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FIRE SCENE

# Project deliverable D4.2

## Mapping of UCPM initiatives related to FIRE-SCENE

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# List of acronyms

| | |
|---|---|
| **CPC** | Civil Protection Challenges |
| **D** | Deliverable |
| **GA** | Grant Agreement |
| **EC** | European Commission |
| **GA** | Grant Agreement |
| **T** | Task |
| **WP** | Work Package |

# Executive summary

This deliverable maps and analyses previous and ongoing UCPM and other initiatives relevant to FIRE-SCENE. It identifies 55 initiatives addressing civil protection challenges, focusing on risk analysis, planning, and governance. The analysis provides a strong starting point for FIRE-SCENE by gathering existing knowledge, tools, and strategies to avoid duplication and promote synergies. Projects have tackled wildfire risk across residential, tourist, and natural areas, offering methodologies, early warning systems, and governance frameworks. By studying these initiatives, FIRE-SCENE aligns its actions with the current state of the art and reinforces collaboration with ongoing projects. The deliverable highlights the need to integrate prevention, preparedness, and response across multiple sectors and administrative levels, involving communities and authorities. This knowledge supports FIRE-SCENE's objective of developing integrated risk management frameworks and solutions for emerging wildfire civil protection challenges under changing climate conditions.

# 1 Introduction

FIRE-SCENE is a UCPM project (2025 – 2026) that contributes to develop competencies, skills and knowledge in wildfires risk management by focusing on novel methodologies and tools for an integrated risk governance, assessment and planning approach to address emerging Civil Protection Challenges (CPC) due to extreme wildfires and megafires in the Mediterranean area under changing climate conditions.

Along four Pilot sites in Spain, Italy and Greece, three wildfire CPC are approached:

- CPC1.Wildfires impacting on Wildland-Urban Interface (WUI) in peri-urban areas.
- CPC2. Wildfires impacting on tourist villages and resorts.
- CPC3. Wildfires impacting on protected areas and recreational sites.

With the participation of local stakeholders and experts, Risk Assessment and Planning tools and Risk Governance models and tools will be developed and showcased as potential measures to address the mentioned CPC. In that sense, FIRE-SCENE builds upon UCPM initiatives that have tackled similar challenges and approached in the past decade. Identifying these ended or ongoing initiatives that have generated relevant tools and guidelines serves to create a robust starting point for FIRE-SCENE, ensuring that existing knowledge is not obviated. Apart from that, analysing ongoing initiatives offers an ideal arena to promote synergies, collaboration and knowledge exchange, both from an internal perspective through individual meetings, and an external perspective by organising shared events, maximising their impact.

Several past and ongoing initiatives have focused on risk analysis, planning, and governance related to wildfires in the EU and particularly the Mediterranean region, developing risk assessment methodologies at different scales, community-based and stakeholder planning strategies, and governance frameworks that can be leveraged to strengthen the FIRE-SCENE approach.

Therefore, FIRE-SCENE previous/ongoing initiatives analysis get aligned with CPC through three main focus: (1) projects that have developed methodologies for assessing wildfire risk from the wildland-urban interface to the landscape scale; (2) initiatives focused on land-use planning, and wildfire adaptation to reduce wildfire impacts; (3) programmes that have fostered a collaborative approach, including stakeholder engagement or policy development to enhance wildfire resilience at local, national, and international levels.

In the context of FIRE-SCENE, the three approaches are defined as follows:

- Risk Analysis involves the systematic assessment of wildfire hazards, exposure, and vulnerabilities. This includes the use of fire behaviour simulations, historical fire data analysis, or the assessment of vulnerabilities at the home-owner/community scale, among others.
- Planning refers to the development and implementation of proactive strategies aimed at reducing wildfire. This includes land-use planning, fuel management practices or community-based preparedness initiatives.
- Governance pertains to the frameworks, policies, and institutional organisation that facilitate wildfire risk management. This includes stakeholder coordination, participatory decision-making processes or policy integration.

# 2 Objectives

The main objective of the current document is to identify and characterise previous or ongoing UCPM initiatives dealing with similar wildfire CPC from risk analysis, planning and governance perspectives with the following purposes:

- Identify tools, guidelines and strategies from these projects to create a robust start point for FIRE-SCENE, ensuring that existing knowledge is not obviated. All these results from previous initiatives are identified and will be considered to strengthen the FIRE-SCENE approach.
- Analysing ongoing initiatives to promote synergies, collaboration and knowledge exchange, both from an internal perspective through individual meetings, and an external perspective by organising shared events and maximising their impact.

# 3 Methodology

To conduct the analysis, the FIRE-SCENE consortium has identified previous UCPM projects in which partners have participated over the last decade. These projects were selected based on their alignment with the Civil Protection Challenges (CPCs) of FIRE-SCENE or their relevance to risk analysis, planning, or governance approaches. Additionally, this process has been extended through the Knowledge Network to include both completed and ongoing projects, ensuring a comprehensive review of available knowledge and tools.

In addition, other projects not related to the UCPM have also been included in the mapping, particularly those identified in the preparation phase of the project.

For each identified initiative, several key characteristics have been documented, including objectives, description, leading partners, target groups, geographic focus and implementation scale. Furthermore, a specific section has been dedicated to discussing the relationship between each initiative and FIRE-SCENE. This includes:

- The CPC addressed.
- The solution approach applied (i.e. risk analysis, governance, planning).
- Key outcomes and tools developed within the initiative.
- The relevance and potential applicability, and synergies of these projects to the FIRE-SCENE.

# 4 Overview of the initiatives

## 4.1 Quantitative overview

Although not an exhaustive list, a total of 55 initiatives and projects have been identified and analysed, 27 related to UCPM and 28 within other frameworks, which in one way or another may be relevant to FIRE-SCENE. These potential scenarios of collaboration can be given through different ways, for example, communication with existing projects, taking advantage of established networks of actors, building solutions based on already generated tools, or simply seeing what approaches have been made by other initiatives to deal with similar issues. In this way, the analysis of initiatives related to FIRE-SCENE serves to establish the starting point of the project.

The collection of initiatives includes a list of completed projects (27) and ongoing projects (28), including one project that has not yet started. It should be noted that, to a large extent, the completed projects are more directly related to FIRE-SCENE, while some of the ongoing projects have been included due to potential synergies in participation in events, but do not have to be directly related to the challenges or solutions that will be worked on from FIRE-SCENE.

Regarding the typology of hazards, all of the projects are related to forest fires, either directly or through derivatives (climate change, forest risks, multiple risks, etc.). It has been considered appropriate to consider approaches of other types of disasters that can be extrapolated to forest fires.

Regarding the regions of interest and the scale of implementation, there is also a lot of variety. All projects have a view of the European Union, many of them from an exclusively European perspective (19), some with a European perspective and other countries or regions of the world (12) and many others that focus on specific regions or specific countries in Europe (24). This is considered of great value for FIRE-SCENE, since it has managed to have a wide range of projects with very diverse approaches, from the European to the regional. Very closely linked to the regions of interest is the scale of implementation, where the European scale is the majority (21 initiatives), with national (11), regional (9), local (13) and cross-border (1) scales of work. This diversity also provides a lot of added value to focus the starting point of FIRE-SCENE since it allows us to see, on the one hand, a great variety of territorial frameworks of work, as well as different scales of implementation, from which many lessons can be obtained. The type of stakeholders involved in previous initiatives and projects, unlike other fields, is very similar. Among the most represented actors are Civil Protection and other practitioners, such as extinguishing services, as well as national, regional and local authorities. Depending on the type of projects then we find other actors such as forest managers, communities, the tourism sector, adolescents and children, among others. This list of actors can be very useful to define the engagement plans at a pilot scale.

One of the key aspects defined is the civil protection challenges that each project addresses. FIRE-SCENE focuses on three main challenges in forest fire risk management: the urban-forest interface in residential areas, tourist areas, and natural sites. It is evident that the management of residential interface sites has been widely

addressed by many previous projects (21), and the management of natural spaces has also been explored in numerous projects (21), although primarily from a forestry perspective rather than a civil protection one. In contrast, the challenge of fires in tourist areas has been far less addressed (4). Other projects focus on various challenges, such as transferring scientific knowledge into practice, managing extreme wildfire events, and identifying vulnerable elements, among others. Consequently, it is clear that the management of residential interface fires will rely on the results of previous projects, the management of natural spaces will require the addition of a civil protection perspective, and the management of fires in tourist areas will be the area where FIRE-SCENE can contribute new insights and tools, as this challenge has been less explored so far.

Finally, the last point refers to the type of solutions proposed, which can be framed in risk analysis, planning, awareness, governance, etc. The initiatives analysed prioritise several key solutions for disaster risk management. Risk analysis and assessment emerge as the most common approach, reflecting the central role of understanding hazards, vulnerabilities, and exposures. Promoting risk awareness and improving communication strategies is also spread, aiming to strengthen preventive behaviours across communities and authorities. Many initiatives focus on developing risk monitoring, forecasting, and early warning systems to enhance anticipatory capacities.

Risk planning tools and decision-support systems are frequently provided to help authorities translate risk knowledge into operational actions. Governance improvement, although less dominant, is recognised as crucial for ensuring coordination and long-term resilience. Some initiatives integrate capacity-building measures, strengthening operational readiness through training and exercises. Finally, a smaller but notable set of projects emphasise community engagement and self-protection mechanisms, empowering local actors to contribute actively to risk reduction.

## 4.2 Qualitative overview

Collectively analysed, the initiatives clearly highlight an urgent need to strengthen civil protection systems in the face of the growing complexity of managing certain types of forest fires. Therefore, the objectives mainly focus on the pillars of prevention, preparation and response to these types of events. Being the recovery the least common targeted risk phase.

From the point of view of prevention, the projects tend to promote knowledge in fire dynamics, risk planning from the management of the territory or the integration of mitigation actions in existing policies and plans. In the field of preparation, the initiatives focus on such important aspects as early warning systems, the generation of real-time information through risk maps and also points such as communication and risk awareness, which help a coordinated response from citizens and authorities. The response part is linked to a rapid and coordinated intervention.

At the same time, a recurring topic addressed is the need to foster a real risk culture, which includes not only citizens, but also competent authorities in the field, thus

promoting better coordination. This is especially important for proposing proactive risk management strategies rather than reactive risk management.

Importantly, these objectives reflect an awareness that wildfire risk is increasingly interconnected with broader societal challenges, such as climate change, biodiversity loss, rural depopulation, and changes in traditional land management practices. At this point, FIRE-SCENE is filling an existing gap, providing risk analysis and planning tools, as well as risk governance framework to address different civil protection challenges as WUI wildfires, wildfires on recreational sites and wildfires in touristic areas. Despite all of these solutions and challenges have been separately addressed by different previous projects or initiatives, FIRE-SCENE added value is bringing these challenges together in a common analysis and planning framework, emphasizing on collaboration with authorities and citizens and providing guidelines for stakeholders on the management of these kind of risk scenarios.

The projects addressing the civil protection challenges of FIRE-SCENE approach the issue from different perspectives. They generally propose scenarios involving two key components: first, the hazard (in this case, wildfires) and second, the vulnerable elements, such as residential areas (CPC1), tourist areas (CPC2), and natural spaces (CPC3).

When initiatives focus on the hazard component, they primarily tackle factors that influence fire behaviour and spread, such as forest management practices, rural depopulation, and the accumulation of forest fuels, among others. The aim is to address the issue from a broad, landscape-scale perspective and then progressively translate it into the detailed level, where the ultimate concern is the fire's impact on vulnerable assets.

Conversely, other initiatives centre their efforts on the vulnerable elements themselves, starting with an analysis of their vulnerabilities — whether structural, social, or environmental — and subsequently assessing the impacts when these elements are exposed to fire.

In both approaches, the proposed solutions are aligned with the initial project perspective. Projects focusing on the hazard generally produce outcomes related to landscape management and fire prevention, while those concentrating on vulnerabilities generate solutions aimed at enhancing the protection and resilience of exposed elements. These two approaches are not mutually exclusive; rather, they are complementary and, together, form a complete picture of the wildfire risk management challenge. It is precisely at this intersection where FIRE-SCENE can provide an integrated framework for civil protection, combining analysis, planning, and governance to address wildfire risk from both the hazard and vulnerability perspectives.

The three types of solutions — analysis, planning, and governance — have been explored extensively in previous initiatives. They encompass a wide range of proposals, including technological innovation (e.g., monitoring systems, early warning mechanisms, risk analysis tools, and planning methodologies); community engagement (e.g., training programs, awareness-raising campaigns, and participatory processes), collaborative frameworks (e.g., creating spaces for cooperation among agencies, sectors, and administrative levels).

Through these initiatives, a set of tools and methodologies has been developed, contributing significantly to the current state of the art in civil protection related to wildfires. These tools have strengthened risk management across all phases — prevention, preparedness, response, and recovery — and have fostered a more coordinated, cross-sectoral, and multi-level approach that includes society as an essential stakeholder in risk management. Therefore, within FIRE-SCENE, it is crucial to ensure that all the knowledge, tools, and lessons learned from these previous initiatives are considered into the project's case studies and results.

# 5 Initiatives description

## 5.1 UCPM initiatives and projects

### 5.1.1 AFAN

| | |
|---|---|
| **Full name** | Advanced Fire Analysis Network |
| **Coordinator** | Pau Costa Foundation |
| **Partners** | Departament d'Interior - Generalitat de Catalunya; DREAM Italia; ENSOSP; Entente pour la Forest Mediteranéenne; South Wales Fire Authority |
| **Funding program** | Union Civil Protection Mechanism (UCPM - 2014-2020): Network Partnership (UCPM-2020-KN-AG) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/afan |
| **Status** | Finished |
| **Duration** | 2021 - 2022 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | Extreme Wildfire Events |
| **Solutions** | Risk analysis |
| **Objective** | Improve European response to extreme wildfire events |
| **Description** | The Advanced Fire Analysis Network (AFAN) is a European expert knowledge-sharing network focused on risk analysis. With a goal to improve European responses to wildfire emergencies, the initiative promotes knowledge sharing and mutual learning to create an operational network based on trust and support. During every fire event, the European fire response systems are exposed to demanding situations that help to understand fires. AFAN works to use these experiences to build on existing regional and national knowledge to improve European wildfire response capacities.<br><br>The network was originally based on specific examples of wildfire risk but could be developed to engage with other types of wildfire knowledge across Europe and include actors that are relevant in other phases of the emergency management cycle. AFAN has the potential for replicability to other groups of experts in other risks. |

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| **Relevant Outcomes** | Guidelines of fire analyst competencies and skills: helps to detect general capabilities and examples of tasks of fire analysis scope, the link detected between forest fire analysis and decision-making, and the responsibilities that may arise. There is a section about Strategy and Scenario awareness. The guide is targeted at an audience already initiated in the analysis of forest fires.<br><br>Guidelines on the use of tools, science and best practices for fire analysis: identifies and describes tools, sources of knowledge and good practices for fire analysis through real examples. |
| **Relevance to FIRE-SCENE** | AFAN deals with extreme wildfire events through innovative wildfire analysis methods. Some of these analysis methods (e.g. propagation simulators) could be adapted to the FIRE-SCENE CPC at the preparedness and response phases. |

