INCREDIBLE

Innovation Networks of Cork, Resins and Edibles in the Mediterranean basin

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Thematic Networks compiling knowledge ready for practice

D1.1 – iNet Manual

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Executive summary

INCREDIBLE aims to address the existing research and innovation knowledge divide in Non-Wood Forest Products (NWFPs) across the Mediterranean basin. To achieve this, the project will develop a series of Innovation NETworks (iNets), which will gather best practices (both practical and science-based) related to NWFP production, transformation and trade channels.

This report sets out the process and procedures for the establishment and the operation of the iNets and will therefore act as a guiding manual for all actors involved in the life of the iNets.

After setting out an overview and the rationale behind the innovation networks, the main features of the iNets are presented, from their definition and geographical scope, to the stakeholder categories and their broad functioning (chapter 1).

The manual then describes the key factors in establishing successful iNets (chapter 2), based on experience from relevant literature and projects. Crucial to the success of the iNets is a well thought stakeholder engagement process, which must carefully manage expectations since the outset.

The following sections (chapter 3 and 4) make up the core part of the manual. Whilst the former deals with a step-by-step process for creating an iNet, the latter provides guidance on INet management in their day-do-day running. In both cases, it is necessary to ensure consistency of approach across iNets, and across countries, while at the same time some flexibility must be retained to take into account the specific characteristics of each NWFP ecosystem. The role of the coordinator is crucial and his/her main responsibilities are described.

Templates for gathering information in each step of the process will be created to support systematic data collection and facilitate dissemination.

In the final section, the manual delves into more detailed considerations on iNet governance and functioning rules (chapter 5), including practical aspects such as data management, internal reporting, dissemination and communication requirements, and a risk assessment.

CONTENTS

1. Introduction to iNets and their role in INCREDIBLE

Interregional Innovation Networks (iNets) are the core tool of the INCREDIBLE project to promote knowledge on Non-Wood Forest Products (NWFPs) across the Mediterranean basin. These networks will allow to seed, collect, generate and disseminate relevant technological, economic, innovative and research knowledge linked to the main NWFP value chains. Specifically, five networks will be developed, as shown in Table 1.

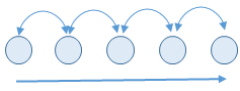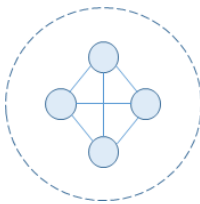| NWFP iNet	Coordinating actor	Other actors	Description of the relevant stakeholders to be involved in the network
Cork	UNAC	INIA INRGREF ISA CNPF FORESTAS	Forest owners organizations, entrepreneurs organizations (post-harvest processors and cork based products manufacturers), researchers
Resins	CESEFOR	INIA CNPF ISA	Forest owners associations, resin tappers cooperatives, processors, chemical/cosmetic industries
Aromatic and Medicinal Plants	INRGREF	CFRI CTFC UOI CNPF ISA	Forest owner organizations, processor organizations, international firms of Essential oils, biotechnology (research)
Mushrooms and Truffles	CTFC	ETIFOR CFRI UOI INRGREF CESEFOR CNPF	Eco tourisms, commercial picker organizations, processor organizations, forest owners organizations, advisory services, mycologists (research)
Wild Nuts and Berries	INIA	UNAC CTFC INRGREF CESEFOR ISA CNPF	Forest owners associations, pickers, processors, traders, consumers associations, authorities

Table 1: Description of the 5 iNets

In order to ensure a successful establishment of these networks, it is important to define the iNets structure, composition and scope, in order to address NWFPs stakeholders´ expectations. The following sections will deal with this matter, investigating the rationale behind the What, Where, When, Who and How of iNets.

1.1.   What: iNets definition

iNets are innovation networks (iN), where individuals meet to bring forward and co-create knowledge on selected topics. InnoSupport (2018) defines innovation networks as " all forms of organisations that serve the exchange of information, knowledge and resources and by suitable learning among at least three partners help to bring about innovation and are based on confidence and stable cooperation relations". This definition highlights the crucial IN objectives as follows:

- Guarantee information exchanges across the network;
- Foster a co-learning process among the network members;
- Maintain internal trust and cooperation across members.

Based on this definition, the type of networks that can be created are various. The World Bank (2012) explains how networks can be both spontaneous (i.e. individuals group because they need to obtain specific resources not currently owned, which are required to innovate), or deliberately created (by a leading private or public actor). Using the classification available in Venture2 (2007), Table 2 summarises some of the possible networks that individuals can establish to develop innovative solutions. These vary according to the overall network objective, which can be individual oriented (as in a peer-to-peer network), value chain oriented, institutional oriented or consumer oriented. In INCREDIBLE, iNets are deliberately created as groups of stakeholders that will exchange knowledge around specific lines of NWFPs. They will belong to both peer to peer and value chain type networks.

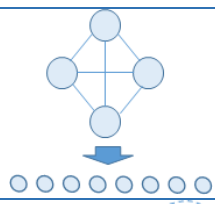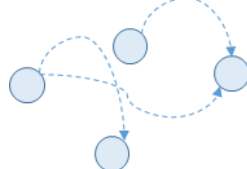| Network type	Network structure	Network creation	Network objectives	Examples
Peer-to peer		Spontaneous	-Knowledge exchange -Individual benefits maximization -Optimization	Farmers associations and cooperatives
Value chain		Deliberately created	-Maximization of value chain benefits -Horizontal integration	
Bonding network		Spontaneous, Deliberately created	-Internal integration of one large unit	-Internal staff committees -Consumer groups -Shareholders groups
Bridging network		Deliberately created	Integration of one large unit with external innovations/knowledge	Accelerator units

Consumer oriented		Deliberately created	Customer oriented Solution seeking network	
Informal gathering		Spontaneous, Deliberately created	Building relationships	Conferences Seminars Demonstrations

Table 2: Network types and related features. Adapted from: Venture2 (2007) and World Bank (2012)

1.2 Where: International & Local dimensions

INets are networks that work at an interregional level, hence they include stakeholders from more than one country. Usually IN are developed at national level (e.g. Regional Agroforestry Innovation Network in AFINET project, 2018). This allows easing existing cultural, geographical and institutional barriers linked to actors´ engagement such as: language barriers, vegetation and climate patterns, similar legislative frameworks (e.g. public or private land ownership). When broadening the IN scope to an international level, these points should be taken into account for the development of the network animation and collaboration strategy. Nevertheless, an interregional approach could be indeed beneficial for a number of reasons, including:

- **Closer focus on similar NWFPs production, transformation, commercialisation and service integration challenges** (not being limited by national administrative boundaries);
- **More effective peer to peer knowledge exchange at international level;**
- **Bridging knowledge gaps** between different Mediterranean countries;
- **Foster innovation** under a climate and global change scenario where conditions and variables are no longer limited by traditional boundaries.

Table 3 summarises the geographical scope of each network based on the countries of the partners involved in INCREDIBLE.

iNet	Countries	Languages
Cork	Portugal, Italy, Tunisia, France, Spain	Portuguese, Italian, Arabic, French, Spanish
Resins	Spain, France, Portugal	Spanish, French, Portuguese
Aromatic and Medicinal Plants	Tunisia, Croatia, Greece, Spain, France, Portugal	Arabic, Croatian, Greek, Spanish, Catalan, French, Portuguese
Mushrooms and Truffles	Spain, Italy, France, Tunisia, Greece, Croatia	Spanish, Catalan, Italian, French, Arabic, Greek, Croatian
Wild Nuts and Berries	Spain, Tunisia, Portugal,	Spanish, Catalan, Arabic,

	France	Portuguese, French

Table 3: iNets geographical scope, languages and countries.

