch von Ideen und Ressourcen. Schließlich ist festzuhalten, dass Amplifikationsansätze stets holistisch gedacht und lokal adaptiert werden müssen.

**Schlüsselbegriffe:** *Soziale Innovation, Skalierung, Nachhaltigkeitstransformation, Fallstudien, Europa*

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# 1. INTRODUCTION

## 1.1. Sustainability Transformation

The envisioned bio-based future places the forest sector in an increasingly relevant position (Winkel, 2017; Weiss, 2021). Through the provision of various ecosystem services, the sector has an immense capacity to contribute to addressing unresolved sustainability issues. Sustainability initiatives such as social innovations play a crucial role in enabling the sector towards the fulfillment of this potential (Weiss, 2019; Ludvig et al., 2019). These social innovations bring about the development of new practices and services through the engagement of the civil society, with the end goal of delivering societal needs and improving collective well-being (Murray et al., 2010; Polman et al., 2017).

In the recent decade, social innovations have become more recognized with regard to their significant contributions to local and regional development, particularly in rural marginalized areas and in the service-based forest sector (Ludvig et al., 2018; Nijnik et al., 2019). Case examples from the 2020 EU Horizon's Social Innovation in Marginalized Rural Areas (SIMRA) Project demonstrate a range of interventions from forest protection volunteering activities, community agroforestry networking, and similar socio-educational and recreational mountain forest projects (Database: Social Innovations in Marginalised Rural Areas, 2021). While these local initiatives often operate as context-specific grassroots movements, they connect and network with other actors on a global level (Avelino et al., 2019) and introduce new practices that challenge or replace the existing social relations (Haxeltine et al., 2016). In essence, social innovations are crucial in transformative processes as they can evolve into altering the dominant regime to transition into sustainable systems, and therefore stimulate systemic change (Pereira et al., 2018; Lam et al., 2020).

Social innovations generally undergo five key processes from emergence to development: *Reflection*, *Reaction*, *Reconfiguring*, *Realization*, and *Replication* (Secco et al., 2017). The *Replication* phase, which is also referred to as *scaling* or *amplification* in various literature, is considered a non-normative process, which means that not all social

innovations may intend to grow or move towards the expansion of their impacts. According to the European Commission, Directorate-General for Research and Innovation (2011), while there is no shortage of social innovations in Europe, several development initiatives have rather remained unsustainable, under-resourced, and thus have limited impacts. Further, as policy expert and social analyst, Lisa Schorr noted, *“We have learned to create the small exceptions that can change the lives of hundreds. But we have not learned how to make the exceptions the rule to change the lives of millions”* (Dees et al., 2004). As such, if building resilience and achieving transformative change in complex systems is to be achieved, the society has to enhance its culture of innovation on spatial and institutional scales (Moore and Westley, 2011; Moore et al., 2015) alongside the development of its capacity for repetition (Westley, 2013) or its ability to scale. The challenge, therefore, goes beyond becoming prolific social innovators in the sector; it transcends into amplifying the impacts of sustainability initiatives.

Studies on approaches to scaling i.e., “amplification processes,” are seen as part of sustainability transformations research, which highlights the extension of the impacts of sustainability initiatives (Westley et al., 2011; Moore et al., 2015; Gorissen et al., 2018 as cited in Lam et al., 2020). Current studies on sustainability transformations focus on the emergence and development processes of sustainability initiatives, although not extensively on amplification. Amplification processes span across various development pathways that are jointly implemented and undergone by sustainability initiatives with other actors aiming for the growth of impacts (Lam et al., 2020). These processes may happen within, outside, or beyond the initiative, depending on the surrounding amalgam of factors as well as the existing framework conditions and support mechanisms that influence them.

The question of how to accelerate the impact amplification of social innovations becomes more relevant as the world continues to deal with an increasing number of wicked problems. Understanding the structural and institutional changes that occur in sustainability initiatives is important in detecting deep “leverage points” (i.e., places of intervention) that could potentially result in transformative breakthroughs (Meadows, 1999; Abson et al., 2017). With the existing research gap on amplification processes of sustainability initiatives in the forest sector, this study aims to explore and investigate the factors that shape successful amplification strategies through the analysis of forestry-

related social innovation cases. Additionally, given the limited innovation support features of forest policies observed in many countries (Rametsteiner and Weiss, 2006; Weiss et al., 2011), this study seeks to contribute insights on designing future policy instruments and initiatives with an amplification purpose in consideration to foster more sustainability transformations.

## 1.2. Research Objectives

Against this background, this study aims to investigate selected cases of forestry-related social innovations in Europe (1) to explore how their impacts are amplified and (2) to identify the factors that influence amplification processes. The study mainly delves into the process and structure factors (i.e., *actors, interrelations, interactions, motivation, financing, and knowledge*) of a proposed social innovation ecosystem framework to understand the determinants of successful amplification strategies. Ultimately, through the documentation of learnings from the cases, it aspires to contribute insights and stimulate more discussions relative to the promotion of impact amplification of social innovations in the forest sector.

## 1.3. Structure of the Thesis

The study proceeds first with a literature review on social innovations, amplification processes and factors, and the development of a proposed conceptual framework for the analysis of the factors that shape amplification strategies (Chapter 2). It is followed by the methodology section which includes the research approach and the methods for data collection and analysis (Chapter 3). Results of the study in the format of case reports (Chapter 4) and a comparative analysis of the findings (Chapter 5) are presented subsequently. The joint analysis concludes with a discussion of the key leverage points for reinforcing impact amplification and ways to support these intervention areas. Final reflections and recommendations for future research are summarized thereafter in the conclusion (Chapter 6).

## 2. STATE OF KNOWLEDGE AND CONCEPTUAL APPROACH

### 2.1. Social Innovation

Social innovation has been gaining prominence in recent decades as it presents promising responses to the unresolved global issues of today (Murray et al., 2010). Due to the breadth of interpretations on social innovations, various definitions in the literature exist. The Social Innovation Academy (n.d.) summarized some useful definitions of the concept under different approaches as shown in Figure 1. Notably, among the rest, the critical and systemic approaches from Moulaert et al. (2009) and Westley (2010) explicitly identified social innovation as a process that effects deep change and transformation.

<p><b>Pragmatic Approach</b></p> <p>as “innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social</p> <p>(Mulgan et al., 2007)</p>	<p><b>Systemic Approach</b></p> <p>A “complex process through which new products, processes or programmes are introduced, leading to a deep change in daily routines, resources,” streams, power relations or values within the system affected by the innovation</p> <p>(Westley, 2010)</p>	<p><b>Managerial Stance</b></p> <p>as a “new solution to a social problem which is more effective, efficient, sustainable or fairer compared to existing solutions, and which generates value primarily for society instead of single individuals or organizations”</p> <p>(Phills et al., 2008)</p>
<p><b>Economic Approach</b></p> <p>Social innovation is defined as “conceptual, process or product change, organizational change and changes in financing, and new relationships with stakeholders and territories”</p> <p>(OECD, 2009)</p>	<p><b>Critical Approach</b></p> <p>A process of “empowerment and political mobilization” targeting a bottom-up transformation of the functioning of a social system, in terms of stakeholders and in terms of distribution of material and immaterial resources</p> <p>(Moulaert et al., 2009)</p>	<p><b>Short Approach</b></p> <p>“Innovation that is social both in its ends and its means.”</p> <p>(Murray et al., 2010)</p>

Figure 1. Definitions of Social Innovation (Source: Social Innovation Academy, n.d.)

In the context of amplifying impacts, Lam et al., (2020) distinguished social innovation as a concept related to a number of theoretical-conceptual frameworks such as grassroots innovations (Seyfang and Smith, 2007), seeds of a good Anthropocene (Benett et al., 2016), transition experiments (Caniglia et al., 2017; Sengers et al., 2019), and transition initiatives (Frantzeskaki et al., 2016; Gorissen et al., 2018), which can be collectively categorized under the umbrella notion of “sustainability initiatives.” Sustainability initiatives such as social innovations are locally conceptualized and instigated as potential solutions to societal issues (Lam et al., 2020) which are context- and carrier-dependent (Pereira et al., 2020). Studies on social innovations mostly center on non-profit organizations aiming to broaden societal impacts through the active engagement of civil society (e.g., Moore et al., 2015; Polman et al., 2017; Neumeier, 2017).

For clarity, this study follows Polman et al., (2017) on the definition of social innovation which is referred to as, *“the reconfiguring 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.”* The definition was conceptualized in line with the implementation of EU Horizon’s 2020-funded project called Social Innovations in Marginalized Rural Areas (SIMRA), which aimed to understand the success factors behind social innovations in agriculture, forestry, and rural development sectors. Fundamentally, Polman et al.’s notion of social innovation encapsulates several of the aforementioned definitions broadly, yet it highlights the local and collective social aspects to set apart the concept from other kinds of innovation such as policy or business innovation. The incorporation of civil society engagement in the definition essentially emphasizes value co-creation in terms of dealing with societal challenges.

Dwelling on this definition, Secco et al., (2017) developed an evaluation framework (Figure 2) to assess the key phases of social innovations: *Reflection*, *Reaction*, *Reconfiguring*, *Realization*, and *Replication*. According to the framework, *Reflection* covers the triggers and individual collective needs, while *Reaction* encompasses the agents and preparatory action. *Reconfiguring*, which is placed at the core of the model, represents the reconfigured social practices, and includes the new networks and interactions formed in the process. *Realization* pertains to the activities, outputs, outcomes, and impacts. Finally, *Replication* touches on the overall learning processes

such as the feedback loops and multiplier effects. The nine dimensions in the figure elaborate the phases undergone by social innovations— from the emergence of the need to address a problem, to prompting the reconfiguration of practices, and to the institutionalization of the reconfigured practices that occur discretionarily at different scales (Secco et al., 2017).

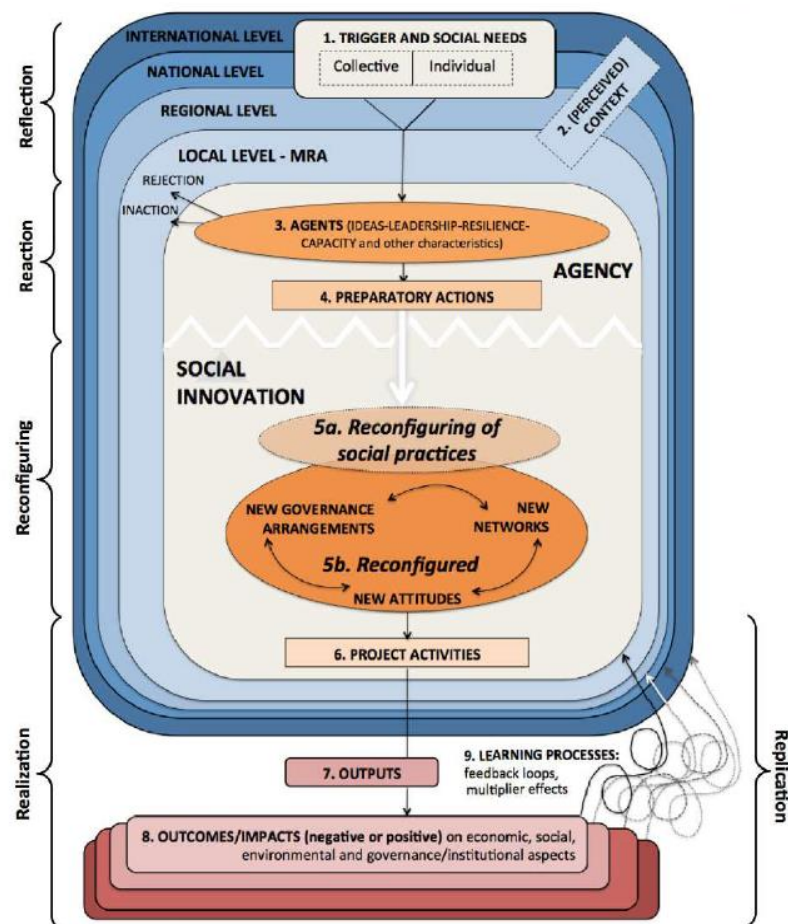


Figure 2. SIMRA evaluation framework proposed to evaluate social innovation and its impacts in rural areas (Source: Secco et al., 2017)

## 2.2. Amplification Processes

Various scholars often interchangeably refer to amplification concepts with the stage of *replication*, *amplification*, or *scaling* and locate it in different phases in the terminal part of innovation processes. Similar to studies on social innovation, interpretations of these concepts are diverse, and in most cases, overlapping. To begin with, *scaling* is a borrowed term from the manufacturing industry (Murray et al., 2010; Gabriel, 2014). The

modern dominant understanding of the concept stems from the industrial era in the 19<sup>th</sup> century, which is directed towards the thinking that “bigger is better” as indicated by commercial success (Gargani & McLean, 2017). In social entrepreneurship, it is associated with the diffusion of a program, product, or organizational model to new sites and populations (Dees et al., 2004; Mulgan et al., 2008 as cited by Moore et al., 2015). As an innovation process, Murray et al. (2010) also defined *scaling* closely with the concept of diffusion, or the spreading of an idea or practice, and identified it in between the stages of *Sustaining*, and *Systemic Change* (Figure 3).

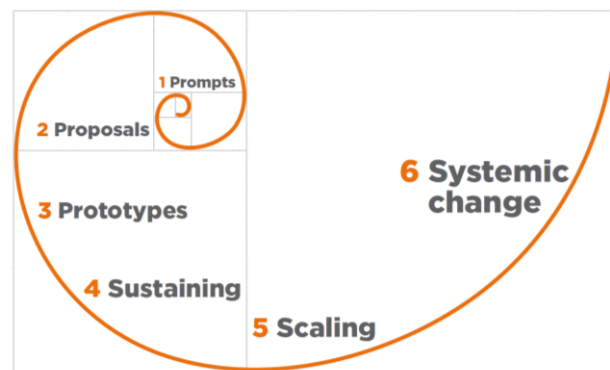


Figure 3. The Process of Social Innovation according to Murray (Source: Murray et al., 2010)

Likewise, Mulgan (2006) described *scaling up* as an innovation process at the stage where the practice can be grown, replicated, adapted, or franchised—the process which happens after the *Development, Prototyping, and Piloting* stages, and the phase before *Learning and Evolving* (Figure 4).



