



FIRE-RES

Innovative technologies & socio-ecological-economic solutions for fire resilient territories in Europe

D6.1: OPERATIONAL HANDBOOK FOR OIC KICKSTARTING

www.fire-res.eu
fire-res@ctfc.cat

Project Acronym: FIRE-RES

Project name: Innovative technologies and socio-ecological-economic solutions for fire resilient territories in Europe

Call ID: H2020-LC-GD-1-1-2020 (Preventing and fighting extreme wildfires with the integration and demonstration of innovative means)

Work Package: 6

Task Number: 6.1.1

Lead beneficiary: Institute for Systems and Computer Engineering, Technology and Science (INESC TEC)

Contributing beneficiary(ies): European Forest Institute (EFI), ForestWISE (FWISE), Institute for Systems and Computer Engineering, Technology and Science (INESC TEC),



This document was produced under the terms and conditions of Grant Agreement No. 101037419 of the European Commission. It does not necessarily reflect the view of the European Union and in no way anticipates the Commission's future policy in this area.

Publication

Publication date: 30/06/2022

Authors: Alexandra Xavier, INESC TEC; Alípio Torre, INESC TEC; Sara Neves, INESC TEC

Abstract: Funded under the European H2020 research and innovation program, the FIRE- RES project aims to enhance the transition of the European Union towards a fire-resilient continent over the 2021-2025 period. The Open Innovation Campaign offers the project partners and stakeholders the opportunity to disseminate unsolved problems beyond their organizations and find solutions in the global community of solution providers. The Operational Handbook for OIC Kickstarting outlines the blueprint of the activities and is a guideline for their development and deployment.

Key words: Open Innovation, Open Call, Challenges Design, Open Lab

Quote as: Xavier, A., Torre, A., Neves, S. (2022). Operational Handbook for OIC Kickstarting.

DOI: 10.5281/zenodo.6780044

Dissemination level (please select the type of dissemination level with one X)

PU- Public: must be available in the website

CO- Confidential: Only for members of the Consortium and the Commission Services

CI – Classified: As referred in to Commission Decision 2001/844/EC

Document history

Edition	Date	Status	Author
Version 1	06/06/2022	Draft	Alexandra Xavier (INESC TEC); Alípio Torre (INESC TEC); Sara Neves (INESC TEC)
Version 2	27/06/2022	Revision	Erico Kutchartt (UNIPD), Inazio Martinez (EFI), Eduard Plana (CTFC)
Version 3	29/06/2022	Final	Alexandra Xavier (INESC TEC); Alípio Torre (INESC TEC); Sara Neves (INESC TEC)

Copyright © All rights reserved. This document or any part thereof may not be made public or disclosed, copied or otherwise reproduced or used in any form or by any means, without prior permission in writing from the FIRE-RES Consortium. Neither the FIRE-RES Consortium nor any of its members, their officers, employees or agents shall be liable or responsible, in negligence or otherwise, for any loss, damage, or expense whatever sustained by any person as a result of the use, in any manner or form, of any knowledge, information or data contained in this document, or due to any inaccuracy, omission or error therein contained.

All Intellectual Property Rights, know-how, and information provided by and/or arising from this document, such as designs, documentation, as well as preparatory material in that regard, is and shall remain the exclusive property of the FIRE-RES Consortium and any of its members or its licensors. Nothing contained in this document shall give, or shall be construed as giving, any right, title, ownership, interest, license, or any other right in or to any IP, know-how, and information.

The information and views set out in this publication do not necessarily reflect the official opinion of the European Commission. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Table of Contents

INTRODUCTION	1
THE OPERATIONAL HANDBOOK	1
THE SUPPORT DOCUMENTS.....	2
ANNEX - OPERATIONAL HANDBOOK FOR OPEN INNOVATION CHALLENGE KICKSTARTING.....	4

Introduction

Extreme Wildfire Events are becoming a major environmental, economic and social threat across the world. FIRE-RES aims to develop a holistic and integrated fire management strategy to efficiently and effectively address Extreme Wildfire Events in Europe.

Led by European Forest Institute (Finland), FIRE-RES Work Package 6 seeks to trigger the up-scale and out-scale innovative wildfire risk mitigation solutions thanks to the creation of new strategic partnerships to connect actors in the sector and stimulate investments, the implementation of Open Innovation initiatives, and the synthesis and exploitation of the FIRE-RES Innovation Actions. Towards these goals, the Open Innovation Campaign (OIC) promotes initiatives focused on expanding the potential for solution generation, testing, and deployment acceleration across the spectrum of technological, societal, and corporative profiles, by exposing challenges and promoting their solutions through external sources or internal sources not currently engaged in the process.

The Operational Handbook

The “Operational Handbook for the Open Innovation Campaign” is developed for supporting the consortium of the FIRE-RES project in the deployment of Open Innovation initiatives.

This document provides a comprehensive overview and description of the Open Innovation Campaign initiative to be conducted within the scope of Work Package 6 of the FIRE-RES project.

The handbook contains a quick introduction to the subject of Innovation and Open Innovation to provide the context to a general audience and establish the basis for the rest of the document. The process and the key activities of the Open Innovation Campaign, the Open Call and the Open Lab are outlined and the key support documents are listed.

The Handbook is provided in the format of a presentation, for easier dissemination, which is an annex to this document and is divided into 5 (five) main sections:

- **Introduction**

This section aims to give an introduction to the concept of innovation, Open Innovation, approaches, benefits, and challenges.

- **Open Innovation Campaign**

This section provides an overview of the Open Innovation initiatives to be implemented.

- **OIC – Open Call**

This section presents the initiative based on the challenge approach and explores the supported methodology.

- **OIC – Open Lab**

This section presents the initiative based on the blending of a co-creation lab and hackathon approach and explores the methodology.

- **Evaluation of the Campaign**

In this section, the overall approach to the assessment of the Open Innovation campaign.

The Support Documents

The Handbook will be supported by several documents to enable the operationalization of the Open Call and the Open Lab. These documents are under development and being tested with some test groups to assess their usability and performance before deployment. The final versions will be made available as soon as they are finalized and no later than the preparation stages of each activity.

Table 1 Open Call Support Documentation List

Document	Current version	Stage of Development
Open Call Guidelines	2	The final version is pending. Waiting for the design of the financial support mechanism.
Open Call Challenge submission form	1	Reviewing by the partners. The final version is pending. Waiting for inputs from Open innovation training workshop (task T6.1.2)
Open Call Solution application form	2	Reviewing by the partners. The final version is pending. Waiting for inputs from a test

		with one Fire-res innovation action.
Open Call Solution evaluation tool	2	Final version.
Open Call Participant term sheet	1	The final version is pending. Waiting for the design of the financial support mechanism.
OIC Key Performance Indicator list	1	Final version.
OIC Support Services for Implementation Survey	2	Final version.
Glossary	1	Final version.
Facilitator Training Workshop workbook	1	Under development
Challenge Design Workshop - Workbook	1	Under development

Table 2 Open Lab Support Documentation List

Document	Current version	Stage of Development
Open Lab Guidelines	1	Under development
Open Lab evaluation tool	1	Under development
Participant application form	1	Under development
Open Lab Workbook	1	Under development

Annex - Operational Handbook for Open Innovation Challenge Kickstarting



FIRE-RES



OPERATIONAL HANDBOOK FOR OPEN INNOVATION CHALLENGE KICKSTARTING

Document Confidential - Only for members of the Consortium and the
Commission Services

This document is designed to guide the implementation and monitoring of the Open Innovation Campaign (OIC) with an aim to up-scale and out-scale innovative wildfire risk mitigation solutions, in an open innovation environment.

VERSION 3.0

29 June 2022



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101037419. It does not necessarily reflect the view of the European Union and in no way anticipates the Commission's future policy in this area.



Table of Contents

Introduction

Open Innovation Campaign

OIC Open Call

OIC Open Lab

Evaluation of the Campaign

References



INTRODUCTION

1. Overview
2. About this handbook
3. To Innovation
4. To Degree of Innovation
5. To Types of Innovation
6. To Open Innovation (OI)
7. To the benefits of OI
8. To the challenges of OI
9. To common models of OI



Introduction

FIRE-RES and the Open Innovation Campaign

Extreme Wildfire Events are becoming a major environmental, economic and social threat across the world. FIRE-RES aims to develop a holistic and integrated fire management strategy to efficiently and effectively address Extreme Wildfire Events in Europe.

Led by European Forest Institute (Finland), FIRE-RES Work Package 6 (WP6) seeks to trigger the up-scale and out-scale innovative wildfire risk mitigation solutions thanks to the creation of new strategic partnerships to connect actors in the sector and stimulate investments. The implementation of Open Innovation initiatives aims to leverage the Living Lab's potential for testing, demonstrating, and deploying innovations on the territory level, in an open innovation environment

Towards these goals, the Open Innovation Campaign (OIC) promotes initiatives focused on expanding the potential for solution generation, testing, and deployment acceleration across the spectrum of technology-oriented solutions, societal-oriented solutions, and corporate innovative-oriented solutions.





Introduction

FIRE-RES and the Open Innovation Campaign

ABOUT THIS HANDBOOK

The “Operational Handbook for the Open Innovation Campaign Challenge Kickstarting” is developed for supporting the consortium of the FIRE-RES project in the deployment of Open Innovation initiatives.

This document provides a comprehensive overview and description of the Open Innovation Campaign initiative to be conducted within the scope of Work Package 6 of the FIRE-RES project. It contains a quick introduction to the subject of Innovation and Open Innovation, a description of the Open Innovation Campaign, the key activities and processes as well as key support documentation.

Additionally, this document will be complemented with workbooks supporting each activity described, namely workshops and events, that will be specifically developed and tested to guide the deployment of said activities.

The Handbook is divided into 5 (five) main sections and annexes:

I. Introduction

This section aims to give an introduction to the concept of innovation, Open Innovation, and the main characteristics, approaches, benefits, and challenges.

II. Open Innovation Campaign

This section provides an overview of the Open Innovation initiatives to be implemented, their structure, and their rationale.

III. OIC – Open Call

This section presents the initiative based on the challenge approach and explores the methodology, the structuring, timeline, and organization of the activity.

IV. OIC – Open Lab

This section presents the initiative based on the blending of a co-creation lab and hackathon approach and explores the methodology, the structuring, timeline, and organization of the activity.

V. Evaluation of the Challenge

In this section, the overall approach to the assessment of the Open Innovation campaign is presented as well as the key performance indicators.



Introduction TO INNOVATION

Innovation is the mechanism through which organizations seek to satisfy their customer's needs, improve their performance and solve challenging problems.

They do this either through the introduction of new or significantly different products or processes that employ a new invention, technology, or business model.

Throughout time the definition of innovation has changed and has depended on its proposer of use. The European Commission provides one definition in the Oslo Manual (OECD/Eurostat 2018).

New or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).

Source: OCDE/Eurostat (2018)

Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace.

Source: Baregheh, Rowley and Sambrook 2009



Introduction TO DEGREE OF INNOVATION

Every innovation is different, despite technical and scientific worthiness and novelty when compared in terms of economic and social impact. While some inventions remain unexploited, never converting into innovations, others' implementation has a disproportionate impact with world-changing potential, from the wheel to the steam engine, to the World Wide Web.

When looking at innovations one will be tempted to try and categorize them according to this expected impact and categories have emerged to address this challenge. One such classification proposed by Henderson and Clark (1990) divides innovations into incremental or radical innovations, modular or architectural innovations dependent on how the innovation affects scale and degree.

Incremental innovation introduces quality improvements in core components. The word renovation would more precisely describe this type of innovation which show a logical and sequential evolution of existing solutions.

Modular innovation may result in the complete redesign of core components while leaving linkages between the components unchanged.