While being interregional in their structure, iNets will be actively working at the local, national, and international scale in terms of dissemination outputs and activities. INCREDIBLE will maximise integration and synergies with regional, national and European policies to facilitate a wide adoption of the proposed innovations. Policy implications at multiple levels will be developed, notably targeting Rural Development actors and networks and policy makers in cross-cutting areas. It will also target innovation-driven research, seeking feedback from, and engagement with, the Standing Committee on Agricultural Research (SCAR) and the Strategic Working Groups on Forest Research and Innovation and Agriculture Knowledge and Innovation Systems (SWG-AKIS) and the EIP.

1.3 Who: iNets stakeholders

The identification of the stakeholders that will make up the network is a key success factor for the resilience and effectiveness of the knowledge exchange process. Table 4 shows the different needs and drivers that a network can assume, when led by a private agent, a public one, or a combination of the two. In particular, networks formed only by private entities would tend to be driven by commercialisation challenges, as they usually perceive innovation as a way to improve their market position and individual competitiveness. On the other hand, public innovation networks will be driven by the research agenda (research networks) and socio-economic issues (public national or international organisations).

Agent types	Drivers	Needs
Private	Commercialisation	Market positioning
Public	Research, social inclusion	Knowledge advances, social challenges alleviation
Private-public (private leads)	Commercialisation with high innovation component, R&D	Market positioning, social challenges alleviation
Private-public (public leads)	High impact research, territorial impact	Knowledge dissemination

Table 4: Network drivers and needs. Adapted from: World Bank (2012)

When it comes to member selection, the broader is the set of actors involved in the network, the larger are the expectations members will anticipate from network activities and events. This is because the network will have a more complex interplay of stakeholder personal needs and individual benefits to fulfil. In INCREDIBLE´s case, the network agents are both private (e.g. forest owners, entrepreneurs, etc.) and public (e.g. researchers, public sector officers, etc.) and the network lead is public, coordinated by INCREDIBLE partners. The member selection phase is discussed in detail in Section 3.2.

1.4 When: an iterative knowledge sharing process

iNets will implement an innovation-driven knowledge transfer process based on the EEIP framework and the concept of iterative innovation. Figure 1 summarises the interchange of activities that will take place in each iNet in order to gather and exchange knowledge linked to NWFPs.
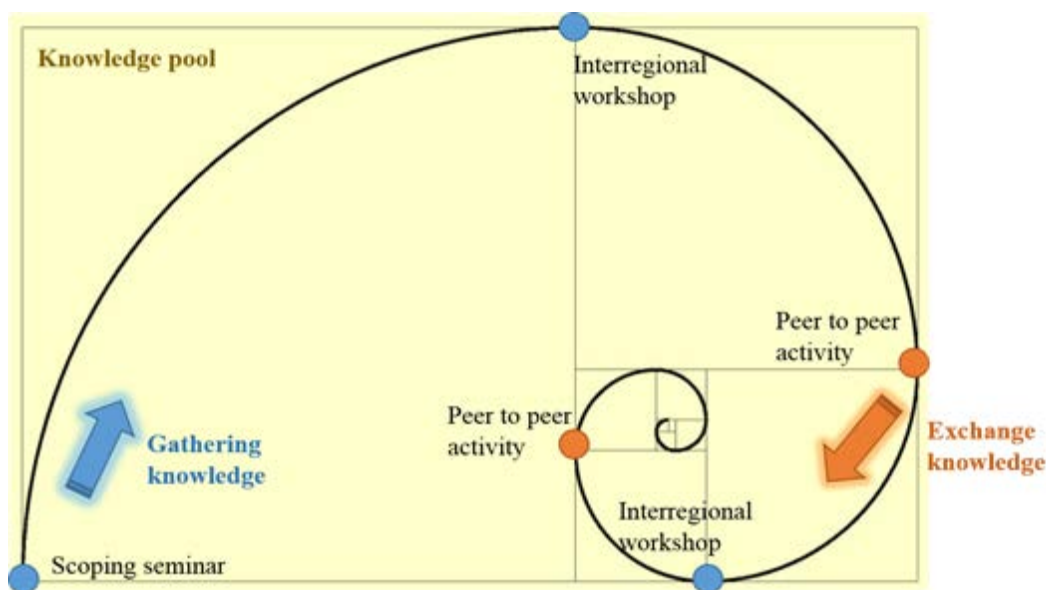

Figure 1. Structure of the Interactive knowledge transfer process developed for each iNET.

Different sets of activities will be organised at regular intervals throughout the project (for more details refer to section 4.1). iNets will combine inter-regional workshops with local or national dissemination events and electronic communication. All its activities will be supported and informed by a comprehensive communication strategy (Deliverable 4.1). This structured approach will lead to a common shared process for all iNets. Nevertheless, as challenges and innovation triggers vary in each network, iNets need to have sufficient flexibility to adapt to emerging problems, reshaping the narrative path through their action. For this reason, significant flexibility can be introduced in the organisation of activities for each iNet, as presented in sections 3.2 to 3.5.

Along with network-based events, the five iNets will be interconnected around cross-cutting themes, targeting specific issues emerging from the iNets and connecting them to the policy community at a higher level. The development of these linkages will aim at strengthening the iNet knowledge exchange, creating additional interactions with stakeholders from other iNets and with individuals not directly involved in the iNet focus (e.g. investors). In INCREDIBLE, these cross-cutting clinics will focus on: i) territorial marketing for improved profitability and social impacts, ii) entrepreneurship in NWFPs including market intelligence, access to finance and the support of innovation through EAFRD and iii) ITC tools for improved NWFPs value chains and market intelligence. The description of these events is also referred to in section 4.1.

1.5 How: iNets management

A successful stakeholder management is fundamental to achieve the iNets objective, facilitating network activities and the knowledge/resource exchange process across members. Managing an IN is thus a complex task and requires skilled Innovator Brokers that can lead participants from the establishing phase until its consolidation. Further details on the key responsibilities of the iNet leader / coordinator are discussed in section 4.2.

2. Key factors of successful stakeholder engagement

2.1 Key principles

INCREDIBLE is based on achieving and implementing innovation, through the iNets. In practice, the project intends to identify challenges and innovation needs within each iNet, and explore ways to address them by building on the competences and contributions of all actors within the iNet ecosystem. Innovation, in such a contexts, has to be interpreted as open innovation, which refers to a paradigm that assumes that organisations can and should use external ideas as well as internal ideas and paths to markets. In brief, "open innovation" refers to a distributed innovation process, in which actors from different organisations participate to the innovation process itself.

One of the challenges then lies in creating a constructive setting within each of the iNets, in which all actors of the ecosystem can contribute to establishing and achieving the innovation targets. Key to this is successful stakeholder engagement, allowing the various actors of the iNet ecosystem to be involved and be part of the innovation process.