Figure 4. The Process of Social Innovation according to Mulgan (Source: own illustration based on Mulgan, 2006)

Another interpretation of amplification can be related to the growth of the impacts of development interventions, whether it happens within, outside, or beyond the sustainability initiative. Following the line of thinking of Lam et al. (2020), this research



utilized the term *amplification* instead of *scaling* to minimize the confusion associated with the latter, as it often connotes the process of moving to a higher level to increase impact (Cash et al., 2006 as cited in Lam et al., 2020). In their study, Lam et al. generated a typology of amplification processes based on carefully reviewed and selected studies on sustainability initiatives from the following frameworks: Strategies for Social Innovation (Moore et al., 2015), Seeds of a Good Anthropocene (Benett et al., 2020), Scale Dynamics (Hermans et al., 2016), Acceleration Mechanisms (Gorissen et al., 2018), Transition Management (Rotmans and Loorbach 2008) and Strategic Niche Management (Naber et al., 2017). It identified eight processes under three main categories: *Amplifying Within*, *Amplifying Out*, and *Amplifying Beyond* an initiative (Figure 5). To date, it is the most comprehensive typology in the available literature.

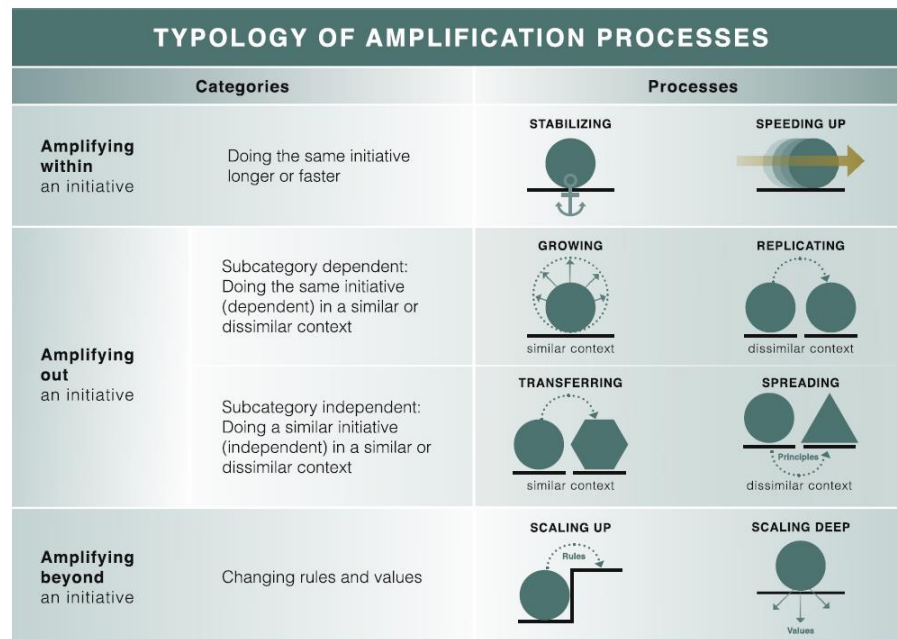


Figure 5. Eight amplification processes grouped into three main categories  
(Source: Lam et al., 2020)

As defined in the typology, *Amplifying Within* an initiative refers to doing the same initiative longer or faster and covers the processes of *Stabilizing* and *Speeding Up*. *Stabilizing* involves sustaining the impact within an initiative by capitalizing on its own resources, increasing its members and beneficiaries, and honing its skills. *Speeding Up* pertains to accelerating the pace of creating change by means of improving the efficiency of operations. *Amplifying Out* an initiative, which relates to doing the same initiative

(dependent or independent) in a similar or dissimilar context, includes the processes of *Growing*, *Replicating*, *Transferring*, and *Spreading*. *Growing* and *Replicating* are processes that are dependent on the originating initiative, which is implemented in a similar or dissimilar context, respectively. *Transferring* and *Spreading* are processes that are independent of the originating initiative, which is executed in a similar or dissimilar context, respectively. Finally, *Amplifying Beyond* an initiative is associated with the processes of *Scaling Up* and *Scaling Deep* which center on making impacts by changing rules or values. *Scaling Up* entails translating the impacts of initiatives into policy instruments (e.g., laws and institutions), while *Scaling Deep* implies changing the values, norms, and beliefs of people (Lam et al., 2020).

For emphasis, it is important to understand that *scaling*, or *amplification* in general, is not necessarily a normative goal. As Gabriel (2014) noted, some sustainability interventions may be “too context-specific” and not every innovator intends to grow their innovations. While this may be the reality for some, ideally, from a societal point of view, it would be beneficial to spread, extend, and nurture such initiatives to promote resource efficiency and cause greater societal impact.

### 2.3. Factors for the Amplification of Social Innovation Impacts

Studies in the field of social innovations and sustainability transformations have identified various amplification factors in diverse approaches and themes. Some have employed multi-factor assessments encompassing a wide range of factors, while others have defined categories either from an organizational, systemic, or institutional point of view. This section presents an overview of the relevant frameworks and factors for the amplification of social innovation impacts identified from six different approaches.

From a broad systemic perspective, Meadows (1999) introduced the concept of twelve “leverage points,” which posits that small shifts in a complex system can result in transformational breakthroughs. Reflecting on these leverage points, Abson et al. (2017) came up with four major system characteristics within which interventions can be made (from shallowest to deepest): (1) parameters, (2) feedbacks, (3) design, and (4) intent (Figure 6). According to them, *Parameters* cover the mechanistic characteristics which

include the taxes, subsidies, and related tangible elements of the system which are often the concern of policymakers. *Feedbacks* include the interactions that fuel the internal dynamics of the system. *Design* pertains to the institutions and social framework which include power, self-organization, rules, and structure of information flows. Lastly, *intent* relates to the goals, values, norms, and worldview of the actors that guide the emergent direction of the system's aims and inclination. Based on these characteristics, they noted that the capacity of an intervention to impact change is restricted by the hierarchy of the system. They also argued that focus should be directed towards the deep leverage points of the system and proposed a research agenda revolving around the following “realms of leverage”: *reconnecting people to nature; restructuring institutions; and rethinking how knowledge is created and used in guiding humanity towards sustainability* (Abson et al., 2017).

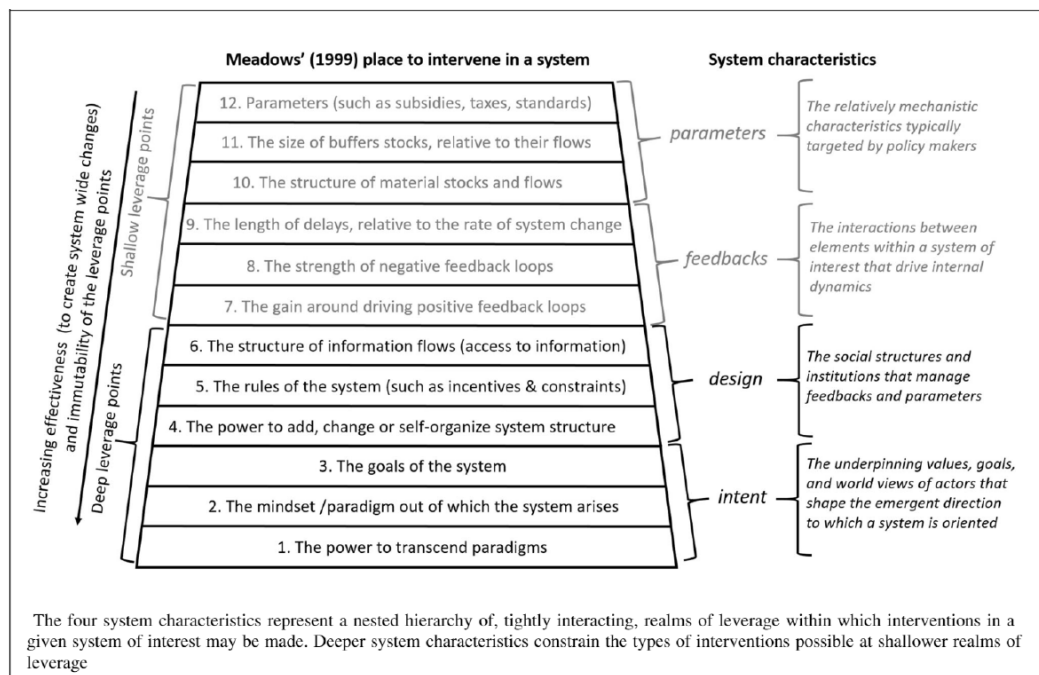


Figure 6. Leverage Points to Intervene in a System (Source: Abson et al., 2017)

In another systemic approach, Edquist (2005) described the *Systems of Innovation* (SI) as complex systems comprised of all the pertinent economic, social, political, and organizational factors that influence the pursuit of innovation processes. Several authors (Lundvall, 1992; Edquist, 2005; Grandstrand and Holgersson, 2020) identify organizations (i.e., “the players”) and institutions (i.e., the “rules of the game”) as the main components

of SI that function to develop, diffuse, and use innovations. Accordingly, these organizations do not innovate in isolation but rather interact and connect with other actors in a dynamic system that is characterized by multiple feedback loops and resource exchange. In addition, Edquist (2005) also highlighted competence building as a key activity in the SI and identified three kinds of learning in the approach: (1) *innovation*; (2) *research and development*; and (3) *competence building* (e.g., training and education). He emphasized the importance of not only addressing learning processes that result in product or process innovations but also the “widening” of knowledge infrastructure and learning in general.

Another broad classification of factors but with specificity to social innovations is Neumeier’s (2017) tiers of factors of success which cover (1) *factors important for the success of innovation processes in general*; (2) *factors that influence the room for social innovation actor-network to maneuver outside the innovation process itself*; and (3) *factors influencing the actual participation process*. In the general factors for the success of innovation processes, Neumeier refers to the work of Rogers (1983) who presented a theory on the adoption and diffusion of innovations. From his summary, the significant factors include:

- *relevant advantage*: the degree of the perceived relative advantage of the idea behind an innovation;
- *compatibility*: the degree to which an innovation is perceived as being consistent with existing values, experiences, and needs;
- *complexity*: the degree of simplicity and use of the idea behind the innovation;
- *trialability*: the degree to which an innovation can be experimented with on a limited basis; and
- *observability*: the degree to which actors are able to see or estimate potential results.

Relative to the factors that influence “room to maneuver”, Neumeier (2017) enumerated advantageous and disadvantageous factors external to the participating actor-network that explicitly shape the initiative. The factors he cited include the following:

- *funding*;
- *organizational structure*;

- *surrounding basic judicial conditions; and*
- *readiness of public administration to provide support and engage* (Neumeier, 2017).

Finally, with regard to the factors molding the participation processes, citing the studies of Pollerman (2004) and Fürst et al. (2006), he listed six key factors namely:

- *the commitment of the participating actors, and especially the continuity of the commitment;*
- *abilities and skills of the actors;*
- *organizational structure to ensure good communication and coordination;*
- *quality of the functional concept;*
- *climate of acceptance/cooperation; and*
- *access to financial resources.*

Specific to amplification processes, Han and Shah (2020), combined organizational and systemic factors to develop a framework called the “*Ecosystem of Scaling Social Impact*” (Figure 7). The framework encompasses *financing*, the *process of scaling* (i.e., strategies and access to data and technology), *government policy*, and *institutional infrastructure* as its essential elements. It underscores the importance of *government policy* and *institutional infrastructures* as crucial factors in fostering an enabling environment to scale impacts beyond organizational growth.

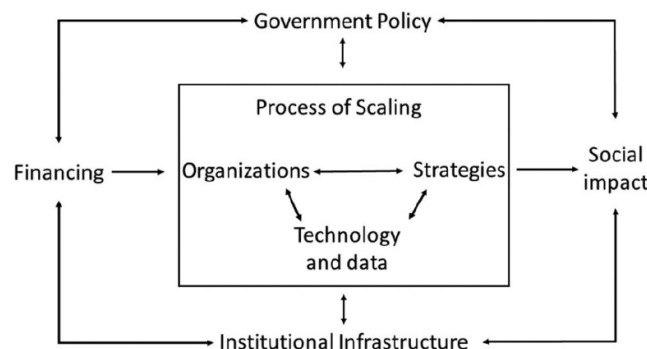


Figure 7. The Ecosystem of Scaling Social Impacts (Source: Han and Shah, 2020)

With the aim of developing different scaling strategies of social innovations to effect systemic impact, Moore et al. (2015) noted that the choice of scaling strategies of

organizations was dependent on multiple factors. In their study, which is rooted in the principles of strategic niche management (SNM), the critical factors that determine the scaling strategy of organizations include the (1) *founding conditions*, the (2) *context surrounding the issue*, (3) *access to resources and support*, (4) *choices about partners and strategies*, and the (5) *emergence of windows of opportunities* (e.g., political, cultural, social). The study mainly argues that as organizations go through intensive learning processes to effect systemic change, they employ a combination of scaling strategies rather than a single one (Moore et al., 2015).

From an institutional perspective, Lukesch et al., (2020) developed a heuristic model that delved into three important groups, their roles, and their interconnectedness which are entirely critical determinants for the success of social innovations (Figure 8). In the model, the *Trusted Core of Key Actors* pertains to the active promoters of the initiative, possessing different motivations and expertise, that function based on their level of trust in each other. *Intermediary Support Structure* refers to the mediating bodies between the policy level and the initiative that provide technical support, knowledge transfers, and interlinkages between actors. Lastly, the *Shadow of Hierarchy* comprises the relevant public actors with varying degrees of involvement, who utilize different mechanisms concerning legislative incentives and sanctions, encouragement, and control. Overall, the multi-actor model implies how political frameworks and policies influence the institutional ecosystem, particularly the development pathways of sustainability initiatives.