Architectural innovation changes the nature of interactions between core components while reinforcing the core design concepts.

Radical innovation introduces a new meaning, potentially a paradigm shift, therefore the terms "discontinuous" or "breakthrough" are also used to describe these innovations that have wider, more impactful or less predictable effects.

A framework for defining innovation.

Source: Henderson and Clark (1990)

		CORE CONCEPTS	
		Reinforced	Overturned
RELATIONSHIP BETWEEN CORE CONCEPTS AND COMPONENTS	Unchanged	Incremental innovation	Modular innovation
	Changed	Architectural innovation	Radical innovation



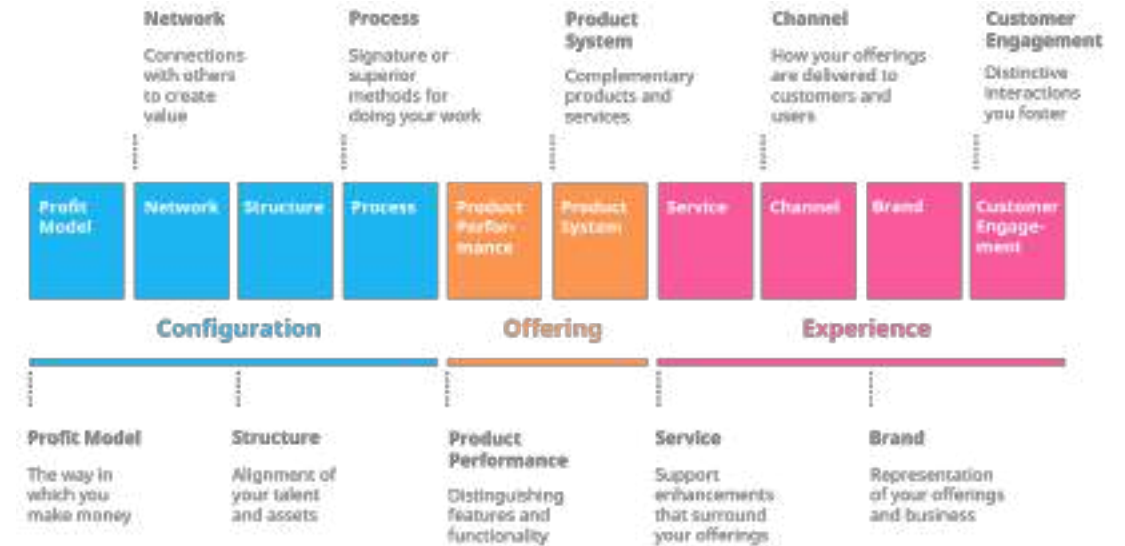
Introduction TO TYPES OF INNOVATION

In 1997 the innovation Agency Doblin, building on 40 years of research and studies, created the Ten Types of Innovation model and approach to innovation (Keeley, Larry, et al., 2013). After examining over 2,000 business innovations throughout history, the agency found that most breakthroughs don't necessarily stem from engineering inventions or rare discoveries.

The observation of the multiple patterns resulted in a strategic framework whereby they categorized the innovations in 10 dimensions (seen in the picture) that can be used by any interested party to analyse solutions, assess solution weaknesses, and explore new opportunities for their solutions.

These typologies enable anyone to either find inspiration when looking for a solution to a problem or to categorize and assess solutions currently being evaluated for a problem at hand.

The Ten Types of Innovation theory by Larry Kelley (2013).
Source: www.doblin.com and www.viima.com





Introduction TO OPEN INNOVATION

Open innovation is a powerful framework encompassing the generation, capture, and employment of intellectual property at the organizational level.

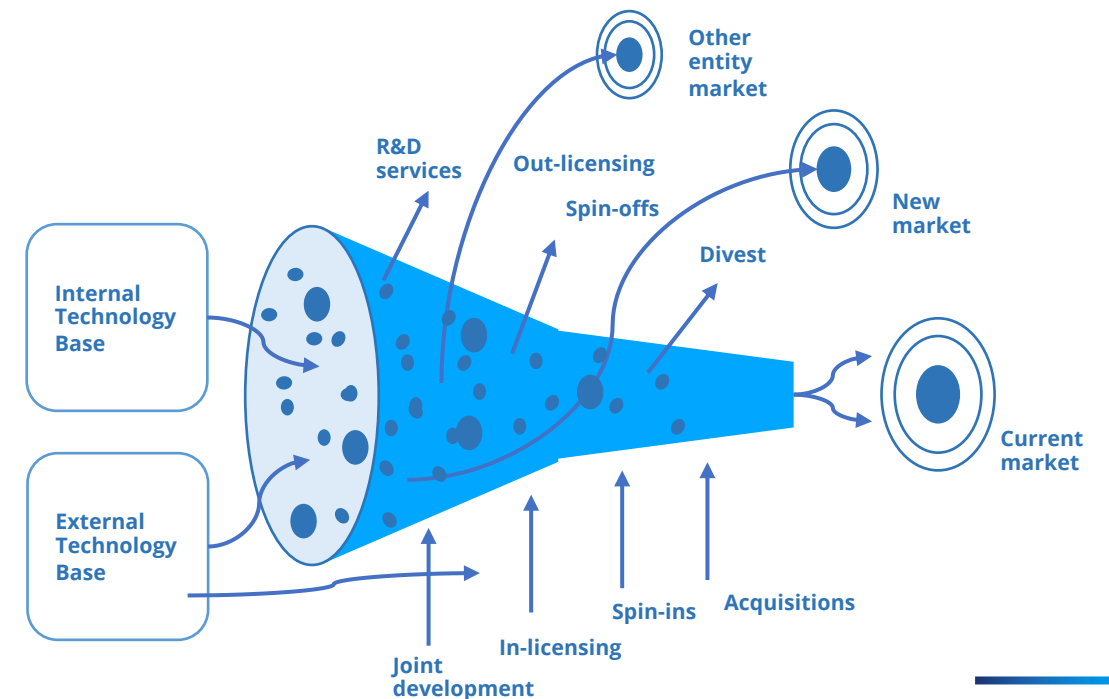
Innovation throughout time has traditionally been approached as an in-house activity, closely guarded against competitors, and therefore seen as a closed system from the outside. However, changes in culture, society, markets, and even technology have led to the emergence of a new paradigm that Chesbrough has named Open Innovation.

Open Innovation (OI) is at its fundamental the exercise of looking beyond the internal research and developments and considering novel sources of ideas and solutions. In its implementation, it can assume many forms, from simple idea banks or ideation competitions to full-scale acceleration programs.

A curious characteristic of OI is that it can work bidirectionally, both in an inbound (outside-inside direction) and outbound (inside-outside direction) manner either alternatively or concurrently. In inbound OI activities, the focus is on capturing

external knowledge as an alternative or complement to internal research and development resources.

Open Innovation model
Adapted from Chesbrough (2004, 2012)





Introduction TO THE BENEFITS OF OI

Open Innovation may unlock multiple advantages since it offers them a pathway to access knowledge, expertise and resources beyond those available to the internal resources.

Change of perspective

New perspectives are opened by the cross-pollination of knowledge and know-how from different industries and areas. Solutions that are already successfully used in other areas can be transferred to internal innovation projects. This enables developments of ideas and solutions that previously were unforeseen.

Greater idea and knowledge base

One approach to having a good idea is to have lots of ideas and through Open Innovation, numerous external and internal sources of ideas and knowledge can be accessed and used to enhance innovation. Currently, besides the integration of external innovation partners into the innovation process, the use of digitally enabled OI communities is becoming an

increasingly important source of ideas, distribution channels, business models, and even new fields of business.

Time savings

Due to products' shorter life cycles and increased market competition, the time spent on product development from the first steps to market launch is becoming increasingly important. Open innovation holds the potential to reduce the time-to-market by sharing activities with innovation partners.

Cost savings

Similar to the pressure on time the global markets push organizations to provide solutions at lower prices. This leads to efforts to reduce the cost-to-market, the cost of the innovation process from planning and ideation to market launch.



Introduction TO THE BENEFITS OF OI

Risk minimization

Innovation carries inherent risk due to its novelty and experimental nature. The Open Innovation model can enhance the fit-to-market of a new solution offering by engaging and integrating customers and users early on in the process. This can significantly increase market acceptance likelihood and curtail the risk of undesirable developments gaining traction in the innovation process.

Novelty level

Another central advantage of Open Innovation is the new-to-market factor. It describes the perceived novelty of innovation for the consumer. In product innovations, in particular, the degree of innovation is often low because only incremental innovations are produced. Existing products are only developed further from the traditional innovation process without creating functional added value. Innovations, on the other hand, which are created with the involvement of users

and other external innovation partners, open up new functionalities and create new markets.

Boosting visibility

When done well, Open Innovation can drive a lot of new interest in a product, service, or organization. This can be leveraged to increase the reach and attractiveness of the organization and its solutions for its various audiences.

Attracting investors

Depending on the strategic goals the participation in Open Innovation initiative can lend a lot of credibility to a growing company and can be a great way to attract new business interest from investors such as venture capital firms.



Introduction TO THE CHALLENGES OF OI

Open innovation is a remarkable platform to access diverse sources of new perspectives and ideas, improving the chances of discovering a truly unique solution. However, OI is accompanied by its own set of challenges, especially faced at the moment of adoption.

Strategic challenges

An organization wishing to adopt OI needs to possess a clear objective that it intends to achieve through the OI otherwise the effort would be futile and risk throwing the entire organization into chaos. The objective could be to attract relevant talent, create disruptive technologies, improve the existing offerings or develop the current processes. The first step for the organization would be to understand its needs and clarify the main goals.

The second strategic challenge is to find the right partners. The objectives of the organization and partners should be aligned, even if not completely coincident, for the collaborative efforts to be successful.

A third consideration is timing. The OI effort must be a relevant issue at the time for all partners otherwise there is a risk of

different paces during the project, creating instability.

Operational challenges

Open innovation can take a lot of time and effort to manage effectively. Organizations need to manage the process closely to make sure the exercise is consistent with their values and goals. A dedicated team should identify the right partners, liaison with them, and benchmark the ideas. The process should support the overall strategy and long-term plans of the organization and be communicated clearly to all stakeholders.

Chesbrough (2003) states "Open Innovation involves actors that fall outside of traditional supply chains, such as universities or individuals. These participants can be influenced, but are often not managed." For this reason project managers need an attitude shift.

The influx of new ideas and perspectives can be overwhelming if not properly addressed. Therefore, the organization must prioritize ideas, assign responsibilities, ensure optimal utilization of resources, and create plans for concepts not being used right away.



Introduction TO THE CHALLENGES OF OI

Legal challenges

As Open Innovation involves sharing information, it may not be appropriate for more sensitive projects and some questions of a legal nature may arise. Open innovation projects must have clearly defined terms and conditions to eliminate any uncertainty. It should identify how ideas are handled and whose property the ideas are after they have been submitted.

A key issue is the question of intellectual property. If Open Innovation results in a successful, world-changing invention, who should share in this success? The company, or the person suggesting the idea? An organization needs to take the necessary legal steps, set clear rules and file the required patents, trademarks, and copyrights as required in the name of the inventor to be free of potential lawsuits in the future.

Cultural challenges

Open innovation also requires a culture shift from those inside the organization since one big challenge is the “not invented

here” mindset whereby people simply have a hard time adopting external ideas.

Towards enabling Open Innovation, the culture of the organization needs to be encouraged to be more open and accepting. It should develop clear communication lines, commitment to projects, and a welcoming attitude towards change.

Another key area for Open Innovation is rewards and recognition. Whenever contributions are provided and value generated, there is a need to award those responsible to encourage such attitudes. The initial recognition may be a sufficient motivating factor, other times a reward should be considered even if it does not need to be monetary.