The participation of stakeholders relevant to the iNet regional ecosystems in the discussions and decision-making processes is the best way to ensure that their perspective and knowledge contribute to the project´s outcomes. Stakeholder participation not only results in a better narrative with a richer picture of the iNet challenges, but also allows to better express the innovation objectives and the options to reach these. It also contributes to increased ownership, salience and gives legitimacy to the process (especially when the stakeholder selection has been based on a structured and standardised approach). Furthermore, a successful outcome also requires that barriers to the implementation of the innovation will be dealt with. As these barriers will have been discussed and explored during the activities of the iNet, the participatory approach contributes to addressing the barriers during the project (prior to the implementation phase), which will increase the likelihood for a successful and timely implementation.

Therefore, managing the stakeholders is a key task in any participatory approach. In the framework of INCREDIBLE, the iNet coordinator carries the responsibility of managing the iNet, including the iNet stakeholders.

For this reason, the iNet coordinator has to be accepted and supported in his role by all stakeholders. The iNet coordinator therefore needs to hold an impartial position towards the stakeholders. His focus needs to be on the process of the iNet development while remaining firmly committed to the objectives and the ambitions of the iNet.

2.2 Managing expectations

Managing stakeholder expectations is a critical success factor for any endeavour in which stakeholder engagement has a prominent role. Indeed, if the expectations of the stakeholders are not known and not properly managed, some of the stakeholders might experience disillusions for hopes not being fulfilled, (personal) ambitions not being met, fears not being properly addressed. They might feel the project remains under-ambitious, or perhaps even over-ambitious. In both cases, there is a mismatch between the objectives of the project and what the stakeholders had in mind.

Another potential mismatch relates to the effort and time stakeholders are willing to invest in the iNet in contrast with what is asked and needed from them. This mismatch contributes to a phenomenon known as stakeholder fatigue.

Expectation management starts at the very beginning of the iNet, but it should continue for the duration of the project, with reality checks against expectations conducted at various points throughout the project.

The first step in managing expectations lies in understanding these expectations. Therefore, making these explicit is an important task, and it should ideally happen at the first stakeholder meeting (e.g. the scoping seminar). As each stakeholder enters the iNet with his or her own set of expectations, the group of iNet stakeholders will most likely have a rather broad range of individual expectations.

The next step consists in coming to an agreement with the stakeholders, on a set of shared expectations that relates to the iNet ambitions. While iNet objectives should be sufficiently ambitious in order to create enough "pulling power" towards the stakeholders, it is important to ensure that unrealistic expectations are discussed and toned down. It is recommended to revisit the (shared) expectations and conduct a reality check with a certain periodicity (e.g. once each year).

Organising each iNet meeting as a highly interactive, energetic event, as something that resonates positively within the group of stakeholders, is a way to prevent stakeholder fatigue. However, there is a delicate balance to be respected between engaging stakeholders with an intensity (frequency) that is high enough to maintain momentum for the project, versus "over charging" stakeholders.

2.3 Maintain communication

The success of any project or network depends on its ability to develop and maintain effective relationships among its stakeholders. In this context, communication is the primary tool for building such relationships and contributing to desired project outcomes.

In the particular case of innovation networks working at both local and interregional scales, the challenge is to maintain effective communication flows among the main components of the network, as shown in figure 2, ensuring the possibility for iterative and unrestricted communication.
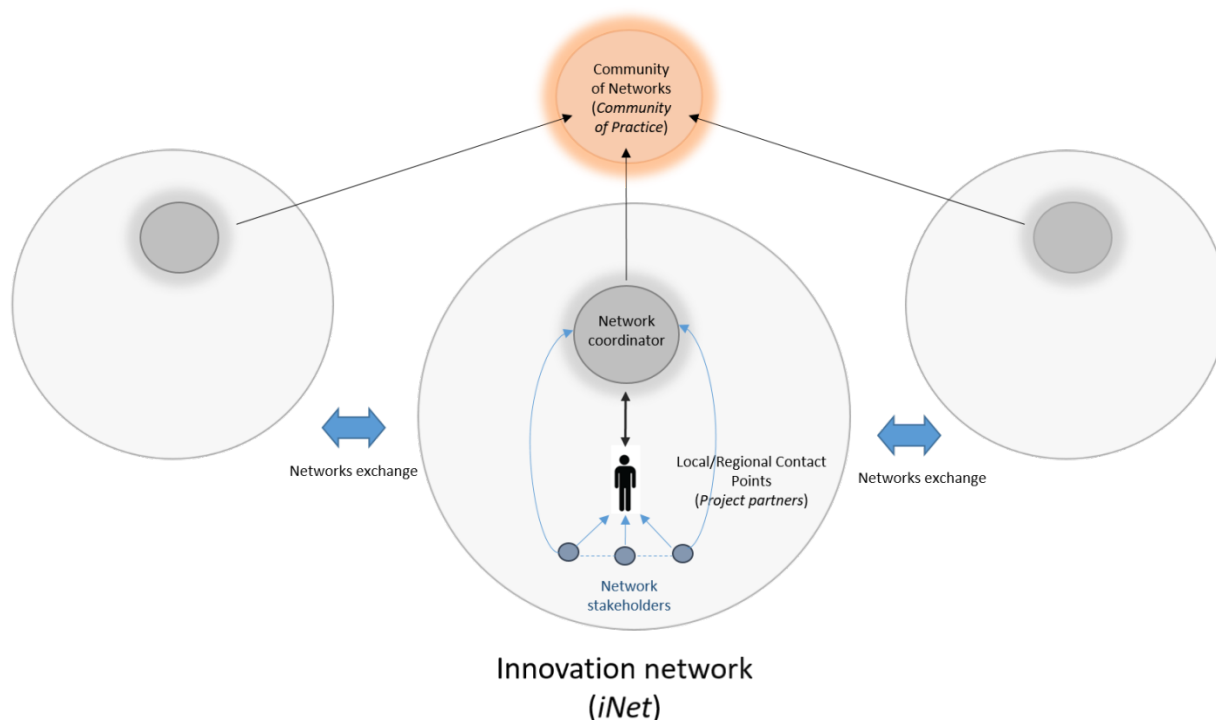
Figure 2: Communication flows in innovation networks.

Local/regional contact points will communicate with stakeholders via email or telephone as appropriate, giving adequate notice of meetings and events.

Stakeholders will interact in the same way with their local contact point and each other, but will also be in touch directly with the iNet coordinator and other iNet members, using the most appropriate means of communication.

iNet coordinators share network information with coordinators from other iNets in the Community of Practice, via online and face-to-face meetings, as well as via email and through the use of the project's shared folder platform (Office 365).

The INCREDIBLE project website will have dedicated spaces for the five iNets and the Community of Practice:

- **iNet sub-sites:** public information about each iNet, with dissemination materials, call to action/join the iNet, etc.

- **Community of Practice:** public information about the Community of Practice, with shared experiences and knowledge and dissemination materials.

In the specific context of the iNet, maintaining communication will mean:

- Greater ability to generate innovation; shared information and exchange will help identify the most relevant needs in each iNet/ NWFP sector;

- Enhanced stakeholder engagement (see also 2.2 and 2.4);

- Maximised impact through dissemination at all scales.

INCREDIBLE has developed a comprehensive communication strategy identifying target audiences, with a specific focus on iNet communication needs (D4.1, February 2018).