### 5.1.2 ARISTOTLE-ENHSP

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|---|---|
| **Full name** | Enhanced European Natural Hazard Scientific Partnership |
| **Coordinator** | INGV |
| **Partners** | Agencia Estatal de Meteorología; Kandilli Observatory and Earthquake Research Institute; Centre Sismologique Euro-Méditerranéen; Finnish Meteorological Institute; Instituto Português do Mar e da Atmosfera; Institutul Național de Cercetare-Dezvoltare pentru Fizica Pământului; Koninklijk Nederlands Meteorologisch Instituut; Météo-France; Met Office: United Kingdom's National Weather Service; National Observatory of Athens; UK Research and Innovation; University of Málaga; Zentralanstalt für Meteorologie und Geodynamik |
| **Funding program** | Call for proposals 2020 for projects on Preparedness and Prevention projects in civil protection and marine pollution |
| **Web** | https://www.cimafoundation.org/en/project/aristotle-enhsp/ |
| **Status** | Finished |
| **Duration** | 2020-2024 |
| **Hazards** | Multi Hazard |
| **Stakeholders** | ERCC |
| **Geographic focus** | Global |
| **Implementation scale** | Global |
| **Civil Protection Challenges** | Extreme Events |
| **Solutions** | Impacts monitoring and forecasting |
| **Objective** | Improve European response to extreme events |

| Description | ARISTOTLE (All Risk Integrated System TOwards Trans-boundary hoListic Early-warning) builds on the expertise, partnership and deliverables of the ARISTOTLE pilot project to:<br>• deliver to the ERCC and to the ERCC Analytical Team multi-hazard scientific advice through a flexible and scalable operational service<br>• implement the European Natural Hazard Scientific Partnership (ENHSP) with its most relevant components as defined in the Guidelines and Recommendations for the ENHSP.<br>ARISTOTLE aims at providing a state-of-the-art, sustainable multi-hazard expert advice system that exploits a) the expertise matured within the nationally mandated scientific institutions and b) the collective knowledge, experience and know-how gathered during ARISTOTLE. This system brings together experiences acquired in many years of operational activities carried out by the participating institutions that gather to provide multi-hazard assessments and advice within a single and self- consistent framework. The ability to work together creating "de facto" a truly European, multi-hazard, virtual operational center active 24*7 is unique and it has shown its potential during the one-year (2017) operation of the initial pilot project. The concurring contribution of several centers, with their differentiated competencies and expertise, revealed ARISTOTLE to be much more solid and reliable than previously anticipated. Clearly, in ARISTOTLE the addition of expertise actually multiplied in terms of results. ARISTOTLE will increase its solidity - essential to provide the high quality service - by implementing additional scientific expertise through the formation of the Expert Groups (EGs) of the ENHSP innovation pillar and the ENHSP Board that gathers scientific and operational competences. The EGs will have the double role of providing a continuous internal evaluation of the service being provided, and of proposing new (or improving the existing) services to be used for operational delivery, including the corresponding testing and demonstration activities. The hereby proposed structure is expected to assure a multi-hazard service that will progressively improve through time by improving processes, services and number of experienced partners. Similarly, the service delivery through the Multi-Hazard Operational Board (MHOB) will allow for the formation of experienced personnel on duty that will be able to perform analysis in conjunction and collaboration with experts in other disciplines. This aspect resulting from the interbreeding between different disciplines and expertise is another added value and objective of the whole project. Finally, it should be mentioned that multi-hazard assessment is receiving much attention also outside the proper area of civil protection since other stakeholders (e.g., insurance companies) have progressively shown ever more interest. This all suggests that multi-hazard impact-oriented assessment and resulting expert advice is a lively and timely frontier as it has been already evidenced by the activities fostered by the Disaster Risk Management |
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| | Knowledge Centre (DRMKC). In ARISTOTLE CIMA Research Foundation is part of the EG on Forest Fires at Pan European level and Global Floods. |
| **Relevant Outcomes** | Monitoring/forecasting service for floods and forest fires at global level, in a multi-hazard context |

### 5.1.3 B-FIREPREP

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|---|---|
| **Full name** | Using fire spread simulation to better anticipate and prepare for dangerous and destructive wildfires at national and local level |
| **Coordinator** | Autoridade Nacional de Emergência e Proteção Civil |
| **Partners** | N/A |
| **Funding program** | Single country grants for disaster risk management (Track 1) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/b-fireprep |
| **Status** | Ongoing |
| **Duration** | 2024 - 2026 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil Protection<br>Authorities |
| **Geographic focus** | Portugal |
| **Implementation scale** | National |
| **Civil Protection Challenges** | WUI wildfires<br>Landscape wildfires |
| **Solutions** | Risk analysis<br>Risk awareness |
| **Objective** | To implement a state-of-the-art fire spread simulation system capable of predicting potential fire behaviour and identify in advance rural settlements at higher risk and critical areas in terms of spreading of the fire. |
| **Description** | Fire spread simulation tools have proven to be highly useful in predicting fire behaviour to support robust risk assessments, and identify in advance critical areas and rural settlements at higher risk. This valuable information can allow civil protection agents to anticipate and be better prepared for dangerous wildfires. B-FIREPREP aims to develop and implement an interactive stochastic fire simulation system to identify in advance: 1) rural settlements at higher risk; 2) critical areas that, in the event of an ignition, may lead to wildfires beyond suppression capacity. It will be developed at national and sub-regional levels, and will be divided in 3 temporal scales: (1) supporting risk assessment |

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| | several months in advance, contributing for strategic fuel management actions, better risk awareness and reducing the vulnerability of rural communities; (2) implement an early warning system to support strategic decisions to anticipate, several days in advance, potential large and intense wildfires, contributing to improve resource allocation and risk communication to the population. (3) identifying the risk of rural settlements exposed by an emerging wildfire, several hours in advance, supporting better decision-making regarding the protection of people and assets; (4) strengthen the capabilities of civil protection agents by providing targeted training and implementing awareness-raising actions. |
| **Relevant Outcomes** | B-FIREPREP will develop an interactive web geographic information system (GIS) platform that will contribute to strengthen the preparation and anticipation of civil protection actions regarding dangerous wildfires and to improving risk awareness. |
| **Relevance to FIRE-SCENE** | B-FIREPREP is relevant to CPC1 (Wildfire in periruban areas) and CPC2 (Wildfires in torusitic resorts) considering its methodology based on wildfire simulations to identify human settlements at risk, as well as critical ignition areas that could transition to wildfires beyond suppression capacity.<br><br>It is also relevant to CPC3 (natural and recreational sites fires) since the project is contributing to identifying strategic fuel management areas that could eventually serve to stop or reduce fire propagation. |

### 5.1.4 BORIS2

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|---|---|
| **Full name** | Cross Border Risk assessment for increased prevention and preparedness in Europe: way forward |
| **Coordinator** | Italian Center for Research on Risk Reduction CI3R |
| **Partners** | Univerza v Ljubljani; Disaster Competence Network Austria; Institut Za Javno Zdravlje Podgorica; TED Üniversitesi |
| **Funding program** | Knowledge for Action in Prevention and Preparedness (UCPM-2023-KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/boris2 |
| **Status** | Ongoing |
| **Duration** | 2024 - 2025 |
| **Hazards** | Multi-risk |
| **Stakeholders** | Local authorities |
| **Geographic focus** | EU |
| **Implementation scale** | Local |

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|---|---|
| **Civil Protection Challenges** | Natural hazards<br>impacting urban areas |
| **Solutions** | Risk anaysis<br>Risk planning |
| **Objective** | To deliver a methodology and tool to<br>support stakeholders to undertake strategic decisions to improve emergency planning on urban areas. |
| **Description** | BORIS2 goal is to deliver a methodology and tool to support stakeholders to undertake strategic decisions to improve emergency planning. The multi-risk analysis methodology developed in BORIS, that was implemented at municipality scale, will be modified for application at sub-municipal level (e.g. at census tract level or for square grid units) considering relevant multi-risk scenarios. This will enable to highlight urban areas that are most impacted by single and multiple risks for a better planning of emergency phase. Moreover, critical infrastructures and their connections will be included for the evaluation.<br>Expanding on the concept of Limit Condition for the Emergency and its associated evaluation model proposed by the Italian Civil Protection Department, which is aimed at checking the physical efficiency after a seismic damaging event of the emergency system of urban settlements, a multi-risk approach that could be applied also in cross-border regions will be proposed delivering a comprehensive methodology for institutions operating in different national context. |
| **Relevant Outcomes** | Tool to support stakeholders to undertake strategic decisions to improve emergency planning at municipal level. |
| **Relevance to FIRE-SCENE** | BORIS2 and FIRE-SCENE share a focus on risk assessment and emergency planning under UCPM. BORIS2's scenario-driven approach to multi-risk assessment (earthquakes, floods) and cross-border planning can inform FIRE-SCENE's wildfire risk management. Specifically, BORIS2's methodologies for evaluating critical infrastructure vulnerabilities and decision-support tools could be adapted for wildfires in urban, tourist, and protected areas. Additionally, its cross-border governance strategies can enhance FIRE-SCENE's efforts to manage wildfires across jurisdictions. Collaboration between both projects could strengthen integrated risk governance, institutional coordination, and scenario-based planning for wildfire-prone Mediterranean regions. Finally, since it is an ongoing project, both projects may join efforts on events. |

### 5.1.5 eFIRECOM

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|---|---|
| **Full name** | Efficient fire risk communication for resilient societies |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |

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| **Partners** | Pau Costa Foundation; European Forest Institute; EEIG FORESPIR ; Direction Générale des Forêts de Tunisie; Université Hadj Lakhdar Batna |
| **Funding program** | Call for proposals 2014 for projects on Preparedness and Prevention projects in civil protection and marine pollution |
| **Web** | https://efirecom.ctfc.cat/?lang=en |
| **Status** | Finished |
| **Duration** | 2015 - 2016 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil Protection authorities<br>Communities<br>Municipalities<br>Scholars<br>Youths<br>Teachers<br>Journalists and media professionals |
| **Geographic focus** | Mediterranean |
| **Implementation scale** | National<br>Regional |
| **Civil Protection Challenges** | WUI Fires<br>Landscape wildfires |
| **Solutions** | Risk analysis<br>Risk awareness<br>Risk governance |
| **Objective** | eFIRECOM aims at enhancing the resilience of citizens to wildfires in interface areas from the Mediterranean region, through effectively promoting and increasing awareness and participation on the culture of risk with updated knowledge and best practices. |
| **Description** | The low social awareness regarding the exposure to fire risk combined with the reduced individual capacity to prevent and face emergencies increase both social vulnerability and the cost of civil protection actions.<br>eFIRECOM aims at enhancing the resilience of citizens to wildfires in interface areas from the Mediterranean region, through effectively promoting and increasing awareness and participation on the culture of risk with updated knowledge and best practices.<br>The two main results are:<br>Development of a communication toolkit for the capacity building of citizens and communities towards wildfire risk |

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| | prevention, adapted to three target audiences: i) Communities and municipalities (inhabitants and managers of wildland urban interface), ii) Scholars, youths and their teachers, iii) Journalists and media professionals.<br><br>Edition and dissemination of operational and strategic recommendations for the improvement of the communication on risk and reduction of social vulnerability to wildfires in Mediterranean areas, transferred to the relevant authorities. |
| **Relevant Outcomes** | Booklet with operational recommendations to enhance citizens' involvement in wildfire risk management through communication actions.<br><br>State of the art on fire risk communication to communities and municipalities.<br><br>Report on operational recommendations to enhance communities and municipalities involvement in wildfire risk management through communication actions.<br><br>Guideline for the self-evaluation of properties to the Wildfire risk in urban interface.<br><br>Guideline for the assessment of wildfire risk in the municipality.<br><br>Forest fire risk in the wildland-urban interface; elements for the analysis of the vulnerability of municipalities and homes at risk.<br><br>Report on political recommendations to promote a fire risk culture amongst children, youth and teachers.<br><br>Report on operational recommendations to enhance children, youth and teachers involvement in wildfire risk management through communication actions.<br><br>Guideline for the journalists and media on the effective information of fire risk towards a better social understanding and resilience.<br><br>Report on political recommendations to enhance journalists and media in wildfire risk management through communication actions.<br><br>Report on technical recommendations to enhance journalists and media in wildfire risk management through communication actions. |
| **Relevance to FIRE-SCENE** | eFIRECOM developed complete guidelines to improve risk management from risk awareness, risk analysis and risk governance perspectives. This approach is transversal to all FIRE-SCEN Civil Protection Challenges. Therefore, conclusions from relevant outcomes should be considered particularly to build the isk governance module and risk analysis tools. |

### 5.1.6 EWED

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|---|---|
| **Full name** | Extreme Wildfire Event Database |

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|---|---|
| **Coordinator** | Pau Costa Foundation |
| **Partners** | Departament d'Interior - Generalitat de Catalunya; Wageningen University & Research; Netherlands Institute of Public Safety (NIPV); Grenland Fire and Rescue IKS; The Fire Brigade |
| **Funding program** | Knowledge for Action in Prevention and Preparedness (UCPM-2023-KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/ewed |
| **Status** | Ongoing |
| **Duration** | 2024 - 2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil protection authorities<br>Wildfire services |
| **Geographic focus** | International |
| **Implementation scale** | International |
| **Civil Protection Challenges** | Extreme Wildfire Events |
| **Solutions** | Risk analysis |
| **Objective** | The EWED project will set up a testbed and open platform to advance in research and prepare European emergency response systems for extreme wildfires. |
| **Description** | The risk of Extreme Wildfires Events (EWEs) is increasing globally due to climate change. Those are complex events associated with high levels of uncertainty. Unfortunately, the capacity of fire emergency organisations to respond to those wildfires globally is limited, mainly due to the lack of data, science, and experience available on these phenomena. Without a better understanding and knowledge of EWEs, the safety of emergency responders, society and ecosystems is threatened. The EWED project will set up a testbed and open platform to advance in research and prepare European emergency response systems for extreme wildfires.<br><br>The project gather fire and atmosphere data from extreme wildfire behaviour that has the potential to become extreme events in European countries (Norway, Spain, Greece, Netherlands and others). These data will be used to populate a novel Open Data Portal. The complex processes involved will be adjusted based on the Large Eddy Simulation (LES). The results will be used to improve a land-atmosphere coupled model (Chemistry Land Atmosphere Soil Slab, CLASS) to learn and improve the understanding of the atmosphere-fire feedback during EWEs. The resulting model and data portal will allow real-time analysis of ongoing EWEs with atmosphere coupling. |

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| **Relevant Outcomes** | Finally, the results will be used to propose advanced guidelines and training on how to prepare and respond to extreme wildfires in Europe. In addition, the guidelines will provide recommendations on how to implement it in different European contexts, including new fire-prone countries in Central and Northern Europe that have not yet experienced those types of behaviour, ultimately improving Europe's preparedness. |
| **Relevance to FIRE-SCENE** | Ongoing project that deals with extreme wildfire events fom a risk analysis perspective and focusing on atmosphere role on extreme fire behaviour. The results are feed an open database that serves to share atmospheric data of EWE. In that sense, knowledge created in EWED project will be key to better understand EWE scenarios and how to manage them considering their impact on commuities and rural areas.<br><br>In addition, EWED is an ongoing project (ending 2025), and invitation on FIRE-SCENE events on the current year could be considered. |

### 5.1.7 FIRE efficient

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| **Full name** | Operational tools for improving efficiency in wildfire risk reduction in EU landscapes |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Partners** | European Forest Institute; Pau Costa Foundation; Departament d'Interior - Generalitat de Catalunya; King's College London |
| **Funding program** | Call for proposals 2013 for projects on prevention and preparedness in civil protection and marine pollution |
| **Web** | https://firefficient.ctfc.cat/# |
| **Status** | Finished |
| **Duration** | 2014 - 2015 |
| **Hazards** | Wildfires |
| **Stakeholders** | Land managers |
| **Geographic focus** | EU |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | Landscape wildfires |
| **Solutions** | Risk analysis<br><br>Risk planning |
| **Objective** | The Project seeks to build capacity for planning developers to enhance the transfer of best practices and lessons learnt in wildfires to planning practices and processes. |

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| **Description** | The FIREfficient project (Operational tools for improving efficiency in wildfire risk reduction in EU landscapes) aims to establish a sustainable platform for efficient exchange of available knowledge in which "lessons-learned" can be made available to relevant stakeholders and public agencies at EU level, dealing with innovative operational tools and means to integrate the prediction of potential fire events into emergency strategies and land-use planning. The Project seeks to build capacity for planning developers to enhance the transfer of best practices and lessons learnt in wildfires to planning practices and processes. The main results of the projects will be: (1) Capitalisation of knowledge of innovative tools for a cost-effective wildfire risk management in the context of climate change. (2)EU context adaptation of operational transfer tools for prior fire assessment and actor participatory processes. (3) Development of a knowledge base and "lessons-learned" platform of innovative tools and means for wildfire hazard assessment. |
| **Relevant Outcomes** | Operational tools and guidelines for improving efficiency in wildfire risk reduction in EU landscapes: Document that showcase different tools and guidelines to deal with large wildfire risk from a strategic land management approach. |
| **Relevance to FIRE-SCENE** | FIREefficient is particularly relevant for CPC 3 (Wildfires in recreational sites), since the project provides strategies to promote strategic land management at landscape scale. In addition, it is also relevant for CPC1 (WUI fires), since land management measures at landscape scale are foreseen to be a rising measure to address the risk at community level. Scenarios such as Pont de Vilomara fire (2022) showcased the need to manage fuel at landscape scale to avoid extreme behaviour that overcomes community level measure such as fuel breaks around communities.<br><br>In that sense, FIREefficient strategic management approach will be taken into account. |