Introduction TO COMMON MODELS OF OI

Depending on the goals, strategy and structuring, the adoption and implementation of Open Innovation initiatives may assume different models or combinations of these. The most common models in use are presented in the table below.

Open Innovation models - most common models

Adapted from www.braineet.com

OI Model	Description
Challenges	Innovation challenges are conceived to gather ideas and find solutions. They can assume many forms: public events open to anyone or private events with specifically selected partners, focused to solve a specific problem that is already well-identified or more broadly defined to promote the submission of a wider range of ideas.
Hackathons	Hackathons are short, communal exercises where the goal is to work as fast as possible, channelling creativity, expertise and knowledge to create momentum in a very short period of time and go as far as possible (often up to the minimum viable product phase).
Co-Creation labs	Co-creation labs are places dedicated to innovation, with the resources, mentoring, and knowledge that people need to explore challenging questions. They can be either internally or externally organized.
Partnerships	Partnerships between organizations is another approach to co-develop a solution to an identified problem. These partnerships focus on leveraging each organization's strengths for mutual benefit. Usually one is a startup.
Incubator / accelerator	An incubator or accelerator is similar to a partnership, but also involves the organization investing equity in the partner, normally a startup. Often, the corporate will have an internal team working on the project, with the startup there to help them out with specific knowledge and expertise.
Intrapreneurship	Intrapreneurship focuses on those employees with a startup mindset and provides them with the support, funding, and mentorship they need to solve tough problems. This is the case of seeking innovation inside the organization but very likely outside normal R&D teams.
Acquisition	When the organization lacks internal resources, time or capability they may consider the acquisition of an existing organization to gain capacity without the need to build it from the ground up.



OPEN INNOVATION CAMPAIGN (OIC)

1. Open Innovation in FIRE-RES
2. Open Innovation Campaign
3. Open Call - Challenge approach
4. The Open Lab - Co-creation lab/
Hackathon approach
5. OIC Principles



Open Innovation Campaign (OIC)

OPEN INNOVATION IN FIRE-RES – WP6

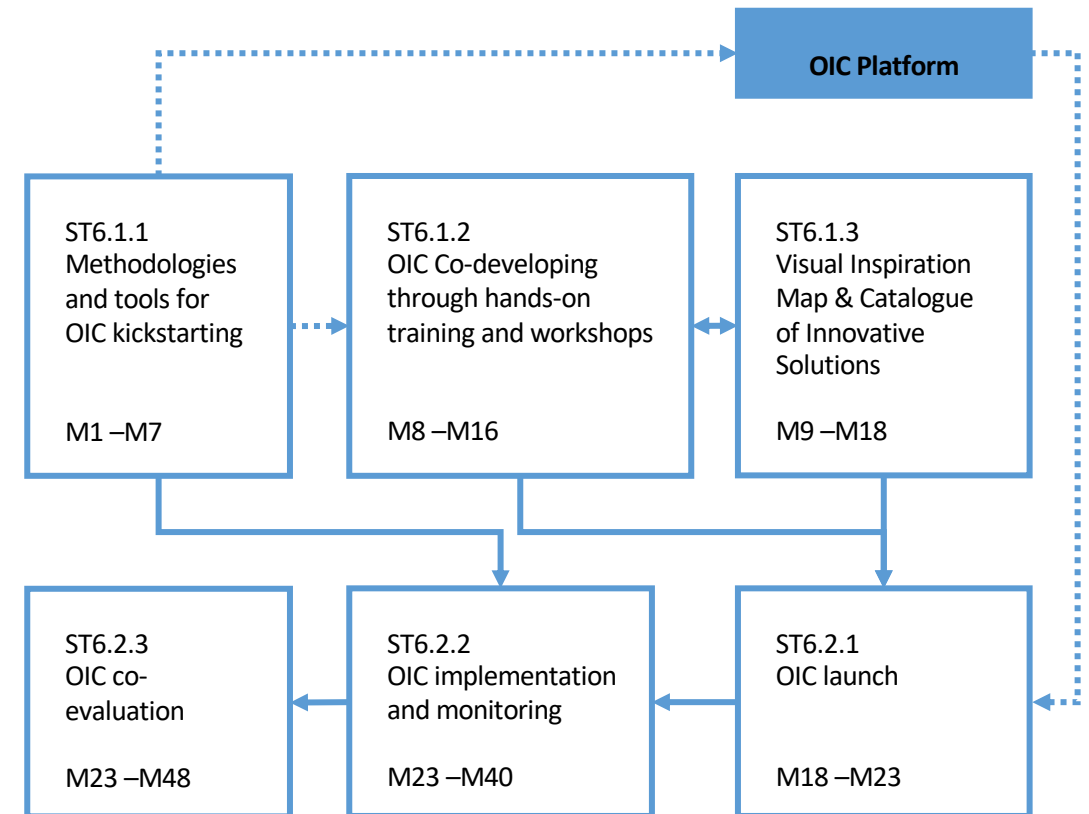
The FIRE-RES Work Package 6 aims to stimulate the up-scale and out-scale of innovative wildfire risk mitigation solutions, increasing the uptake and impact of FIRE-RES IAs by promoting a set of Open Innovation activities as can be seen on the side workflow.

The conceptualization of the Open Innovation activities to be promoted within the scope of WP6 (ST6.1.1) leading to the preparatory training workshops and collaborative development activities (ST6.1.2). In parallel an effort to collect and map information on problems, needs and solutions regarding wildfire events will be developed as a key source of information to support further activities (ST6.1.3). These activities will be developed in collaboration with WP8.

The activities will be opened to the general community of solution providers (i.e.: researchers, start-ups, SMEs, etc) to find the solutions that best address the challenges designed, on the problems identified (ST6.2.1), that the consortium will then support in order to improve and accelerate their transition to market (ST6.2.2).

The OIC will be evaluated to assure the scalability and replicability of the process in other contexts (ST6.2.3).

Work Package 6 - Overview of overall activities





Open Innovation Campaign (OIC)

OPEN INNOVATION APPROACH

The Open Innovation Campaign to be developed under the previously mentioned WP6 is expected to yield solutions ranging from the technological-oriented to the societal-oriented and also enable corporate innovation oriented solutions to emerge. The need to cover this broad spectrum led to the consideration of two different typologies of initiatives.

The first typology, based on a challenge approach, aims to promote the identification of problems and needs and convert them to challenges that can be answered with either technological or societal oriented solutions. This will become the **OIC Open Call initiative**.

The second approach seeks to enable the partners and the stakeholders of the consortium to identify internal innovation needs, focused on their organizations, that would benefit from a structured co-creation process of problem-solving. Towards this goal a blended event was conceived using co-creation lab methodologies crossed with the fast-paced and collaborative dynamics of hackathons – **Open Lab initiative**.

Open Innovation Campaign – Overview

	Open Call	Open Lab
	Challenge approach	Co-creation lab/ Hackathon approach
Technological-oriented solutions as high TRL innovations (e.g. wireless sensors & wearables, early warning systems, fire retardant rapid deployment, etc.);	✓	
Societal-oriented solutions social innovations engaging wider stakeholders' groups e.g. Local Action Groups, NGOs, to tackle cognitive and non-technological barriers (e.g. strengthening territorial value chains, fuel management strategies with fragmented land ownership, etc.);	✓	
Corporate innovation-oriented solutions directed at public and private organizations (e.g., fire protection agencies, forest owners associations) to promote internal innovation processes and foster new multi-partnership models		✓



Open Innovation Campaign (OIC)

Open Call - Challenge approach

What is an Open Call - the challenge approach?

An innovation challenge, or an innovation competition, is a compelling way of generating innovative ideas, from outside the consortium.

An innovation challenge can help you to:

- Unlock innovation potential through a game-like approach;
- Create or improve products, processes, services and customer experience; and
- Give everyone an opportunity to have a say, since ideas can have the most unexpected origins.

Participants are asked to generate and propose new solutions to the challenge and demonstrate their value and viability.

Structure

Challenge Design phase – design and development of the challenges by the Living Lab community (the stakeholders, LL and consortium organizations)

Open Call phase – publication of the call, promotion of the challenges and submission of applications by solution providers

Evaluation phase – procedure to select the best solutions proposed to help and fund their demonstrations

Implementation phase – demonstration of the solutions at the LL and mentorship to the applicants to accelerate the development



Open Innovation Campaign (OIC)

Open Lab - Co-creation lab/ Hackathon approach



What is an Open Lab – the co-creation lab/hackathon hybrid approach?

The Open Lab is a design sprint-like event in which people collaborate intensively on projects.

The goal of the Open Lab is to create functioning/demonstrable solutions by the end of the event.

The Open Lab tend to have a specific focus or objective. It may have restrictions on the solutions typologies, tools or techniques. It may have no restrictions.

Participants are asked to generate ideas for creating new or improving products, processes, services or customer experience and remain engaged as the challenge progresses, through regular feedback and updates.

Structure

Setup - Typically start with communication via a presentation or a web page from the hosting organization that mentions the objectives, terms, and details of the hackathon

Duration – Can last hours or even several days.

Demonstration / Presentation - At the end, there are usually a series of demonstrations in which each group presents their results.



Open Innovation Campaign (OIC)

OIC Principles

Inherent to OI activities is the establishment and development of collaboration activities between multiple parties involved in, or interested in, solving the problems being addressed.

Collaboration is going to be very different depending on the goals, settings, teams and resources involved in the activity. However, all collaborations are human endeavours with the following principles being relevant for all:

Motivation - For collaboration to succeed, everyone involved needs to feel that they gain something from the collaboration or feel that they are doing a meaningful thing and working towards a valuable result.

Communication - To find the right people to collaborate with, the project needs to be communicated clearly. Giving information about the project and its goals, helps people decide whether to participate or not.

Diversity - Collaboration benefits from a wide range of skills and expertise in the pool of participants. A diverse group of participants is often the best way to ensure that this is achieved.

Sharing - For a successful collaboration it is important to be

flexible with the ownership of ideas. This does not mean that a team should not give credit to individuals where credit is due, but any issues of ownership of ideas or concepts need to be agreed upon at the onset.

Support - The support of the other collaborators in the process is important, especially at times of crisis or unforeseen difficulties. Even when no hardships are expected, the collaborative group needs to work based on the trust that if someone were to need the support of others in the group, that support would be available.

Problem-solving - The group must be able to solve problems together. High tolerance for uncertainty is needed when the project changes direction or something does not go as planned.



OIC – OPEN CALL

1. Introduction
2. Methodology
3. Key Concepts and Roles
4. Timeline of Activities
5. Phase 1 – Challenge Design
6. Phase 2 – Open Call
7. Phase 3 – Evaluation
8. Phase 4 – Implementation
9. Support Documents



OIC – Open Call INTRODUCTION

The Open Call activity of the FIRE-RES Open Innovation Campaign aims to enhance the ability of the FIRE-RES project to provide newer and better solutions in response to stakeholders' challenges.

Designed to engage directly with stakeholders of the various Living Labs, to ascertain their problems and needs independently from ongoing activities to determine their concerns and help convert them into challenges to be solved.

Building on the Consortium expertise, the initiative validates these challenges, checking for existing solutions in-house and whenever these aren't available communicates and promotes the challenge publicly to engage the worldwide community of experts, inventors, and organizations capable of providing solutions.

The ability to go beyond the borders of the consortium to seek the best solutions to our stakeholder's problems is expected to enhance the value to the entire community and provide a wider net with which to gather and leverage the resources to efficiently and effectively address Extreme Wildfire Events in Europe.





OIC – Open Call METHODOLOGY

The Open Call activity is based on the concept of Open Innovation Challenge where the FIRE-RES consortium partners and stakeholders can explore their problems that aren't currently solved by the consortium initiatives and conceive new challenges open to outside solution providers.