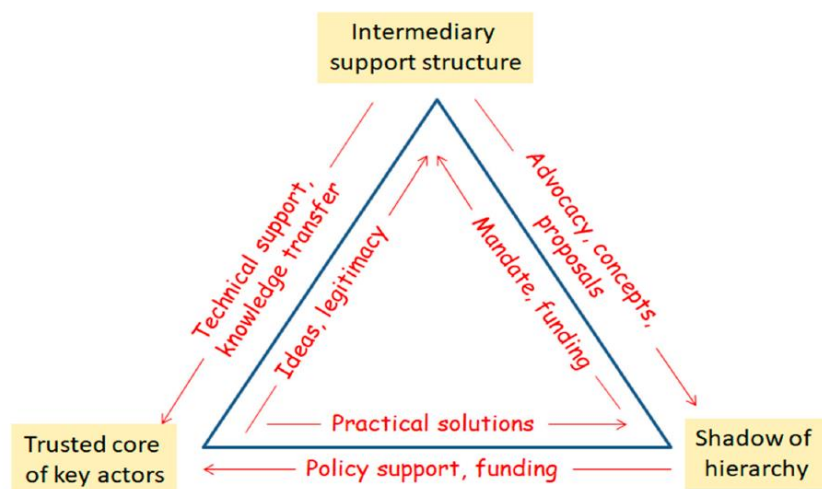


Figure 8: The Triad of Actors in Social Innovation (Source: Lukesch et al., 2020)

## 2.4. Conceptual Approach

Reflecting on the reviewed literature, this study builds a comprehensive framework called the “*Ecosystem of Amplifying Social Innovation Impacts*” (EASII) to explore the impact amplification process of social innovations through the integration of process and structure factors. In outline, the identified structure factors of the ecosystem are the *Actors* and *Interrelations*, while the process factors, which are arranged at a hierarchical level, include the *Motivation*, *Interactions*, *Knowledge*, and *Financing*. These factors are backed by *support structures* and *support mechanisms* that originate from and are instigated by external actors. The coalescence of all the elements contributes to the development of *amplification strategies* that pertain to the collective courses of action consciously developed by the actors to spread and nurture *impacts* within, outside, or beyond the initiative. Figure 9 illustrates the closely linked relations between the key factors and supporting elements.

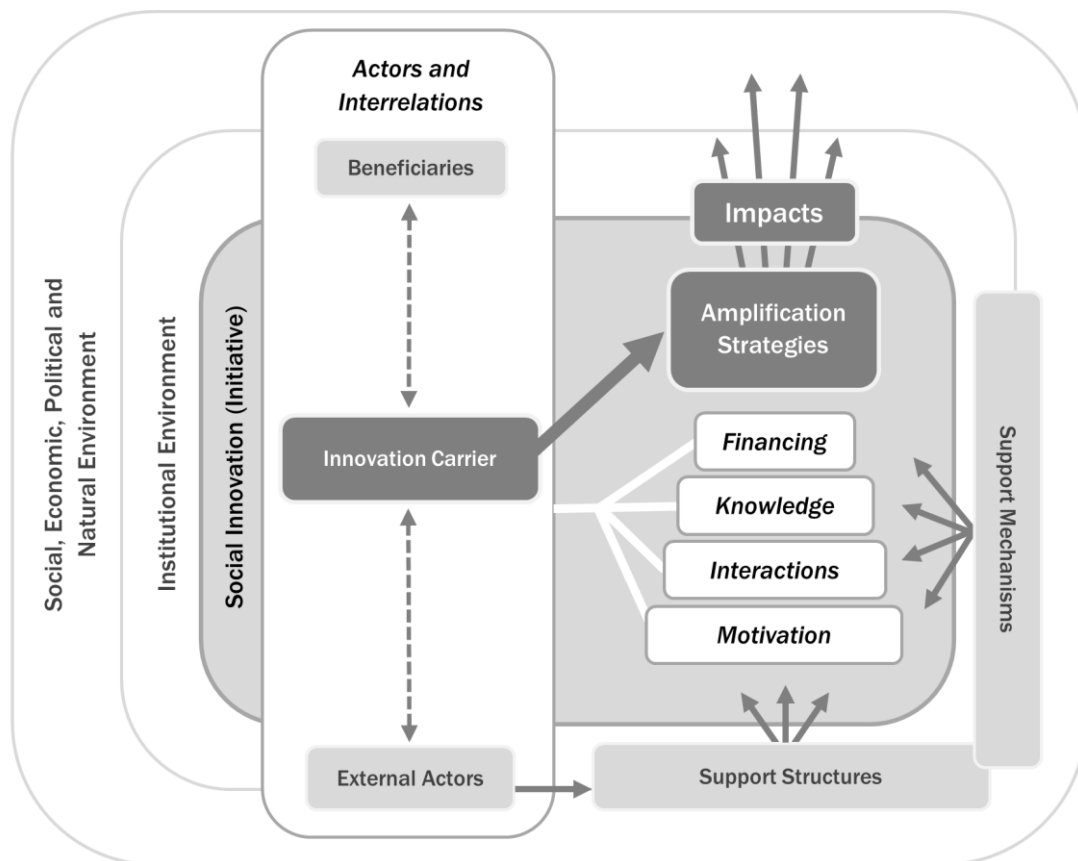


Figure 9: The Ecosystem of Amplifying Social Innovation Impacts (EASII). (Source: own design)

The proposed actor-centered framework is anchored in the *Systems of Innovation* (SI) of Edquist (2005) and the theoretical background of social innovation. Edquist (2005) described the SI with organizations and institutions as its main components that have varying set-ups and activities depending on the intended purpose or function. Following this line of thought, the *EASII* framework can be understood as a complex and dynamic system that comprises institutions (i.e., norms, rules, values, conventions) and organizations that collectively regulate and shape the structures and processes of amplifying social innovation impacts. The surrounding *Institutional Environment*, as well as the *Social, Economic, Political, and Natural Environment* sphere relate to all the relevant factors that influence the policies, programs, plans, strategies, and more importantly, the network of public and private actors who develop and carry out the innovation activities and instruments.

#### *Ecosystem Framework Elements*

- *Impacts* - *Impacts* pertain to the extended outcomes of a development intervention which could either be positive or negative, and intended, or unintended. Anchoring on the four-dimensional concept of sustainability (Valentin and Spangenberg, 2000; Spangenberg, 2007), these *impacts* may contribute to the social (i.e., human capital), economic (i.e., man-made capital), environmental (i.e., natural capital), and institutional (i.e., social capital) dimensions that promote sustainable forest management and further the achievement of sustainable development in general. For this research, when looking into this element, two levels of impacts are assessed: the achievement of goals on the project level and the spread of impacts beyond the initiative.
- *Amplification Strategies* - *Amplification strategies* relate to the actions purposefully crafted and executed by the innovation actors to grow and diffuse impacts. The strategies are described herein through the identification of the amplification direction based on Lam et al.'s (2020) typology and the analysis of how the impacts are spread. According to Lam et al. (2020), amplification may happen within, outside, or beyond the initiative. *Amplifying within* an initiative covers strategies that foster stability (i.e., *Stabilizing*) or fast-tracking of process (i.e., *Speeding Up*).



*Amplifying out* an initiative refers to strategies that lead to the diffusion of initiatives at the local, regional, national, or global level (i.e., *Growing, Transferring, Replicating, Spreading*). Lastly, *Amplifying Beyond* an initiative includes strategies that entail shifts in the roles and values either by growing into a higher level (i.e., *Scaling Up*) or by penetrating deep into changing the norms and principles (i.e., *Scaling Deep*) of the initiative.

- *Actors and Interrelations* - Actors or organizations lie at the core of the ecosystem which can be categorized into three major groups: (1) Innovation Carrier; (2) Beneficiaries; and (3) External Actors. In some cases, the roles of each group may overlap depending on the nature of the initiative (e.g., user-led innovations) and the arrangements set forth by the actors themselves. In general, the innovation carriers are the primary actors who are mainly responsible for the management of the operations of the initiative, the coordination between the beneficiaries and external actors, and more importantly, the development of its amplification strategies. Lukesch et al. (2020) referred to the *Trusted Core of Key Actors* as the active individual promoters of initiatives who function based on their relations or level of trust in each other. The primary actors also include the *clique* or the initial innovators and their followers which represent a sub-dimension of agency-actors (Secco et al., 2017). Another actor group is the beneficiaries who are the ones who gain, experience, or receive goods and services from the intervention. Lastly, the external actors, composed of public and private groups from different sectors, are organizations that may or may not directly influence the social innovation. The external actors who are linked to the initiative are engaged in terms of providing innovation support that may appear in different types (Weiss et al., 2017). Edquist (2005) enumerated a list of activities that are crucial in SIs, and among the ones that may be considered relevant to the role of external organizations include the provision of information and incentives, the creation and changing of organizations and institutions, and the networking among actors.
- *Interactions* – Organizations do not innovate in isolation but rather connect and interact with other groups in a complex system characterized by a dynamic exchange of benefits and multiple feedback loops (Edquist, 2005). In the

ecosystem framework, these interactions are associated with the existing connections and newly formed relationships that mold and influence the amplification processes. Citing several authors for the analysis of social innovations, Zantedeschi (2020) generated a group of key variables under the theme of positive interaction features:

- *Quality of relationships*: quality of the relations between actors and the support given to them by local stakeholders (Neumeier, 2017);
- *Acceptance*: climate of acceptance of the process by the actors and a climate of fair and constructive cooperation (Pollermann, 2004);
- *External Communication*: public relations and communication method (Pollermann, 2006); and
- *Outside Support*: support and commitment from partners outside the community (Nikula et al., 2011).

For clarity, the variable *outside support*, while included, is considered as part of the *support mechanisms* element in the framework.

- *Motivation – Motivation*, as a process factor, pertains to the purpose or drivers of the social innovation actors to ideate, innovate, and amplify. In Abson et al.'s (2017) interpretation of Meadows' (1999) concept of leverage points, *motivation* relates to the *intent* or the underlying values, goals, and worldviews of organizations that guide the emergent direction of the system. Further, as identified by Zantedeschi (2020) from a literature review on success factors for social innovation, some of the relevant positive variables that factor into the motivational aspect of social innovation processes include:
  - *Perceived advantage, benefit, and impact*: advantage of the idea perceived by the actors and perceived ability to benefit a group of people and to achieve social transformation (Rogers, 1983; Rodriguez Herrera and Alvarado, 2008; Buckland and Murillo, 2013);
  - *Compatibility*: the degree to which an innovation is compatible with existing experiences/needs/values (Rogers, 1983);
  - *Simplicity*: the degree of complexity or simplicity of the idea (Rogers, 1983);

- *Socio-emotional bonding*: socio-emotional bonding to the region (Neumeier, 2017); and
  - *Commitment*: the commitment of the participating actors, and especially the continuity of the commitment (Pollermann, 2004).
- *Knowledge* – The *knowledge* factor encompasses all the aspects related to learning. This covers the competencies, skills, backgrounds, and experiences of the actors both in terms of the administrative (i.e., organizational, and operational management) and the technical (i.e., scientific know-how) aspects that influence the governance of the initiative and the amplification of its impacts. Supplemental learning opportunities extended by external actors are considered as part of the *support mechanisms* element for this framework.
- *Financing* – Multiple studies cited by Han and Shah (2020) (e.g., Bloom and Chatterji, 2009; Bloom and Skloot, 2010; Grant and Crutchfield, 2005, Taylor et al., 2002; Bloom and Dees, 2008; Bloom and Smith, 2010; Ratliff et al., 2004; Moore et al., 2012; Geobey et al., 2012; Bacq and Eddleston, 2018) point out that financing is the most commonly identified driver to scaling social impacts. In the ecosystem framework, *financing* describes all of the financial aspects (i.e., source, scheme, status) necessary to facilitate the amplification process. For this framework, additional funding sourced from public and private organizations, which are exogenous to the initiative, is considered as part of the *support mechanisms* element.
- *Support Mechanisms and Support Structures* – Policies and political frameworks influence the development pathways of sustainability initiatives in the institutional ecosystem (Lukesch et al., 2020). Collectively, the actions executed by the external actors specifically for the initiative represent the elements of *support mechanisms* and *support structures* that contribute to the configuration of the amplification process. Support mechanisms relate to the assistance provided by public and private organizations on the process factors. *Support structures* such as advisory groups, funding organizations, and regional development authorities, among others, pertain to the existing structures in the ecosystem taking on the roles of extending information,

provision of incentives, and facilitation of networking (Edquist and Johnson, 1997). These functions were categorized by Ludvig et al. (2016) into three groups of support factors: information, coordination, and incentives (Edquist and Johnson 1997). Examples of these innovation support mechanisms include constitutional provisions, regulations, power delegation, formalized shared responsibilities, infrastructure investments, assistance to facilitate knowledge exchange, capacity building, and related stakeholder participation opportunities (Lukesch et al., 2020).

### 3. METHODOLOGY

#### 3.1. Research Approach

This study employed a qualitative approach to investigate the selected cases of forestry-related social innovations in Europe to explore how their impacts are amplified and to identify the factors that influence these processes. A qualitative approach allows for the exploration and understanding of complex situations in which the researcher interprets the meaning of the data gathered from the context or setting of the participant (Creswell, 2009). It also provides an open-ended and flexible strategy to delve into the underlying worldview, beliefs, and values of the social actors in the research environment (Azungah, 2018). With regard to the study design, this study utilized a combination of inductive and deductive approaches. The inductive approach is an iterative process of extracting ideas and interpreting meanings from the analysis of raw data (Neeley and Dumas, 2016; Thomas, 2006 as cited in Azungah, 2018) which is applied when little is known about the research topic; while the deductive approach is done to test and refine those generated theories and concepts (Creswell, 2009).

Primarily, for the development of the conceptual approach, a systematic literature review on social innovations and amplification processes was conducted. The initial synthesized understanding of the amplification strategies and the key process and structure factors that were generated from the collated literature served as the basis for building the *EASII* framework.

To apply the ecosystem framework and further examine the extent to which the identified factors are evident in the amplification process of social innovations, several case studies were conducted. Cases serve as crucial reference points for a holistic and detailed investigation of the identified research elements (Grinell, 1971 as cited in Kumar, 2011). The selected social innovation cases in the study were drawn from examples that have undergone successful amplification processes across Europe. For an in-depth level of investigation, problem-centered semi-structured interviews with the case representatives were administered. Semi-structured interviews permit the researcher to improvise follow-up queries and allow the respondents to express their worldviews and

contribute new interpretations on the topic (Galletta, 2013). Moreover, to supplement the findings from the interviews, document analysis was done from the additional data gathered from the case websites, reports, and related publications.

For the analysis of the case studies, the inductive approach allowed for a comprehensive evaluation of the initiatives through which new profound aspects were observed. Whereas, with reference to the developed ecosystem framework, the subsequent deductive analysis that was adopted made way for a structured identification of patterns in the factors that shape amplification processes and other findings that were substantially relevant to the study.

### 3.2. Selection of Case Studies

Polman et al.'s (2017) definition of social innovation was used as the primary guide for the selection of case studies. Based on the definition, a social innovation has to satisfy the following criteria:

- (a) a reconfigured social practice;
- (b) involves the engagement of civil society actors; and
- (c) responds to a problem that results in a societal impact.