### 5.1.8 SparkleFire

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| **Full name** | SparkleFire aims to explore, design and implement games to increase awareness of wildfire risk, applicable in the four European bioregions (Atlantic, Mediterranean, Central and Northern). |
| **Coordinator** | Wageningen University |
| **Partners** | Centre de Ciencia i Tecnologia Forestal de Catalunya; Pau Costa Foundation; VOST Portugal; Municipality of Paredes de Coura, Portugal |
| **Funding program** | Knowledge for Action in Prevention and Preparedness (UCPM-2024-KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/fireplay |

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| **Status** | Ongoing |
| **Duration** | 2025 - 2026 |
| **Hazards** | Wildfires |
| **Stakeholders** | Children<br>Youth |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk awareness |
| **Objective** | SparkleFire aims to explore, design and implement games to increase awareness of wildfire risk, applicable in the four European bioregions. Integrated fire management is imperative, emphasising the entire fire management cycle. This approach shifts the primary focus from fire suppression to prevention of impacts and adaptation, acknowledging the valuable role of fire in the landscape. |
| **Description** | Within this framework, wildfire education is the crucial key for supporting disaster risk reduction. In a prepared society, people understand the value of fire, recognise the existence and timing of wildfires, understand preventive measures to avoid causing fires, learn methods to reduce the impact of fires on their homes (home ignition zone) and know how to respond if a wildfire occurs (e.g. evacuate early or shelter in place. (Serious) games and play represent potent tools for engaging people and increasing awareness, from school children to professional stakeholders. The use of games and play for wildfire education constitutes an emerging field.<br><br>Sparklefire is expected to foster community engagement and active participation in understanding and mitigating wildfire risks. Special care will be given to ensuring the game(s) to be inclusive and accessible for vulnerable groups and students with disabilities, as well as providing diverse game approaches to accommodate various learning styles and enhance wildfire risk awareness and education. |
| **Relevant Outcomes** | Wildfire risk awareness game that serves to understand risk factors and drivers, therefore, equipping children and youth to undertake wildfire risk reduction measures. |
| **Relevance to FIRE-SCENE** | The SparkleFire project focuses on developing games to raise awareness of wildfire risks across Europe's bioregions, including the Mediterranean. This aligns with FIRE-SCENE objectives of implementing wildfire risk assessment and governance strategies in Mediterranean pilot sites. By integrating FirePlay's educational games into FIRE-SCENE's community engagement efforts, both projects can enhance public understanding and preparedness for wildfires. |

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| | Both projects running in parallel, with shared partners. Therefore, potential synergies related to events organisation could be explored. |

### 5.1.9 FIREPRIME

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| **Full name** | European Program for Wildfire-Prepared Communities |
| **Coordinator** | Universitat Politecnica de Catalunya |
| **Partners** | Pau Costa Foundation; RISE Research Institute of Sweden; The University of Natural Resources and Life Sciences Viena |
| **Funding program** | Knowledge for Action in Prevention and Preparedness (UCPM-2023-KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/fireprime |
| **Status** | Ongoing |
| **Duration** | 2024 - 2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services<br>Civil protection authorities<br>Local councils<br>Neighbours associations<br>Communities in WUI areas<br>Youth |
| **Geographic focus** | EU |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | WUI fires |
| **Solutions** | Risk analysis<br>Risk awareness<br>Risk governance |
| **Objective** | To establish an EU-wide program promoting fire resilience in WUI communities |
| **Description** | Wildfires are increasingly problematic in Europe, with recent unprecedented events causing extensive damage near Wildland-Urban Interface settlements. These fires pose complex civil protection challenges, highlighting a lack of awareness and preparedness among affected communities. Inspired by successful international frameworks like Firewise and FireSmart, FIREPRIME aims to establish an EU-wide program promoting fire |

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| | resilience in WUI communities. It will develop a toolkit including a smartphone app, guidelines, and educational materials, aimed at enhancing wildfire resilience in three critical targets: households, communities, and infrastructure. It will be tested in three European regions: Barcelona (Spain), Tyrol (Austria), and Gothenburg (Sweden). The project prioritizes inclusivity and collaboration with local stakeholders to ensure responsiveness to diverse needs. Lessons learned will inform a strategic plan for sustainable project handover and exploitation in other fire-prone European regions. |
| **Relevant Outcomes** | Home vulnerability assessment app: APP that serves to assess the wildfire vulnerability of a building considering different factors.<br><br>Community vulnerability assessment methodology to assess the vulnerability of a community to forest fires considering factors such as forest-urban friction, fuel breaks, access, among others.<br><br>Website addressed to communities that want to implement self-protection measures and coordination actions. This website will have many resources available regarding community coordination and engagement, risk assessment, etc |
| **Relevance to FIRE-SCENE** | The FirePrime project is developing relevant actions concerning wildfires in the WUI, which fits with CPC1 of Fire-Scene. In that sense, it will be particularly relevant to check how the project addresses risk assessment tools at the home and community level.<br><br>In addition, FirePrime will provide a set of recommendations regarding the engagement and coordination between local communities and wildfire risk management authorities to foster their collaboration and role distribution through self-protection groups.<br><br>Finally, the Pau Costa Foundation is a partner of both projects, which could facilitate their interaction regarding the organisation and participation in Exchange and Training meetings. |

### 5.1.10 IPAFF

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| **Full name** | EU support to flood prevention and forest fires risk management in the Western Balkans and Turkey |
| **Coordinator** | The Italian Civil Protection Department |
| **Partners** | Administration of the Republic of Slovenia for Civil Protection and Disaster Relief; Romanian General Inspectorate for Emergency Situations; Swedish Civil Contingencies Agency; Fire Rescue Brigade of Moravian-Silesian Region - Czech Republic; APELL Nation |
| **Funding program** | Instrument of Pre-Accession (IPA) programs |
| **Web** | https://www.ipaff.eu/ |

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| **Status** | Finished |
| **Duration** | 2020-2024 |
| **Hazards** | Floods and Fires |
| **Geographic focus** | Western Balkans and Turkiye |
| **Implementation scale** | Western Balkans and Turkiye |
| **Description** | Funded by the DG ECHO, the project is part of the Instrument of Pre-Accession (IPA) programs of the European Union. The project is dedicated to the mitigation of climate change-induced risks of floods and forest fires in the Western Balkans and Turkey and to the improvement of regulatory frameworks on disaster risk management of the involved countries according to the standards of the European Union on civil protection, with reference to regional cooperation.<br><br>The project foresees, on the one hand, to strengthen the legal and institutional framework on disaster risk reduction and disaster risk management of the countries involved in the project (Serbia, Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, Kosovo, and Turkey), in particular with reference to the European Directive on floods.<br><br>On the other hand, it aims to improve forest fire prevention and preparedness at national, regional, and European level.<br><br>The final objective is to improve the capacity of the partner countries to develop flood risk management plans (with a focus on transboundary management) and to include flood warning systems in local emergency plans. In addition, the project aims to strengthen the capacity of countries to develop a regionally harmonized methodology for forest fire risk assessment, and to develop and update climate risk assessments and forest fire risk management plans. |
| **Relevant Outcomes** | Empowerment of the Early Warning Systems and of its integration into the emergency response plans;<br><br>Facilitating the development of EW procedures and the coordination among responsible actors in a perspective of systematization and harmonization at regional level.<br><br>Development table top exercises that included all the national and local actors to simulate actual EW procedure;<br><br>Identifying criteria describing minimum requirements for the EWS integration in the local and central plan, developing a toolkit for exporting the results to other local authorities;<br><br>Technical support to the beneficiaries for developing risk assessments and risk management capabilities for forest fires;<br><br>Policies for data sharing at regional level, collection, updating and maintenance of the datasets;<br><br>Development of regional technical guidelines for forest fire risk mapping and associated implementation plans; |

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| | Development of a specific tool to harmonize and develop risk mapping at regional and national level. |

### 5.1.11 LODE

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| **Full name** | Loss Data Enhancement for DRR & CCA Management |
| **Coordinator** | Politecnico di Milano |
| **Partners** | Departament d'Interior i Seguretat Pública (DISP); Ilmatieteen laitos (Finnish Meteorological Institute); Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC); Regione Umbria ; Centre national de la recherche scientifique (CNRS) |
| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/lode |
| **Status** | Finished |
| **Duration** | 2019 - 2021 |
| **Stakeholders** | Policy makers<br>Practitioners<br>Research<br>Public administration<br>Insurance |
| **Geographic focus** | Primarly EU |
| **Implementation scale** | Primarly EU |
| **Civil Protection Challenges** | All challenges |
| **Solutions** | Methodologies and approaches for loss damage collection and storage |
| **Objective** | LODE focuses on the collection, storage, organization of post-disaster damage and loss data to support a variety of applications, ranging from accounting to forensic analysis of disasters to enhancement of risk modelling capacity. |
| **Description** | LODE aspired to define with stakeholders what are enhanced data collection tools and procedures and how the knowledge that can be extracted from such data can serve a number of application to support policies and strategies for disaster risk reduction and climate change adaptation. The baseline of LODE is a set of ten showcases in different countries (France, Spain, Finland, Greece, Serbia, Portugal, Italy) where damage data collection and storage will follow the methodology and approaches developed. |

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| **Relevant Outcomes** | Methodologies and approaches for loss damage collection and storage. |
| **Relevance to FIRE-SCENE** | Take stock of the existing databases as well as identifying loss damage data that can be used in the products being developed. |

### 5.1.12 MIRTO

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| **Full name** | Minimizing forest fire risks for tourists |
| **Coordinator** | Ambiente Italia, Istituto di Ricerche |
| **Partners** | Prefecture of Magnesia, Volos; Province of Livorno; Institute for Tourism, Zagreb; University of Thessaly; National Park Archipelago Toscano, Portogerraio; Entente for the Mediterranean Forest (CEREN) |
| **Funding program** | 2009 call for proposals civil protection financial instrument for cooperation projects on prevention and preparedness |
| **Web** | https://files.spazioweb.it/1c/c4/1cc4421d-61d2-4605-993a-f93908e37f1b.pdf |
| **Status** | Finished |
| **Duration** | 2009-2011 |
| **Hazards** | Wildfires |
| **Stakeholders** | The project engaged ferry companies, local authorities, and tourism operators to ensure that communication materials reached the intended target audiences. A monitoring activity was implemented (questionnaires and interviews) to assess the effectiveness. |
| **Geographic focus** | EU regions |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | Wildfires in touristic areas |
| **Solutions** | Multilingual and Multi-channel Approach:The campaign was designed to accommodate different languages, addressing the diverse tourist demographics typical of Mediterranean islands. |
| **Objective** | • Enhance public awareness<br>• Improve preparedness of tourists in fire-prone areas<br>• Improve the effectiveness of forest fire information campaigns which address tourists<br>• Contribute to reduce human victims, economic and environmental damages from forest fires in tourism areas |

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| | • Raise public awareness of forest fire risks and adequate behaviour without damaging the tourism economy<br>• Develop innovative cooperation and communication methodologies<br>• Improve cooperation between public and private operators with different roles and functions (civil protection – tourism promotion)<br>• Cooperation between tourists' countries facing similar issues<br>• Identify and propose communication strategies and effective information materials to be adopted in larger campaigns. |
| **Description** | Grant Agreement No.070401/2009/540455/SUB/A4. Information Campaigns: Development of videos, brochures, and handbooks tailored for tourists, especially those engaging in nature activities or staying in vulnerable accommodations like campsites. Collaborative Efforts: Involving tourist operators, local authorities, and protected area management to disseminate information effectively.Pilot Implementations: Campaigns conducted in islands such as Hvar (Croatia), Skopelos and Skiathos (Greece), Corsica (France), and Elba (Italy). |
| **Relevant Outcomes** | Video Spots: Developed multilingual video spots intended to be broadcast on ferries. These aimed to reach youth tourists in transit to Mediterranean islands.<br>Brochures and Handbooks: Printed materials (brochures, handbooks, posters) delivered clear, concise, and multilingual messages on safe behavior and preparedness in the event of a forest fire.<br>Posters: Designed as part of the awareness campaign to visually communicate crucial fire prevention messages at strategic locations such as tourist offices and reception areas. Campaign Slogan and Branding: A unifying slogan was created: "Enjoy, Respect, Come Back"—designed to promote a positive and safe fire behavior attitude among tourists. |
| **Relevance to FIRE-SCENE** | Directly aligns with initiatives aimed at increasing risk awareness among tourists in fire-prone regions, thereby complementing broader WUI risk management strategies. |

### 5.1.13 NEMAUSUS

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| **Full name** | Network of European Multihazard capacities hub of Scientifics Understanding and Sharing |
| **Coordinator** | Ministère de l'Intérieur |
| **Partners** | Communauté d'Agglomération Nîmes Métropole; Ministry of Interior of the Republic of Croatia; Entente pour la forêt Méditerranéenne; THW - German Federal Agency for Technical Relief; Pau Costa Foundation; Dipartimento della Protezione Civile; European University |

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| **Funding program** | Knowledge Network Partnership 2020 |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/nemausus |
| **Status** | Finished |
| **Duration** | 2021 - 2023 |
| **Hazards** | Wldfires |
| **Stakeholders** | Civil Protection Auhtorities<br>Fire services<br>Researchers<br>Private sector |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk governance |
| **Objective** | NEMAUSUS' long-term objective is to transform the existing national civil protection centre in Nîmes-Garons to a fully-fledged European centre of expertise dedicated to forest fires and wildfires. |
| **Description** | The main deliverable of the project is a comprehensive feasibility study on the establishment of the centre of expertise (governance, structure, management and operations, resources, financial forecast, activities, stakeholders etc.). It will also aim to serve as a "blueprint" for the establishment of similar centres of expertise in the future, enabling a regionalised approach to generating and disseminating knowledge in civil protection and disaster management.<br>The pilot centre will implement capacity building and scientific activities, in line with the Knowledge Network pillars. It will be open to UCPM Member and Participating States as well as the interested European Neighbourhood Policy countries. Strong commitment from stakeholders will drive the success of the project and help make the centre an international reference in the field of wildfires in the future. |
| **Relevant Outcomes** | Groundwork for establishing a future centre of expertise |
| **Relevance to FIRE-SCENE** | NEMAUSUS do not fcus on any specific Civil Protection Challenges. Its interest relies on the idea to create an EU Wildfire HUB as a centre of transversal expertise and exchange, having wilfires as focus point. |

### 5.1.14 preparEU

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| **Full name** | preparEU |
| **Coordinator** | Myndigheten för samhällsskydd och beredskap |
| **Partners** | National Crisis Center Belgium; Norwegian Directorate for Civil Protection DSB; Ministerio del Interior |
| **Funding program** | Knowledge for Action in Prevention & Preparedness (KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/prepareu |
| **Status** | Ongoing |
| **Duration** | 2024 - 2025 |
| **Hazards** | Multi-risk |
| **Stakeholders** | Civil Protection Authorities |
| **Geographic focus** | EU |
| **Implementation scale** | National |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk awareness |
| **Objective** | This project will support the implementation of the Union Disaster Resilience Goals (UDRG), goal 2 "Prepare" and the flagship initiative preparEU and build on the findings from the related study, recently launched by the Commission. |
| **Description** | PrepareEU Pilot project consists of Sweden (LEAD), Norway, Belgium and Spain. The main objectives of the project is to explore and then recommend ways to implement a European dimension on all different national risk information activities that are taken place in most MS/PS. The project partners are convinced that an EU-added value can strengthen and develop the field of risk information to increase risk awareness and preparedness among EU citizens.<br><br>PrepareEU Pilot have four different workpackages focusing on deepen the knowledge about how MS/PS work to increase national risk awareness and preparedness, identify the needs of and possibilities to introduce a European dimension, (e.g. a EU preparedness week/month), and facilitate sharing of national best practices, risk information material, project recommendations and guidelines among all MS/PS. |
| **Relevant Outcomes** | Best practices on risk information, awareness and preparedness at national level. |
| **Relevance to FIRE-SCENE** | prepareEU seeks to explore and then recommend ways to implement a European dimension on all different national risk information activities that are taking place in most MS/PS. In that |