These challenges may be addressed by solutions providers and they may be supported by the consortium resources to accelerate their development and market availability.

Structure

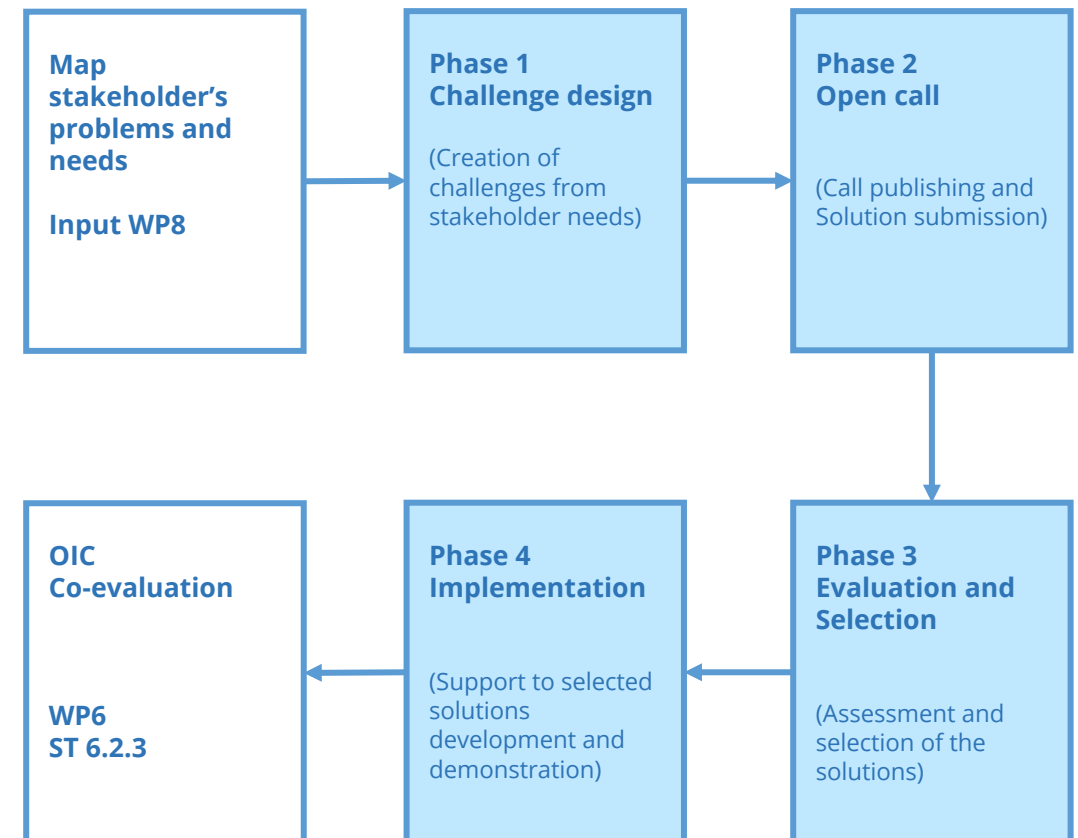
Challenge design – design and development of the challenges by the Living Lab community (the stakeholders, LL and consortium organizations)

Open call – publication of the call, promotion of the challenges and submission of applications by solution providers

Evaluation and Selection – the procedure to select the best solutions proposed to help and finance their demonstrations

Implementation – demonstration of the solutions at the LL and mentorship to the applicants to accelerate the development

Open Call – Methodology





OIC – Open Call

KEY CONCEPTS AND ROLES

The Open Call uses terminology which may not be clear for all participants so, to help, a glossary is provided with this document covering various terms. However, the most relevant concepts and roles associated to the Open Call are presented here.

Key Concepts

Challenge – the challenge is a structured description of a problem, with the associated needs and requirements for the solution of said problem to be publicly announced in order for solutions to be proposed. There is an expectation of demonstration of value of the solution.

Solution – the proposed product, service, concept, method or technique for solving the challenge.

Workshop – a meeting in which people learn about a subject by discussing it, doing activities relating to it and by exploring the unique set of knowledge and experience from the gathered individuals generate some development.

Facilitator – the individual responsible for the dynamization of activities to enable peer sharing of knowledge.

Key Roles

Open call organizers - the FIRE-RES Consortium members organizing, coordinating and supporting the Open Call initiative and providing support to the participants.

Challenge owner(s) – the stakeholder(s) of the Consortium that has proposed a specific challenge which emerges from their problems and needs and will endorse its development and demonstration.

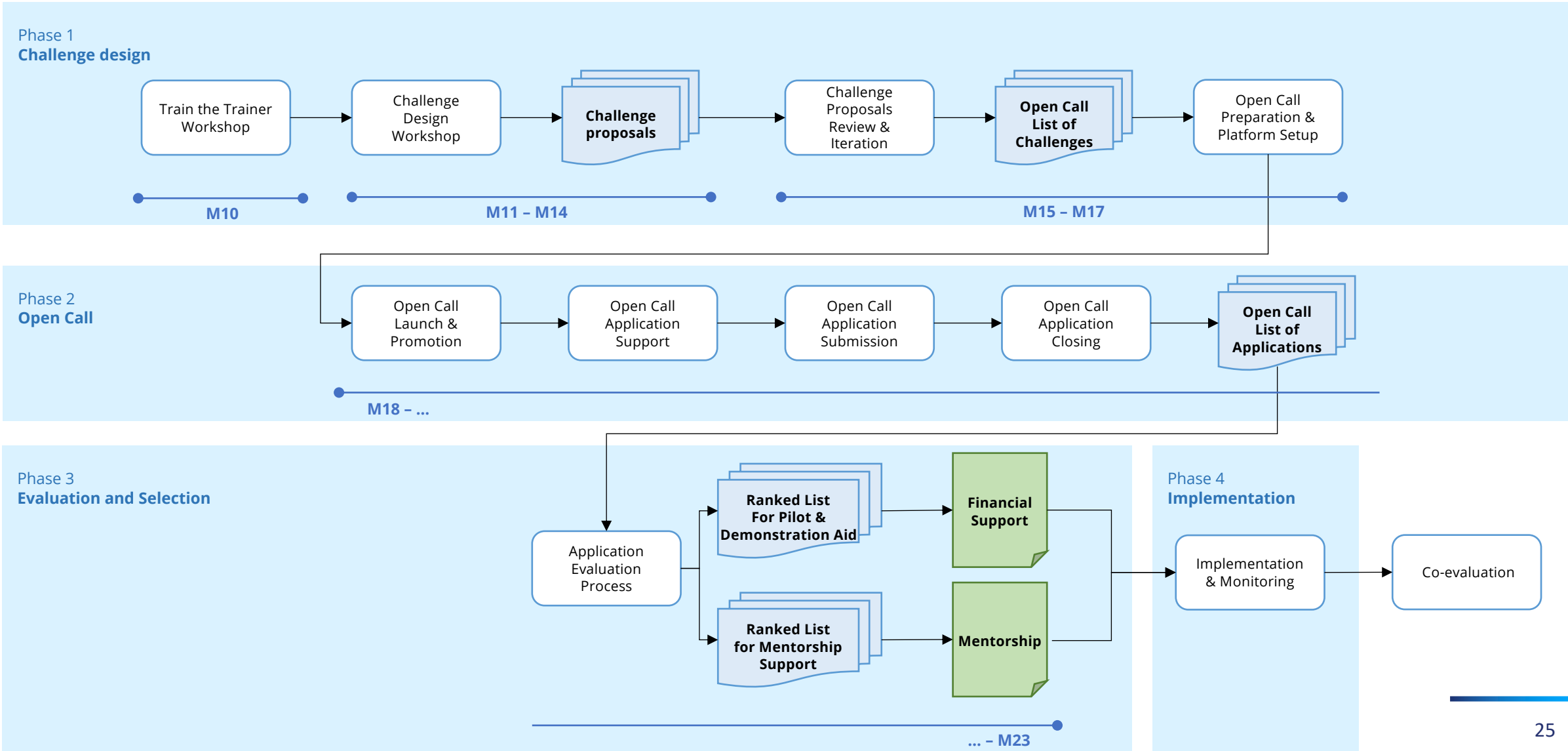
Solution provider – the individual or entity, outside the consortium, proposing a solution to completely or partially solve one of the published challenges.

Workshop facilitator – the individual responsible for the dynamization of each workshop. This person will be responsible for the organization of the workshop, the delivery of the materials and the guidance of the participants through the process. In the case of the Challenge Design workshop, the facilitator will be the person responsible for collecting the Challenge Submission forms resulting from the workshop and doing a preliminary check and quality review before passing them on to the Open Call Organizers.



OIC – Open Call

TIMELINE OF ACTIVITIES





OIC – Open Call

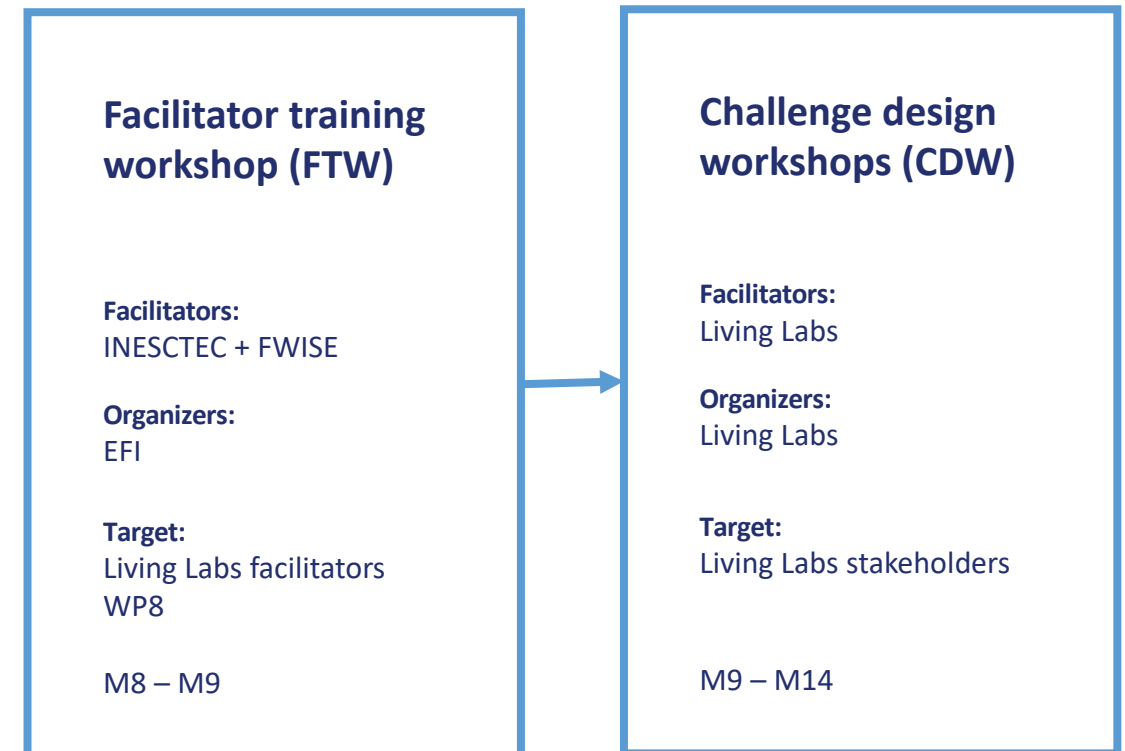
PHASE 1 - CHALLENGE DESIGN

The challenge design component of the Open Call will be implemented through workshops. The proposed organization considers two typologies of workshop to fully answer the requirements of the call:

Facilitator training workshop – this workshop has the purpose of informing and training facilitators to deliver the Challenge Design workshop at each Living Lab. The event will provide the foundations of the workshop, the methodology, frameworks and expectations. The goal is to enable local facilitators to conduct independent Challenge Design workshops based on the same procedure to assure congruency.