2.4   Lessons learnt from past experiences and relevant projects

Successfully engaging stakeholders in achieving shared ambitious goals - which will be the case for the iNets - is not a trivial thing. Some lessons can be drawn from experience from other projects in which active stakeholder participation has been one of the key success factors, including:

- The need for **sustained and active stakeholder management.** Engaging stakeholders is not a one-off event. Stakeholders will not remain engaged by themselves either. Successfully engaging stakeholders requires a sustained effort (for the duration of the entire project). It also requires a party (in reality: a person) that takes the lead and is accepted by the stakeholders in that role;

- The need to **be ambitious**. An iNet without a clear and attractive objective is not a very compelling network. The objective needs to be ambitious yet achievable. It also needs to be shared by the stakeholders, without being a common denominator or a mere consensus objective;

- The need to continuously **monitor the level of ambition.** One of the challenges for the iNet coordinator will be to ensure the ambition remains intact and doesn't erode as the project evolves;

- During implementation, keep the **focus** on the solutions that have been agreed;

- When engaging stakeholders, the iNet coordinator has to manage both the **content** (facts, data, model outcomes) as well as the **process** (the interactions and learning processes between the stakeholders). Both will develop, quite possibly at different speeds. Even if, content wise, everything is ready for implementation, the implementation will fail if, from a process perspective, the stakeholder setting is not ready. Sometimes it just takes time to develop the strong sense of belonging to the iNet;

- **Use ICT** (Information and Communications Technology) **tools to structure and manage the data** on the iNet ecosystem and its stakeholders. Start using them in an early stage, before the wealth of information becomes difficult to manage.

2.4.1.   Reference literature from other projects and handbooks (commented)

- **RESIN Actor Analysis for Urban Climate Adaptation: Methods and Tools in support of Stakeholder Analysis and Involvement:** This report presents an overview of methods and

tools in support of a stakeholder analysis for the various steps and stages of preparing for and developing and implementing climate adaptation strategies. Stakeholder analysis is however only a first step. For a successful strategy development process efforts have to be in place to keep stakeholders actively engaged.

- **Biodiversa Stakeholder Engagement Handbook.** Is a non-academic practical guide for researchers planning and carrying out research projects. It is designed to assist research teams identify relevant stakeholders to engage with in order to enhance the impact of their work. The Handbook draws upon existing literature and presents case studies that provide clear, simple guidance, which considers 'why', 'who', 'when' and 'how' to engage.

- **Public engagement in Forestry. A toolbox from the Forestry Commission.** This toolbox provides information and ideas to forest and woodland managers on ways to engage individuals, communities and organisations in the decision-making process, design and management of forestry projects and activities. This includes developing and maintaining equal access to the many public benefits forestry can provide for all members of society. IT contains many useful references and links.

- **Developing participatory adaptation plans for river basins – a handbook, BeWater, FP7.** The handbook provides information to guide a participatory development of a River Basin Adaptation Plan. It outlines the stakeholder participation process, followed by the development and analysis of water management options, and ending with the implementation approaches that permit the creation of the adaptation plans. Its step-by step approach is a useful methodology applicable to other cases.

3. Creating the iNets

iNets must have a core shared objective that brings together researchers and motivate stakeholders. They must focus on specific enough issues in order to provide some depth and avoid dispersion of efforts. A reduced set of themes can then be addressed sequentially or in parallel throughout the project.

The aim of this section is to provide practical guidance to interested parties when setting up an iNet, and, in particular, to the iNet coordinator and his/her collaborators. This manual describes each step of the network creation, from the ecosystem mapping to its first seminar. This process is summarised in Figure 3. Examples from existing networks are also provided.
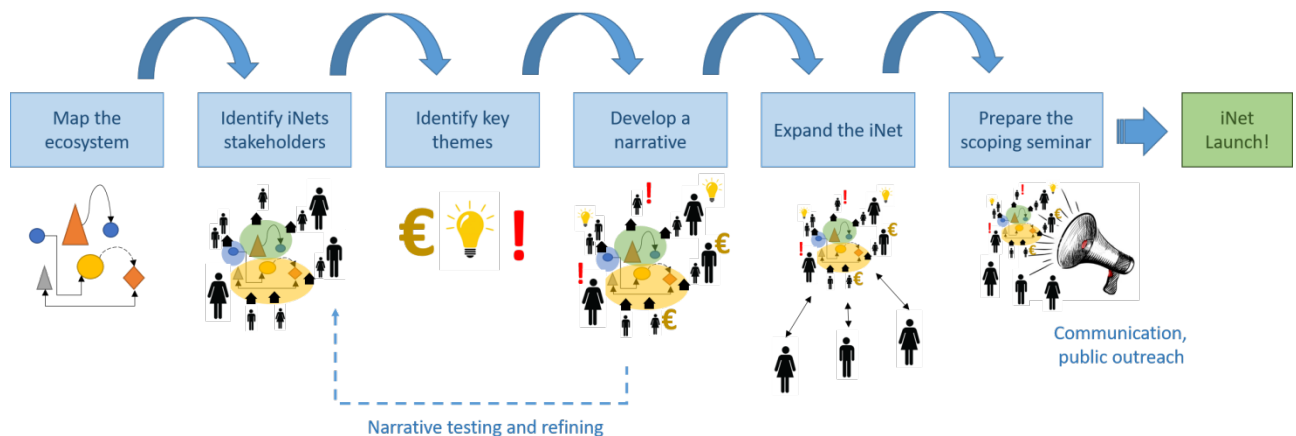
Figure 3: The iNet Creation process

For each step of the iNet creation process described above, a template will be created based on the project´s corporate identity. This will help collect information in a consistent way across the iNets and ensure this process is structured, well documented and reported properly.

3.1   Step 1: Map the iNet ecosystem in the project regions

The first step in the creation process consists of the mapping of the iNet value chain in the project regions. An example is given in Box 1. While a map of the value chain certainly represents highly valuable information, ideally the notion of value chain should be expanded to include additional actors. In fact, the iNet should be considered as an ecosystem based on the value chain actors, but with additional actors that can affect positively the innovation process (even if not belonging to the value chain). These actors can be identified by asking questions such as:

- **Who else needs to innovate** (even beyond the iNet value chain) for the iNet innovation to be successful?

- **Who else needs to adopt the iNet innovations** before the end customer can assess the full value proposition?

The resulting set of actors reveals an ecosystem that is richer and less linear than the value chain, and includes the actors that will be instrumental for reaching the objectives of the iNets.

Note that the resulting ecosystem map is only a starting point – it is likely to become more refined as the iNets continue to evolve.

Box 1: Mapping the value chain of mushroom picking in Catalonia (StarTree Project)

Wild forest products value chains are good examples of complex systems involving different actors (e.g. harvesters, suppliers, consumers) operating in formal and informal institutional frames (e.g. access and harvesting rights, customs). Therefore, their mapping requires an extensive knowledge of each actor role, and its relationship with the wider value chain ecosystem. Wild mushroom picking is an activity that involves harvesting mushrooms in the forest for eating purposes, with both recreational and commercial benefits for pickers. The mapping of the mushroom picking value chain in Catalonia shows the interplay of five main set of actors: mushroom pickers (both recreational and commercial), mushroom buyers, intermediaries, forest managers regulating the harvesting season and permits, and final consumers (Figure 4).