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| | sense, FIRE-SCENE could provide interesting feedback on pilots implementation in relation to the Civil Protection Challenges. |

### 5.1.15 PREVAIL

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| **Full name** | Prevention Action Increases Large fire response preparedness |
| **Coordinator** | Università degli studi de la Tuscia |
| **Partners** | Università degli Studi di Napoli Federico II; Forest Science and Technology Centre of Catalonia; Ellinikos Georgikos Organismos – DIMITRA; Instituto Superior de Agronomia |
| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/prevail |
| **Status** | FInished |
| **Duration** | 2019 - 2021 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services<br>Civil protection authorities<br>Local councils<br>Land managers |
| **Geographic focus** | Mediterranean |
| **Implementation scale** | Regional |
| **Civil Protection Challenges** | Landscape wildfires |
| **Solutions** | Risk analysis<br>Risk planning |
| **Objective** | To demonstrate how wildfire prevention<br>can make large fire suppression more effective and less costly |
| **Description** | The project provided empirical knowledge, practical tools, and analytical techniques to improve Union Civil Protection Mechanism (UCPM) effectiveness in the fire disaster management cycle.<br>PREVAIL involved analysing prevention, preparedness and suppression measures to counteract large fires, as well as simulating past large fire events to reconstruct fire behaviour and predict the effects of alternative fuel-management scenarios on reducing the need for fire suppression efforts. |

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| | The project aimed to determine the best strategies to integrate prevention and preparedness for large fire events, sharing and spreading 'smart' solutions that were implemented locally in partner countries via transnational training and production of materials to raise awareness among citizens, land managers, and fire operators.<br><br>It also developed a decision support system to plan and optimise smart solutions for the water catchment-scale, to increase the leverage and cost-effectiveness of fuel management treatments and promote the development of the local economy. |
| **Relevant Outcomes** | A knowledge exchange platform related to the project website and dedicated to smart fuel management programs was created to this aim with the website module on "Landscape Solutions to Wildfire" in Lessons on fire platform (platform is managed by Pau Costa Foundation): Compilation of initiatives of fire prevention, forest management, agriculture and livestock, and rural development/economies, all of which contribute to reduce wildfire risk and its impacts.<br><br>Working paper on cases, agencies and actors identified in land management: to identify public land management agencies that deal with fuel management programs in each partner country or region in Italy, Spain, Portugal and Greece.<br><br>Final results publication: Innovatives solutions on building fre resilient landscapes |
| **Relevance to FIRE-SCENE** | PREVAIL is particularly relevant for CPC 3 (Wildfires in recreational sites), since the project provides innovative solutions to promote land management at the landscape scale. In addition, it is also relevant for CPC1 (WUI fires), since land management measures at the landscape scale are foreseen to be a rising measure to address the risk at the community level. Scenarios such as the Pont de Vilomara fire (2022) showcased the need to manage fuel at the landscape scale to avoid extreme behaviour that overcomes community-level measures such as fuel breaks around communities.<br><br>In that sense, PREVAIL outcome will be taken into account.<br><br>In addition, PREVAIL created an exchange platform for smart fuel management programs. FIRE-SCEN results could feed this platform according to the implementation of the pilots. |

### 5.1.16 RECIPE

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| **Full name** | Reinforcing civil protection capabilities into multi-hazard risk assessment under climate change |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Partners** | Pau Costa Foundation; CIMA Foundation; Departament d'Interior - Generalitat de Catalunya; Forstliche Versuchs- und Forschungsanstalt Baden-Wuerttemberg; Bundesforschungs- |

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| | und Ausbildungszentrum für Wald Naturgefahren und Landschaft; Institut Cartogràfic i Geològic de Catalunya |
| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/recipe |
| **Status** | Finished |
| **Duration** | 2020 - 2021 |
| **Hazards** | Wildfires<br>Floods<br>Avalanches<br>Rockfalls<br>Storms |
| **Stakeholders** | Wildfire services<br>Civil protection authorities<br>Local councils<br>Society |
| **Geographic focus** | EU |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | WUI wildfires<br>Landscape wildfires<br>Wildfire in mountain areas |
| **Solutions** | Risk analysis<br>Risk planning<br>Risk governance |
| **Objective** | To develop operational recommendations and tools to reinforce civil protection, emergency management, and risk planning for different natural hazards across Europe |
| **Description** | The RECIPE project seeks to develop operational recommendations and tools to reinforce civil protection, emergency management, and risk planning for different natural hazards across Europe, simultaneously addressing the impacts of climate change. This is achieved through an integrated risk-management approach, and exchange of lessons learned and best practices.<br><br>By combining multi-hazard (e.g. flood, storm, avalanche, rock-fall, and landslide) expertise, both in research and in practice, the project identifies the main impacts of climate change for risk management. The interaction between prevention, preparedness, and response actions in projected climate change scenarios is analysed, involving active participation of |

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| | practitioners and other users. Civil protection requirements for tackling new risk-management challenges related to the impacts of climate change are then identified accordingly.<br><br>Transferable guidelines on these requirements are created to incorporate the projected multi-risk impacts of climate change into operational decision support systems used for risk management. Complementary tools are also developed at pilot site-level to reinforce civil protection capabilities. |
| **Relevant Outcomes** | Guidelines to incorporate projected climate change impacts into Decision Support Systems and platforms.<br><br>RECIPE summary results to improve Civil Protection capabilities in municipalities.<br><br>Guidelines for flood civil protection planning with participatory approach with a prototype tool for monitoring participatory process.<br><br>Prototype for improved decision making in landslide and rockfall risk management.<br><br>Guidelines for a participatory crisis management plan to manage wind throw along roads.<br><br>Support tool and guidelines for integrated risk assessment and planning for landscape and wild-land urban interface.<br><br>Protocol for wildfire and avalanche risk management in mountain areas.<br><br>Visualizer tool for managing emergency situations in case of high avalanche risk. |
| **Relevance to FIRE-SCENE** | RECIPE project developed guidelines that can be linked to FIRE-SCENE CPC, for instance, integrated risk assessment and planning for landscape and wild-land urban interface. The approach stated in these guidelines should be considered when dealing with CPC1 and CPC3. |

### 5.1.17 THEMIS

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| **Full name** | Strategic framework for raising public awareness and training programmes for disaster risk management in the tourism sector, Greece |
| **Coordinator** | The General Secretariat for Civil Protection - Greece |
| **Partners** | NA |
| **Funding program** | Single country grants for disaster risk management (UCPM-2024-Track 1) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/themis |
| **Status** | Ongoing |

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| **Duration** | 2025 - 2026 |
| **Hazards** | Multi-risk |
| **Stakeholders** | Tourists<br>Civil Protection Authorities |
| **Geographic focus** | National |
| **Implementation scale** | National |
| **Civil Protection Challenges** | Wildfires in torusitic areas |
| **Solutions** | Risk awareness<br>Training |
| **Objective** | To enhance disaster resilience in Greece by equipping tourists with tailored awareness, preparedness, and response strategies to address their unique risks in a hazard-prone environment. |
| **Description** | The significance of targeting the tourist population in this project is paramount, particularly within the context of Greece's unique environmental and geographical challenges. Greece, with its diverse topography, experiences a range of disasters including forest fires, earthquakes, floods, and even the potential risk of tsunamis.<br>Given the country's status as a popular tourist destination, welcoming visitors year-round, the safety and well-being of tourists become integral considerations in disaster resilience efforts. Tourists (including elderly, handicapped and families that need special attention and care), often unfamiliar with local hazards and emergency procedures, represent a particularly vulnerable demographic during disasters. Therefore, by equipping tourists with the necessary awareness, preparedness, and response strategies, our project not only enhances the safety of visitors to Greece but also contributes to the overall resilience of the region's disaster management infrastructure.<br>This proactive approach acknowledges the pivotal role that tourists play in the broader context of disaster preparedness and underscores the importance of tailored interventions to address their specific needs and vulnerabilities. |
| **Relevant Outcomes** | NA |
| **Relevance to FIRE-SCENE** | This project complements FIRE-SCENE by extending its focus on wildfire risk in Mediterranean tourist areas, addressing the unique vulnerabilities of tourists, and contributing to a shared objective of enhancing multi-hazard preparedness, local capacity building, and inclusive civil protection strategies. |

### 5.1.18 Turkiye - Wildfire Prevention and Emergency Response

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| **Full name** | Developing Wildfire Prevention and Emergency Response Plans (F-PERPs) for Forest Villages to Enhance Climate Adaptation and Mitigation |
| **Coordinator** | General Directorate of Forestry (GDF) - Ministry Of Agriculture And Forestry |
| **Partners** | NA |
| **Funding program** | Single country grants for disaster risk management (Track 1) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/turkiye-wildfire-prevention-and-emergency-response |
| **Status** | Finished |
| **Duration** | 2023 - 2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Land planners<br>Emergency managers |
| **Geographic focus** | Turkey |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | WUI fires in rural areas |
| **Solutions** | Risk planning |
| **Objective** | To strengthen the wildfire prevention and response capacity of the General Directorate of Forestry and other relevant agencies |
| **Description** | The project will strengthen the wildfire prevention and response capacity of the General Directorate of Forestry and other relevant agencies, including the Disaster and Emergency Management Presidency (AFAD), by developing specific local solutions through a bottom-up approach, starting with forest villages. The results can be scaled up to the national and international levels and to cover other disasters in the future. The project expects to contribute to emission reductions essential for a green transition and to benefit from the indigenous knowledge of the villages, combining it with scientific/technical advances to develop specific good practices to enhance disaster resilience. |
| **Relevant Outcomes** | Local solutions through a bottom-up approach, starting with forest villages |
| **Relevance to FIRE-SCENE** | To check project results for potential synergies with CPC1. |

### 5.1.19 VERA

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|---|---|
| **Full name** | Vulnerable Elements and Risk Assessment |
| **Coordinator** | METEOGRID |
| **Partners** | Associacao para o Desenvolvimento da Aerodinamica Industrial; Universitat Politècnica de Catalunya; Universidade de Aveiro; VOST Portugal; Entente pour la forêt Méditerranéenne; Departament d'Interior - Generalitat de Catalunya |
| **Funding program** | Knowledge for Action in Prevention & Preparedness (KAPP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/vera |
| **Status** | Ongoing |
| **Duration** | 2024 - 2026 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil Protection authorities |
| **Geographic focus** | Mediterranean |
| **Implementation scale** | National<br>Regional<br>Local |
| **Civil Protection Challenges** | Detection and classification of vulnerable elements |
| **Solutions** | Risk analysis |
| **Objective** | To improve risk-management mechanisms between Spain and Portugal through a joint information system on vulnerable elements |
| **Description** | VERA is presented as a continuation of VESPRA to the call for proposals of the European Civil Protection Mechanism (UCPM) of the European Union to explore new analyses and functionalities extending the capabilities described in the previous project.<br>VERA thus arises with the aim of improving cross-border risk management mechanisms, with an improved multi-risk approach, extending the capabilities of the platform developed by taking advantage of existing data from European services (Copernicus, Galileo or JRC) and extending the analysis to the entire Spanish-Portuguese and Spanish-French border (Catalonia-France). In addition, its operation and usefulness will be applied in real demonstrations carried out in situ. |
| **Relevant Outcomes** | Continuation of VESPRA |

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| **Relevance to FIRE-SCENE** | As a continuation of the VESPRA project, VERA is focused on a transversal CPC, which is the identification and classification of vulnerable elements through the harmonisation of an information system across Spain and Portugal. In that sense, all CPC concerning FIRE-SCENE may find synergies regarding the mapping of elements such as WUI, recreational sites (e.g. parking lots) or touristic infrastructure (e.g. campings, resorts).<br><br>In addition, VERA is an ongoing project, therefore, it may be of interest to organise an exchange session in order to transfer challenges and tools across projects. |

### 5.1.20 VESPRA

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|---|---|
| **Full name** | Vulnerable Elements in Spain and Portugal and Risk Assessment |
| **Coordinator** | METEOGRID |
| **Partners** | Associacao para o Desenvolvimento da Aerodinamica Industrial; Universitat Politècnica de Catalunya; Universidade de Aveiro; Comunidade Intermunicipal da Beira Baixa; Consejería de Agricultura - Junta de Extramadura |
| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/vespra |
| **Status** | Finished |
| **Duration** | 2021 - 2023 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil Protection authorities |
| **Geographic focus** | Iberian peninsula |
| **Implementation scale** | National<br><br>Regional<br><br>Local |
| **Civil Protection Challenges** | Detection and classification of vulnerable elements |
| **Solutions** | Risk analysis |
| **Objective** | To improve risk-management mechanisms between Spain and Portugal through a joint information system on vulnerable elements |
| **Description** | VESPRA project aims to improve risk-management mechanisms between Spain and Portugal, both for local risks, such as forest fires, and for general risks, such as adverse meteorological phenomena or the distribution of pollutants across wide areas. |

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| | This is achieved through the creation of a joint information system to assist with emergency decision-making by improving harmonised identification and mapping of vulnerable elements for evaluation and assessment of transnational emergency responses. On-site training exercises for civil protection authorities are also carried out.<br><br>The direct beneficiaries of VESPRA are the civil protection authorities of Portugal and Spain at the national, regional, and local levels, who will be equipped with a powerful tool to support their emergency management and optimise preventative planning.<br><br>Within the project, an international protocol is being defined for the collection of vulnerable elements and their characterisation regarding different threats, allowing them to be integrated into a geographic information-based platform designed to effectively manage them. |
| **Relevant Outcomes** | An open-source computing geographic information-based platform for data and information exchange with a common methodology for (1) harmonization of data collection; (2) vulnerability and impact assessment; (3) assistance in making operational and preventive decisions in the emergency. |
| **Relevance to FIRE-SCENE** | VESPRA is focused on a transversal CPC which is the identification and classification of vulnerable elements through the harmonization of an information system across Spain and Portugal. In that sense, all CPC concerning FIRE-SCENE may find synergies regarding the mapping of elements such us WUI, recreational sites (e.g. parking lots) or touristic infrastructure (e.g. campings, resorts) |

### 5.1.21 Wildfire Risk Awareness Good Practice Note

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| **Full name** | Wildfire Risk Awareness Good Practice Note |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Partners** | Pau Costa Foundation |
| **Funding program** | Call for tenders ECHO/2023/MVP/0009-Wildfire Risk Awareness Good Practice Note |
| **Web** | https://civil-protection-knowledge-network.europa.eu/news/new-good-practice-guide-wildfire-risk-awareness-and-communication |
| **Status** | Finished |
| **Duration** | 2023 - 2024 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services<br><br>Civil protection authorities |

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| | Citizens<br>Communicators |
| **Geographic focus** | European |
| **Implementation scale** | European |
| **Civil Protection Challenges** | Wildfire risk awareness and communication |
| **Solutions** | Risk analysis |
| **Objective** | Present the analysis conducted over a sample of wildfire risk awareness and communication initiatives and projects across the EU and beyond. |
| **Description** | The initative provides a summary of 53 initiatives and 9 EU-funded projects focused on improving wildfire risk communication across Europe. Published under the EU's Wildfire Prevention Action Plan, it highlights effective practices in public awareness, stakeholder collaboration, and risk communication strategies. It offers recommendations for building long-term risk culture, enhancing public engagement, and developing cross-sectoral communication approaches to better manage and prevent wildfires. |
| **Relevant Outcomes** | The document's key outputs include a detailed analysis of 53 wildfire awareness initiatives and 9 EU-funded projects, offering insights into effective communication strategies across different contexts. It identifies best practices such as combining top-down and bottom-up approaches, tailoring messages to specific audiences, and using diverse communication channels. It also presents four main recommendations: develop comprehensive communication strategies, improve public understanding of wildfire risks, engage stakeholders through collaborative and cross-sectoral methods, and use practical, adaptable tools for long-term risk reduction. These outputs support stronger wildfire preparedness and risk culture across Europe. |
| **Relevance to FIRE-SCENE** | Sinergies are related to all Pilots, understanding risk awareness and communication as a transversal pillar of wildfire risk management, highlighting its governance processes. |