Challenge design workshop – this event is directed at the Living Lab stakeholders interested in generating challenges based on the problems and needs identified in their context. It will be designed to be delivered locally at each Living Lab, by a local facilitator, using a standardised format of workshop.

Open Call Workshops – Overview





OIC – Open Call

PHASE 1 - CHALLENGE DESIGN

Facilitator training workshop

An event organized to inform and train the Challenge Design Workshop facilitators on the methodology, frameworks and expectations.

The goal is to enable local Living Lab facilitators to conduct independent Challenge Design workshops based on the same procedure, to assure consistency of the process and outputs.

The first part of the workshop, the keynote, will be the presentation of the OIC, its goals and concepts. The objective is to provide a strategic view of this activity and its implications for FIRE-RES.

The second part is aimed at directly training the facilitators, it's being designed around a demonstration of the process, tools and procedures. The expectation is that the participants have a direct experience of the implementation of the workshop.

The details of the workshop, support documents and frameworks will be provided in the form of a **Facilitator Training Workshop Workbook**

Open Call Workshops – Facilitator training workshop structure

Part 1 KEYNOTE

Brief presentation of FIRE-RES OI Campaign

Audience:
Living Lab leadership
and facilitator

Duration:
1 hour

Attendants:
Room capacity

Part 2 WORKSHOP

Challenge Design Workshop Training

Audience:
Living Lab facilitator
(optional for leadership
if not facilitator)

Duration:
5 hours

Attendants:
Up to 30



OIC – Open Call

PHASE 1 - CHALLENGE DESIGN

Challenge design workshop

The event is designed to be delivered locally, at each Living Lab, by a local facilitator, using a standardised workshop format.

The goal is to enable the development of challenges by the Living Lab stakeholders based on the problems and needs identified in their context. The output of the workshop will be in the format of a structured document, the Challenge Submission form.

The first part of the workshop, the keynote, will be the presentation of the OIC, the workshop and key fundamental information for the workshop itself.

The second part consists of the workshop dynamic itself, designed to leverage the knowledge and expertise of the participants through the use of exercises and frameworks to finetune challenges to answer the problems and needs identified.

The details of the workshop, support documents and frameworks will be provided in the form of a **Challenge Design Workshop Workbook**.

.

Open Call Workshops – Challenge design workshop structure

Part 1 KEYNOTE

Brief presentation of FIRE-RES OI Campaign

Audience:
Living Lab community

Duration:
1 hour

Attendants:
Room capacity

Part 2 WORKSHOP

Challenge Design Workshop

Audience:
Living Lab community

Duration:
5 hours

Attendants:
Up to 15 per facilitator



OIC – Open Call

PHASE 1 - CHALLENGE DESIGN

Challenges Review and Iteration

The Challenge Design workshop will generate challenge proposals from the multiple Living Labs. These proposals will, in a first step, be reviewed and refined by each workshop facilitator to assure that they are in line with expectations.

The challenges should be submitted to the template, ***“Open Call Challenge submission form”*** .

The challenges will, in a second step, be reviewed by the Open Call organizers to assess 1) that they are consistent with the reference, 2) that they are ready for publication and 3) to determine if there exist cases of overlap between the proposed challenge and either work being currently carried out in FIRE-RES IAs or with other challenges proposed by another Living Lab.

In the cases of overlap between challenges, the Open Call

organizers will endeavour with the respective Living Labs and Challenge Owners to develop a single challenge proposal for publication, endorsing the cooperation of the entities.

The challenges that are finalized and ready for publication are compiled in a List of Challenges.

The Open Call organizers will at this stage define the Open Call details such as: start date, close date, specific rules or details concerning the challenges included in the List of Challenges.



OIC – Open Call

PHASE 2 – OPEN CALL

Online platforms

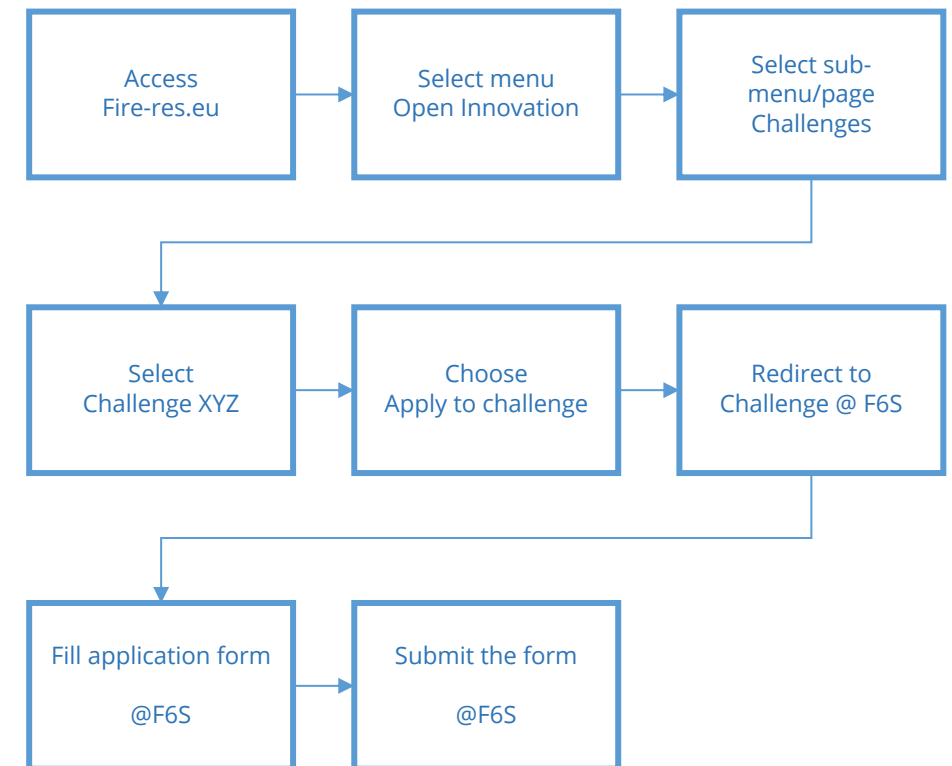
The Open Call operationalization will resort to two main online platforms:

FIRE-RES Website (<https://fire-res.eu/>) – the Consortium website will include a page dedicated to the Open Innovation Campaign and the initiatives being developed. For the Open Call, there will be a specific webpage containing the information of the Call, its objectives, timeline and procedures as well as a section where all the Challenges will be published for the public to access.

F6S Platform (<https://www.f6s.com/>) – the Open Call will make use of the online platform provided by F6S to collect the Solution applications resulting from the Call. This platform will host the Solution Application form in an online survey format that can be assessed directly from the Challenge description published on the FIRE-RES website.

The overall online experience will be as described on the side flowchart. A solution provider will access the FIRE-RES website, and be directed to the Open Innovation Campaign page where if interested in the initiative he/she can find the descriptions of all the challenges available. Once a challenge is selected to be answered, the applicant will find an option to “Apply to challenge” whereby they are redirected to the F6S platform automatically to the Solution Application form where they can fill in the necessary information for the correct application to the challenge.

Open Call Online Platforms - Solution provider submission experience





OIC – Open Call

PHASE 2 – OPEN CALL

Solution Application

The application process is guided and supported by the *Open Call Guidelines*, document.

Therefore the applicants will make use of the *Solution Application form* to respond to the challenge and submit their application.

The *Solution Application form* will be implemented electronically in F6S platform, it has five sections:

- **Sections 0, 1, 2 – focus on getting information on the applicant(s):**
- **Section 3 – focus on the description of the solution**
- **Section 4 – focus on the classification of the solution according to the typology and solution maturity across the three perspectives (TRL-Technology Readiness Level; MRL- Market Readiness Level and SRL – Societal Readiness Level).**
- **Section 5 – focus on the team fulfilment of the criteria described in the *Open Call Guidelines*.**



OIC – Open Call

PHASE 2 – OPEN CALL

Solution Maturity Classification

The Solution Application form incorporates three classification methods for assessing the maturity of the solution being proposed regarding three perspectives. They are:

Technology Readiness Level (TRL) - method for estimating the maturity of technologies, originally developed at NASA in the 1970s. The European Commission advised EU-funded research and innovation projects to adopt the scale in 2010. Due to the goal of finding solutions, the technology degree of development is relevant and therefore we adopt the scale from the EU Horizon 2020 program (H2020 general annexes G)¹. This method uses a scale of 1 to 9, from less to more technologically developed.

Market Readiness Level (MRL) – method for estimating the preparedness of the solution to reach the market. This scale measures the capacity of a solution to be ready to go to market with useful, useable and trusted products/services/processes. In accordance with the goal of a possible economic exploitation of the proposed solutions

we employ the MRL scale proposed by the European Commission, resulting from the the Cloudwatchhub project (<https://www.cloudwatchhub.eu/>)². This method uses a scale of 0 to 9, from less to more prepared to reach the market.

Societal Readiness Level (SRL) – method for estimating the level of societal adaptation of a solution, either social or technical, to be integrated into society. Since an expressed objective is to achieve social impact with the solutions for the challenges we propose the use of the SRL scale proposed by the Innovation Fund Denmark³. This method uses a scale of 1 to 9, from less to more adapted to society.

These classifications are useful tools for the assessment of the solution proposals, as means for initial ranking and for definition of the typology of support best suited for each proposal. For example, for Pilot Aid, only TRLs equal or above 5 and MRLs equal or above 4 should be considered, as stipulated in the Evaluation tool.

1. https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf
2. https://cyberwatching.eu/sites/default/files/D2.3%20Methodology%20for%20the%20classification%20of%20projects%20and%20market%20readiness_0.pdf
3. https://innovationsfonden.dk/sites/default/files/2019-03/societal_readiness_levels_-_srl.pdf



OIC – Open Call

PHASE 2 – OPEN CALL

Support Activities

The Open Call organization will need to provide support tools for the participants to address questions and difficulties.

The proposed support mechanisms are the following:

Helpdesk

Applicants will be able to pose questions via email [Helpdesk email address]. This mechanism enables the possibility to address unforeseen issues and provide more directed support whenever required.

FAQs

A list of FAQs will be published and updated during the application period. Applicants will be required to read carefully the FAQs before submitting the application or before submitting any questions to the helpdesk. This mechanism is expected to help limit the amount of load on the Helpdesk channel.

This two-tiered approach provides both preventive and reactive mechanisms and therefore is expected to cover all contingencies without overburdening the organization with live contacts.



OIC – Open Call

PHASE 3 – EVALUATION AND SELECTION

The solution proposals, once submitted, will be subjected to a structured, multi-step assessment process which includes eligibility check, proposal quality, interview and if selected, an activity plan review and negotiation.

The evaluation criteria are defined for each assessment step in the Open Call Guidelines document provided alongside this handbook.

The detailed process for the Evaluation phase is presented in the following slide, indicating the relevant information flows. The entire process is designed in order to gain progressively deeper insight and perspective on the proposed solutions and the teams behind them.

The ranking of the proposals will be the result of the scoring of each of these assessments, as compiled and reviewed by the Open Call Organizers by using the **Open Call evaluation tool**.

The evaluation and selection phase is expected to take up to 3 months.

Evaluation and selection phase – Key assessments

Proposal Eligibility Assessment - An eligibility check according to the eligibility criteria defined in section 3 of the Open Call Guidelines. Only those fulfilling all criteria will go forward. The results of this process will be communicated by email.

Proposal Quality Assessment - Eligible proposals will be evaluated following the evaluation criteria described in section 5.2 of the **Open Call Guidelines** document. The panel of evaluators will be composed by at least three different representatives of the Challenge Owner and FIRE-RES partners. The results of this process will be communicated by email.