The interactions among those stakeholder groups include, among others, fluxes of money for permits and revenues for selling raw mushrooms and final products. This figure highlights how the challenges of mushroom picking in Catalonia appear on both sides of the value chain: e.g. regulating the wild resources to guarantee legal monetary fluxes for forest managers, and promoting a market that can sustain harvesting and production costs of mushroom based products, and pickers benefits.
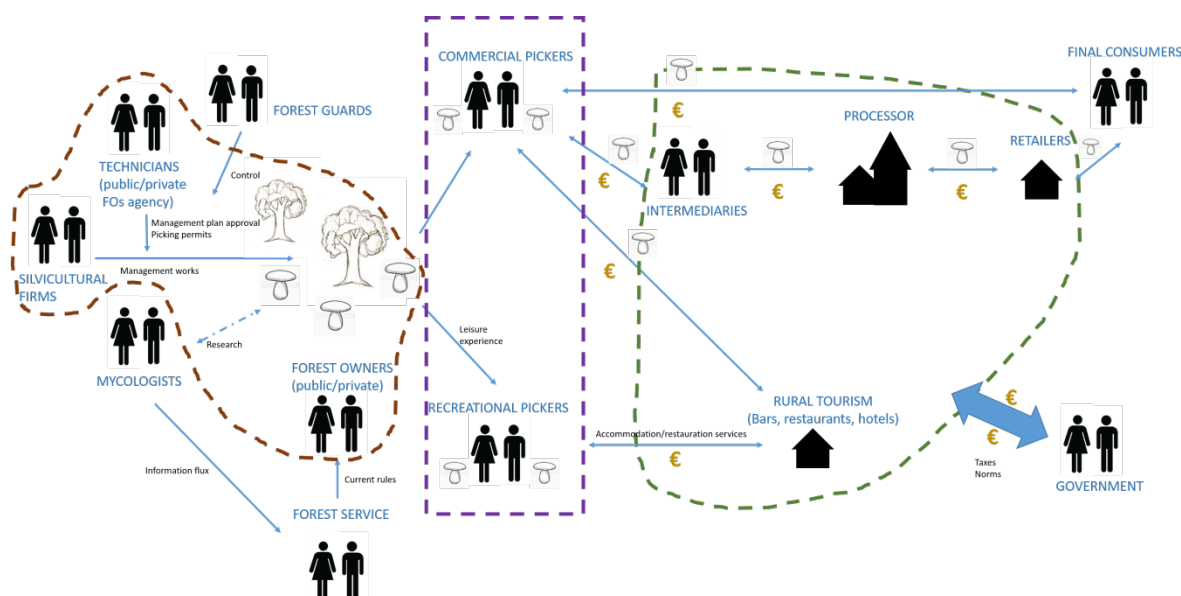

Figure 4: Example of NWFPs value chains. The case of mushroom picking in Catalonia, Spain. Adapted from StarTree 2015.

Considering all iNets have an interregional dimension, it is important that all partners involved in each iNet conduct the mapping exercise in their respective countries, and that the information is reviewed jointly with the iNet coordinator.

3.2 Step 2: Identify iNet stakeholders in the project regions

According to Freeman's 1984 definition, stakeholders are "any group or individual who is affected by or can affect the achievement of an organization's objectives". Applied to INCREDIBLE, we use the following definition:

iNet stakeholders are all groups or individuals who are affected by or can affect the achievement of the objectives of the INCREDIBLE iNets.

The **first step** in the identification of stakeholders consists in the **identification of broad categories** of relevant stakeholder groups and why. The sections of the iNet ecosystem or value chain mapped in 3.1 constitute an excellent starting point. Building on the example of Box 1, one might identify: permit givers, permit holders and moss buyers as relevant stakeholder categories, with hired pickers and independent pickers as subcategories of permit holders.

Additional stakeholder categories can be identified by asking the question: "Which actors or groups will be affected by or can affect the success of the iNet?" Potential stakeholder categories might include (the list is not exhaustive):

- Industrial sectors associated to different sections of the iNet ecosystem or value chain

- Industrial sectors that might compete with the iNet (or sections of the iNet ecosystem)

- Actors that might be essential stakeholders from the perspective of the sustainability of the iNet beyond the INCREDIBLE project life

- Media

- Authorities / Governments e.g. delivering permits

- Policy makers

- NGOs

- Associations e.g. representing consumer interests or industrial sector interests

- Schools and academia

- Youth (sometimes treated as a separate stakeholder category)

Mapping these stakeholder categories also reveals the potentially different interests, perspectives and backgrounds. Again, it is important that all partners involved in each iNet conduct the mapping exercise in their respective countries, and that the information is reviewed jointly with the iNet coordinator.

The **second step** in the identification of stakeholders, consists in the **identification of names of organisations** (companies, associations, departments etc.) that represent the different stakeholder categories.

Subsequently, in the **third step**, the names of the **individuals (persons) active within these organisations** are listed. The search for individuals that can actually be contacted and invited to participate to iNet events can be a time consuming process. For that reason, we suggest to start as early as possible with the process of the identification of stakeholders.

When selecting individual stakeholders for an iNet event, it is preferable, as far as possible, to aim for a balance of representation such as:

- a fair representation of all stakeholder categories in order to avoid over- or under-representation of certain sections of the iNet ecosystem or other stakeholder groups;

- gender balance, cultural balance (if relevant) and for a fair representation of different age groups;

- diversity in the profile of the stakeholders contacted: not only senior managers, or technical profiles.

During the process of identifying and contacting iNet stakeholders, large amounts of data (names, affiliation, contact details, areas of expertise, their stake or interests etc.) will be collected. Managing data efficiently will make it easier to contact stakeholders, organise follow-up interactions, keep a record on who has participated to each iNet related event, etc. In addition, throughout the project each iNet will contribute to build a knowledge repository on the iNet stakeholders, which will be of value not only for each iNet, but also to perform cross-iNet comparisons. It is therefore recommended to make use of proper tools for stakeholder data management. The COP might provide more information on suitable tools. However, it should be noted that personal data on stakeholders needs to be protected (see 5.5 - Data management and protection of personal data).

Across the various categories of stakeholders, there will inevitably be individuals who have more expertise or knowledge that is relevant to the iNet, have a particularly important stake in it, or are in a position to exert (strong) influence within decision-making processes. These stakeholders are considered **'key stakeholders'**, especially if they are willing to engage/take the initiative (Figure 5).
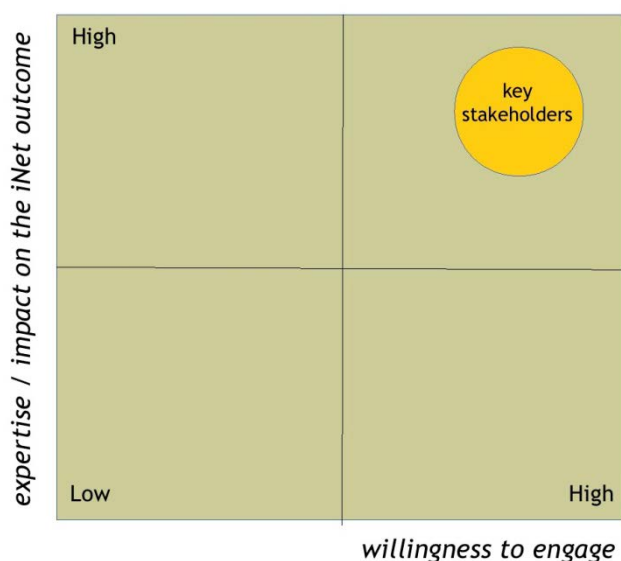
Figure 5. Key stakeholders

As the above definition relates the notion of key stakeholder to the objectives as well as to the willingness to engage, the identification of key stakeholders is bound to evolve during the project. In fact, similar to 3.1 (mapping of the ecosystem), the identification of stakeholders is not a one-off exercise. The stakeholder categories are likely to get more refined and the network of individuals will grow as the iNets continue to evolve (see also 3.4).