### 5.1.22 WUITIPS

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| **Full name** | Wildland-Urban-Interface Fire Touristic Infrastructures Protection Solutions |
| **Coordinator** | Universitat Politecnica de Catalunya |
| **Partners** | Efectis France; Lund University; Diputació de Girona; Entente pour la Forest Mediteranéenne |

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| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) (UCPM-2022-PP) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/wuitips |
| **Status** | Finished |
| **Duration** | 2023 - 2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services<br>Civil protection authorities<br>Local councils<br>Protected areas managers<br>Touristic sector |
| **Geographic focus** | Mediterranean |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | Wildfires in torusitic areas<br>Wildfire in recreational sites |
| **Solutions** | Risk analysis |
| **Objective** | To provide wildfire risk assessment tools in touristic areas and recreational sites |
| **Description** | The project aims to advance towards a harmonised understanding of the wildfire problem in touristic areas, providing knowledge on the impact of fire on buildings, installations, cultural heritage, infrastructures and the involved population and human behaviour as well as on the performance of fire risk mitigation measures used across EU. New insights will be integrated into a set of tools and guidelines for the appropriate and EU harmonised fire prevention and protection planning in trans-boundary areas in Europe, which will be demonstrated in selected cross-border (Spain-France) pilots. Thanks to a co-participatory process of key stakeholders from other EU trans-boundary areas, outcomes will be fully applicable at EU level. The project should contribute to improve the cross-border cooperation in prevention and preparedness to the risk of forest fires affecting touristic areas, which can be further enhanced by the use of the resulting guidelines for prevention and protection planning. |
| **Relevant Outcomes** | Vulnerabitliy Assessment Check list: Check-list type of tool for quantitative vulnerability self assessment of touristic infrastructures. This is a tool that is made of a questionnaire linked to an algorithm for quantitifaction of vulnerability.<br>Sheltering assessment tool: Tool to assess the risk of an access road to a natural park considering its location, vegetation and traffic jams during fire season. Mathematical models to |

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| | calculate tenability conditions inside shelters threatened by wildfires or toxic releases. |
| **Relevance to FIRE-SCENE** | Sinergies with WUITIPS are mainly related to civil protection challenges 2 (touristic areas) and 3 (recreational sites), since WUITIPS focused on these two scenarios to analyse wildfire risk. In addition, both projects are working on the same pilot area (Cap de Creus Natural Park), therefore, FIRE-SCENE will be implemented considering results and conclusions of WUITIPS for this pilot area. |

### 5.1.23 WUIVIEW

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| **Acronym** | Wildland-Urban Interface Virtual Essays Workbench |
| **Coordinator** | Univrsitat Politècnica de Catalunya |
| **Partners** | Associacao para o Desenvolvimento da Aerodinamica Industrial; Pau Costa Foundation; Association pour la recherche et le developpement des methodes et processus industriels ; Università di Bologna; Research Institutes of Sweden |
| **Funding program** | Cross-border prevention and preparedness and marine pollution (Track 2) |
| **Web** | https://civil-protection-knowledge-network.europa.eu/projects/wuiview |
| **Status** | Finished |
| **Duration** | 2019 - 2021 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services<br>Civil protection authorities<br>Local councils<br>Communities in WUI areas |
| **Geographic focus** | EU |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | WUI fires |
| **Solutions** | Risk analysis<br>Risk awareness |
| **Objective** | The WUIVIEW project aims at reinforcing wildland-urban interface (WUI) fire risk reduction strategies by designing, testing and operating a virtual workbench service to analyse fire hazards and building vulnerabilities. |

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| **Description** | WUIVIEW is an innovative platform that can be used to generate essays and carry out simulation studies dealing with structures' survivability and sheltering capabilities.<br><br>Europe has many areas in which forest fires seriously affect urban and rural communities, the so-called WUI. Climate change is dramatically worsening the WUI fire problem throughout Europe by i) exacerbating highly intense wildfires (firestorms) in Mediterranean countries and ii) causing WUI-fire prone zones that are not adapted to wildfires.<br><br>To set up a workbench, fire hazards of natural and artificial fuels will be characterised by real fire experiments and modelling. A special focus will be on highly flammable vegetation and gas infrastructure. The project relies on a well-established fire protection engineering methodology, which is based on cutting-edge fire simulation techniques, to get insights on how typical building systems and materials respond to fire.<br><br>WUIVIEW will help residents and fire risk managers to assess vulnerability in WUI communities, will assist engineers and architects in their designs, and will provide scientific information to fire services and regulatory bodies. |
| **Relevant Outcomes** | Recommendations on structure survivability and sheltering capacity.<br><br>PBD (Performance-Based Design) WUI-specific final guideline.<br><br>Set of leaflets in different languages for educational purposes.<br><br>Àgueda et al. (2023). Evaluating wildfire vulnerability of Mediterranean dwellings using fuzzy logic applied to expert judgement. International Journal of Wildland Fire 32(6) 1011-1029.<br><br>Vulnerabitliy Assessment Tool: Check-list type of tool for quantitative vulnerability self assessment of dwellings (Firther developed at FIREPRIME).<br><br>Performance-Based analysis of vulnerabilities: Engineering project (throough CFD simulations) to detect vulnerabilities to fire in buildings. This is a tool that could be used to analyse vulnerability with a high degree of detail of singular insfrastructures of pilots (eg hotels, hospitals, etc.). |
| **Relevance to FIRE-SCENE** | WUIVIEW focused on wildfires in WUI areas focusing on risk analysis and awareness dimentions, which makes a clear link with FIRE-SCENE CPC1 concerning risk analysis and planning solutions. WUIVIEW approach is focused on the small scale (homeowner safety), with tools to analyse sheltering capacity and potential impacts of fire to different types of infrastructure. This approach is complementary to FIRE-SCENE CPC1, which will put the efforts on identifying and classifying WUI communities according to different factors from a landscape scale point of view. |

### 5.1.24 WUIWATCH

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| **Full name** | Wildland - Urban Interface Forest Fire Risk Observatory and Interest Group in Europe |
| **Coordinator** | METEOGRID |
| **Partners** | Associacao para o Desenvolvimento da Aerodinamica Industrial; Pau Costa Foundation; Universita Degli Studi di Sassari; Entente Pour la Foret Mediterraneenne |
| **Funding program** | Preparedness and prevention projects in civil protection and marine pollution |
| **Web** | https://civil-protection-humanitarian-aid.ec.europa.eu/funding-evaluations/financing-civil-protection/prevention-and-preparedness-projects-civil-protection/overview-past-track-i-and-track-ii-projects/wildland-urban-interface-forest-fire-risk-observatory-and-interest-group-europe-wuiwatch_en |
| **Status** | Finished |
| **Duration** | 2014 - 2016 |
| **Hazards** | Wildfires |
| **Stakeholders** | Wildfire services |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | WUI fires |
| **Solutions** | Risk analysis<br>Risk planning |
| **Objective** | The objective is to create and consolidate a European Observatory on prevention and defence against forest fires affecting urban areas and communities in the so called Wildland-Urban interfaces (WUI) in Europe by assembling a permanent forum and a special interest group. |
| **Description** | This project addresses the need for a common approach to the problem of forest fires in the WUI in Europe and to promote the adoption of common and appropriate European wide methods, protocols, regulations and tools amongst all involved actors and stakeholders in such civil protection emergencies. To achieve this, interaction and experience interchange amongst all agents involved in such emergencies is required for the design and implementation of appropriate operational procedures and protocols. |
| **Relevant Outcomes** | NA |

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| **Relevance to FIRE-SCENE** | WUIWATCH is highly relevant to FIRE-SCENE as it lsets the baseline for a coordinated European approach to wildfire risk in the WUI, providing shared methods, protocols, and stakeholder collaboration. |

### 5.1.25 Summer School BCN 2025

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| **Full name** | Evidence for Policy in Disaster Risk Management (DRM) Summer School 2025 |
| **Coordinator** | European Commission – DG ECHO |
| **Partners** | Civitas Soteria consortium (ICF & Scuola Superiore Sant'Anna), Universitat Politècnica de Catalunya (host) |
| **Funding program** | Exchange |
| **Web** | https://civil-protection-knowledge-network.europa.eu/events/evidence-policy-disaster-risk-management-drm-summer-school-2025 |
| **Status** | Upcoming |
| **Duration** | 29th September - 1st October 2025 |
| **Hazards** | General Disaster Risk Management |
| **Stakeholders** | Scientists, policymakers, DRM operational staff |
| **Geographic focus** | EU Member States and Participating States |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | Integration of scientific evidence into policy |
| **Solutions** | Training, capacity-building, knowledge sharing |
| **Objective** | Strengthen science-policy interface in DRM |
| **Description** | The Summer School's objective is for participants to gain:<br>New knowledge on how to better integrate scientific evidence into policymaking.<br>Scientists will learn how to better communicate and visualise their results, tackle uncertainty and align their projects with policy and operational needs.<br>Policymakers and operational staff will learn how research can support policy, which science can be relevant to their field, where to find it and how to interpret it, and what can be expected from researchers.<br>New insights on how 'the other side' operates.<br>An enlarged network of likeminded professionals, working on disaster risk management with ambition of using evidence in policymaking. |

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| | Access to a global community of practice, exchanging top resources and expertise. |
| **Relevant Outcomes** | Skills in evidence communication, policy alignment, expanded networks |
| **Relevance to FIRE-SCENE** | The Summer School meets FIRE-SCENE focus on policy coherence and risk governance, taking advantage of scientific knowledge in order to suggest innovative DRM strategies. It offers an opportunity for FIRE-SCENE partners to reinforce DRM capacities n the Mediterranean context. The networking and training can also support replication of FIRE-SCENE methodologies in other Member and Participatory States |

### 5.1.26 EU Preparedness Strategy

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| **Full name** | EU Preparedness Strategy |
| **Coordinator** | EU Commission |
| **Partners** | NA |
| **Funding program** | European Commission |
| **Web** | https://ec.europa.eu/commission/presscorner/detail/en/ip_25_856 |
| **Status** | Ongoing |
| **Duration** | 2025 |
| **Hazards** | Multi-hazard: pandemics, climate-related disasters (including wildfires), hybrid threats, industrial accidents, cyber threats, etc. |
| **Stakeholders** | EU institutions and agencies<br>National civil protection authorities<br>Scientific and technical communities<br>Local governments<br>Citizens |
| **Geographic focus** | EU |
| **Implementation scale** | EU support for national and local levels |
| **Civil Protection Challenges** | Fragmented risk anticipation and monitoring systems<br>Gaps in strategic reserves and critical infrastructure protection<br>Slow or uncoordinated emergency response<br>Weak public risk awareness and crisis communication |
| **Solutions** | Strategic scenario planning.<br>Common risk monitoring platform.<br>Joint procurement and strategic reserves. |

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| | Enhanced training and exercises (Union Civil Protection Knowledge Network).<br>Strengthened public communication and education.<br>Integration of civil prote |
| **Objective** | Build a stronger, faster, and more coherent EU crisis response system, able to anticipate risks, respond effectively, and reduce vulnerabilities across member states. |
| **Description** | The EU Preparedness Union Strategy is a comprehensive initiative designed to bolster the European Union's ability to anticipate, prepare for, and respond to a wide array of crises. This strategy emphasizes the importance of a coordinated approach among Member States, focusing on enhancing resilience across various sectors. Key components include:<br>Risk Anticipation: Developing advanced systems for early detection and monitoring of potential threats.<br>Strategic Stock: Ensuring the availability of essential resources and supplies during emergencies.<br>Integrated Response Mechanisms: Streamlining coordination among EU institutions and Member States for swift action.<br>Public Communication: Establishing clear channels for disseminating information to the public during crises. |
| **Relevant Outcomes** | Expanded and better-coordinated strategic reserves.<br>Improved training and simulation capacity across Europe.<br>Integration of scientific foresight into EU civil protection policies.<br>Enhanced public risk communication tools. |
| **Relevance to FIRE-SCENE** | The EU Preparedness Union Strategy enhances Europe's capacity to anticipate and respond to crises, including wildfires, by promoting coordinated risk monitoring, training, and stronger links between science and policy. This is highly relevant to FIRE-SCENE, as it supports its goals of improving wildfire risk assessment and planning, fostering collaboration across borders and sectors, and strengthening community-based preparedness. The preparedness strategy represents a consistent policy that could eventually help FIRE-SCENE solutions to expand in other EU regions. |

### 5.1.27 WF-PRAF

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| **Full name** | Wildfire Peer Review Assessment Framework |
| **Coordinator** | Union Civil Protection Mechanism |
| **Partners** | Collaboration of EU Member States and Participatory States experts |
| **Funding program** | Union Civil Protection Mechanism (UCPM) Peer review programme 2020-2024 |

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| **Web** | https://civil-protection-knowledge-network.europa.eu/media/wildfire-peer-review-assessment-framework-wildfire-praf |
| **Status** | Ongoing |
| **Duration** | 2023 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil protection authorities, forestry management bodies, private sector actors (e.g., tourism), landowners, research institutions, local communities, NGOs, and academia across Member and Participating States of the UCPM. |
| **Geographic focus** | EU |
| **Implementation scale** | National<br>Regional |
| **Civil Protection Challenges** | NA |
| **Solutions** | Thematic peer reviews covering seven areas: governance, risk assessment, management planning, prevention, preparedness, emergency response, recovery/lessons learned. Emphasis on multi-level coordination, stakeholder engagement, evidence-based planning, in |
| **Objective** | The Wildfire PRAF is meant to guide sound reviews on wildfire risk management systems |
| **Description** | The Wildfire Peer Review Assessment Framework (Wildfire PRAF) is a tool designed to support comprehensive reviews of disaster risk management and civil protection systems, with a focus on the risk associated with large-scale unplanned or uncontrolled fires affecting natural, cultural, industrial, and residential landscapes (UNDRR, 2021).<br>It is based on the Peer Review Assessment Framework (PRAF) developed under the Union Civil Protection Mechanism (UCPM) Peer review programme 2020-2024. The Wildfire PRAF is meant to guide sound reviews on wildfire risk management systems at the national and/or sub-national level in Member States, Participating States, enlargement and neighbourhood countries, under the EU's Civil Protection Mechanism legislation. |
| **Relevant Outcomes** | Identification of strengths and gaps, recommendations for system improvements, shared practices and lessons learned, enhanced coordination and governance mechanisms, improved resilience strategies.<br>Wildfire Peer Review Assessment framework for Greece.<br>Wildfire Peer Review Assessment framework for Italy. |
| **Relevance to FIRE-SCENE** | Highly relevant as it offers a structured methodology for assessing wildfire risk management in pilot areas and supports CPCs like wildfires in the WUI, tourism zones, and protected areas. Directly aligned with FIRE-SCENE focus on participatory |

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| | risk governance and resilience building. In 2025 WF PRAF is under review and an updated version is expected to be delivered at the end of the year, were FIRE-SCENE preliminary results would be valuable. In addition, Italy and Greece count on updated WF PRAF analysis. Therefore, FIRE-SCENE approach have to align with both reports. |

## 5.2 Other relevant initiatives and projects

| 5.2.1 RES-MAB | |
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| **Full name** | Promoting WEFE Nexus-based adaptation and mitigation solutions and landscape resilience to climate change in the Mediterranean Biosphere Reserves |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Funding program** | PRIMA |
| **Web** | https://www.resmab.eu |
| **Status** | Ongoing |
| **Duration** | 2024-2027 |
| **Hazards** | Climate change (including droughts, wildfires and water scarcity) |
| **Stakeholders** | Research institutions<br>Government agencies<br>NGOs |
| **Geographic focus** | UNESCO-designated Biosphere Reserves in the Mediterranean region |
| **Implementation scale** | Seven Biosphere Reserve demonstration sites across the Mediterranean |
| **Civil Protection Challenges** | Climate change (including wildfires) in natural parks and biosphere reserves |
| **Solutions** | 1. Development and Application of the WEFE-SEM Tool<br>2. Co-creation of Climate-Resilient WEFE Nexus Solutions<br>3. Integration into Policy and Development Plan<br>4. Restoration of Traditional Agricultural Systems<br>5. Establishment of Sustainable Food Processing Initiatives<br>6.Promotion of Sustainable Business Models |
| **Objective** | To promote an integrated Water-Energy-Food-Ecosystems (WEFE) Nexus-based scheme for contributing to accelerate the |