Interview - Shortlisted proposals will be invited for an interview. The panel of evaluators will be composed by the representatives of the Challenge Owner and FIRE-RES partners.

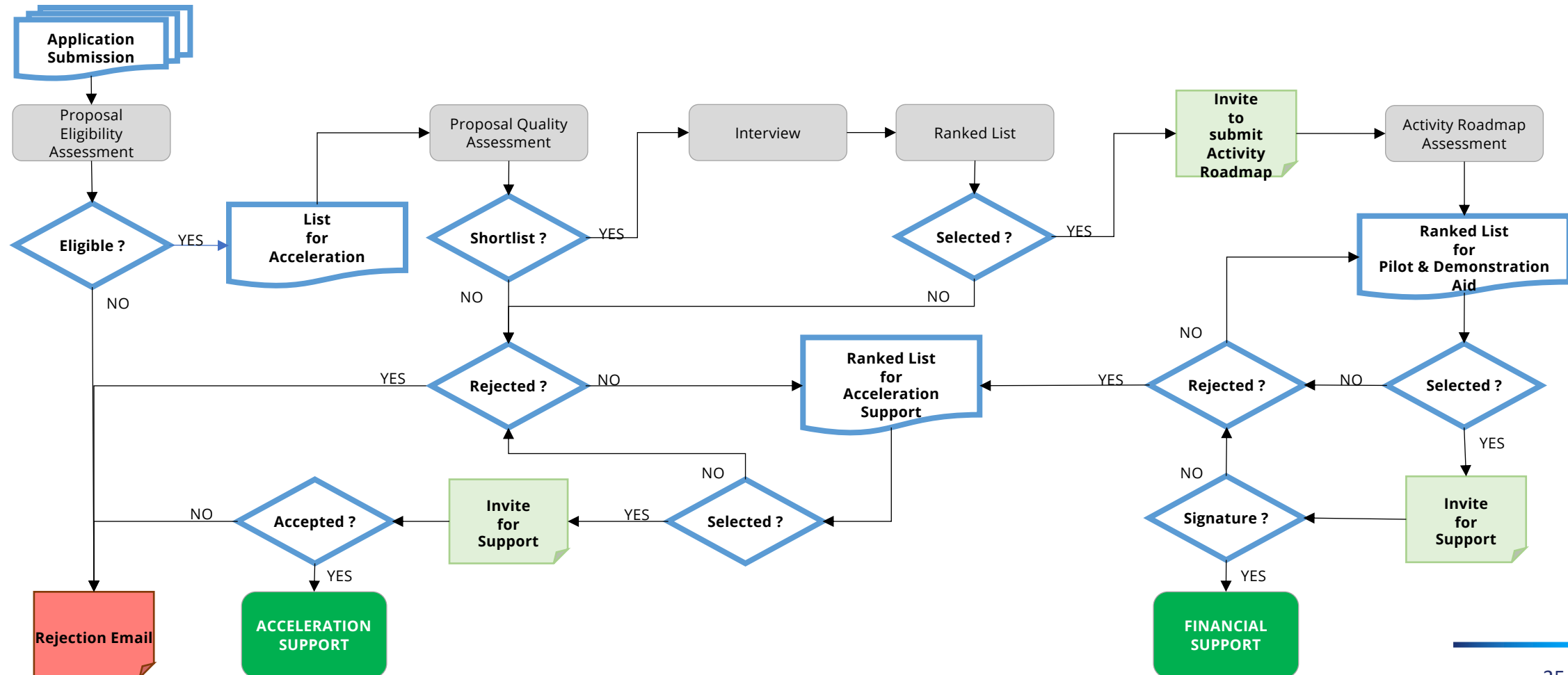
Activity Roadmap Assessment - Selected proposals for pilot and demonstration aid will be invited to submit a full activity plan. The plan will be designed and negotiated with Challenge Owner and FIRE-RES partners.



OIC – Open Call

PHASE 3 – EVALUATION AND SELECTION

Evaluation and Selection phase - Detailed process overview





OIC – Open Call

PHASE 4 – IMPLEMENTATION



Once the solutions are selected and the typology of support is defined, they are granted the defined support and they can initiate the execution of their activity plan, in alignment with the Challenge Owner and associated FIRE-RES partners.

For the purpose of the operationalization of this stage, the Consortium partners will be requested to indicate the type of support they can provide, as it relates to the mentoring support typology, so it can be shared with the participants. This will be implemented making use of the ***Support Services for Implementation Survey*** document. This will be compiled and shared as a Support Services Catalogue.

The Open Call Organizer team will, during this phase, monitor the execution of the Activity Plan and, in accordance with the Open Innovation Campaign Evaluation procedure, will check and assess the development resulting from the support provided.

This phase will include at least a Kick-off session, for an initial stage assessment, and a final Debrief session, for a final assessment on the maturity development of the solution across the key assessment references. This process is defined and described in the Open Innovation Campaign Evaluation section of this document.



OIC – Open Call

SUPPORT DOCUMENTS

The Open Call will be enabled through the following documentation:

Open Call Guidelines

This document provides the guidelines for the Open Call participants to understand the workings and the rules associated with the open call. This can be found in the annexes of this document.

Forms

The forms relevant for the operationalization of the Open Call are provided in annex to this document. These include:

- **Challenge submission form** – this is the document to be used when submitting a challenge to the Open Call organizers to be considered for publication. It will be filled in the final part of the Challenge Design workshop.
- **Solution application form** – this document will be used by the Application providers to submit their proposal to the challenge. This form will be operationalized in digital form using the F6S platform.
- **Support Services for Implementation Survey** – this

document aims to collect the available support by the consortium organizations that can be supplied to the selected projects.

Workbooks

These documents will be developed to support the facilitators in the delivery of the workshops and provided at the Facilitator Training Workshop. These will include the workshop presentation, the frameworks and step-by-step guidance for the session.

- **Facilitator Training Workshop Workbook**
- **Challenge Design Workshop Workbook**

Open Call evaluation tool

The evaluation tool provided in the annex is used throughout the evaluation process of the Open Call, enabling the ranking of the various applications.



OIC – OPEN LAB

1. Introduction
2. Methodology
3. Key concepts and roles
4. Timeline of activities
5. Phase 1 – Promotion
6. Phase 2 – Preparation
7. Phase 3 – Open Lab
8. Phase 4 – Implementation
9. Support Documents



OIC – Open Lab INTRODUCTION

The FIRE-RES Open Innovation Campaign aims to enhance the ability of the FIRE-RES project to provide newer and better solutions in response to the stakeholders' current difficulties and future expectations.

Organizations, public or private, are faced with the need to promote internal innovation processes and engage in partnership models as a result of current and likely future trends. With this in mind the FIRE-RES Open Lab seeks to help kickstart the process in some organizations or help enhance the existing efforts with an additional perspective.

The Lab is designed to provide a collaborative workspace where a diverse group of participants engages in focused, mission-driven idea generation and co-creation activities. These are driven by the organizations' internal teams but the concept seeks the insight and expertise of all participants, leveraging the network effect of the event to harness past experiences and help inform new applications.





OIC – Open Lab METHODOLOGY

The Open Lab activity is built on two concepts: the Co-Creation Lab and the Hackathon. The FIRE-RES consortium looks to provide the opportunity to help promote internal innovation processes at stakeholder organizations seeking to improve organizationally.

The design of the activity aims to develop new solutions by the organization's internal teams with co-creation exercises, combined with external contributions to bring insight from outside collaborators, leveraging cross-organizational experience sharing and collaboration in a very time-constrained package.

Structure

The programme is structured in four phases:

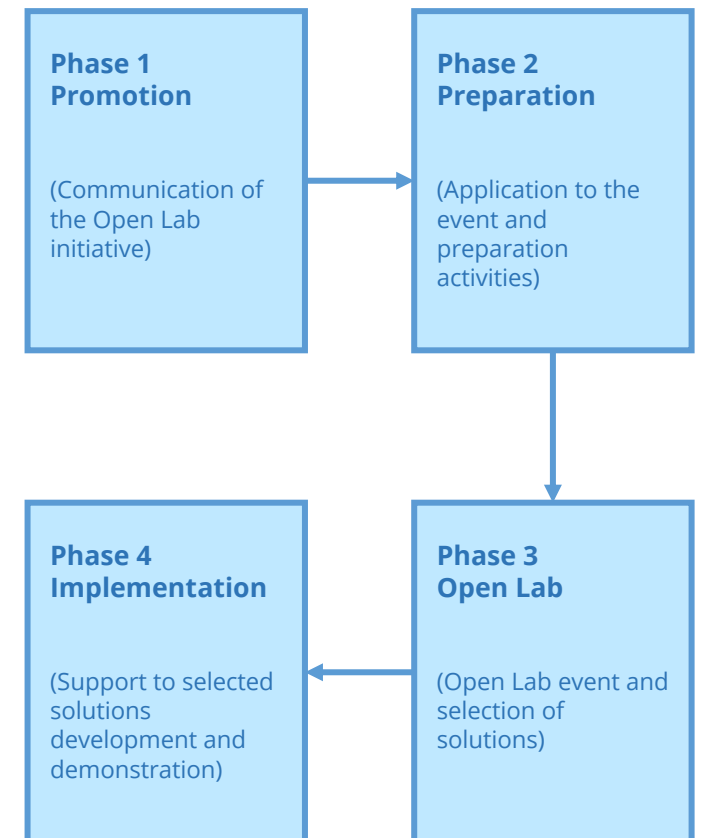
Promotion – an active communication and stakeholder engagement phase to raise awareness and invite stakeholders to participate

Preparation – a preparatory phase where participant organizations select team members to participate and problems to address

Open Lab – the physical event where participants have the goal of working on their projects, sharing and collecting experience and building solution concepts and demonstration options

Implementation – the part where teams will deploy their solution in a demonstration scenario at their organizations to prove the concept.

Open Lab - Methodology





OIC – Open Lab

KEY CONCEPTS AND ROLES

The Open Lab uses terminology and definitions that may not be immediately clear therefore, the most relevant concepts and roles are presented here.

Key Concepts

Problem – the well defined description of an undesired, unwelcomed or harmful matter or situation requiring a solution. There should be incorporate the associated needs and requirements for the solution.

Solution – the proposed product, service, concept, method or technique for solving the problem.

Workshop – a meeting in which people learn about a subject by discussing it, doing activities relating to it and by exploring the unique set of knowledge and experience from the gathered individuals generate some development.

Facilitator – the individual responsible for the dynamization of activities to enable peer sharing of knowledge.

Key Roles

Open Lab organizers - the FIRE-RES Consortium members organizing, coordinating and supporting the Open Lab initiative and providing support to the participants.