What is important at this stage is to conduct a first stakeholder mapping with an initial analysis of key stakeholders, and to use the tools for proper stakeholder data management.

3.3 Step 3: Identify key themes for your iNet

Each iNet should have one or a reduced set of priorities for action that are of Mediterranean interest. These can be related to any element of the value chain or ecosystem. Stakeholders will only mobilise when they perceive the value they can obtain from the project. This can be in the form of access to knowledge, access to people, access to places, engaging activities. The iNet selection of themes, objectives and road map of activities must be specific and detailed enough to engage the most relevant actors in the NWFPs value chain. It is therefore recommended to:

    i.   Identify key barriers and opportunities, starting from the key knowledge gaps already identified in the proposal. Organise them in relation to iNet value chains (e.g. production, harvest, processing, and access to market) and types of innovation (e.g. technological, managerial, including access to finance), knowledge and skills (human capital, social innovation, etc.).

NWFP / iNET	Production/harvesting challenges	Transformation challenges	Commercialization challenges	Integration with services challenges

Innovation Network of Cork	- Pest and diseases - Sustainable intensification of yields - Quality control - Produce more - restoring the productivity per unit - Produce better - ensuring raw material with more quality to the industry - Mechanization and rationalization of the harvesting methods - Climate change	- Product line diversification - Process innovations - Guarantee a mix of industrial products based on natural cork stoppers	- Innovative market segmentation - Vertical/horizontal integration - Cork virtual market - Cork Commoditization - Market knowledge and price formation - Production organization (fragmentation and lack of concentration of production) - Adequate transmission of value along the value chain	- Dehesa/montado tourism - Water management - PES
Innovation Network of Resins	- Legal support for resin tapping "to death" before regeneration cuttings - Geographic information about potential production - Building local resin tapper cooperatives - Ergonomics	- Supply side innovations - Process line integration (added value retention)	- Substitution of imported resin - High quality secondary distillation and processing or turpentine and raw resin	- Integration in existing value chains (i.e. co-production with timber)
Innovation Network of Aromatic and Medicinal Plants	- Information about aromatic plants production and its characteristics at territorial level - Labour availability for harvesting - Management oriented for aromatic plants production	- Product line diversification - Quality certification - Process innovation	- Lowering market access barriers -Capturing demand signals, interchange of market information -New market prospection -Substitution of synthetic Essential oils	- Integration in flavours processing and pharmaceutical services - Ecotourism
Innovation Network of Wild Nuts and Berries	- Pests and diseases - Climate change - Mechanization - Fighting pillage & illegal harvesting/black markets - Management oriented	-Product traceability -Quality standards -Labels and certification -Diversification	- Cooperative brands - Product profiling /commercial distinction from Asian pine nut species	Integration with dried fruit value chain

	for pine nuts production	with other nuts/berries value chains	- Effective proscription of black markets and non-standard products -Traceability, labels, regional brands, certification	
Innovation Network of Mushrooms	- Adaptation to climate change - Advances in mycosilviculture - Sustainable harvesting (environmental, social and economic)	- Product traceability - Product line diversification	- Building formal organizations of the value chain (via e.g. network or associations, etc.) - Adequacy to legal framework - Territorial marketing - Black markets	- Integration with services - Mushroom reserves

Table 5: Knowledge gaps in the iNets as identified at proposal stage

    ii.   Contact key persons in the iNet networks and conduct an informal survey to test your value chain map and/or ecosystem, main innovation opportunities and to identify:

        1) priority themes
        2) realistic objectives
        3) priority actions

For this task, it is recommended to build on ongoing conversations with the key stakeholders. Furthermore, throughout these conversations, it will be possible to refine the ecosystem and/or value chain map, as well as be more accurate in defining stakeholder categories.

The most relevant objective of this step is to better understand the impact areas of the iNet.

3.4 Step 4: Develop a narrative

Combine the results of the informal interviews carried out in the different regions and the edited mapping of the ecosystem and/or value chains to develop a narrative. A narrative is "a written account of connected events representing situation and processes in such a way as to reflect or conform to an overarching set of aims or values" (Oxford Dictionary). In INCREDIBLE this will mean in practice:

- A short state of the art of the iNet sector, including needs, challenges, opportunities, etc.;

- The objectives and primary themes pursued by the iNet, in relation to the value chain;

- The impact on the value chain actors;

- A set of priority actions for the development of the iNet.

This should be a one-page document in English and translated into all iNet languages. The narrative document will be the starting point of the iNet and a very important element to recruit participants. A template for this document will be provided.

3.5   Step 5: Expand the iNet

This step consists of the dissemination of the narrative through relevant networks, inviting additional actors to participate in the iNet activities. Eventually, a survey will be conducted based on the narrative and findings of 3.3, as a tool to identify and engage relevant people.

It is important to pursue actively key stakeholders that are considered particularly central to the iNet. By now, the willingness to participate of those already contacted in Step 1 should be clear. At this stage, the iNet coordinator should actively search for those actors that are relevant for the identified challenges but are not yet active or have not been involved in the project. In particular, the coordinator should make sure all principal stakeholder groups are represented in the iNet to avoid unequal representation of the value chain and miss out existing knowledge, which could be important for the iNet development. In addition, a form should be sent to additional stakeholders to declare their interest in different aspects of the project and collect their answers. This questionnaire is aimed primarily at collecting the following information:

- Willingness to participate in project activities (including iNet workshops, cross-cutting seminars, dissemination events, etc.);

- Interest in receiving information about the project in general and / or specific iNet / events

A template for the questionnaire will be developed to ensure consistency across iNets.

3.6   Step 6: Prepare the scoping seminar

The scoping seminar is the first official meeting of the iNet. Five seminars organised by each iNet coordinator will take place respectively in Tunisia (Aromatic and Medicinal Plants) Spain (Resins, Mushrooms and Truffles), Portugal (Wild Nuts and Berries), and Italy (Cork). All iNet members identified in the previous steps will be invited. Special attention will be paid to ensuring the participation of key stakeholders.

The objectives of the scoping seminar are:

- to validate the *narrative*, and to establish a road map for the development of the iNet. This includes the themes that will be addressed throughout the project;

- to manage expectations on what can be achieved;

- to give participants opportunities for networking.

Stakeholders will have the opportunity to propose bottom-up, complementary activities and contribute to the iNet future development. All seminars will be held in English, although the iNet coordinator will need to consider the use of translation to local language to overcome possible language barrier of participating stakeholders (see section 5.4).

3.7   Step 7: Exploiting the scoping seminar and reporting

Each scoping seminar should be accompanied by a press release for each iNet, which will be sent to local/regional media. Guidelines for contacting media will be provided to all iNet coordinators and a template for the press release will also be provided (INCREDIBLE Communication Starter Kit MS4, March 2018). This information will be posted on the relevant section of the INCREDIBLE project website, once this is launched. iNet coordinators should follow up on any coverage reported by their local / regional media. A template for this will also be provided in the Communication Starter Kit.