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| | transformation of Mediterranean Biosphere Reserves (BR) towards more resilient and adaptive landscapes to climate change. |
| **Description** | RES-MAB aims to address the pressing challenges posed by climate change in the Mediterranean region by focusing on UNESCO-designated Biosphere Reserves. The project will establish seven demonstration sites, transforming them into "living laboratories" for testing and implementing cutting-edge WEFE solutions. By integrating WEFE management, the project seeks to contribute to more resilient landscapes and bolster adaptation to climate change. |
| **Relevant Outcomes** | Development of the WEFE-SEM Tool for informed decision-making<br><br>Integration of the tool into existing policies and development plans<br><br>Co-creation and implementation of eight climate-resilient WEFE Nexus solutions<br><br>Assessment and monitoring of environmental and socio-economic impacts in the demonstration sites<br><br>Promotion of sustainable market solutions and engagement of the private sector through innovative business models |
| **Relevance to FIRE-SCENE** | Operating within the Mediterranean region, both projects (RESMAB and FIRE-SCENE) aim to enhance resilience against climate-induced disasters, particularly wildfires and droughts. Each project emphasizes stakeholder engagement and the co-development of solutions tailored to local needs, with RES-MAB focusing on integrated Water-Energy-Food-Ecosystem (WEFE) approaches in Biosphere Reserves, and FIRE-SCENE targeting wildfire risk governance in complex socio-ecological landscapes. |

### 5.2.2 Eco2Adapt

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| **Full name** | Ecosystem-based Adaptation and Changemaking to Shape, Protect and Maintain the Resilience of Tomorrow's Forests |
| **Coordinator** | Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://www.eco2adapt.eu |
| **Status** | Ongoing |
| **Duration** | 2022-2027 |
| **Hazards** | Climate change on forests |
| **Stakeholders** | Research institutions |

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| | NGOs<br>Foresters<br>Landowners<br>Policy makers |
| **Geographic focus** | Europe and China |
| **Implementation scale** | International |
| **Civil Protection Challenges** | Climate change in forests |
| **Solutions** | 1.Development of an Ecosystem-based Adaptation (EbA) framework derived from Nature-Based Solutions (NBS).<br>2.Implementation of Living Labs to co-create and test adaptive forest management strategies.<br>3.Utilization of Decision Theatre approaches to integrate stakeholder input into scenario planning.<br>4.Creation of innovative technical, economic, and governance mechanisms at regional levels.<br>5.Development of the OneForest ToolBox smartphone application for data sharing on climate-resilient forestry practices |
| **Objective** | The main objectives are: Developing and implementing the EbA framework to reduce vulnerability and build socio-ecological resilience.<br>Engaging stakeholders through Living Labs to co-design adaptive management practices. Employing Decision Theatre methodologies to explore the impacts of disturbances on forest dynamics and ecosystem services. Combining interdisciplinary knowledge from Europe and China to inform policy and practice.Creating tools and applications to monitor and promote forest resilience at various societal levels. |
| **Description** | This project is all about finding eco-friendly ways to protect our forests in Europe and China. We want to make sure we plant the right trees in the right places, taking into account nature and biodiversity. We want to create smart and practical solutions that will help our forests thrive for generations to come. With the support of local communities, we're working on new ideas for managing forests to keep them healthy and resilient in the face of challenges such as climate change. |
| **Relevant Outcomes** | Establishment of a knowledge base hosting FAIR (Findable, Accessible, Interoperable, and Reusable) data.<br>Development of the OneForest ToolBox application for sharing information on climate-resilient forestry.<br>Production of practice abstracts and peer-reviewed publications to disseminate findings.<br>Implementation of innovative governance models and insurance mechanisms to support forest resilience. |

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| **Relevance to FIRE-SCENE** | By developing adaptive management strategies, engaging stakeholders, and creating tools for monitoring and decision-making, eco2adapt contributes valuable insights and methodologies that can inform and strengthen civil protection efforts in wildfire-prone regions. |

### 5.2.3 BIO4RES

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| **Full name** | Biomasa forestal y prevención de incendios: una oportunidad para la resiliencia del medio rural |
| **Coordinator** | Navarra de Suelo y Vivienda S.A.U |
| **Funding program** | INTERREG SUDOE |
| **Web** | https://interreg-sudoe.eu/proyecto-interreg/bio4res/ |
| **Status** | Ongoing |
| **Duration** | 2024-2026 |
| **Hazards** | Wildfires |
| **Stakeholders** | Forest owners<br>Local and regional authorities<br>Biomass companies<br>Rural communities |
| **Geographic focus** | SUDOE region, encompassing Spain, France and Portugal |
| **Implementation scale** | Regional (Southwest Europe) |
| **Civil Protection Challenges** | Increasing risk of wildfires due to climate change |
| **Solutions** | Development of a joint biomass recovery strategy to enhance fire risk prevention plans<br>Implementation of innovative mechanical methods for biomass extraction<br>Creation of a biodiversity indicators system to assess the impact of biomass extraction<br>Establishment of integrated forest management models and local biomass utilisation circuits<br>Design and delivery of training programs in sustainable forest management |
| **Objective** | The BIO4RES project aims to improve the prevention and management of forest fire risks in the SUDOE region by consolidating the viability of fire prevention plans through the valorisation of extracted biomass, enhancing forest resilience without compromising ecosystem, economic, and social services, promoting employment and economic activity in rural areas to maintain population levels ans contributing to |

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| | decarbonisation by using biomass as a renewable energy source. |
| **Description** | The project addresses the challenge of biomass accumulation in forests, which increases fire risk, by promoting its extraction and utilisation in a manner that minimises biodiversity impact and supports rural economies. |
| **Relevant Outcomes** | 1) Development of a joint biomass recovery strategy to improve fire risk prevention plans<br>2) Creation of a biodiversity indicators system to measure the impact of biomass extraction<br>3)Introduction of new mechanical methods for biomass extraction<br>4)Implementation of integrated forest management models and short-circuit local biomass use<br>5) Design and execution of training plans in forest works |
| **Relevance to FIRE-SCENE** | The BIO4RES project's focus on sustainable forest biomass management and fire prevention aligns with the objectives of the FIRE-SCENE initiative under DG ECHO, which aims to enhance disaster preparedness and response, particularly concerning wildfires. By developing strategies for biomass valorisation, promoting innovative extraction methods, and fostering integrated forest management, BIO4RES contributes valuable insights and practical solutions that can inform and strengthen civil protection efforts in wildfire-prone regions. Furthermore, the project's emphasis on stakeholder engagement and training supports community-based approaches to wildfire risk reduction, a key component of effective civil protection strategies. |

### 5.2.4 COOPTREE

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| **Full name** | Cooperación transnacional para la conservación y resiliencia de los bosques del suroeste de Europa |
| **Coordinator** | GEIE FORESPIR |
| **Funding program** | INTERREG SUDOE |
| **Web** | https://interreg-sudoe.eu/proyecto-interreg/cooptree/ |
| **Status** | Ongoing |
| **Duration** | 2023-2026 |
| **Hazards** | Climate change in forests |
| **Stakeholders** | Forest managers and owners<br>Researchers and academic institutions<br>Local and regional authorities |

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| | Envirnomental NGOs<br>Rural communities |
| **Geographic focus** | Southwestern Europe, including Spain, France, Portugal, and Andorra |
| **Implementation scale** | Regional (Southwest Europe) |
| **Civil Protection Challenges** | Increased vulnerability of forests to climate-induced stresses and lack of coordination strategies for forest conservation across borders |
| **Solutions** | 1-Development of a transnational strategy for the conservation of forest genetic resources<br>2-Implementation of pilot actions to test adaptive forest management practices<br>3-Creation of a knowledge base to inform decision-making and policy development<br>4-Engagement of stakeholders through collaborative networks and knowledge exchange |
| **Objective** | The COOPTREE project aims to enhance the resilience and conservation of forests in southwestern Europe by improving knowledge of forest genetic resources and their capacity to withstand environmental stresses, designing and implementing pilot actions to test adaptive management practices, developing a transnational strategy for forest conservation and resilience and fostering collaboration among stakeholders to share experiences and best practices |
| **Description** | By addressing the challenges posed by climate change and other threats, COOPTREE seeks to ensure the long-term sustainability of forest ecosystems in the SUDOE region. |
| **Relevant Outcomes** | 1) Establishment of a comprehensive knowledge base on forest genetic resources<br>2)Execution of pilot actions across 15 sites to test adaptive management strategies<br>3)Development of a transnational strategy for forest conservation<br>4) Creation of tools and guidelines to support decision-making and policy development<br>5) Strengthening of stakeholder networks and collaboration across borders |
| **Relevance to FIRE-SCENE** | COPTREE aims to develop adaptive management strategies, fostering cross-border collaboration, and creating tools to inform policy and practice, with that COOPTREE contributes valuable insights and methodologies that can inform and strengthen civil protection efforts in wildfire-prone regions. Additionally, the project's focus on stakeholder engagement and knowledge exchange supports community-based approaches to wildfire risk reduction, a key component of effective civil protection strategies. |

### 5.2.5 LIFE AGROFORADAPT

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| **Full name** | Agroforestry systems for climate change adaptation of Mediterranean agricultural and forest areas |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Funding program** | LIFE |
| **Web** | https://agroforadapt.eu/ |
| **Status** | Ongoing |
| **Duration** | 2021-2026 |
| **Hazards** | Climate-induced challenges in Mediterranean agroforestry systems (droughts, heatwaves, soil degradation, and wildfire risk) |
| **Stakeholders** | Research and technical institutions<br>Public authorities<br>NGOs<br>Cooperatives and the private sector<br>Landowners and farmers<br>Policy makers and regional planners |
| **Geographic focus** | Southwestern Europe (Mediterranean), including Spain and France |
| **Implementation scale** | Regional (Southwest Europe) |
| **Civil Protection Challenges** | Impacts of climate change on forests and agricultural ecosystems (droughts and forest fires) |
| **Solutions** | 1) Implementation of agroforestry systems<br>2) Demonstration and replication<br>3) Climate adaptation and fire risk reduction<br>4) Development of planning and assessment tools<br>5) Integration into policies and land management plans<br>6) Capacity building and awareness raising |
| **Objective** | 1. Promote agroforestry systems as a climate change adaptation strategy in the Mediterranean agrarian and forestry sectors<br>2. Demonstrate the benefits of agroforestry in enhancing resilience to drought and forest fires<br>3. Increase the area under agroforestry through demonstration and replication<br>4. Integrate agroforestry into adaptation plans and policies at various governance levels |

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| | 5. Raise awareness about the multifunctionality and benefits of agroforestry systems |
| **Description** | LIFE AgroForAdapt focuses on implementing and demonstrating agroforestry systems—specifically silvoarable and silvopastoral—in Mediterranean regions of Spain and France. These systems aim to enhance ecosystem resilience to climate change impacts, particularly droughts and forest fires, while providing multiple ecosystem services and socio-economic benefits |
| **Relevant Outcomes** | 1) Establishment and improved management of over 800 hectares of agroforestry systems<br>2) Development of tools for ecosystem service evaluation and planning<br>3) Integration of agroforestry practices into regional and local policies<br>4) Enhanced awareness and knowledge dissemination through webinars, newsletters, and training courses |
| **Relevance to FIRE-SCENE** | AgroForAdapt's implementation of silvopastoral systems in fire-prone forests directly contributes to wildfire risk reduction. By integrating grazing and woody vegetation management, these systems reduce fuel loads and enhance landscape resilience, serving as a proactive measure in civil protection strategies against forest fires. |

### 5.2.6 ResAlliance

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| **Full name** | Landscape resilience knowledge alliance for agriculture and forestry in the Mediterranean basin |
| **Coordinator** | European Forest Institute – Mediterranean |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://www.resalliance.eu/ |
| **Status** | Ongoing |
| **Duration** | 2022 - 2025 |
| **Hazards** | NA |
| **Stakeholders** | Primary sector |
| **Geographic focus** | EU |
| **Implementation scale** | EU<br>Regional |
| **Civil Protection Challenges** | NA |

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| **Solutions** | Landscape management |
| **Objective** | The aim is to provide foresters and<br>farmers with the knowledge and tools necessary to implement innovative landscape resilience solutions. |
| **Description** | Focusing on Mediterranean countries, ResAlliance will gather and assess knowledge, gaps, barriers, and good practices to achieve resilient landscapes, with particular emphasis on measures against the hazards of climate change. This is made effective across 4 thematic areas that will help set specific learning objectives to better address knowledge and implementation gaps: |
| **Relevant Outcomes** | LandNet: Network of innitiatives contributing to landscape resilience |
| **Relevance to FIRE-SCENE** | The LandNet is an example of multiple innitiatives that contribute to landscape resilience that, consequently, have a positive impact on wildfire risk reduction. |

### 5.2.7 FIRELOGUE

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| **Acronym** | Cross-sector dialogue for Wildfire Risk Management |
| **Coordinator** | Fraunhofer |
| **Funding program** | HORIZON 2020 |
| **Web** | https://firelogue.eu/ |
| **Status** | Ongoing |
| **Duration** | 2022 - 2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration<br>Private companies |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | NA |
| **Solutions** | Stakeholder<br>coordination |
| **Objective** | To create a dialogue and empower the WFRM community to face current and future wildfire challenges by acting as an |

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| | enabler for knowledge exchange, aggregating experiences and best practices from all stakeholders |
| **Description** | Firelogue is a European project funded by Horizon 2020 under the Green Deal call, bringing together expertise from across Europe in Wildfire Risk Management (WFRM). It serves as a Coordination and Support Action (CSA), connecting three EU Innovation Actions (IAs)—TREEADS, SILVANUS, and FIRE-RES—and supporting them by integrating their results across all stakeholders and phases of WFRM. |
| **Relevant Outcomes** | Collaboration & Networking: Organised clustering events to connect fire-related projects and stakeholders.<br><br>Thematic Working Groups: Focus on citizen engagement, infrastructure, insurance, civil protection, and ecology.<br><br>Knowledge Platform: Centralised repository with case studies, technological solutions, research papers, and events.<br><br>Key Deliverables: Reports on case studies, WFRM knowledge base, and harmonised impact assessment methodologies.<br><br>Policy & Impact Assessment: Developed joint frameworks to align wildfire risk strategies with Green Deal targets. |
| **Relevance to FIRE-SCENE** | Firelogue serves as a platform for knowledge exchange, bringing together stakeholders from various projects to share best practices, methodologies, and policy recommendations. This makes it highly relevant to FIRE-SCENE, which is working on risk assessment, planning, and governance in Mediterranean pilot sites.<br><br>The multi-stakeholder collaboration promoted by Firelogue aligns with FIRE-SCENE's efforts to engage policymakers, civil protection agencies, and local communities in wildfire preparedness. Additionally, Firelogue's work on policy development and impact assessment could provide valuable insights for FIRE-SCENE as it evaluates wildfire risks and response strategies. Firelogue's centralized knowledge platform, which consolidates research, case studies, and innovative solutions, also presents an opportunity for FIRE-SCENE to access and contribute to the latest advancements in wildfire risk management. |

### 5.2.8 FIRE-RES

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| **Full name** | Innovative technologies and socio-ecological-economic solutions for fire resilient territories in Europe |
| **Coordinator** | Forest Science and Technology Centre of Catalonia |
| **Funding program** | HORIZON 2020 |
| **Web** | https://fire-res.eu/ |