With this in consideration, an initial pool of social innovation cases in the forest sector was sourced from the database of the European Union's Horizon 2020 SIMRA Project and examples from the 3rd International Forest Policy Meeting presentation on "The Role of Social Innovation for Sustainable Forest Management Policy Goals (Weiss et al., 2021)." Cases that were on the regional and national scale were selected to include the initiatives that have already undergone amplification processes and consequently learn from their experiences. These were then grouped according to their country and forestry-related goals.

Out of the primary list of ten cases that were contacted via electronic correspondence, three organizations have responded and agreed to participate in interviews. A brief description of the selected cases is listed in Table 1.

*Table 1. List of Social Innovation Cases*

<b>Initiative - Carrier</b>	<b>Country</b>	<b>Scale</b>	<b>Description</b>
1. Mosaico Project – University of Extremadura	Spain	Regional	Network of landowners and users implementing integrated “mosaic” landscape initiatives mainly formed for the mitigation of wildfire occurrence
2. Bergwald Project - Austrian Alpine Club	Austria	Cross-national	Volunteering project in Austrian mountain forest areas for the promotion of protection and conservation activities
3. Association of Austrian Nature Parks	Austria	National	Umbrella association founded for the general promotion and support of nature parks through the development of a shared nature park identity

### 3.3. Data Collection

To gain a comprehensive level of understanding of the selected cases, semi-structured interviews with the key informants from each organization were conducted during the summer of 2021. The same pre-formatted interview guide (Annex 1) containing open-ended questions that focus on the following topics was adopted for all of the cases:

- Background/Problem;
- Key Activities, Milestones, and Future Plans of the Initiative;
- Amplification strategies and changes that accompanied these processes;
- Relevant Innovation Actors and Partners (including their relationships);
- Knowledge/Learning and Financial Resources;
- Fostering/Supporting Factors and Challenges; and
- Insights and learnings from the initiative.

Given the pandemic-related travel restrictions, online video conferences were carried out to administer the interviews. Verbal consent to record the sessions, as evidenced by the obtained copy of the video files, was given prior to the interview proper. Details of the list of conducted interviews are summarized in Table 2.

*Table 2. List of interviews conducted for the study*

<b>Initiative - Carrier</b>	<b>Respondents</b>	<b>Date</b>	<b>Modality</b>
1. Mosaico Project – University of Extremadura	Fernando Pulido, PhD. <i>Project Manager</i>	08 July 2021	Online video conference, recorded
2. Bergwald Project – Austrian Alpine Club	Peter Kapelari, Dipl.-Ing. <i>Former Project Manager</i>	27 July 2021	Online video conference, recorded
3. Association of Austrian Nature Parks	Franz Handler <i>Managing Director</i>  Nina Zitz <i>Representative Project Coordination, Finance and Funding, International Cooperation, and Public Relations</i>	29 July 2021	Online video conference (joint interview), recorded

To enrich the findings from the interviews, document analysis from the additional data collected from the case websites, online reports, and other pertinent publications was also performed. Additionally, a site visit was conducted during one of the Bergwald Project's volunteering activity weeks in Mürzzuschlag, Styria, Austria in October 2021. While there were no interviews held, the photographs taken from the participant observation were used as supplemental materials for the study.

### 3.4. Data Analysis

Interviews of the key informants were transcribed and utilized as the primary source of data for the study. These findings were supplemented with the analysis of documents from online publications and relevant reports from the selected cases. Results were then organized in a case report format to present the findings mainly for each of the structure and process factors of the ecosystem framework. In the results, the identified support structures and mechanisms were integrated with their corresponding related factor to address the overlapping features and minimize the repetition of information. These reports were structured as follows:

- a. Background and Problem
- b. Description of the Initiative



- c. Impacts
- d. Amplification Strategies
- e. Actors and Interrelations
- f. Interactions
- g. Motivation
- h. Knowledge
- i. Financing
- j. Fostering Factors and Challenges
- k. Conclusions.

To extract knowledge from the case findings, the study combined inductive and deductive approaches. The inductive analysis allowed for comprehensive case investigations and open-ended interpretations; whereas, the deductive analysis made way for a structured process of narrowing down the observations and patterns for each of the cases. Primarily, the comparative analysis was conducted to test the applicability of the proposed analytical framework. The joint analysis covered a discussion on the Amplification Strategies and Impacts, the Structure and Process Factors, the Fostering Factors and Challenges, and the Key Leverage Points for Reinforcing Impact Amplification to answer the research questions and further synthesize the case findings. Final reflections were then consolidated in a concluding figure that reflects the structure and process factors of the framework in relation to the identified key leverage points and the ways to support the impact amplification of social innovations.

## 4. RESULTS

### 4.1. Mosaico Project (Spain)

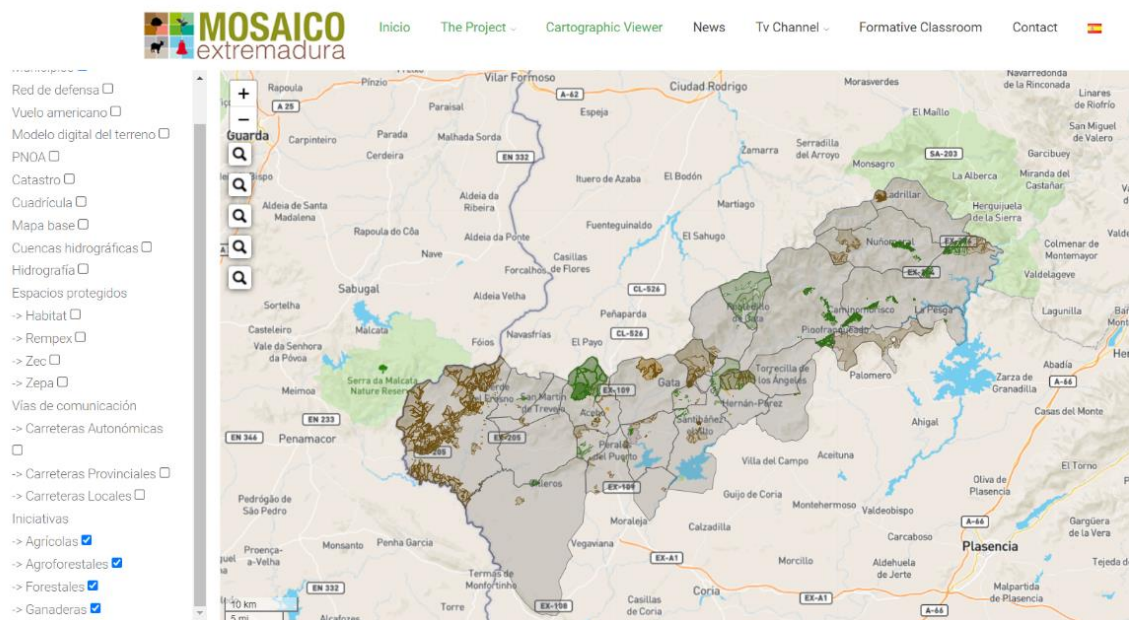
#### A. Background and Problem

The Mediterranean Region, which has over 75 million hectares of forests and other wooded lands, is facing a number of threats such as land-use change and intense summer droughts (FAO and Plan Bleu, 2018). In Spain, particularly in the Extremadura region, wildfire is considered the most important agendum which is caused by multiple interrelated issues like rural migration, land abandonment, and improper land management. In 2015, after the occurrence of a major forest wildfire extending to approximately 8,000 hectares in northern Extremadura, the Regional Environmental Agency of Extremadura (*Junta de Extremadura*) reached out to the experts from the academe to come up with a potential solution to address the issue (Int 1). Recognizing the need for collaborative efforts towards landscape management to combat the occurrence of forest wildfires in the region, the University of Extremadura proposed the creation of an umbrella network of landowners and users in the area, later known as the *Mosaico Project*. The initiative champions participatory and active management through the introduction of agroforestry landscape mosaics and grazing interventions which include cropping, livestock husbandry, and various forestry practices to reduce fuel loads in unproductive areas.

#### B. Description of the Initiative

In 2016, an agreement was signed between the University of Extremadura and the Government of Extremadura (*Junta de Extremadura*) for the implementation of the 2-year Mosaico Project in Las Hurdes and Gata in the Extremadura region (Figure 10) (Junta de Extremadura, 2016). Based on the agreement, the innovation carrier, represented by the University of Extremadura, acts as an advisor and educator for the established network of landowners and users in the community to promote land productivity through the transformation of

forests and farm areas into agro-silvo-pastoral “fire-smart” (i.e., strategically fire-resistant) landscapes. The project stimulates engagement with the farm owners, forest holders, and other interested local groups by gathering their proposals related to agroforestry, livestock, and pasture management which may be sent through their official website ([mosaicoextremadura.es/en/the-project](http://mosaicoextremadura.es/en/the-project)) or in the mailboxes situated in each of the participating municipalities (Int 1). The team reviews these proposals and extends technical assistance (e.g., capacity building, advisory services) for the implementation of activities from inception to implementation. Additionally, they serve as intermediary actors linking public and private organizations and the local community of landowners and users throughout the entire process (Int 1).



*Figure 10. Map of the Mosaico Project sites in Plasencia, Extremadura (Source: Mosaico Extremadura, 2021)*

While the Mosaico Project is not a fully bottom-up intervention, the initiative nevertheless fits the criteria of social innovations based on the definition of Polman et al. (2017). This can be observed in the practice of gathering ideas and proposals from the participatory network of landowners or the beneficiaries themselves, and the co-development of the activities with the innovation carriers to achieve an economically productive and fire-resistant landscape for the community.

### C. Impacts

The project was conceptualized with the primary goal of mitigating forest wildfire occurrence through agroforestry landscape interventions considering that conventional firebreaks and preventive forestry measures have been insufficient in dealing with this longstanding regional issue. While it was intentionally designed to achieve environmental impacts, social and economic benefits were also experienced by the community which can be attributed to the participatory nature of the project. As of January 2018, the established network includes 150 projects which encompass 20,000 hectares of land management (Database: Social Innovations in Marginalised Rural Areas, 2021).

Based on the interview with Dr. Fernando Pulido, coordinator of the Mosaico Project, aside from the prevention of forest wildfires, project interventions cover the provision of assistance for the implementation of revenue-generating enterprises from cultivation, grazing, or extraction of forest products. The locally produced goods from the livestock and non-wood forest product projects such as processed meat, cheese, and yogurt from goats, olive oil, honey, and pollen from bees are all “fire-labeled” or branded with the Mosaico Project label, which accordingly provides a sense of belonging for the network members (Int 1). Additionally, the implementation of these initiatives facilitated the capacity building of landowners to be transformed from mere producers into marketers. As claimed by the project, community empowerment is also felt as observed in the migration of new locals to the region. Ultimately, there has also been an increase in awareness and community participation towards a shared goal. Dr. Pulido best described his experience with the project as follows:

*“For me... I have the feeling that we have changed the attitude of the local people. There is a process of empowerment [...] in the sense that they have more capacity to make their own decisions and not only rely on the government.”*

Inadvertently, the initiative also functions as an innovation hub or a local knowledge repository as it collects proposals from the community which is crucial for documentation and information sharing among key stakeholders. Data from the project website revealed that it has received 166 proposals, 78 of which are

classified under forest and agroforestry interventions (Mosaico Extremadura, 2022).

#### D. Amplification Strategies

As a regional initiative, the project started working with 24 municipalities in two small areas in Cáceres, Extremadura, specifically in Sierra de Gata (19 municipalities) and Las Hurdes (5 municipalities) in 2016. Due to its success, nine municipalities classified as high fire risk areas caused by land abandonment and improper land management were included as additional project sites after two years (Int 1). Based on the typology of amplifications of Lam et al., (2020), the strategy employed by the project can be mainly identified as *Amplifying Out: Growing*, which means that the innovation impact is spread by doing the same initiative under the same context and is dependent on the original carrier. Additionally, it can be also said that the project adopted *amplification strategies within the initiative* through *Stabilizing* considering that after the first two years of its initial implementation, it began to independently seek supplementary funding and resources to further sustain its interventions.

With regard to the future plans, for the next two years, the project aims to continue growing its impacts through the creation of a network of organizations implementing similar initiatives located in other wildfire-prone areas in Spain and Portugal (Int 1). This implies a progression towards the application of more amplification strategies which will depend on the forthcoming project developments.

#### E. Actors and Interrelations

The core actors of the project are the University of Extremadura, the Regional Government of Extremadura (*Junta de Extremadura*), and the landowners and users. Based on the project agreement, the University acts as the carrier organization responsible for the implementation of the activities parallel to the following project objectives: identification and mapping of human and natural resources; fostering a participatory process and local network of agroforestry

managers; designing and planning of firebreaks; formulation of fire prevention strategies; and development of action and monitoring plan. In addition, the University also serves as the intermediary body linking the local partner-beneficiaries or the landowners and users to public and private organizations. The local partner-beneficiaries are supported by five technicians of the project team who have been hired to provide support for the realization of their proposed community interventions (Int 1).

To facilitate the implementation of the project interventions, the Regional Government provides financial and institutional support to the carrier organization and the local partner-beneficiaries. Supplemental assistance from other inter-sectoral state partners specified in the project agreement comes from the Ministry of Environment and Rural, Agrarian Policies and Territory of the Board of Extremadura (*Consejería de Medio Ambiente y Rural, Políticas Agrarias y Territorio de la Junta de Extremadura*), Directorate-General of the Environment (*Dirección General de Medio Ambiente*), and the Department of Agronomy and Forestry Engineering of the University of Extremadura (*Departamento de Ingeniería, Medio Agronómico Forestal del Centro Universitario de Plasencia*).

#### F. Interactions

Trust between the beneficiaries and the carrier was gradually built by the project team since the inception phase through the conduct of a series of stakeholders' consultation meetings to identify the local needs and wildfire causes, cultivate ideas, level-off expectations, and form networks. The implementation of the initiative paved the way for the creation of an association of *Mosaico* farmers (e.g., trees and vegetable growers, goat herders, shepherds, forest managers) and to date, it is composed of more than 300 members (Int 1). In this participatory bottom-up approach, Dr. Pulido emphasized the maintenance of an "open and relaxed" environment for the continuous establishment of rapport with the community. Related hereto, the acceptance of the locals to the intervention was identified as a success factor that enables the project to sustain and extend its duration (Int 1). In terms of the relationship between the Regional Government of

Extremadura and the carrier, their degree of connection has been direct especially since both are public organizations. As for the marketing activities and external communications with the public, a number of publication information materials, agro-silvo-pastoral educational tools, and press releases can be accessed on the official project website of *Mosaico*, which also acts as the main channel where farmers and other interested landowners may submit their proposals for landscape management.