4.   Day-to-day running of the iNets

4.1   Typology of activities

Following on from the steps described above in the iNet creation process, a series of meetings are planned for each iNet throughout the project life cycle, as described in Table 6.

The scoping seminar will formally kick-off the activities of the network and crystallise stakeholder engagement. This will also help set priorities and define the agenda for each iNet. Following on from this, three interregional workshops will be held to identify main gaps and innovation opportunities for each NWFP value chain. At a local level, a number of science to practice dissemination event will be organised in each iNet´s participating country to experience NWFPs knowledge on the ground, and to support knowledge transfer and dissemination of lessons learned among local actors. Further details on interregional workshops and dissemination events are presented in section 4.3 and 4.4.

Finally, three Cross Cutting seminar will be held on specific topics that are common and relevant to all iNets: territorial marketing and ES value chains, innovative business models, and ITC tools.

Meeting name	Target participants	Target numbers	Objectives
iNet - Scoping seminar	Project Partners involved in each iNet, NWFP practitioners, Researchers, forest owners, policy makers etc.	30 for each seminar	Kick-off and development of each iNet, Stakeholder engagement, identify priorities for the iNets.
iNet Interregional	Project Partners involved in	20 for	Identify and contextualise

Workshops (3 for each iNet)	each iNet + NWFP practitioners, Researchers, forest owners, policy makers etc.	each seminar	knowledge available, identify persisting gaps and research priorities, highlight key innovation opportunities.
Science to practice event (min. 7 per iNet)	iNet local stakeholders, local practitioners, local researchers, forest owners, NWFPs businesses etc.	15 for each event	To experience NWFPs knowledge on the ground, peer-to-peer exchange, transfer of knowledge, dissemination of lessons learned among local actors.
Cross Cutting seminar, 3 in total (1: Territorial marketing and ES value chains; 2: Innovative business models, 3: ITC tools)	Project Partners + NWFP practitioners, Students, Researchers, forest owners, policy makers, etc. Thematic Stakeholders of cross-cutting topics	40	Bridge knowledge gap and create cross-sectorial partnerships to support NWFP actors in the development of innovative solutions.

Table 6: iNet meetings and objectives

4.2   Duties of the iNet coordinator

As discussed in chapter 2, the role of the iNet coordinator is important for the successful development of the networks. In general, the coordinator will be a member of a project partner team and will act as the main contact point and the official administrator of the iNet. In each country, there will be one official additional contact from the partner organisation active in that country. This will help overcome language barriers and ensure a closer relationship with the local actors within each country. National contacts will need to keep close contact with the iNet coordinator to smooth any issues linked to the interregional dimension of the iNets. Furthermore, alongside the coordinator, a vice-coordinator can be appointed to help with the day-to-day management and administration of the networks.

The coordinator is chiefly responsible for:

- Collaboration and support to all involved partners in the creation and animation of the iNet, following the guidelines of the present document;

- Monitoring iNet activities and ensure compliance with procedures and objectives;

- Planning and preparing the content of the workshops and other events scheduled for the iNet, with the help of the national contacts and/or the vice-coordinator;

- Ensuring sufficient animation within each iNet;

- Summarising the information and results of the iNet workshops and events, by using appropriate templates, documents and communication channels;

- Guaranteeing effective internal communication among the members of the network;

- Reporting to the Community of Practice (COP), a technical group led by an expert where all iNet coordinators meet to ensure consistency of approach in stakeholder management and review progress jointly.

As explained above, the iNet coordinator is responsible for the successful animation of the network. The Community of Practice will also help monitor the level of animation and, should it be required, an additional animator can be appointed to support the coordinator before, during and after the meetings.

4.3   Planning and delivering inter-regional workshops

According to the project road map (task 1.3), a series of three **interregional workshops** will be organised for each iNet. Each will be a three-day event, combining seminars and debates, field trips and farm-to-farm innovation activities where appropriate. These will be arranged in different locations within each iNet geographical span. Interregional workshops will start three months after the scoping/kick-off seminar cycle, with a periodicity of six months approximately (November 2018, May and November 2019). These multi-actor sessions will be animated by the innovation facilitators with the support of Task 1.4 and will cover the identified issues related to sustainable production, supply side arrangements and access to markets, following the road map. At each session, the quality and relevance of delivered knowledge will be collectively assed, validated and a new set of questions will be identified in a DELPHI-like scheme.

4.4   Planning and animating dissemination events

In between interregional seminars, nine **science-to-practice one-day events** will be celebrated for each iNet in order to transfer knowledge and to disseminate lessons learned at the Interregional workshops and other project activities at local level in the different iNet regions. These one-day events will consist of *open days* at research labs, *farm-to-farm* innovation transfer sessions, field trips and workshops, etc. Knowledge transfer materials, still in draft format, will be shared, validated and feedback collected to identify new themes and knowledge gaps. In addition, key stakeholders participating in the iNets will be actively invited to host and organise further activities in this format, in coordination and with the communication support of the INCREDIBLE consortium.

5.   iNet governance and functioning rules

While establishing iNets, coordinators should reflect on how to ensure their highest performance standards. iNets should be able to work efficiently, ensuring plurality of opinions, lowering cultural and knowledge barriers across involved members, and forecasting and assessing potential technical, management and legal risks in advance. The following section deals with these matters and should be carefully read before the iNet establishment phase takes place.

5.1 Internal reporting and knowledge dissemination

Project report is essential to continuously inform partners about project status, iNet progress, relevant events, work planning and other relevant issues. Progress reporting should be done by the iNet coordinators (including information received by their national contacts) to the COP and the Project Coordinator. In parallel, knowledge dissemination will be ensured through systematic reporting of the collected information to the *Knowledge sharing platform* (developed by EFI with CFRI), to the *Accelerator* (developed by ETIFOR) and through dissemination in the project web and social media.

5.1.1. Knowledge sharing platform

Knowledge flow will be supported in a cloud-based knowledge-sharing platform that will make available relevant knowledge from science and practice addressing knowledge needs across the NWFPs value chains. To this end, iNet coordinators will be responsible of the knowledge transfer process, which will include the identification of a substantial number of research findings as well as success cases identified in the iNets. These will be made available through existing channels, including those linked to the European Innovation Partnership (EIP) and the Agricultural Knowledge and Innovation Systems (AKIS). Another Horizon 2020 thematic network project on agroforestry, AFINET (AgroForestry Innovation NETworks), is currently building an open access knowledge cloud. Synergies and integration with this cloud will be explored by the project consortium.

5.1.2. Accelerator Programme

The five most relevant innovation opportunities identified in the iNets will be transformed into Open Innovation Challenges. The winners, in partnership with the relevant iNet stakeholders, will streamline their proposed solutions in the Innovation Accelerator to provide critical knowledge and skills. The Accelerator programme will be designed as an intensive training programme, including networking and co-working sessions. Researchers and innovators will interact with leading social scientists, policy and business leaders in order to test and improve ideas related to business modelling, policy and social innovations.

5.1.3. Project web and social media

The project web will host a specific sub-site for each iNet. All the contents added to the web will be associated to a term (taxonomy) that relates them to a specific iNet, in such a way that users will be able to search for information linked to a NWFP in particular (e.g: news, blog post, repository, etc). The main language of the website will be English. The actions, events, meetings organised by the iNets will be disseminated in Twitter, LinkedIn and Instagram accounts. Partners can use their own social media accounts to disseminate too, using the hashtag #incredibleforest.