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| **Status** | Ongoing |
| **Duration** | 2021-2025 |
| **Hazards** | Extreme Wildfire Events (EWEs) |
| **Stakeholders** | Research institutions<br>Government agencies<br>Civil protection and emergency services<br>Technological companies<br>NGOs |
| **Geographic focus** | EU |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | Extreme Wildfire Events surpassing traditional suppression capacities |
| **Solutions** | 1) Integrated Fire Management strategies<br>2) Implementation of innovative technologies and tools<br>3) Creation and testing of solutions in Living Labs<br>4) Development of early warning and real-time monitoring systems<br>5) Community engagement and citizen science initiatives<br>6) Policy support and adaptive governance models<br>7) Cross-sector collaboration and capacity building<br>8) Fire risk mapping and landscape planning |
| **Objective** | 1. Enhance the resilience of European landscapes and communities to EWEs<br>2. Transition from reactive to proactive fire management approaches<br>3. Integrate technological, ecological, and social innovations into fire management practices<br>4. Facilitate knowledge exchange and capacity building among stakeholders |
| **Description** | FIRE-RES aims to address the escalating threat of extreme wildfires in Europe by developing and implementing integrated fire management strategies. The project brings together a diverse consortium of stakeholders to co-create and test innovative solutions across various European regions. Through its Living Labs, FIRE-RES fosters collaboration among researchers, policymakers, practitioners, and communities to enhance preparedness, response, and recovery capacities. |
| **Relevant Outcomes** | Innovations Deployed: 34 innovations tested and validated in real-world settings |

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| | Policy Impact: Development of adaptive governance models for wildfire management<br>Community Engagement: Increased public awareness and participation in fire prevention and preparedness activities<br>Technological Advancements: Deployment of advanced tools for fire detection, monitoring, and simulatio |
| **Relevance to FIRE-SCENE** | FIRE-RES complements the FIRE-SCENE project by providing a broader European context and a suite of tested innovations that can inform FIRE-SCENE's methodologies and tools. The integrated fire management approaches and governance models developed in FIRE-RES offer valuable insights for addressing the emerging civil protection challenges targeted by FIRE-SCENE, particularly in the Mediterranean region. |

### 5.2.9 FOR MAN RISK

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| **Full name** | Forest Management and natural Risks |
| **Coordinator** | Office National des Forêts |
| **Funding program** | INTERREG SUDOE |
| **Web** | www.formanrisk.eu |
| **Status** | Finished |
| **Duration** | 2019-2023 |
| **Hazards** | Climate change in forests, primary focus: wildfires |
| **Stakeholders** | Forest management authorities<br>Research institutions<br>Government and public bodies<br>Non-governamental organitzations (NGOs)<br>Technological and service providers<br>Local communities<br>Civil protection and emergency services<br>Private sector and landowners |
| **Geographic focus** | Southwestern Europe |
| **Implementation scale** | Regional (Southwest Europe) |
| **Civil Protection Challenges** | Wildfires and other natural risks (improving prevention and management operations and raising awareness) |
| **Solutions** | 1) Development of sustainable forest management techniques for pine forests.<br>2) Creation of management instruments to improve fire prevention. |

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| | 3) Optimization of coordination and efficiency in fire management operations.<br>4) Communication strategies to raise awareness and involve institutional actors and the public in natural risk management |
| **Objective** | 1. Enhance forest regeneration capabilities in southwestern Europe.<br>2. Develop and implement effective fire prevention strategies.<br>3.Foster collaboration among regional stakeholders for improved forest management. |
| **Description** | ForManRisk aimed to address forest degradation and fire risks in southwestern Europe by developing and implementing sustainable forest management practices. The project focused on regenerating pine forests and improving fire prevention measures through collaborative efforts among regional stakeholders. |
| **Relevant Outcomes** | Improved forest regeneration techniques.<br>Enhanced fire prevention strategies.<br>Strengthened collaboration among regional stakeholders.<br>Increased public awareness of forest fire risks. |
| **Relevance to FIRE-SCENE** | ForManRisk's focus on forest regeneration and fire prevention aligns with FIRE-SCENE's objectives of enhancing civil protection capabilities in wildfire management. The project's outcomes provide valuable insights and methodologies that can inform FIRE-SCENE's strategies and actions. |

### 5.2.10 CLIMAAX

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| **Full name** | CLIMAte risk and vulnerability Assessment framework and toolboX |
| **Coordinator** | Deltares |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://www.climaax.eu/ |
| **Status** | Ongoing |
| **Duration** | 2023 - 2027 |
| **Hazards** | Wildfires<br>Flooding (coastal and river)<br>Heatwaves<br>Heavy rainfall<br>Snow<br>Droughts |

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| | Windstorms |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration |
| **Geographic focus** | EU and associated countries |
| **Implementation scale** | EU and associated countries |
| **Civil Protection Challenges** | Civil Protection Challenge#1. Wildfire risk on peri-urban areas |
| **Solutions** | Risk analysis and risk assessment methodologies. Pan-european data for risk assessment exercises. |
| **Objective** | To contribute to the harmonization and consolidation of the practice of climate risk assessments, by developing a framework for risk assessment and a toolbox with data, models and utilities. |
| **Description** | CLIMAAX builds upon existing risk assessment frameworks, methods and tools, and promotes the use of datasets and service platforms for local and regional scale deployment. For that, CLIMAAX will develop 1) a methodological framework for supporting the exercices of risk identification, analysis, assessment and monitoring, and 2) a toolbox containing data, projections and algorithms to carry out multi-risk assessments. |
| **Relevant Outcomes** | 1) A standarized Climate Risk Assessment framework.<br>2) A Toolbox with data, models and utilities for carrying out risk assessments.<br>3) Five European pilot regions shaping the framework and the toolset.<br>4) Financial support for more than 60 regions to execute their own climate risk assessment, based on the products developed. |
| **Relevance to FIRE-SCENE** | CLIMAAX proposes methodologies for wildfire analysis and assessments under climate change conditions, useful when studying the challenges of civil protection in the pilots of FIRE-SCENE. |

### 5.2.11 RESIST

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| **Full name** | Regions for climate change resilience through Innovation, Service and Technology |
| **Coordinator** | SINTEF |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://resist-project.eu/ |
| **Status** | Ongoing |

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| **Duration** | 2023 - 2027 |
| **Hazards** | Floods<br>Droughts<br>Heatwaves<br>Wildfires<br>Soil Erosion |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration<br>Citizens |
| **Geographic focus** | EU and associated countries |
| **Implementation scale** | EU and associated countries |
| **Civil Protection Challenges** | Civil Protection Challenge#1. Wildfire risk on peri-urban areas |
| **Solutions** | Innovative solutions - adaptation products, regulations, policies and methods for climate change adaptation |
| **Objective** | To strengthen resilience, accelerate the transformation and increase the adaptive capacity of climate-vulnerable regions, contributing to the development of new regional measures, policy instruments and social and technological solutions. RESIST will also promote the further transfer of know-how and of innovative resilient solutions for water, air and land climate change (CC) issues, incorporating also a market-oriented approach for their wider and sustainable exploitation. |
| **Description** | The RESIST Project aims to strengthen resilience and accelerate climate adaptation in 12 climate-vulnerable EU regions through innovative solutions. It implements 4 large-scale demonstrators and transfers knowledge to 8 twin regions, engaging citizens and fostering participation. The initiative develops regional policies and solutions to reduce climate-related economic losses and bridge the climate protection gap. By supporting over 100 new climate adaptation innovations, RESIST contributes to the EU's objectives for building resilience, scaling up solutions, and accelerating transitions across regions by 2030. |
| **Relevant Outcomes** | 1. Strengthening resilience and adaptive capacity in 12 EU regions, with 4 demonstrators and knowledge transfer to 8 twin regions.<br>2. Co-creating and validating solutions with quintuple-helix partnerships, engaging 22 million citizens to raise awareness and participation.<br>3. Developing new regional policies and solutions to reduce economic losses by 14% and the climate protection gap by 50%.<br>4. Supporting >100 new Climate Change Adaptation (CCA) solutions by reducing market risks and scaling up innovation. |

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| | 5. Contributing to EU CCA goals, covering 4% of demonstrators and 6% of pilot regions' objectives by 2027. |
| **Relevance to FIRE-SCENE** | The project proposes new solutions and ways to adapt to climate change using participatory approaches, which can serve to inspire the work of the pilots and the actions and methods to implement when co-developing the products and communicating them to different audiences. |

### 5.2.12 MEDEWSA

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| **Full name** | Mediterranean and pan-European forecast and Early Warning System against natural hazards |
| **Coordinator** | Justus Liebig University of Giessen |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://www.medewsa.eu/ |
| **Status** | Ongoing |
| **Duration** | 2023-2026 |
| **Hazards** | Wildfires<br>Flooding (river, coastal and storm surge)<br>Landslides<br>Heatwaves<br>Drought |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration |
| **Geographic focus** | EU, Middle East and African countries |
| **Implementation scale** | EU, Middle East and African countries |
| **Civil Protection Challenges** | Civil Protection Challenge#1. Wildfire risk on peri-urban areas |
| **Solutions** | AI-based product for EWS, a platform for standardised Decision Support Dissemination System (DSDS) for risk and vulnerability assessment methodologies, use of big data for mapping methods. |
| **Objective** | MedEWSa aims to develop a multi-risk early warning system that provides a sophisticated, comprehensive, and innovative EuMeA (Europe, Middle East, and Africa) solution, giving governments, communities, and individuals the tools to understand risks related to frequent extreme weather and climate events and take action to minimize their impact. |

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| **Description** | MedEWSa Decision Support and Dissemination System Infrastructure will equip first responders, planners and policy makers with services to improve their knowledge and optimise their response actions. The project will explore existing data, measures and technologies from operational EWS to characterise, estimate and predict multi-hazards and their impact. |
| **Relevant Outcomes** | 1. Introduce a standardised Decision Support Dissemination System for risk and vulnerability assessment in a multi-hazard platform.<br>2. Create a suite of AI-based products to deliver forecasting and impact assessment services.<br>3. Build on existing and fragmented technologies to deliver a service for monitoring multiple hazards.<br>4. Use technological breakthroughs in Big Data for mapping methods and risk transfer solutions.<br>5, Deliver information to a wider audience to leverage innovative societal support and outreach. |
| **Relevance to FIRE-SCENE** | The project will enchance current fire danger indices, trying to improve the occurrence probabilities. Also, the project aims at advancing in fire spread models for extreme wildfires. |

### 5.2.13 MEDCOOPFIRE

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| **Full name** | Mediterranean cooperation for forest defense to wildfires |
| **Coordinator** | Regione Liguria |
| **Funding program** | INTERREG MARITIME |
| **Web** | https://interreg-maritime.eu/web/med-coopfire |
| **Status** | Finished |
| **Duration** | 2019-2022 |
| **Hazards** | Wildfires |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration |
| **Geographic focus** | Italy-France |
| **Implementation scale** | Cross border areas |
| **Civil Protection Challenges** | NA |
| **Solutions** | Design and develop standardized modules for wildfire risk reduction activities in cross-border areas. |

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| **Objective** | Organizing cross border module for patrolling and monitoring high wildfire risk transboundary areas and coopoeration in fire fighting activities |
| **Description** | The MEDCOOPFIRE project aims to foster the development of synergies between land monitoring activities for the protection of forest assets—also in response to climate change—and wildfire suppression operations, with the goal of minimizing related risks.<br><br>Through the project, partner organizations will be equipped with the tools and means to create "Union Modules": a kind of mobile unit—an interconnected cross-border transport system—designed to support more effective management of cross-border and cross-regional wildfires. These modules will be equipped with the necessary tools and technologies to ensure coordination with various emergency response forces, enabling more efficient and effective interventions along shared borders. |
| **Relevant Outcomes** | Introducing effect of fire fighting activities in the stocastic cellular automata model for fire simulation PROPAGATOR. Use of PROPAGATOR to define scenarios for the exercises. Testing of PROPAGATOR during excercises in cross border areas to support cooperation of response activities. |
| **Relevance to FIRE-SCENE** | The PROPAGATOR system will be deployed at the regional level in Calabria to help define operational priorities and support decision-making in the event of multiple concurrent wildfire events. |

### 5.2.14 Development of knowledge, methodologies, technologies and higher education for the realization of the national systems for forecasting, monitoring and prevention of natural hazards

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| **Full name** | Framework agreement with the Italian Civil Protection Department on "Development of knowledge, methodologies, technologies and higher education for the realization of the national systems for forecasting, monitoring and prevention of natural hazards" |
| **Coordinator** | Sole Contractor |
| **Funding program** | Italian Civil Protection Department |
| **Web** | https://www.cimafoundation.org/en/project/civil-protection-department/ |
| **Status** | Ongoing |
| **Duration** | 2016 - ongoing |
| **Hazards** | Wildfires, floods, drought |
| **Stakeholders** | Practitioners<br><br>Public administration |

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| **Geographic focus** | Italy |
| **Implementation scale** | Italy |
| **Civil Protection Challenges** | NA |
| **Solutions** | Early warning systems for wildfire danger to support decision in resources allocation |
| **Objective** | Support decision in the organization of aerial fire fighting activities at national level. |
| **Description** | CIMA provides technical, scientific assistance and technological innovation to the Italian Civil Protection department and the Italian Civil Protection system (including regions) for developing tools and new governance system for the management of Climate risk with focus on floods, hydro-meteorological extreme, landslide and forest fires. Technical support has been provided for implementation of Early Warning System and Civil Protection planning as non-structural measure for adapting to the effect of the climate change.<br><br>Furthermore, CIMA conducted research activities for the improvement of the civil protection legislation and regulation with focus of the responsibilities of civil protection operators. CIMA has assisted the Italian Civil Protection department in international cooperation activities for capacity developing on Disaster Risk Reduction with focus on Climate risks.<br><br>Results:<br><br>Legal and institutional development for improving the management of Climate and weather Risks. New governance systems for risk management<br><br>Technological transfer, capacity development, development of modeling tools for the prediction of climate risk with special focus on hydrometeorological and forest fire risk.<br><br>development of database system for the registration of impact of Climate related risk, mainly floods development of new modelling for assessing disaster risk from earth observation, main focus on Floods Training of operator of multiple institutions from National to regional level. |
| **Relevant Outcomes** | provided technological innovation on disaster risk to the Italian Civil protection system;<br><br>-developed of tools and new governance systems for management of climate risk with a focus on floods, landslides and forest fires';<br><br>-Technical support for the implementation of early warning systems;<br><br>-Legal and institutional development research on Disaster Risk reduction;<br><br>-Capacity development of the Italian Civil Protection development of modeling chains for Hydro meteorological and |

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| | forest fire risk, development of flood catalogue, earth observation data elaboration, analysis and<br>-Development of Civil Protection SOPs, sharing of good practices, technical assistance and training<br>- development of database system for the registration of impact of Climate related risk, mainly floods development of new modelling for assessing disaster risk from earth observation; |

### 5.2.15 EDPP2

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| **Full name** | Economics of Disaster Prevention and Preparedness - Wildfire risk analytics for European countries |
| **Coordinator** | Sole Contractor |
| **Funding program** | World Bank |
| **Web** | https://www.cimafoundation.org/en/project/wildfire-risk-analytics-for-european-countries/ |
| **Status** | Finished |
| **Duration** | 2023-2024 |
| **Hazards** | Wildfires |
| **Geographic focus** | Europe |
| **Implementation scale** | Croatia, Greece, Romania, Bulgaria |
| **Civil Protection Challenges** | NA |
| **Description** | The World Bank, leading the DG ECHO project Economics for disaster prevention and preparedness (Phase 2), has engaged CIMA Foundation in providing wildfire risk analytics for six European countries. The project encompassed Bulgaria, Croatia and Romania, and Greece. Six main tasks focusing on wildfire risk assessment and average annual loss evaluations have beed performed both in present and in future climate conditions, in relation with different climate change scenarios. The tasks of which CIMA has been responsible consists on the following key components: (1) Development of wildfire susceptibility, hazard, risk and social vulnerability models for current climate conditions; (2) Wildfire susceptibility, hazard, risk and social vulnerability models for future climate conditions; (3) Development of wildfire financial impacts; (4) Development of wildfire scenarios; (5) Consideration of adaptation, capacity, interventions and risk management; (6) Communication of outputs and training on application of the results by the civil protection sector. Within these tasks CIMA Foundation provided country's wildfire risk statistics which will follow up the work done on flood risk assessment during the first phase of the project. |