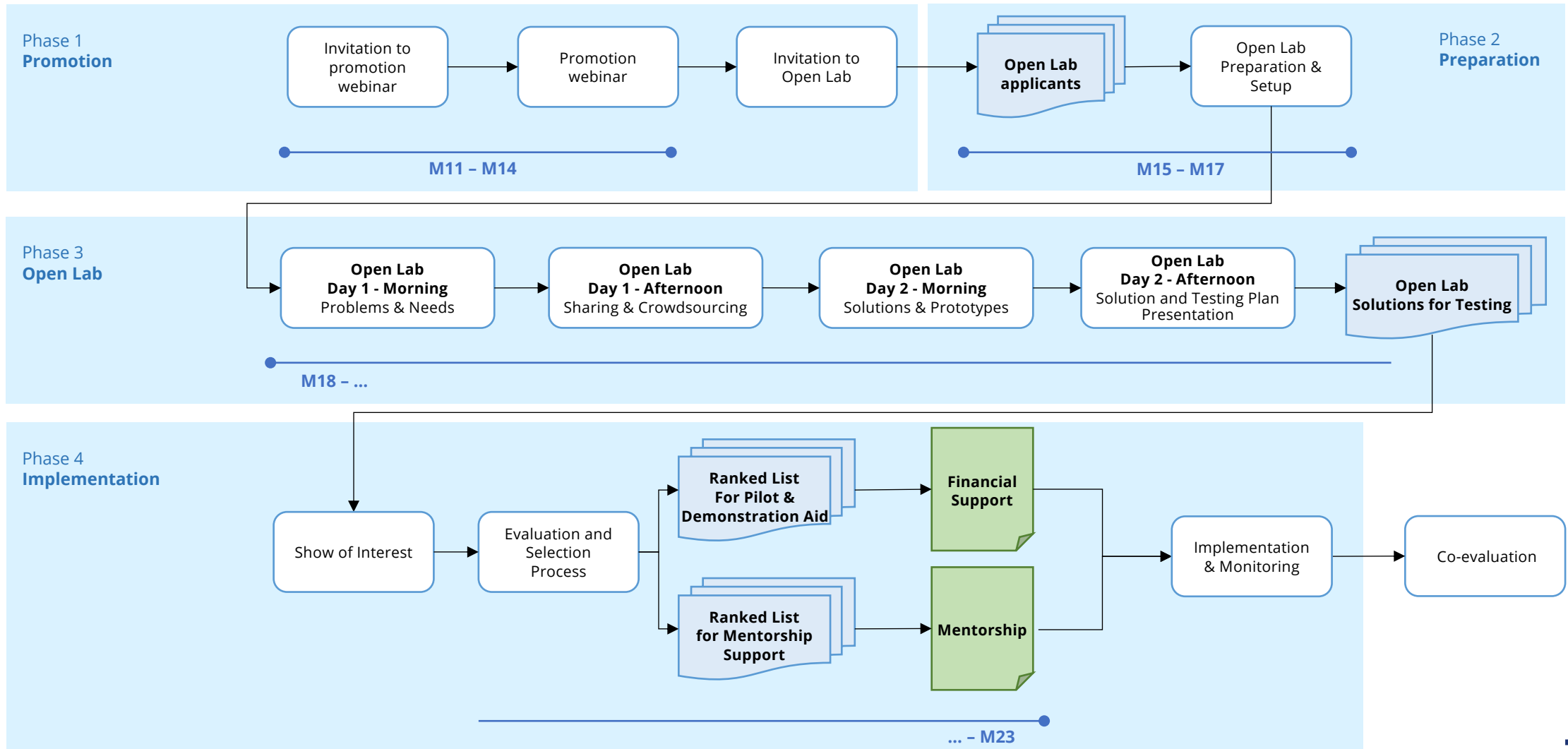
Facilitation team – the team of individuals with the role of facilitator in the event. The team will do the final preparation and design of the event, deliver the content and guide the activities of all the participants and teams involved in the event. The team is supplied by INESC TEC, FORESTWISE and EFI.

Workshop facilitator – the individual responsible for the dynamization of each workshop. This person will be responsible for the organization of the workshop, the delivery of the materials and the guidance of the participants through the process.



OIC – Open Lab

TIMELINE OF ACTIVITIES





OIC – Open Lab

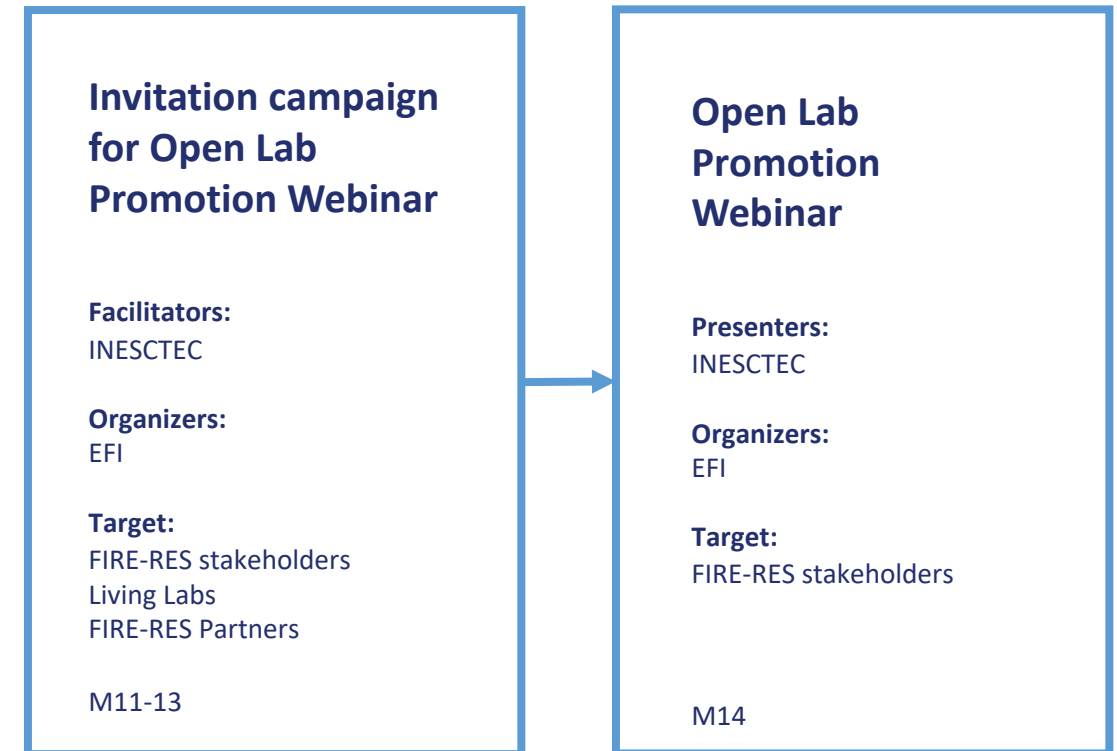
PHASE 1 - PROMOTION

The Open Lab activity is an event aimed at the FIRE-RES community and is opened to organizations wishing to generate solutions to their internal organizational challenges by leveraging an open innovation approach.

The first step is to provide an online information event where the various stakeholders are informed of the concept, the goals and the value of the activity. The use of a webinar enables the widespread availability of the information without requiring physical presence for an information dispersal event. The target of the event are decision makers of the organizations that are aware of the value of addressing problems through innovation.

Before the webinar, there is the need for a promotional campaign aimed at the individuals described above in order to attract their attention and presence at the webinar. That is the role of the Invitation campaign, mainly making use of the FIRE-RES project's and partners' communication assets.

Open Lab – Overview of Promotion





OIC – Open Lab

PHASE 2 - PREPARATION

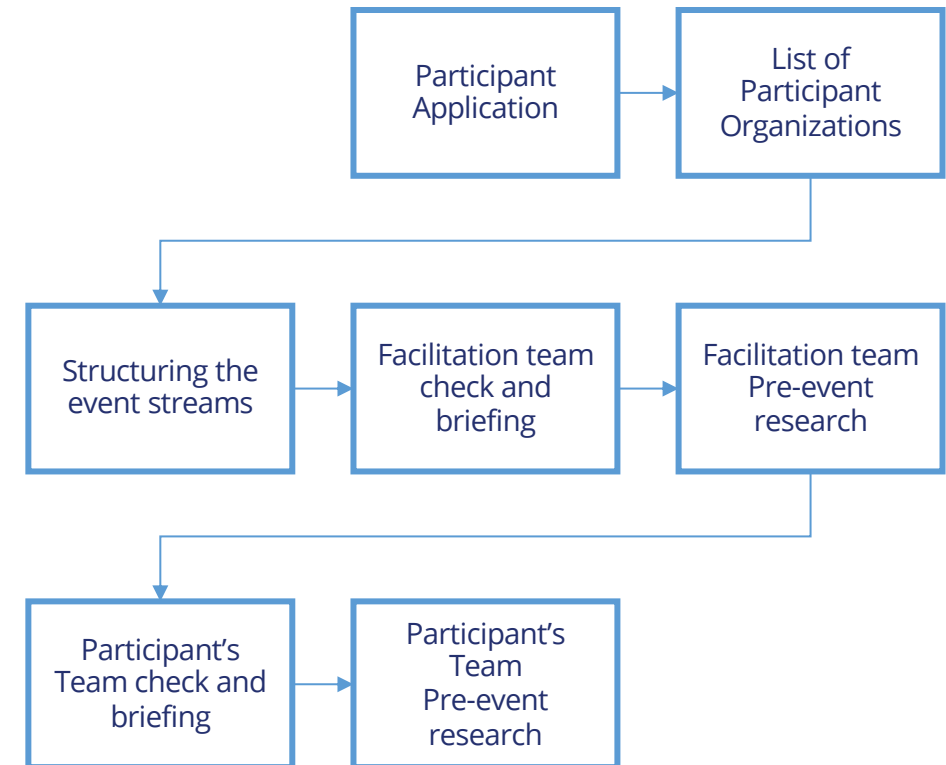
The Open Lab activity is based on the concept of Open Innovation challenge where the FIRE-RES consortium partners and stakeholders can explore their problems. Therefore a series of steps are required.

Initially, the partner organizations must wish to be part of the event as a result of the previous promotion phase invitation to participate. This phase starts with the application which includes an initial proposition of problems to be addressed. Based on the applicants and the problems proposed, the event may be organized either as a single subject or with multiple streams of subjects.

Once the event concept and structure are finalized, the facilitation team must be gathered and briefed to prepare the event and do some pre-event research on the subject(s).

The final stage of preparation involves the briefing of the participating teams and the initiation of their pre-event research in order to maximise the potential of the time together at the event.

Open Lab – Overview of Preparation





OIC – Open Lab

PHASE 3 – OPEN LAB

The Open Lab activity is conceptualized as a two-day event, designed to promote a systematized, team-based, assessment of the problems the organizations wish to see addressed.

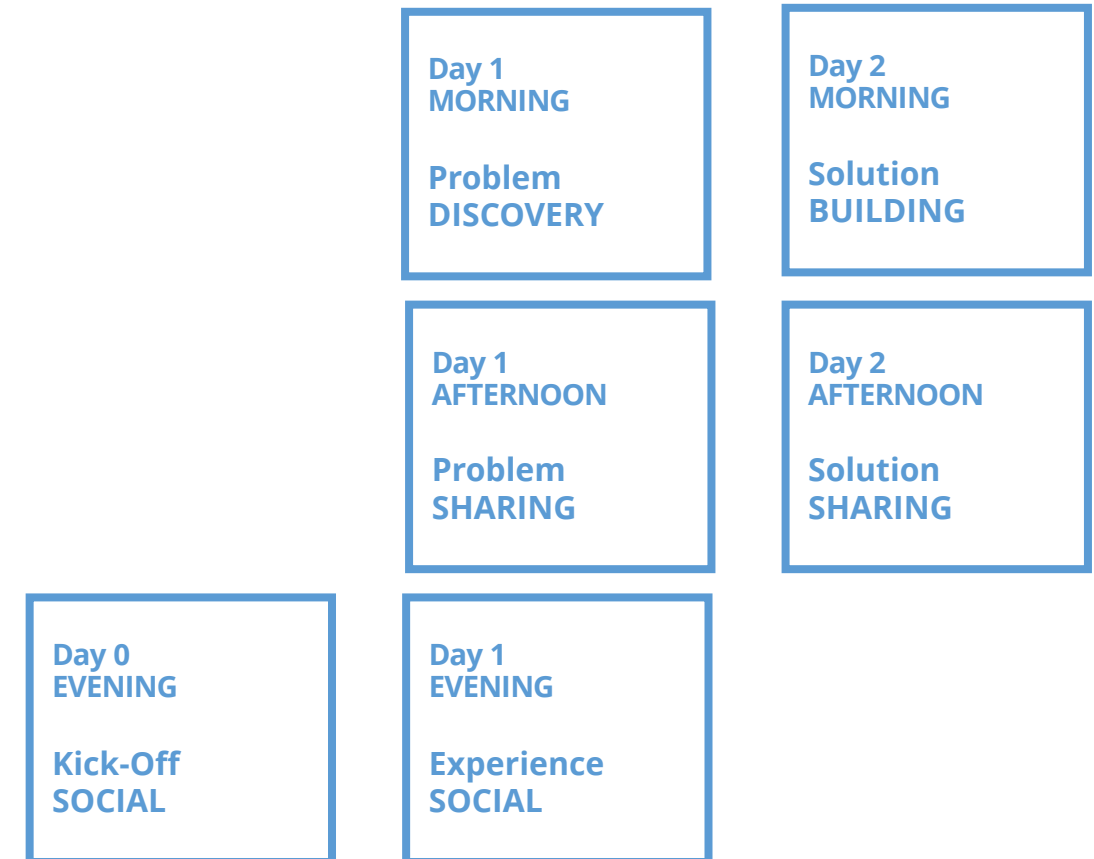
The first moment, the Kick-Off Social is a moment to welcome all participants, give a general briefing on the event, and provide the opportunity for an initial ice-breaking social engagement.