#### G. Motivation

The primary motivation for the development of the initiative was to address the occurrence of forest wildfires in the region through the creation of a network of landowners and users collaborating on the establishment of fire-smart landscape mosaics (Int 1). Furthermore, based on the project agreement, part of the underlying objectives of the initiative is to build an understanding of the factors causing forest fires to reduce risks and develop strategies anchored in the investments of the rural development program of the region.

As more farmers and landowners become aware of the results of the project, additional nine municipalities were included as project sites after two years of implementation. While there were no changes in the structure of the project, the expansion to new municipalities posed some challenges to the operations especially since the additional areas have less population and lack sufficient local labor resources (Int 1). The LIFE Programme of the European Union has co-financed these new activities of the project to provide support tools and payment for hiring technicians (Int 1). Accessing new modes of funding and support from external organizations has therefore been noted as a motivation of the initiative to grow its impacts.

#### H. Knowledge

According to Dr. Pulido, experts from the University of Extremadura have already been working on special agroforestry techniques with a specific focus on mountain forest ecosystems in Spain and Portugal in the last decades due to the

frequent occurrence of huge wildfires. Most of the technical extension services (e.g., advisory services, capacity building) are directly provided by the University, and should there be a need for additional support, the project outsources experts from the US, Germany, and other regions experiencing similar forest fire problems (Int 1). In addition, since the approach is participatory in a way that proposals are collected from the community itself, local agroforestry knowledge is incorporated into the developed landscape strategies. Supplemental technical assistance is also provided by the government partners from the different sectors mentioned in the agreement.

## I. Financing

During the initial stage of the initiative, an agreement was signed between the Regional Government and the University of Extremadura, with support from the European Agricultural Fund for Rural Development (EAFRD), to finance the project for two years; and because of the continued success of the project, it was extended for another two years until September 2021 (Int 1). From the initial agreement, the Regional Government-Ministry allotted a total amount of €409.641,87, wherein 75% is co-financed by the EAFRD. According to Dr. Pulido, additional funding from four other different agencies was also sourced by the University to continue the initiative and be self-sufficient. Two are financed by the EU LIFE Programme, and the remaining are from national and regional funding sources. From their assessment, for every euro provided by the regional government, they are able to source approximately three euros (Int 1). According to the interview, the coordinator also believes that while the initiative can now function independently, the Regional Government will continue to be interested in financially supporting its activities in the succeeding years.

## J. Fostering Factors and Challenges

When asked about the fostering factors and challenges, Dr. Pulido mentioned that he perceives the initiative as a “heroic project,” considering the several issues they encounter from stringent bureaucratic measures. From their experience, a typical permit application process goes through three to four



government agencies, which in effect causes delays relative to the overall implementation of project interventions. Additionally, inappropriate laws and outdated policies have also been mentioned to limit their operations. If addressed, they believe that the efficiency could be increased by two or three folds. Moreover, the traditional perspective of some forestry stakeholders from the government and forest companies who are inflexible in the idea of adopting new and alternative silvicultural techniques is being experienced as an issue (Int 1).

In terms of fostering factors, the coordinator believes that the climate of acceptance of the local community towards the initiative has been the key, as the prevailing forest problems were deeply understood and experienced by the farmers themselves. Initially, project demo sites in some areas were also witnessed by the local community which eventually aided in the instant replication of more landscape interventions (Int 1).

## K. Conclusion

The Mosaico Project is a regional network of landowners and users primarily established to mitigate the occurrence of forest wildfires through the introduction of agro-silvo-pastoral mosaic landscape interventions. The initiative adopted a combination of amplification strategies (i.e., *Amplifying Out: Growing* and *Amplifying Within: Stabilizing*) and fused local and expert knowledge to sustain the effective transformation of unproductive areas into fire-smart landscapes. The identified fostering factor for the amplification of impacts is the local acceptance of the initiative brought about by the strong rapport of the core actors and the combination of participatory and bottom-up approaches of the project. Essentially, this has also led to the empowerment and change of the values of the local partner-beneficiaries. In addition, the internal consciousness of the actors to amplify the impacts of the initiative was noted, driven by the perceived benefits of acquiring additional support coming from external organizations. The main challenges observed were the complex institutional bureaucracy, stringent policy measures, as well as the traditional perspective of some actors which caused limitations and delays in the project operations.

## 4. 2. Bergwald Project (Austria)

### A. Problem and Background

The Austrian Alpine Club (*Österreichischer Alpenverein*) is the largest organization of mountaineers in Austria with more than 600,000 members to date. It was established in 1862 to advocate for the protection of alpine ecosystems and promote mountain sports in the country. Through the years, the organization grew further as it continued to introduce activities for the public to participate in. One of these activities is the *Umweltbaustellen* (“Environmental Construction Sites”), an initiative focused on various landscape restoration activities for the youth (Int 2). As the public interest and the demand to be engaged in mountain forest activities increased, the organization decided to adopt the Mountain Forest Project concept from the Swiss *Bergwaldprojekt* in 2001 to cater to participants from other age groups such as the children and elderly. The Swiss *Bergwaldprojekt* was established in 1987 as a non-profit foundation in Trin, Graubünden that aims to promote conservation and protection through practical work engagements with the public (Bergwaldprojekt Schweiz, 2021). Based on the Bergwaldprojekt Schweiz website (2021), to date, the project continues to actively spread around the mountain forests of Switzerland, Germany, Austria, Catalonia, and Liechtenstein.

While the same name and goals of the Bergwald Project were embraced by the Austrian Alpine Club, the overall management of operations and finances is being independently handled by the club; although to ensure quality management, coordination with the original project carrier is continuously being practiced (Int 2). In 2001, the first workshop for the project was held in Ginzling, Tyrol, Austria. Actors present at the beginning of the initiative were internal members of the club with forestry backgrounds and a number of foresters from a Tyrolian forest protection project in the government who were personally known by Mr. Peter Kapelari, Project Manager of the Bergwald Project (as of interview proper) (Int 2). Initially, the Austrian Alpine Club aimed to offer five mountain forest project weeks and its long-term goal was to have 10 project weeks all over the country. After three years, the organization was able to offer additional five weeks and another five in the fifth

year, summing up to roughly 20 weeks of volunteering project activities in a year. Eventually, the club decided to offer only a maximum of 20 project weeks per annum to effectively manage the logistical and labor requirements as well as to maintain the demand for the public to participate (Int 2).

## B. Description of the Initiative

The Bergwald Project is a volunteer-driven initiative that invites any interested individual to voluntarily participate in week-long conservation and protection activities to help improve the stability and vitality of mountain forest ecosystems. In a given year, the Austrian Alpine Club opens up around 15 to 20 mountain forest project weeks from April to October where a volunteer can only participate for a maximum of 2 weeks in order to cater to more interested individuals (Int 2). The practical experiences offered by the project range from the maintenance of alpine pastures, sweeping shrubs, removal of small trees, construction of hiking paths (Figure 11), and even include media-related assignments for documentation and publicity (Alpenverein Akademie, 2021). As for the volunteers, joining a project week does not require any form of payment. In fact, participants are provided with the basic needs (e.g., food, accommodation, insurance) for the activity and are awarded with a certificate of participation at the end of each project week.



*Figure 11. Volunteers installed wooden planks on an old hiking trail to improve public access. (Source: own photo, 2021)*

Based on the abovementioned description, the Bergwald Project aligns with the criteria of Polman's notion of a social innovation. The mountain forest protection and conservation initiative led and joined by volunteer individuals is a clear example of a participatory bottom-up intervention that has not only contributed to promoting ecological benefits but also espoused social inclusivity and public awareness. As observed, aside from the practical experience, the initiative has also allowed its participants to have an opportunity to interact and foster mutual partnerships with project experts, forest owners, media organizations, and other key partners of the project (Int 2).

### C. Impacts

As published on the club website, the Bergwald Project intends to achieve the following main goals: (1) address mountain forest issues; (2) foster mutual relationships among stakeholders; (3) increase public awareness through media; and (4) provide practical experience to volunteers (Alpenverein Akademie, 2021). When referring to the stated goals, it can be said that the impacts clearly relate to environmental, social, and institutional dimensions of sustainability. Principally, the initiative created an informal but inclusive platform for forest stakeholders to convene and interact, most specifically for the forest enthusiasts and the landowners, who in nature, are often in conflict when it comes to the use of ecosystem services. In the interview, Mr. Kapelari also mentioned that the Project aspires "*to have viewable results*" and gave emphasis on delivering tangible and visible outputs in collaboration with media organizations. Publicity partnerships as such have essentially contributed to increasing the environmental awareness and maintaining the interest of the public from all age groups to be engaged in forest volunteering activities as evidenced by the continued high demand for participation and the renewed collaborations with forest owners and farmers.

### D. Amplification Strategies

The original Mountain Forest Project (*Bergwald Projekt*) in Switzerland was established in 1987 as a non-profit foundation in Trin, Graubünden to promote the conservation and protection of mountain forest landscapes (Bergwaldprojekt

Schweiz, 2021). In 1991, the first project weeks in Germany were held, and in 1997, over 50 project weeks were conducted including in Austria (Bergwaldprojekt Schweiz, 2021).

In 2001, the same name and goals of the initiative were eventually adopted by the Austrian Alpine Club, and they started implementing project weeks in the succeeding year. According to the interview, the overall management of the finances and operations is independently executed by the club, although to maintain standards, the quality management aspect is jointly coordinated with the Swiss team. In its first year of adoption, project weeks were held in five different places (i.e., Tyrol, Upper Austria, Styria, Carinthia, Lower Austria), unlike in Germany or Switzerland which often conduct initiatives in one area. Another difference that was mentioned was that the Austrian Bergwald Project does not charge any participation fees for the volunteering activities (Int 2).

With this in consideration, based on the typology of amplifications of Lam et al., (2020), the main strategy employed by the project can be identified as *Amplifying Out: Transferring*, which means that the innovation impact is spread by doing the same initiative under the same context but independent of the original carrier. However, prior to the *Transferring* process, it can also be stated that the project went through several growth phases to spread its impacts and has adopted other types of amplification strategies. For instance, in the original Swiss Project, *amplifications within the initiative* through *Stabilizing* have contributed to its further diffusion to other mountain forest areas as seen through the growth of its members and the partnerships formed with other organizations in different countries. Likewise, the process of *Stabilizing* was also observed in the expansion of the *Umweltbaustellen* program of the Austrian Alpine Club to accommodate *Bergwaldprojekt* activities and a wider demographic of volunteer participants. With regard to future plans for amplification, the Austrian Alpine Club intends to find new sites to work, reach new partners, and engage more individuals to sustain the interest of the public, the organization, and more importantly, its impacts (Int 2).

## E. Actors and Interrelations

The innovation carrier, the Austrian Alpine Club (*Österreichischer Alpenverein*), is a non-government organization that manages, implements, and coordinates all of the activities of the Bergwald Project in partnership with the concerned forestry stakeholders and state authorities. The club was established in November 1862 to advocate for the protection of alpine ecosystems and promote mountain sports in the country (Alpenverein Österreich, 2012). It is comprised of 195 sections and regional associations, headed by a governing body with responsibilities focusing on the following areas: Public Relations, Spatial Planning, Nature Conservation, Huts, Paths and Cartography, Culture, Science, PES Glacier Measurement Service, Mountain Sports, Seniors, Alpine Club Youth and Academy, and Finance (Alpenverein Österreich, n.d.).

The partners involved for each project week and the modes of collaboration vary from one activity to another. Project activities are typically implemented by the club in close collaboration with the forest owners, farmers, local authorities, media organizations, and experts from the forest administration (Int 2). Broadly, considering the nature of the initiative, the beneficiaries of the project are the volunteers, forest owners, farmers, as well as the club itself. The volunteers mainly benefit from gaining experience in contributing practical mountain forest work while the farmers and forest owners also receive support in the maintenance of their respective forest and pasture areas. In some way, the club also benefits from the conservation and protection of mountain forest areas for recreation as a result of the fostered mutual relationships among the concerned actors through the project.

With regard to the external actors, based on the club website, specific partners of the project include the Regional Forest Directorate – Tyrol (*Landesforstdirektion Tirol*), Wittgenstein Forest Administration (*Forstverwaltung Wittgenstein*), Austrian Federal Forests (*Österreichische Bundesforste*), Torrent and Avalanche Control (*Wildback-/Lawinenverbauung*), Provincial Forest Service – Carinthia (*Landesforstdienst Kärnten*), Hohe Tauern National Park, Tyrolean Forest Association (*Tiroler Forestverein*), Austrian Agricultural Ministry (*Lebensministerium*), Swiss Bergwald Project (*Bergwaldprojekt Schweiz*), and the

Province of Upper Austria (*Land Oberösterreich*) (Alpenverein Akademie, 2021). Aside from state authorities, the club also collaborates with local broadcasting companies and other media organizations to help spread information and promote awareness of the initiative (Int 2).

## F. Interactions

The operation of the Bergwald Project is highly volunteer-driven and its implementation arrangements vary depending on the nature of the mountain forest activities. Throughout the years of its operation, the quality of the relationship with the stakeholders is continuously reinforced through the promotion of shared responsibilities. The preparation and implementation of the project activities allow the concerned volunteers, farmers, forest owners, experts, state authorities, and media organizations to be collaboratively engaged in the entire process. Cost-sharing for the materials, food, and accommodation for the volunteers is also generally practiced and agreed upon by its key partners (Int 2). Figure 12 shows a glimpse of a gathering of volunteers during a project week in a forest in Mürzzuschlag, Styria.



*Figure 12. Volunteers gather on the constructed hiking trail in Mürzzuschlag  
(Source: own photo, 2021)*

Accordingly, the acceptance and reception of the public with regard to the project implementation is seen as good, as evidenced by the high demand for



participation and the expansion of project offerings to approximately 20 weeks in a given year. In the interview, it was also mentioned that the club has a higher preference to work with individual participants rather than groups as they perceive it to be more sustainable, and yields a wider audience reach. To be more inclusive, from 2005 to 2012 the organization has also opened some project weeks that were made available for handicapped people. In 2006, family projects where children aged six and up can participate and work with the senior groups were also introduced (Int 2).

In relation to strengthening external communications and marketing, the Austrian Alpine Club also offers volunteering slots for media practitioners to participate in every project week (Alpenverein Akademie, 2021). This is in addition to the collaboration of the club with the local media to directly feature the actual onsite project activities (Figures 12 and 13). The club also consistently advertises and posts multiple publications on its official website ([alpenverein.at](http://alpenverein.at)) and magazine to update the public and its members about the accomplishments and activities of the organization (Int 2).