5.2 Dissemination, Communication, Impact

The Communications Strategy (D4.1, February 2018) describes the tools to disseminate the project results, iNet activities, events, outcomes, and materials generated from each iNet. A person within each iNet, designated by the iNet facilitator, will be the main contact point for project communication and dissemination activities.

Prior to each iNet event (ideally one month), the WP4 leader will provide a press release template including the main information to be adapted for each iNet (dates, place, objectives) which should be sent to the regional/local media and specialised channels. Events should be announced locally prior to taking place and an article about the event, with its conclusions, should be disseminated soon after.

Events to be announced (and a press release with its conclusions, if appropriate):

- Scoping seminar

- iNet Interregional Workshops

- Science-to-practice events

The narrative developed in each iNet should be communicated to WP4 leader in order to strengthen the "key messages" contained in the Communications Strategy.

Templates and general content for regional / iNet-specific materials summarising scientific knowledge, innovative practices, relevant business models and social innovations will be produced, in discussion with iNet facilitators. These may include e-Newsletter and blog, iNet leaflet, poster / banner. iNet facilitators may choose to produce these materials in local languages where appropriate / feasible.

Reporting on all communications activities will take place as part of the periodic reports due for the whole project. All Consortium partners will report on their dissemination activities, for collation by WP4. Numerical and narrative reporting will include the following measures.

iNet membership will indicate how many people become involved in the project directly. Membership and subscriptions (where information is provided) will be analysed to show the different target audiences reached.

The number and provenance of Practice Abstracts collected at iNet level, as well as of participants in Innovation Challenges and submissions to the Research-into-Action awards will indicate breadth of engagement geographically, thematically and sectorially.

5.3   Data management and protection of personal data

Initiating and operating the iNets will entail many interactions with the stakeholders of the respective iNets. As a result, within the framework of INCREDIBLE, information on stakeholders will be collected, and - for the sake of effective stakeholder management and in order to reach INCREDIBLE's objectives - analysed and stored. Hence, protection of personal data is an important matter.

The EU Charter for Fundamental Rights states the following points with respect to the protection of personal data:

Chapter II - Article 8: Protection of personal data

- Everyone has the right to the protection of personal data concerning him or her.

- Such data must be processed fairly for specified purposes and based on the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data, which has been collected concerning him or her, and the right to have it rectified.

- Compliance with these rules shall be subject to control by an independent authority.

Within the INCREDIBLE project, personal data are being collected and kept for the entire project duration. All the project partners have been informed that personal stakeholder related information can only be used for purposes related to the project and its dissemination, and that tools (lists, databases, documents) used to store or analyse stakeholder related information, are used in ways to protect the personal and confidential nature of the information.

At the beginning of stakeholder workshops, participants are asked to sign a disclaimer stating the following:

"Any information provided to the INCREDIBLE project will be considered as strictly confidential. Data are collected for the specific objective of the event itself and the INCREDIBLE project. I agree that, in the context of this meeting, video and/or audio recordings and pictures can be taken of me". These can be placed on the INCREDIBLE website or used in INCREDIBLE publications.'

Stakeholders can signal that they do not wish to be filmed, recorded or have pictures taken from them, and this wish will be respected. Stakeholders can indicate they do not wish to receive INCREDIBLE related correspondence.

In addition to protecting personal data, this approach also serves to build stakeholders' trust and confidence in the project team members and the project itself. INCREDIBLE project partners take the confidentiality of their contacts' personal data very seriously.

5.4   Risk assessment

As part of managing the iNets, careful consideration should be given to the possible emerging technical, management and legal risks linked to its activities and day-to-day duties. A risk is defined as "any situation involving exposure to danger." (Oxford Dictionary). In iNet management, a risk assessment must cover all project activities and aim at a timely response to critical issues and delays that were not foreseen in the planning phase. Risks can emerge from a diverse set of situations and can affect the overall performance of the network. The following table summarizes the main types of risks affecting the iNets.

Risk type	Possible implication
Copyright misuse	Legal implication, stakeholder mistrust
Gender imbalance in iNet	Unequal representation of society
Lack of specific stakeholder groups in iNet (see 3.5)	Unequal representation of society and existing knowledge
Stakeholder withdrawal from the iNet	Stakeholder mistrust, knowledge copyright
Conflicts among diverging stakeholder interests	Conflicts, stakeholder mistrust
Biased role of iNet coordinator (see 2.1)	Credibility loss, stakeholder mistrust
Conflicts of views between individual members and their organisation)	Misrepresentation of existing knowledge
Language barriers	Lack of communication across members
Lack of confidentiality on stakeholder data (see 5.3)	Stakeholder mistrust, legal implications

Table 7: iNet risks and possible implications.

To lower risks occurrence, iNet functioning rules should be developed and implemented prior to the iNet establishment. This section will focus on providing guidelines for each of the identified risks.

Copyright

Copyright grants to the creator of an original work exclusive uses and distribution rights. In iNet management, two different forms of copyrights should be considered:

- Individual copyright, for those members presenting **and** discussing a personal original work, product or service to others iNets stakeholders or depositing it in the project knowledge repository.

- Collaborative copyright for those ideas and information jointly generated by the collaborative works of members within the iNets

The management of both forms of copyright will be dealt with in INCREDIBLE deliverable D5.2.

Gender balance and inclusion of vulnerable groups

Attention should be paid to gender balance in the iNet composition. In addition, where **possible**, youth groups and people with disabilities should be included in the activities and workshops organised for the iNet.

Stakeholder withdrawal from the iNet

It might occur that certain members might wish to be withdrawn from both the iNet and the knowledge repository database created, this due to disagreement with the iNet narrative, personal or professional reason, etc. If this happens, the iNet coordinator should alert immediately the Project Coordinator and the Community of Practice, which will decide how to follow up the issue and remove (if necessary) the information included into the database related to this stakeholder.

Conflicts

Conflicts may arise in the iNets, due to diverging stakeholder interests or even between individual members and their respective organisations. To minimise the chances of conflict occurring, as explained above, it is important that the coordinator acts as an unbiased figure. In addition, this risk can be mitigated by reaching and recording consensus around key decisions and priorities of the iNet and striving to get the buy in of all actors involved through an inclusive approach. In the case of major conflicts arising, which might affect the functioning or the overall work of the iNet, the coordinator should alert immediately the Project Coordinator and the Community of Practice, which will decide how to address the issue.

Language barriers

Multi-country iNets might present important challenges in term of managing the multiple languages that will be used within the iNets (see Table 3). This can lead to lack of comprehension between members from different language backgrounds and might pose critical risks to the effectiveness of the iNets knowledge transfer process. Appropriate multi-language translations should then be implemented by INCREDIBLE project partners to (i) even out the level of access to knowledge across iNet members, (ii) avoid lack of comprehension of key concepts and terms. Translation can be used both during iNet key events, using simultaneous interpreters, and for disseminating key items emerging in the iNet knowledge sharing process. A dedicated budget for translation is allocated to each project partner and equally shared across the main languages of the project (INCREDIBLE Description of the Action section 3.4). It will be the responsibility of all iNet coordinators to consider appropriate spread of these resources across iNets and participating countries.

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