On the following day's morning, the teams will gather to work on the problem being brought to the table, on defining, characterizing and diagnosing them, so a decision can be made on priorities. In the afternoon, the key issues selected are shared with all the event participants to invite the sharing of the crowd's wisdom. The evening event will cap the day by providing a more relaxed moment for the social interaction of participants and further the opportunity for experience sharing.

The second day is focused on the solution with the team working on a proposal based on their knowledge and the interactions from the previous day. In the afternoon these and proposed testing activities are shared with all participants.

The initiative operationalization will be supported by the **Open Lab Workbook** timely provided to give guidance for each activity.

Open Lab – Overview of the Open Lab





OIC – Open Lab

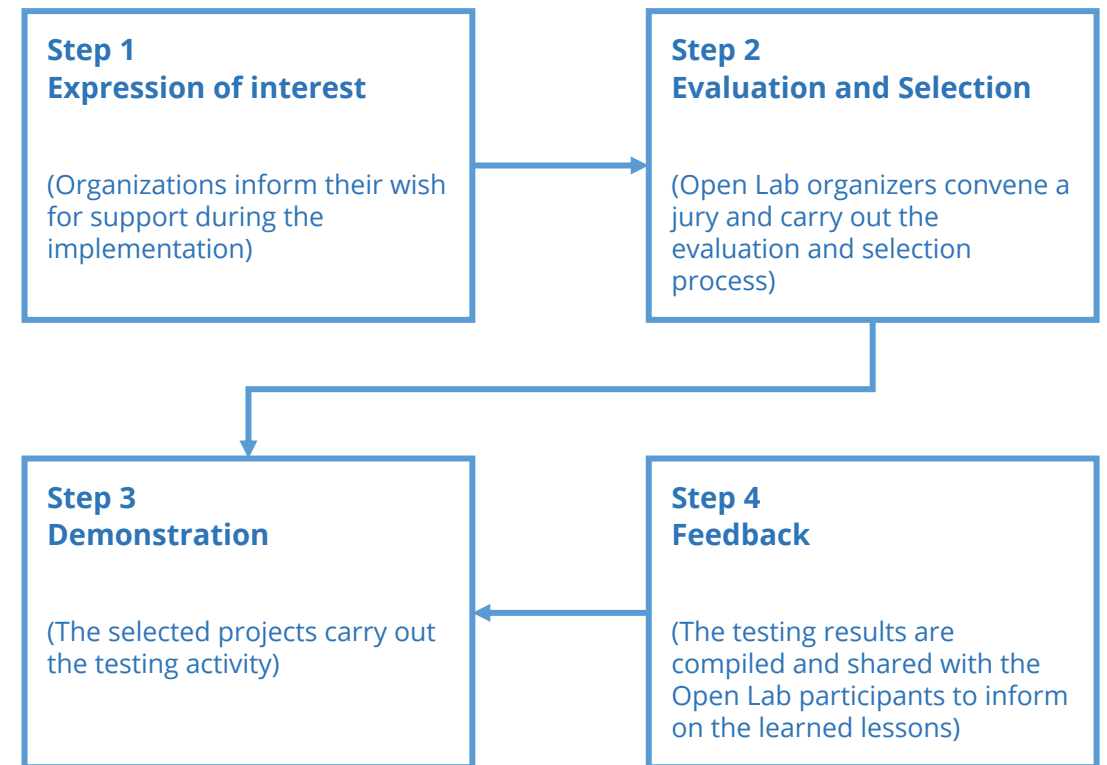
PHASE 4 – IMPLEMENTATION

In the aftermath of the Open Lab event, the participating organizations need to decide on their willingness to deploy the proposed solution and the designed testing plan. The best proposals emerging from the event and being implemented are eligible to be supported by one of the FIRE-RES Open Innovation Campaign support models. An evaluation process will be setup to evaluate the projects and select the one to be supported for demonstrations.

The Open Call Organizer team will, during this phase monitor the execution of the Testing Plan and, in accordance with the Open Innovation Campaign Evaluation protocol will check and assess the development resulting from the support provided.

This phase will include at least a Kick-off session, for an initial stage assessment, and a final Debrief session, for a final assessment on the maturity development of the solution across the key assessment references. This process is defined and described in the Open Innovation Campaign Evaluation section of this document.

Open Lab – Overview of Implementation





OIC – Open Lab

SUPPORT DOCUMENTS

The Open Lab will be enabled through the following documentation:

Open Lab Guidelines

This document will provide the guidelines for the Open Lab participants to understand the workings and the rules associated with the Open Lab.

Open Lab evaluation tool

The document defining the criteria to support the evaluation and selection process of the Open Lab.

Participant application form

The template for the submission of interest to participate in the Open Lab.

Open Lab Workbook

This document will be developed to support the facilitators in the preparation and delivery of the Open Lab initiative. This will include support presentations, frameworks and step-by-step guidance for the session.

NOTE:

These documents will be developed at a later stage.



OIC EVALUATION PROTOCOL

1. Introduction
2. Methodology and KPIs
3. Data collection and analysis
4. OIC Outcomes



OIC Evaluation INTRODUCTION

The FIRE-RES Open Innovation Campaign aims to enhance the ability of the FIRE-RES project to provide newer and better solutions in response to the stakeholders' needs. This purpose needs to be monitored and assessed in terms of its delivery. Towards this end, a monitoring and evaluation approach is proposed to be implemented alongside the deployment of the OIC.

The intention for this activity is to be to determine the Open Innovation Campaign ability to promote and develop innovative processes and results for the Consortium partners and stakeholders, as initially intended.





OIC Evaluation

METHODOLOGY AND KPIs

The initiative will be evaluated according to a set of key performance indicators (KPIs) that are provided in the, ***OIC Key Performance Indicator list*** document.

The KPIs assessment will be surveyed by using quantitative and qualitative approaches.

Throughout the process of the OIC, the operational team may improve and expand on the KPIs proposed at this initial stage as a result of the testing done in preparation for these activities or whenever new factors come to light.

Structure

The KPIs will approach the monitoring from three main quadrants:

Inputs – mainly addressing the number of participant being engaged or the resources being used in the activities;

Process – focused on the activities themselves and how they are carried out, as well as their experience by the participants;

Outputs – these KPIs look at the activities' results, mainly challenges generated, solutions sourced and entities engaged.

Open Innovation Campaign – Methodology

Phase	Input	Process	Output
Challenge design	Stakeholder's engagement	Stakeholder's experience	Challenges designed
Open Call	Participant's engagement	Lessons Learned	Innovative solutions
Open Lab	Participant's engagement	Participant's experience	Innovative solutions
Implementation	Stakeholder's engagement Participant's commitment	Support provided Stakeholder's experience Participant's experience	Innovative solutions development and demonstrations



OIC Evaluation

DATA COLLECTION AND ANALYSIS

The data for the evaluation procedure will be collected throughout the various activities of the Open Innovation Campaign. The data will be collected and stored by the Open Innovation Campaign organization members in direct collaboration with the partners responsible for the activities' implementation. Each activity will have its own data collection document provided in the workbook of the activity.

Collection Tools

The data collection methods being employed for the monitoring, as mentioned in the methodology, are:

- **Operational data** – resulting from the website, internal records and the application forms used in the various initiatives;
- **Surveys** – to the participants of the activities to collect their experience and other key information;
- **Workshops** – in the implementation phase, two workshops will be used to assess the selected teams' development.
 - A first workshop will work as a kick-off and initial stage assessment

- A second workshop at the end of the implementation as a final assessment, experience and lessons learned collection moment.

Data Analysis

A team responsible for the organization and analysis of the data will be assembled by the OIC organizers. This team will compile periodically the results of this analysis.

The data will be collected and treated in accordance to the ***FIRE-RES data management plan***, developing under the Work package 9, of the FIRE - RES project



OIC Evaluation

OIC OUTCOMES

The Open Innovation Campaign (OIC) promotes initiatives focused on expanding the potential for generation, testing, deployment and acceleration of solutions to Extreme Wildfire Events problems.

At a more tactical level than its usual employment, the Outcomes of the Open Innovation Campaign will focus on a set of improvements predicted in terms of challenges and solutions found, partnerships and collaborations established, skills and value chains enabled as well as improvements to the maturity levels of the solutions found and supported.

These results will be strong contributions to the WP6 Subtask 6.2.3 OIC co-evaluation.

Open Innovation Campaign – Outcomes

Phase	Outcome
Challenge design	New challenges found New partnerships
Open Call	New solutions found New partnerships New value chains
Open Lab	New corporate challenges addressed New solutions found New internal teams skills New collaborations
Implementation	Solution's maturity levels evolution (TRL, MRL, SRL) New collaborations New partnerships New value chains



REFERENCES



References

Baregheh, A., Rowley, J. and Sambrook, S. (2009), "Towards a multidisciplinary definition of innovation", *Management Decision*, Vol. 47 No. 8, pp. 1323-1339. <https://doi.org/10.1108/00251740910984578>

Chesbrough, H. (2004). *Managing open innovation*. *Research-technology management*, 47(1), 23-26.

Chesbrough, H. (2012). *Open innovation: Where we've been and where we're going*. *Research-Technology Management*, 55(4), 20-27.

Chesbrough, H. W. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Harvard Business Press.

Henderson, R. M., & Clark, K. B. (1990). *Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms*. *Administrative science quarterly*, 9-30.

Keeley, L., Pikkell, R., Quinn, B., & Walters, H. (2013). *Ten types of innovation*. John Wiley & Sons.

OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg, <https://doi.org/10.1787/9789264304604-en>.

Ten types of innovation. The discipline of building breakthroughs. <https://doblin.com/ten-types> (Access 12/04/2022)

The Ten Types of Innovation Framework Explained <https://www.viima.com/blog/ten-types-of-innovation> (Access 12/04/2022)


What exactly is Open Innovation? <https://www.braineet.com/blog/open-innovation> (Access 27/04/2022)




FIRE-RES



www.fire-res.eu

 @FIRERESProject

 @FIRERESProject

 FIRE-RES

 FIRE-RES

Authors and Contacts:

[Alexandra Xavier \(mxavier@inesctec.pt\)](mailto:mxavier@inesctec.pt)

[Alipio Torres \(alipio.torre@inesctec.pt\)](mailto:alipio.torre@inesctec.pt)

[Sara Neves \(sara.c.neves@inesctec.pt\)](mailto:sara.c.neves@inesctec.pt)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101037419. It does not necessarily reflect the view of the European Union and in no way anticipates the Commission's future policy in this area.



FIRE-RES