*Figure 13. Media interview with a broadcasting company during a project week in Müzzzuschlag (Source: own photo, 2021).*

## G. Motivation

The primary motivation for the amplification of the Bergwald Project impacts is anchored in the protection and conservation of mountain forest landscapes



through practical involvement and public awareness-raising. The intent to amplify was driven by the need to foster inclusivity and cater to the growing demands of the public to participate in volunteering activities (Int 2). According to Mr. Kapelari, it is a “good experience” for them to be implementing the Bergwald Project in collaboration with national parks, nature parks, and other similar institutions as these partnerships yield positive results and good publicity for the club and its other initiatives.

#### H. Knowledge

Relative to the implementation of the Bergwald Project in Austria, the key actors present during its preliminary phase were members of the club with forestry backgrounds, including Mr. Peter Kapelari, Project Manager of the Bergwald Project (at the time of the interview) who also has previous working experience in the implementation of various mountain forest projects under the Tyrolian government and several people from his network (Int 2). Moreover, the simplicity of the concept and the mechanics of the initiative (i.e., replicability aspect) also gave way to the smooth adoption of the project from the originating Swiss organization.

In terms of the implementation of practical work in the field, activities for each sub-project such as the construction of trails and paths are also simple and straightforward. Volunteers are assisted and briefed based on the internal knowledge and skills of the club members who have been involved with the organization and projects for years and mountaineering activities and external experts are only outsourced as the need arises (Int 2). Overall, as a mountain sports-oriented and volunteer-driven organization, members of the Austrian Alpine Club come from different sectors possessing a diverse set of backgrounds. Based on their official website, the structure of the club indicates expertise in different areas covering the conservation and protection of alpine and mountain forest ecosystems and the management of the organization in general (i.e., Spatial Planning, Nature Conservation, Huts, Paths and Cartography, Culture, Science,

PES Glacier Measurement Service, Mountain Sports, Public Relations, Finance) (Alpenverein Österreich, n.d.).

## I. Financing

The Austrian Alpine Club itself, as a solid and longstanding association, has good financial elasticity and has the capacity to sufficiently sustain its organizational activities (Int 2). Generally, its funds are sourced from membership fees and partnerships with public and private organizations. As for the implementation of the Bergwald Project, only minimal financing is required. Typically, cost-sharing is practiced for all the project operations depending on the agreement between the concerned parties. Funding is mostly shouldered by the landowners considering that they also benefit from the support from the government for forest protection and maintenance measures (Int 2). Ultimately, supplemental support is extended by the concerned local government and state conservation authorities for each specific project week.

## J. Fostering Factors and Challenges

The main fostering factor identified by Mr. Kapelari is the strong media coverage (e.g., TV and radio advertisements, newspaper clippings) aspect which leads to higher public awareness and local acceptability of the Bergwald Project. The wide reach of the organization's magazine, which is written for more than 850,000 people, including their presswork initiative, has also made it easier for the club to find new clients and partners. In addition, working with individual volunteers instead of groups has made the project participation more diverse and sustainable (Int 2).

When asked about the challenges, one of the issues that were reported during the interview was related to the openness or the hesitancy of the forest owners, farmers, and other landowners to collaborate as there were doubts about the quality of work of the volunteers, especially in new project sites. Another issue that was mentioned in the preliminary stage of adopting the project was the traditional perspective of some club members who raised the idea that mountain

forest ecosystems are already outside the scope of concern of the alpine association (Int 2).

## K. Conclusion

The Bergwald Project case shows the importance of social sports clubs in terms of engaging the public relative to the protection and conservation of mountain forests ecosystems. Through the initiative, the Austrian Alpine Club had been instrumental in directly involving individuals to participate in mountain forest interventions while fostering mutual relationships with key forestry stakeholders from the public and private sectors.

As observed, the case underwent several growth phases and employed a combination of amplification strategies (i.e., *Amplifying out: Transferring* and *Amplifying Within: Stabilizing*) to effectively spread its impacts. A huge factor that contributed to the successful amplification of its impacts was the strong media coverage which facilitated the visibility of the results of the communal forest protection activities. Additionally, it was noted that the replicability aspect of the concept as well as the perceived multiple benefits that can be achieved from the adoption of this simple intervention aided in the diffusion of the innovation and eventually the nurturing of its long-term outcomes. While there were no major impeding factors reported, the initiative considers gaining trust from potential participating partners, especially the forest owners and farmers as an inevitable challenge especially in introducing activities in new project sites.

### 4.3. Association of Austrian Nature Parks (Austria)

#### A. Background and Problem

To date, there are a total of 48 nature parks in Austria (Figure 14), covering approximately 6,120 km<sup>2</sup>, characterized by a variety of cultural landscapes (Association of Austrian Nature Parks, 2021). Prior to the foundation of the Association of Austrian Nature Parks (*Verband der Naturparke Österreichs* or VNÖ) in 1995, there was no existing cooperation between the administrations of the local nature parks and the implementation of their activities. These local nature parks independently operate under nine different laws and regulations for nature conservation, depending on which federal state they belong to.

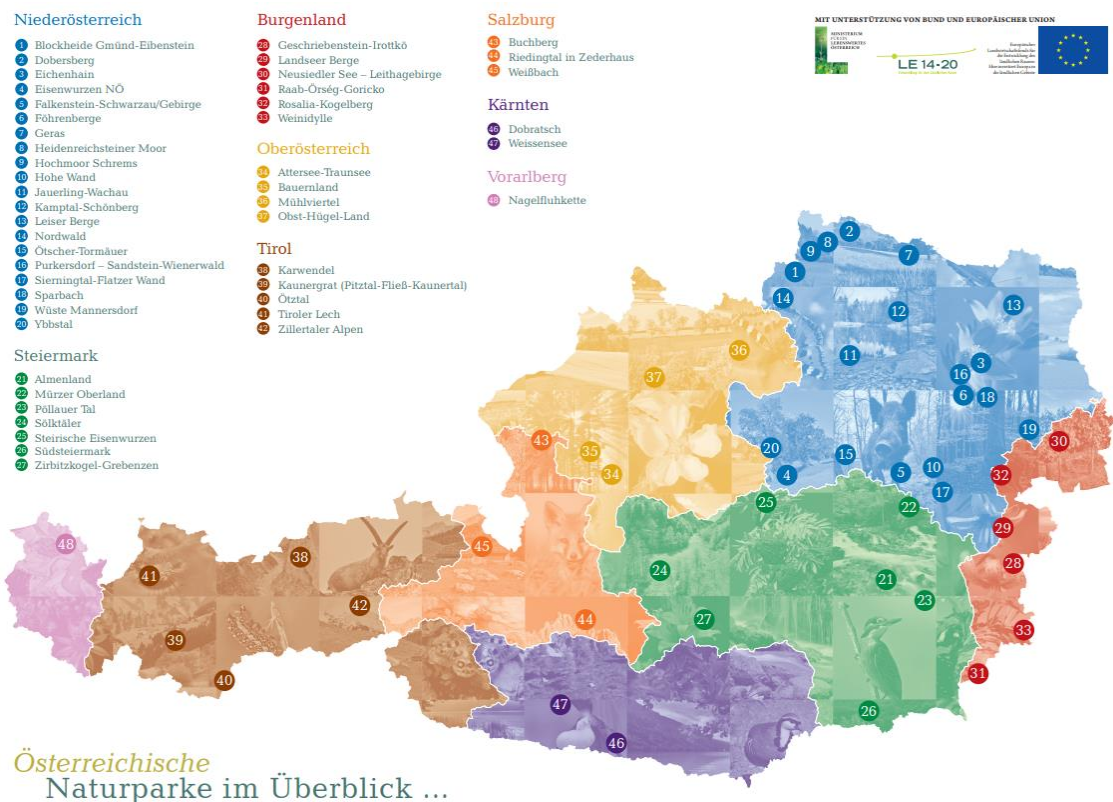


Figure 14. Overview Map of Austrian Nature Parks  
(Source: Association of Austrian Nature Parks, 2021)

Mr. Franz Handler, the current managing director of the Association of Austrian Nature Parks, was a former consultant in tourism and regional government in 1993, and the nature park in Styria wanted to craft a development concept for

the region (Int 3). During this time, it was noted that there was a lack of awareness concerning the activities being done by nature parks in the other federal states. This has led to the development of the state of the art on Austrian nature parks and triggered discussions relative to the establishment of the umbrella association with support and approval from members of nature conservation federal state authorities (Int 3).

## B. Description of the Initiative

The Association of Austrian Nature Parks is an umbrella organization that advocates for a shared identity of a nature park guided by four key pillars: protection, recreation, education, and regional development. Its main tasks include fostering cooperation with local and international organizations and building networks among potential partners (Association of Austrian Nature Parks, 2021). As it champions sharing a common vision, it strives to ensure that sustainability strategies and policies at the EU and international level are streamlined to the local nature park plans through co-development and the conduct of joint marketing activities (Int 3). Other responsibilities of the association also cover representing Austrian nature parks in national and international engagements, advancing research activities through grant projects with the Austrian Federal Forests, and implementing various interventions to protect and maintain biodiversity in each region (Association of Austrian Nature Parks, 2021).

Based on the interview, one of their main projects is the “Nature Park Specialties” which started with Christmas parcels and gift boxes containing local products from farmers. When it grew, the association and the farmers subsequently agreed to create the concept and the brand of “Nature Park Specialties” not only to sell local goods such as pine liqueur, cider, jams, game meat, and other non-timber forest products but also to showcase sustainable agriculture and promote cultural landscapes. Broadly, the initiative fosters network expansion and cooperation within the region alongside ensuring that the unique cultural features of each nature park landscape are equally represented.

### C. Impacts

Primarily, the foundation of the umbrella association paved the way for the creation of an independent and non-state entity that opened up multiple external opportunities for the local nature parks. The association did not only allow the local nature parks to secure additional funding for the implementation of their initiatives (Int 2), but it also served as a platform for knowledge sharing and network building with new partners. Fundamentally, fostering mutual relationships among different stakeholders with conflicting interests was reinforced through the development of a shared nature park identity that is anchored on their agreed key principles. Based on their official website, a rural region is responsible for the awarding of a “nature park” title and it should strive to espouse the following purposes: (1) protection and advancement of the landscape; (2) creation of recreational opportunities; (3) ecological and cultural educational offers; and (4) promotion of sustainable regional development. According to the accounts from the interview, aside from the promotion of integrated regional development through the introduction of recreational and educational activities, and the streamlining of EU-level strategies on biodiversity and climate change, other milestones achieved by the association include the strengthened joint coordination of marketing and extension of financial and technical initiatives (e.g., capacity-building, nature park research grants). Moreover, in the economic aspect, rural employment opportunities in agriculture and tourism and additional revenue from the “Nature Park Specialties” were provided for the communities.

### C. Amplification Strategies

The foundation of the umbrella association is a clear demonstration of upscaling wherein a new form of an institution was established. In Lam et al.’s (2020) typology, the case specifically exhibited an *Amplifying Beyond: Scaling Up* strategy in which the norms and rules are altered. The amplification of the impacts of the initiative required the movement to a higher level of structure as well as changes in its scope and organizational dynamics especially since it aimed to create a shared vision and integrate EU sustainability strategies across the local nature parks. Additionally, after the adoption of the upscaling strategy, the

introduction of new joint projects such as the “Nature Park Specialties” in their framework can also be recognized as an ongoing process of *Stabilizing* or impact *amplification within* the association. Hence, in this case, the continuous progress and diffusion of impacts have been a result of a combination of amplification strategies. In the future, based on the interview, the umbrella association plans to forge more partnerships locally and internationally to sustain its growth.

#### D. Actors and Interrelations

The Association of Austrian Nature Parks (VNÖ) is the umbrella organization of nature parks and the carrier of the initiative itself. As previously mentioned, its responsibilities as an independent organization include representing local Austrian nature parks in national and international engagements, advancing research activities through research funding projects with the Austrian Federal Forests, and implementing various interventions to protect and maintain biodiversity in each region (Association of Austrian Nature Parks, 2021) in addition to its main role of championing a common vision and identity of a nature park in the country. Members of its advisory and decision-making board are representatives from federal states and experts in the field of tourism, forestry, agriculture, and nature conservation (Int 3). In context, its main beneficiaries are the local nature park members, farmers, and forest owners.

Key actors critical to its foundation are the local nature parks and members of nature conservation federal state authorities who provided financial support for the initial development project of the association (Int 3). Some of its cooperation partners from the public and private sectors include the following: Federal Ministry of Agriculture, Regions and Tourism (Bundesministerium Landwirtschaft, Regionen und Tourismus); Office of the Burgenland Provincial Government (Amt der Burgenländischen Landesregierung, Abteilung 5 – Anlagenrecht, Umweltschutz und Verkehr, Hauptreferat Natur- und Umweltschutz); Office of the Carinthian Provincial Government (Amt der Kärntner Landesregierung, Abteilung 8 – Umwelt, Wasser und Naturschutz, Unterabteilung Innovation und Konzepte); Office of the Lower Austrian Provincial Government (Amt der Niederösterreichischen Landesregierung, Abteilung Naturschutz); Office of the Upper Austrian Provincial

Government (Amt der Oberösterreichischen Landesregierung, Abteilung Naturschutz und Abteilung Wirtschaft); Office of the Salzburg Provincial Government (Amt der Salzburger Landesregierung, Abteilung Natur- und Umweltschutz, Gewerbe); Office of the Styrian Provincial Government (Amt der Steiermärkischen Landesregierung, Abteilung 13 – Umwelt und Raumordnung, Referat Natur- und Umweltschutz); Office of the Tyrolean Provincial Government (Amt der Tiroler Landesregierung, Abteilung Umweltschutz); Office of the Vorarlberg State Government (Amt der Vorarlberger Landesregierung, Abteilung Umwelt- und Klimaschutz); and several other environmental networks and climate alliance groups (Association of Austrian Nature Parks, 2021).

#### E. Interactions

Based on the interview, admittedly, it took a few years for the local nature parks to clearly appreciate the purpose of the foundation of an umbrella association considering that crafting a common nature park identity is not perceived as a “real benefit” or a tangible output. In the beginning, external support from the local state authorities was gathered to aid in financing the basic development project of the association (i.e., the formation of a shared vision), and trust among the member nature parks and concerned partners was continuously built throughout time (Int 3). At present, as an independent and non-state organization, the association still does not have any direct authority to govern the local nature parks and only functions as a coordinator of the joint initiatives and the representative for national and international engagements concerning nature park developments (Int 3). In a way, it acts as an intermediary body that enables local nature parks to access external opportunities and form new collaborations with other local and international stakeholders spanning NGOs, educational institutions, forest companies, landowners, and other experts in the fields of tourism, agriculture, nature conservation.

With regard to the external communication aspect of the association the strong joint marketing can be widely observed on their official website and publication materials from brochures, studies, conference results, books, videos, and newsletters. Published studies, for instance, are done in collaboration with their



partner nature park schools which cover topics on biodiversity, sustainable development, ecotourism, nature protection, and regional development.

#### F. Motivation

As mentioned in the interview, in the beginning, the motivation to scale up was driven by the agenda to create an integrated regional nature park strategy. Discussions with the local nature parks triggered a collective realization of the potential benefits of founding an independent association in terms of tapping external opportunities. These perceived advantages include forging new local and international partnerships and more importantly, gaining access to financial grants, especially since funding has been a challenge for all the local nature parks (Int 3). Relative hereto, the current self-sufficiency status of the umbrella association and its existence for almost three decades indicate a strong commitment to the engagement and its endurance to sustain the amplification of its impacts.

#### G. Knowledge

The umbrella association has a coordination group comprised of internal officers and representatives of the civil service who are in charge of coordinating with federal states and advisory boards of experts in tourism, agriculture, and nature conservation (Association of Austrian Nature Parks, 2022). Based on the official website, its team handles concerns relative to project coordination, public relations, nature park schools and kindergartens, nature and landscape communication, finance, research funding, international cooperation, and employment projects. Largely, the multi-sectoral backgrounds, expertise, and composition of the coordination group and its team member, in addition to its partnerships with local landowners and international organizations, have aided in the successful and continued implementation of its initiatives.

#### H. Financing

Based on the interview, the initial funding to finance the fundamental common project of the association (i.e., development of common nature park

identity and identification of four pillars) was sourced from the local federal states. Over time, the income for the implementation of organizational activities is being generated from the membership fees of individual nature parks, and from different public and private financial institutions. According to Ms. Nina Zitz, a finance representative of the association, some of their projects are funded through national and regional programs supported by the EU (e.g., LEADER, EAFRD), which implies that approximately 99% of their finances come from the public.

## I. Fostering Factors and Challenges

When asked about the fostering factors relative to the successful scaling up of the association and its impacts, Mr. Handler and Ms. Zitz pointed out the importance of building a common vision and fostering solid networks with various stakeholders. Although as expected, it was not a simple task to do in the beginning. As reported, considering the stark differences in the landscape characteristics and features of the local nature parks, crafting the shared identity, and conveying its importance had been the main challenges especially since the impacts of the initiative were not tangible. Further, the association, as an independent entity does not possess any actual authority indicating its limited influence over its members. Another challenge mentioned in the interview is the prevailing differences in the federal state laws and policies that govern each region. Operations-wise, navigating under eight different federal laws translates to the need for a great extent of coordination to harmonize interests, gather funds, and manage a large group of people. Additionally, at present, the arrival of a new generation of internal members and authorities who are unfamiliar with the processes and dynamics of the association is also seen as a critical challenge in sustaining the initiative. Nevertheless, in terms of moving forward, the association perceives its independent legal entity status as its strength since it allows for greater autonomy, stability, and a higher likelihood of perpetual succession (Int 3).

## J. Conclusion

By *amplifying beyond (Scaling Up)*, the establishment of the Association of Austrian Nature Parks gave rise to the formulation of a shared vision that integrated

the plans and frameworks of its members and allowed for the greater mainstreaming of sustainability strategies. Its introduction of new joint projects and activities across the local nature parks also implied the ongoing adoption of *amplification strategies within* the association and hence, the continuous growth and diffusion of its impacts.

As reported, the coordination and implementation of the state-wide initiatives of the umbrella association came with a number of organizational and institutional challenges. Aside from dealing with the harmonization of varying federal-state policies as well as the conflicting goals and interests of various stakeholders, the association continues to face challenges pertaining to handling large-scale internal operations (e.g., human resources, financing) and the arrival of a new generation of management. Nonetheless, the establishment of the organization as an independent entity paved the way for more mobility for its members especially in accessing external opportunities and support for additional funding and technical assistance at national and international levels.

## 5. COMPARATIVE ANALYSIS

### 5.1. Amplification Strategies and Impacts

The cases exhibited three varying impact amplification strategies in different scales and results and provided a general idea of the rigorous growth and development processes undergone by the initiatives in the multidimensional and complex ecosystem. As a reference for further delving into the impact amplification strategies, a consolidated overview analysis is presented in Table 3.

Table 3. Overview Analysis of Impact Amplification Strategies

Mosaico Project	<b>Primary Goal</b>	mitigation of forest wildfire occurrence in Extremadura, Spain			
	<b>Main Amplification Strategy</b>	Amplifying Out: Growing (carrier-dependent, similar context; regional) *additional: Amplification Within: Stabilizing; Amplification Beyond: Scaling Deep			
	<b>Main Impacts</b>	<i>Social</i>	<i>Environmental</i>	<i>Economic</i>	<i>Institutional</i>
		network formation  educational opportunities	landscape management and wildfire mitigation	revenue generation for farmers and landowners	increased capacities and environmental awareness  rural migration  innovation hub/ database dev't
Bergwald Project	<b>Primary Goal</b>	protection and conservation of mountain forest ecosystems			
	<b>Main Amplification Strategy</b>	Amplifying Out: Transferring (independent, similar context; cross-national) *additional: Amplification Within: Stabilizing; Amplification Beyond: Scaling Deep			
	<b>Main Impacts</b>	<i>Social</i>	<i>Environmental</i>	<i>Economic</i>	<i>Institutional</i>
		recreational and educational volunteering opportunities	mountain forest protection and management		increased public participation and environmental awareness  formation of mutual partnerships
Association of Austrian Nature Parks	<b>Primary Goal</b>	creation of a shared identity of Austrian nature parks			
	<b>Main Amplification Strategy</b>	Amplifying Beyond: Scaling Up (state-wide/national) *additional: Amplification Within: Stabilizing; Amplification Beyond: Scaling Deep			
	<b>Main Impacts</b>	<i>Social</i>	<i>Environmental</i>	<i>Economic</i>	<i>Institutional</i>
		network formation  recreational and educational opportunities	integrated landscape conservation	revenue generation for farmers and landowners	establishment of an independent entity  common vision dev't and state-wide cooperation  streamlining of EU sustainability strategies

With regard to the amplification direction or the main type of amplification strategy employed by the cases, the Mosaico Project, and the Bergwald Project amplified their impacts through *Growing (Amplifying Out)* and *Transferring (Amplifying Out)*, respectively, to address environmental issues by means of increasing social engagements and participation. Whereas, the Association of Austrian Nature Parks, amplified its impacts through *Scaling Up (Amplifying Beyond)*, to streamline sustainability strategies and promote state-wide cooperation by means of establishing a new form of institution. Further evaluation of the cases showed that as the initiatives go through amplification processes, they contribute to multiple sustainability dimensions and adopt a combination of amplification strategies.

To put into context, the primary goals of the cases initially targeted addressing a single sustainability dimension (i.e., environmental for Mosaico Project and Bergwald Project, and institutional for the Association of Austrian Nature Parks), but inevitably, as social innovations, the initiatives have progressed into spreading broader societal impacts. In pursuit of achieving the primary goals, based on the findings, all of the cases have also employed *amplification strategies within the initiative*. In reality, initiatives continuously undergo processes of *amplification within* to ensure their viability. To a great extent, the case examples are constantly adopting the process of *stabilization* since they continue to capitalize on their human resources (e.g., growing the number of members or beneficiaries, honing skills, and competencies, and getting support from other organizations) (Lam et al., 2020) while deepening their contributions to multiple sustainability dimensions.

Reflecting further on the cases together unfolded a new insight that relates the impacts of the initiatives to the adoption of a deeper level of amplification. Considering the institutional impact of the initiatives with regard to the reported changes in the behavior and values of their partners and beneficiaries, it can also be said that all of the cases have *amplified beyond* through the process of *Scaling Deep*. In the Mosaico Project, for instance, community empowerment was observed through the increased participation, improved decision-making skills of the landowners, and the movement of new locals back to the rural areas. Similarly, in the Bergwald Project, effecting behavioral change was seen in the maintenance of the high demand for volunteer participation of the public. Finally, in the case of the Association of Austrian Nature Parks, its impacts relating to the

development of a shared identity and its continuous implementation of joint activities despite the differences in the landscape features and federal policies of its members demonstrated a clear shift in the perspective and values of its key actors.

Seemingly, these findings suggest that effective impact amplification entails: (1) the adoption of a combination of amplification strategies; (2) the employment of constant amplification processes within the initiative; and (3) the shift in the behavior and values of innovation actors (i.e., scaling deep). This aligns with the study of Moore et al. (2015) who argued that as organizations go through intensive learning processes to effect systemic change, they employ a combination of scaling strategies rather than a single one. More importantly, this also relates to tapping onto the *intent*, which is considered the deepest leverage point of intervention that encompasses the worldviews, values, and goals of the actors that influence the emergent direction of a system (Meadows, 1999; Abson et al., 2017). Ultimately, the results substantiate the value of social innovation relative to the achievement of sustainability goals and essentially demonstrate its capacity to drive transformative breakthroughs (Haxeltine et al., 2016; Avelino et al., 2019).

## 5.2. Structure and Process Factors

Table 4 summarizes the highlights from the structure and process factors that influence the development of the impact amplification strategies based on the case findings. The factors are aggregated into three major groups in the joint analysis to synthesize the observations from the closely interlinked features.

*Table 4. Summary of Structure and Process Factors*

	<b>Mosaico Project</b>	<b>Bergwald Project</b>	<b>Association of Austrian Nature Parks</b>
<b>Actors and Interrelations</b>	multi-sectoral composition	multi-sectoral composition	multi-sectoral composition
	strong relationships	strong relationships	strong relationships
<b>Interactions</b>	effective marketing and external communications	effective marketing and external communications	effective marketing and external communications
<b>Motivation</b>	address environmental issues and access external opportunities	address environmental issues and promote inclusivity	establish a shared identity and access external opportunities
<b>Knowledge</b>	presence of internal experts	presence of internal experts	presence of internal experts
	external experts tapped from the formation of partnerships		external experts tapped from the formation of partnerships
	local knowledge from the community incorporated		
<b>Financing</b>	combination of multiple sources	combination of multiple sources	combination of multiple sources
	self-sufficient	self-sufficient	self-sufficient

### *Actors, Interactions, and Interrelations*

Generally, it was observed for all the cases that the actor composition was multi-sectoral. New forms of partnerships were established with varying degrees of relationships, which paved the way for traditional and non-traditional forestry state actors to convene together and foster mutual collaborations. The presence of support structures and the participation of external actors coming from different sectors has been important in ensuring that all activities, from decision-making to planning and implementation, espouse an integrated form of management. These cross-sectoral collaborations have

also been critical to redressing gaps in service provision (Buckland and Murillo, 2013). Relative hereto, the actor-centered ecosystem framework emphasized the importance of the roles of the three main actor groups, especially the carrier organizations, in the entire impact amplification process. As central actors, the carriers did not only perform operational management functions but also took on intermediary roles, linking public and private organizations to the beneficiaries and other key actors. Essentially, the observed level of organizational maturity and sense of agency of the carriers have been vital in sustaining the gains of the initiatives and in safeguarding their viability.

Another common narrative that was observed was the process of gradually building trust and rapport among the core actors to gain the acceptability of the initiative. Establishing trust is essential in terms of homogenizing behavior (Ostrom and Walker, 2003 as cited by Lukesch et al., 2020) and in minimizing complexities in interactions (Luhmann, 1984 as cited by Lukesch et al., 2020). The Mosaico Project and the Association of Austrian Nature Parks, for instance, did this through the continuous involvement of their local partners, especially in the initial phases of the innovation development. For the Mosaico Project, they underlined the need for maintaining a relaxed and open environment to make the landowners and users experience a sense of belongingness. The Bergwald Project on the one hand capitalized on its media coverage and strengthened its external communication interventions to promote its visibility by broadcasting the experiences of its beneficiaries to a wider audience. Finally, the Association of Austrian Nature Parks focused on joint communication activities to showcase the uniqueness of the cultural landscape of its member parks and market the variety of their goods and services. Broadly, these experiences denote the significance of forming robust partnerships that enable the sharing and exchange of resources and having access to a supportive intersectoral network of actors that stimulates participatory interventions.

### *Motivation*

As impacts mostly relate to intangible results (e.g., changed behavior, increased knowledge and awareness, improved stakeholder relationships) they often encompass the behavioral aspects and are therefore attached to the values, beliefs, needs, and



interests that appeal to the emotions of the actors. As such, to facilitate impact amplification, it is imperative to have a holistic understanding of the needs, more specifically the drivers of issues in the local context. In the case examples, through consistent consultation meetings, the carrier organizations were able to gather firsthand insights concerning problems in the locale and consequently stimulated awareness among the concerned stakeholders. Evidently, the process of conducting participatory dialogues has contributed to championing ownership of the initiatives and built on the commitment of the beneficiaries to engagement.

Another critical factor that has motivated and engaged the key stakeholders to further spread impacts was the visibility of the results and perceived advantages of the initiative. From the literature, Zantedeschi (2020) identified the *perceived advantage, benefit, and impact* variable as one of the key positive motivational aspects that influence the adoption of social innovations. The perceived benefits, especially in terms of gaining additional funding support from external organizations in the cases of the Mosaico Project and the Association of Austrian Nature Parks, have been important triggers to encourage local partners to be fully on board with the interventions. Moreover, the desire to collectively address ecological issues and social demands was noted, again indicating the intrinsic consciousness of the core actors to respond to needs, more specifically to ideate, innovate, and amplify the long-term benefits of their respective initiatives. As also observed earlier, in the concept of leverage points of Meadows' (1999) and Abson et al.'s (2017) interpretation thereof, this characteristic relates to the *intent*, which pertains to the deepest intervention area covering the underlying values, goals, and worldviews of the actors that influence decision-making in the system.

### *Financing and Knowledge*

Access to financial and knowledge resources is critical for the operationalization of amplification strategies. With regard to financing, all cases have demonstrated outsourcing of funds from public and private sectors to augment their internal resources. Securing funds from multiple sources has allowed for greater mobility and self-sufficiency of the initiatives especially when it came to expanding to new project sites and introducing more interventions to grow their impacts. EU-sponsored programs (e.g., LEADER,

EAFRD) and private partnerships, for instance, have significantly supported the development activities of the Mosaico Project and the Association of Austrian Nature Parks, whereas cost-sharing schemes with public and private organizations and local forest owners have notably assisted the volunteer-led interventions of the Bergwald Project. In the aspect of competencies, having both administrative and technical knowledge and skills is essential in facilitating and executing amplification strategies. Aside from possessing a sense of agency, the expertise of the carrier organizations relative to extending technical assistance (e.g., capacity building on forestry or enterprise development) to the beneficiaries has been observed across the cases. The presence of intersectoral experts within the core group of actors has also been instrumental in the successful handling of administrative and operational aspects relative to nurturing their impacts.

### 5.3. Fostering Factors and Challenges

Table 5 presents a summary of the fostering factors and challenges based on the case findings. The analysis hereafter incorporates the observed supporting elements that influenced the amplification processes of the initiatives.

*Table 5. Fostering Factors and Challenges to Impact Amplification*

	<b>Mosaico Project</b>	<b>Bergwald Project</b>	<b>Association of Austrian Nature Parks</b>
<b>Fostering Factors</b>	climate of acceptance of the beneficiaries towards the initiative  regional and local governmental support  motivation for seeking funding opportunities  visibility of results  community empowerment	strong media coverage/visibility of results  replicability of the initiative  existing demand and interest of the public to participate in mountain forest activities	unified vision and mission  collaborative networking  motivation for seeking additional funds and other opportunities
<b>Challenges</b>	state bureaucracy and outdated policies  traditional perspective of some actors	traditional perspective of some actors	differences in federal-state laws and policies  traditional perspective of some actors

When asked about fostering factors that facilitated the development of amplification strategies, central to the responses from the interviews was the acceptability of the initiatives amongst their partners. Acceptability mainly links to the interactions and interrelations in the ecosystem and implies the importance of fostering strong network partnerships built from mutual trust. Additionally, this also relates to the visibility of the results of the initiatives and the positive perception of the public brought about by the joint marketing and external communication activities led by the carrier organizations. With regard to supporting elements, it was observed that support mechanisms and support structures have significantly aided in building the competencies and in increasing the mobility and self-sufficiency of the carriers, especially in terms of executing and sustaining their amplification strategies. All cases constantly engage in coordination meetings with their advisory boards, composed of members coming from the federal ministries, local state authorities, research organizations, funding agencies, and related NGOs. As mentioned in the reports, the Mosaico Project and the Association of Austrian Nature Parks have also benefitted from receiving funding support from regional EU Programmes such as the EAFRD and LEADER.

In connection to the approach, the employed participatory and combined top-down and bottom-up schemes by the carriers have also effectively promoted a sense of ownership and empowerment amongst the beneficiaries. Essentially, embracing inclusivity has supported in addressing the challenges concerning the traditional perspective and the resistance of certain stakeholders to the amplification processes. This is important considering the lack of instruments or incentives dealing with resistance or barriers to change in the forest sector (Rametsteiner and Weiss, 2006). Aside from the traditional perspective, another major challenge specific to the case of the Mosaico Project was the issue of bureaucracy in the processing of state permits which affects the overall operational efficiency of the initiative. Institutional barriers as such have been a common longstanding issue that is largely linked to the existing policy gaps and outdated forestry state laws. Given that public policy shapes public behavior, more systemic support mechanisms addressing these institutional barriers should therefore be made available to further advance impact amplification strategies.

#### 5.4. Key Leverage Points for Reinforcing Impact Amplification

Applying the *EASII* framework facilitated a new understanding of the existing structure and process factors that influence the resulting combination of amplification strategies of social innovations. It captured a snapshot of the complex and closely interlinked relationships of the organizations in the multidimensional innovation environment. Analysis and reflections from the actor-centered framework surfaced two key leverage points for reinforcing the successful amplification of impacts. As illustrated in Figure 15, the first leverage point (internal) is for the innovation carriers to develop a strong sense of agency to ideate, innovate, and amplify, and the second (external) is for them to foster robust relationships across the entire network of organizations in the ecosystem.

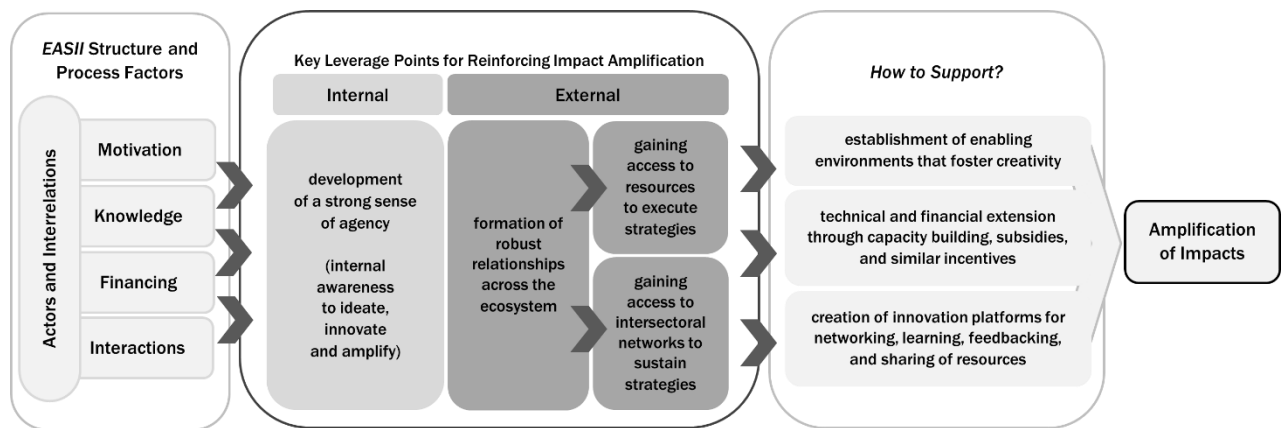


Figure 15. *EASII* Framework factors, key leverage points, and support needed for the amplification of social innovation impacts (Source: own design)

Both leverage points relate to the theoretical background of social innovations which center on its collectivist attribute and the aim to address societal issues. To expound, the strong sense of agency is fundamentally linked to the *motivation* or the *intent*, the internal and the deepest intervention point among the process factors which encompasses the worldviews, norms, and values of the actors that drive their courses of action (Meadows, 1999; Abson et al., 2017). For policy and institutional actors, supporting this would require an enabling environment that cultivates creativity to develop the internal awareness of the actors.

The second and outward-bound key leverage point is the formation of robust relationships across the network of actors in the ecosystem. Forging strong partnerships is vital in ensuring the viability of the initiative and in securing supplemental support for the development and implementation of amplification strategies. Two sub-intervention points are associated hereto: (1) gaining access to knowledge and financial resources, which connect to the *knowledge* and *financing* factors; and (2) gaining access to intersectoral support networks, which tie up with the *interactions* and *interrelations* factors. Fundamentally, gaining access to resources from multiple providers outside the initiative is necessary for ensuring the realization of amplification strategies. The presence of support structures extending assistance through capacity building, and provision of advisory services, innovation-related grants, and similar incentive mechanisms would fuel the execution of the basic activities for amplification. Secondly, gaining access to an intersectoral network of actors that provide support for networking, learning, and feedback processes, is crucial for the core actors to sustain their amplification developments. The creation of more participatory innovation platforms that allow public and private actor groups to convene by policy and institutional actors will empower and enable carrier organizations to convey their needs and therefore find opportunities to broaden their resource menu and explore other pathways for growth. In conclusion, considering that the main leverage point lies at the core of the ecosystem and extends outwards, accounting for these intervention areas implies that innovators, policymakers, private organizations, and other related institutional actors ought to recognize that approaches to reinforcing impact amplification should be locally adapted and holistic at all times.

## 5.5. Methodological Reflections

This study acknowledges the limitations of the applied methodologies, specifically the conducted semi-structured interviews brought about by practical and time constraints. It can be stated that the conduct of more interviews other than the carrier representatives could further enhance the informative value of the research and more importantly, reduce bias in terms of reporting the case facts and results. Moreover, the evaluation of additional cases across other countries in Europe could present a more conclusive basis for the establishment of patterns in the analysis.

With regard to the research process, as previously mentioned, the study employed a combination of inductive and deductive approaches. The quest for investigating the impact amplification strategies of social innovations began with a general review of the innovation processes and related studies on sustainability transformations. The broad selection of literature on amplification concepts was done to present an overview of the diverse approaches, and essentially consider different perspectives in order to build the *EASII* framework as comprehensively as possible. The integration of the relevant recurring variables identified from the literature hence resulted in the creation of an extensive but sufficiently apt model that focused on the main factors and elements influencing the impact amplification process. Utilizing this framework as a tool for analysis facilitated a logical means to examine the case findings deductively and aided in pinpointing the important features of the factors for amplification. Based on this, another level of inductive analysis from the joint assessment of the cases led to a full understanding of the impact amplification process, specifically the determination of the key leverage points.

Overall, the comprehensiveness of the framework allows for many aspects to be further investigated. For instance, considering that the external elements (i.e., support structures and mechanisms, environment) were not thoroughly examined in the study, the surrounding spheres of environment and their relation to the extension of support or the sustenance of the generated impacts of the initiatives could be subjected to deeper analysis. Ultimately, for the benefit of policy and practice, the use of the framework, and this study in general, invites the conduct of enhanced empirical research with the promotion of impact amplification and most significantly, sustainability transformation as the end in mind.

## 6. CONCLUSION

Social innovations are key propellers of the forest sector towards the fulfillment of its role in the envisioned bio-based future. While there may be no shortage of social innovations in Europe, a number of these initiatives have ceased to grow their impacts, which limits prospective sustainability transformations. To explore the impact amplification strategies of social innovations and identify the factors that influence these processes, selected case studies of forestry-related initiatives in Europe were conducted following a proposed framework called the “*Ecosystem of Amplifying Social Innovation Impacts*” (*EASII*). The identified structure factors of the ecosystem framework include the *Actors* and *Interrelations*, while the process factors consist of the *Motivation*, *Interactions*, *Knowledge*, and *Financing*. These factors are backed by *support structures* and *support mechanisms* that are instigated by external actors. The coalescence of these elements contributes to the development of various *amplification strategies* that pertain to the collective courses of action consciously developed by the core actors to nurture impacts within, outside, or beyond the initiative.

Applying the *EASII* framework provided a comprehensive perspective on the development of impact amplification strategies of social innovations through the integration of substantially relevant aspects from the literature review. The defined framework components also aided in logically analyzing the fostering factors and identifying key intervention areas for amplification. In the comparative analysis, the main findings suggest that effective impact amplification entails: (1) the adoption of a combination of strategies; (2) the employment of constant amplification processes within the initiative; and (3) the shift in the behavior and values of innovation actors. This relates to the study of Moore et al. (2015) who argued that organizations employ a combination of scaling strategies as they go through intensive learning processes to effect systemic change. Moreover, this also aligns with the importance of accessing the *intent* (i.e., *motivation*) or the deepest leverage point of intervention that encompasses the values, and goals of the actors that influence the emergent direction of a system (Meadows, 1999; Abson et al., 2017).

In terms of the fostering factors that shape the development of amplification strategies, the results primarily point to the importance of the acceptability of the initiative amongst its partners, the visibility of the project results, and the adoption of participatory approaches, which all link to the formation of strong and mutual relationships across the key innovation actors. Also, with regard to the supporting mechanisms, the extension of supplemental support (e.g., information, incentives, coordination) from both public and private organizations has been significantly instrumental in addressing the aforementioned amplification challenges and in the sustenance of the growth of the initiatives. On another note, the main challenges that were reported include the traditional perspective or the resistance to change of some stakeholders, financial limitations, stringent bureaucratic procedures, and outdated forestry laws and policies.

Final reflections from the actor-centered framework further surfaced two key leverage points to reinforce the amplification of impacts. The first and internal leverage point is for the innovation carriers to develop a strong sense of agency to ideate, innovate, and amplify. The second and the outward-bound leverage point is for them to foster robust relationships across the entire network of organizations in the ecosystem. As illustrated in the previous diagram (Figure 15), advancing these intervention points would require the following support from policy and institutional actors: (1) the continuous establishment of enabling environments that cultivate creativity; (2) the extension of technical, financial, and institutional incentives addressing the observed main amplification barriers; and (3) the creation of more participatory innovation platforms for the networking, resource exchange and empowerment of multiple stakeholders within and outside the forest sector. In sum, considering that the main leverage points lie at the core of the ecosystem and extend outwards, accounting for these intervention areas implies that innovators, policymakers, private organizations, and other related institutional actors ought to recognize that approaches to reinforcing impact amplification should be locally adapted and holistic at all times.

Ultimately, to inform policy and practice, this study calls for the conduct of enhanced empirical research with the promotion of impact amplification and sustainability transformation as the ends in mind. Given that this research was limited to the exploration of three cases in Europe, with data mainly gathered through semi-structured interviews



and supplemented with online literature, a deeper investigation of the amplification processes remains to be further seen. When adopting the *EASII* framework in the future, a specific set of indicators for each of the ecosystem elements can also be employed if comprehensive measurements for evaluations are desired. Multiple case studies covering intercultural comparisons within, and outside Europe or the conduct of ethnographic research of a specific social innovation example can also be done for more thorough findings.

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## Annex

### Annex 1. Interview Guide

Name of Researcher:  
Name of Respondent:  
Name of Organization:

Mode of Interview:                      Date:  
Location:

- Background of Respondent
- Background and Problem
  - Identification of significant milestones (development, implementation, scaling/growing, etc.) and key actors (e.g. partners) and their roles
  - Key Activities
  - Financing
- Impacts and Amplification Strategy
  - What made you decide to grow/scale? (Motivation, Significant events)
  - How were you able “grow” your impacts?
  - How would you describe the model of the growth of your organization’s impacts (scaling process)? Is it a step up from your usual practices? Where there changes in the structure and dynamics? What results did you achieve?
- Fostering Factors and Challenges
  - Did you experience any issues or conflicts in the process of growing/scaling? Could you identify some hindering factors or barriers that you encountered?
  - How did you overcome these problems? What were the factors that enabled you to solve them? Which among them was the most relevant?
  - If any, what support mechanisms are lacking or needed?
- What insights and learning did you gain from the process of growing/scaling?
- What other plans do you hope to achieve in the future?
- Additional information or comments