### 5.2.16 SAFERS

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| **Full name** | Structured Approaches for Forest fire Emergencies in Resilient Societies |
| **Coordinator** | Fondazione links - Leading innovation & knowledge for society |
| **Funding program** | HORIZON 2020 |
| **Web** | https://www.cimafoundation.org/en/project/structured-approaches-for-forest-fire-emergencies-in-resilient-societies-safers/ |
| **Status** | Finished |
| **Duration** | 2020-2024 |
| **Description** | Forest fires are exacerbated by extreme weather conditions, which are increasing both in frequency and in magnitude due to climate change effects. This points to the need for improving the effectiveness of emergency management solutions aimed to help society in becoming more resilient to emergencies arising before, during and after forest fire events. Therefore, it is proposed to realize a comprehensive Emergency Management System (EMS) that we name SAFERS: Structured Approaches for Forest fire Emergencies in Resilient Societies. SAFERS will act along the key phases of the emergency management cycle, coupling information from EO data and services offered by Copernicus and GEOSS, crowdsourced data from social media and from specific applications that can be used by both citizens as well as from in-field professional agents, data generated by accurate sensors to detect smoke or fires. Advanced algorithm based on Artificial Intelligence will be used to generate risk maps and early warnings in the preparedness phase, estimate the forest fire extension and its propagation in function of the forecasted weather and soil conditions in the response phase, compute the impacts of an extinguished fire in terms of economic losses and monitor the soil recovery in the post-event phase. |
| **Relevant Outcomes** | Realisation of a comprehensive Emergency Management System (EMS) for Forest Fire Emergency Management, using Copernicus and GEOSS data and services, Crowdsourcing data from social media and provided by Citizen Science |

### 5.2.17 FIRE-ADAPT

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| **Full name** | The Role of Integrated Fire Management on Climate Change Adaptation for Ecosystem Services in Tropical and Subtropical Regions |
| **Coordinator** | Pau Costa Foundation |

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| **Funding program** | HORIZON EUROPE |
| **Web** | https://www.fireadapt.eu/en/ |
| **Status** | Ongoing |
| **Duration** | 2023 - 2026 |
| **Hazards** | Wildfires |
| **Stakeholders** | Researchers<br>Practitioners<br>Public administration<br>Private companies |
| **Geographic focus** | EU<br>South America |
| **Implementation scale** | EU<br>South America |
| **Civil Protection Challenges** | Use fo fire as a<br>management tool |
| **Solutions** | Integrated fire<br>management |
| **Objective** | Quantify, monitor, and evaluate the impact of Integrated Fire Management (IFM) on carbon dynamics, biodiversity and cultural ecosystem services in different tropical and subtropical regions with altered fire regimes. |
| **Description** | The project aims at addressing the full diversity of fire types and their different contexts by bringing together expertise from across regions from the Mediterranean Basin and Latin America for the purpose of improving our understanding of the role of Integrated Fire Management (IFM) for wildfire prevention and for enhancing natural and cultural ecosystem services.<br>IFM is a strategy to carry out wildfire risk management that includes sets of actions aimed at reducing the negative impacts of undesired wildfires on ecosystem services and human well-being while maximising the benefits derived from fire processes (European Commission, 2018; Fernandes, 2020). |
| **Relevant Outcomes** | Development of a knowledge-sharing FIRE-ADAPT international network, gathering a key group of researchers, wildfire management agencies, and non-profit organisations.<br>Provide scientific evidence on the needs and potential impacts of IFM on the societal and ecological dynamics of tropical and subtropical regions.<br>Sharing and integrating approaches and knowledge among scientists, practitioners and the wider society to evaluate IFM. |

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| | Develop shared methodologies to plan and execute IFM practices and monitor their effectiveness in the maintenance of ecosystem services, human wellbeing and wildfire risk reduction.<br>Enhance scientists' early career perspectives. |
| **Relevance to FIRE-SCENE** | The FIRE-ADAPT and FIRE-SCENE projects both focus on improving wildfire risk management but differ in their geographic and thematic focus. FIRE-ADAPT emphasises Integrated Fire Management (IFM) practices and ecosystem services in tropical and subtropical regions, while FIRE-SCENE targets the Mediterranean, focusing on integrated risk governance, planning, and civil protection. Although both aim to enhance wildfire resilience, their direct relevance is limited due to their different regional contexts and objectives. |

### 5.2.18 EDUFIRE Toolkit

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| **Acronym** | Training for selfprotection against forest fires in rural areas |
| **Coordinator** | Pau Costa Foundation |
| **Funding program** | ERASMUS+ |
| **Web** | https://www.edufiretoolkit.eu/en/home-2/ |
| **Status** | Finished |
| **Duration** | 2022 - 2024 |
| **Hazards** | Wildfires |
| **Stakeholders** | Secondary schools<br>Fire services |
| **Geographic focus** | EU |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk awareness |
| **Objective** | To inspire and prepare the youth of today, so they can understand, manage and raise awareness about the uncertainties of future wildfires. |
| **Description** | The project has the purpose of educating high school students (12 to 16 years old) on wildfire prevention through a project-based learning (PBL) methodology by including a multidisciplinary approach. The project is developing a set of transdisciplinary challenges (addressed to children) and units (addressed to teachers) related to wildfires and their management as a way to include the topic in secondary schools. |

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| **Relevant Outcomes** | Educational guidelines and resources: A set of multidisciplinary teaching<br>resources to support the student's learning process through developing projects that respond to real-life problems. |
| **Relevance to FIRE-SCENE** | Despite their different approaches, both emphasise community engagement. Integrating EduFire's educational tools into FIRE-SCENE's outreach efforts could enhance public awareness and contribute to long-term wildfire resilience. |

### 5.2.19 WUICOM-BCN

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| **Full name** | WUI fire resilient communities in Barcelona |
| **Coordinator** | Universitat Politècnica de Catalunya |
| **Funding program** | Barcelona Local Council and La Caixa |
| **Web** | https://www.barcelona.cat/barcelonaciencia/en/research/wuicom-bcn |
| **Status** | Finished |
| **Duration** | 2021 - 2023 |
| **Hazards** | Wildfires |
| **Stakeholders** | WUI communities<br>Local authorities<br>Fire Services |
| **Geographic focus** | Local |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | WUI wildfires |
| **Solutions** | Risk assessment<br>Risk awareness |
| **Objective** | Proposal to carry out a holistic analysis of<br>fire risk in Barcelona's wildland urban interface, focusing on social, ecosystem and infrastructural vulnerabilities. It also aims to develop a sustainable action plan for the city to increase post-fire resilience in particularly vulnerable areas of Barcelona. |
| **Description** | The WUICOM-BCN Barcelona Fire Reliable Interface Communities Project aims to carry out a holistic<br>analysis of fire risk in the IUF of Barcelona, focusing on the detection of the social ecosystem, and infrastructural vulnerabilities and then developing specific strategies for the city. That allows greater resilience to fire in the most vulnerable spaces. Taking advantage of the synergy between fire |

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| | engineering and the sociology of disaster management and providing spaces for joint creation with citizens and local agents, WUICOM-BCN will develop and implement technologies to analyze the risk and behavior of fires in the IUF (i.e. advanced strategies for mapping and simulating fires and virtual resources tools of reality) and at the same time work with methodologies for analyzing the social dimensions involved in vulnerability and resilience to fires so that the proposed prevention and self-protection solutions are inclusive and sensitive to the diversity and intersection of the various forms of social vulnerability. |
| **Relevant Outcomes** | Vulnerability assessment questionnaire at the homeowner scale.<br>Vulnerability assessment methodology at the community scale. |
| **Relevance to FIRE-SCENE** | WUICOM-BCN analysed wildfire risks in Barcelona's WUI neighbourhoods, identifying vulnerabilities and developing prevention strategies, which align with FIRE-SCENE's goals in Mediterranean pilot sites. Both projects integrate technology and social approaches to enhance preparedness. WUICOM-BCN's findings could provide valuable insights for FIRE-SCENE, especially in tailoring risk management strategies to specific communities. |

### 5.2.20 FirEURisk

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| **Full name** | Developing a Holistic, Risk-Wise Strategy for European Wildfire Management |
| **Coordinator** | Association for the Development of Industrial Aerodynamics |
| **Funding program** | HORIZON EUROPE |
| **Web** | https://fireurisk.eu/ |
| **Status** | Finished |
| **Duration** | 2021-2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Researchers, policy-makers, Local authorities, Practitioners Private companies |
| **Geographic focus** | EU-Israel-USA-Canada-Australia |
| **Implementation scale** | EU |
| **Civil Protection Challenges** | Unifying European Strategies to create resilience against wildfires |
| **Solutions** | Fire Risk reduction Fire Risk assessment |
| **Objective** | FirEURisk is designed to have a high impact on the current way the wildfire risk is assessed, managed and communicated |

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| | in Europe. The main objective of the FirEUrisk proposal is to develop, test and disseminate an Integrated and Science-Based<br><br>Strategy for wildfire risk management in Europe.The project addressed mega-fires, the wildland urban interface, and the fire challenges in Northern Europe |
| **Description** | The main objective of the FirEUrisk proposal is to develop, test and disseminate an Integrated and Science-Based Strategy for wildfire risk management in Europe. This integrated strategy will: 1) expand the capabilities of existing wildfire risk2 assessment systems, including critical factors and processes not currently addressed; 2) use risk-assessment to drive wildfire management and reduce current fire risk conditions, and 3) adapt fire management strategies to expected future climate and socio-economic changes. This new strategy will be co-designed and developed in close collaboration and interaction between researchers, practitioners, policymakers and citizens. It will include technologies, tools, training materials, guidelines and policy recommendations to improve wildfire management and reduce the most damaging effects of wildfires. The proposal addresses a wide typology of wildfires, although it will particularly focus on those leading to extreme events (mega-fires), fires affecting the Wildland Urban Interface (WUI) and those impacting regions that were previously very rarely affected by wildfires (particularly in Central, Eastern and Northern Europe) |
| **Relevant Outcomes** | Forest fuel and WUI area maps. Risk assessment methodologies. |
| **Relevance to FIRE-SCENE** | Fireurisk's objectives and outcomes significantly complement FireScene's approach by offering cutting-edge wildfire risk assessment, and holistic wildfire risk management approaches to elaborate further. Fireurisk's community engagement strategies can contribute to FireScene's integrated risk governance methods for specific type of communities (WUI, touristic areas, islands etc), facilitating efficient emergency response and improved civil protection, ultimately bolstering wildfire prevention and preparedness across Mediterranean regions. |

### 5.2.21 XENIOS

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| **Full name** | An integrated app platform to protect and promote cultural and tourist sites |
| **Coordinator** | Aristotle University of Thessaloniki- Laboratory of Forest Management and Remote Sensing |
| **Funding program** | General Secretariat for Research and Innovation |
| **Web** | https://xenios-project.eu/ |
| **Status** | Finished |

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| **Duration** | 2018-2021 |
| **Hazards** | Natural Disasters |
| **Stakeholders** | Researchers<br>Local Authorities<br>Public administration<br>Private companies |
| **Geographic focus** | Local |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk assessment<br>Risk awareness |
| **Objective** | The proposed project, called XENIOS, aims at the development of services for short, medium and long term prediction of extreme natural phenomena and disasters, in sites of special tourist and cultural interest which are at the same time vulnerable to natural hazards, contributing to more effective risk management there. |
| **Description** | The XENIOS project aims to develop services for predicting extreme natural events at tourist and cultural sites vulnerable to natural hazards. It focuses on improving safety and enhancing the visitor experience through a mobile app that provides early warnings and real-time information. The project will deliver timely updates to management bodies and assist in risk management, using maps, alarms, and reports. The platform will operate interactively at local and regional levels to improve disaster protection and response. |
| **Relevant Outcomes** | The system demonstration aims at:<br>Improving the protection of tourist and cultural sites from dangers due to natural causes (fires, climate change, extreme weather events, etc.);<br>Enhancing the protection of visitors to cultural and tourist sites with timely information and real-time warnings of hazards;<br>Improving the visibility of the pilot areas of the project both through social media and through the dissemination of the project and its results to the scientific community and society. Dissemination of innovative technology and knowledge to stakeholders at local and national level |
| **Relevance to FIRE-SCENE** | The Xenios project aims to design and develop an online platform to support the management of natural risks threatening tourist and cultural sites, document the design and decision-making process for prevention, improve the safety of the public and visitors, and integrate them into the framework of site protection. The Xenios project aligns with the objectives of Fire-SCENE in Mediterranean pilot sites, particularly regarding the |

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| | impact of wildfires on tourist villages and resorts. The results of Xenios could contribute to the Fire-SCENE project by specializing in wildfire risk management for tourist areas and resorts |

### 5.2.22 ARTHEMIS

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| **Full name** | An Earth Observation-based service for monitoring of forest ecosystems |
| **Coordinator** | GEOSYSTEM HELLAS S.A |
| **Funding program** | General Secretariat for Research and Innovation |
| **Web** | https://artemis2018.eu/partners/ |
| **Status** | Finished |
| **Duration** | 2018-2021 |
| **Hazards** | Climate change |
| **Stakeholders** | Researchers<br>Local Authorities<br>Public administration<br>Private companies |
| **Geographic focus** | Local |
| **Implementation scale** | Local |
| **Civil Protection Challenges** | NA |
| **Solutions** | Risk analysis RIsk awareness |
| **Objective** | The aim is to develop a multi-modal service for the processing of Satellite, terrestrial and available spatial data and the generation of products related to the quality, health and sustainable development of economic forests with emphasis on chestnut forests |
| **Description** | The Artemis project aims to develop a multi-modal service for the processing of Satellite, terrestrial and available spatial data and the generation of products related to the quality, health and sustainable development of economic forests with emphasis on chestnut forests.It is known that the Mediterranean chestnut forests in the region of Thessaly have been "degraded" despite the fact that these are considered as productive forests. There is a need for the development of modern practices and technologies that will support the continuous monitoring of natural and managed ecosystems and that will promote, in the long-term, the growth of primary production while preserving |

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| | biodiversity. ARTEMIS project aims to fill this gap, by proposing an innovative forest health monitoring methodology with the use of high and very-high spatial resolution remote sensing data. |
| **Relevant Outcomes** | Development of an innovative methodology for improving the monitoring of the health of forests and preventing further degradation. Connection of academic research with labor market. Dissemination of innovative technology and knowledge to stakeholders at the local and national levels. |
| **Relevance to FIRE-SCENE** | The proposed methodology will be applicable not only to the targeted chestnut forests but also to similar forest ecosystems that are potentially threatened by different agents of degradation |

### 5.2.23 Wildfire CE

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| **Acronym** | Enabling cross-boundary assessment, communication and management of wildfire risks in Central Europe |
| **Coordinator** | Saxon State Ministry for Regional Development |
| **Funding program** | INTERREG CENTRAL EUROPE |
| **Web** | https://www.interreg-central.eu/projects/wildfire-ce/ |
| **Status** | Ongoing |
| **Duration** | 2024-2027 |
| **Hazards** | Wildfires |
| **Stakeholders** | Regional authorities, emergency services, local communities |
| **Geographic focus** | Central Europe |
| **Implementation scale** | Regional/Cross-border |
| **Civil Protection Challenges** | Cross-border coordination for wildfire risk management |
| **Solutions** | Risk assessment, risk communication, planning |
| **Objective** | To improve the assessment and management of wildfire risks across borders in Central Europe |
| **Description** | Climate change is increasing wildfire threats across Central Europe. Wildfire CE enhances cooperation and information sharing across borders by mapping fire potential, developing harmonised risk assessment manuals, and creating joint action plans for pilot regions. |
| **Relevant Outcomes** | Cross-border wildfire risk mapping platform, regional action plans, cooperation frameworks |

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| **Relevance to FIRE-SCENE** | Complements FIRE-SCENE with cross-border approaches to wildfire risk management in Central European regions not covered by FIRE-SCENE |

### 5.2.24 SILVANUS

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| **Acronym** | Integrated Technological and Information Platform for Wildfire Management |
| **Coordinator** | University Telematica Pegaso |
| **Funding program** | HORIZON 2020 |
| **Web** | https://silvanus-project.eu/ |
| **Status** | Finished |
| **Duration** | 2021-2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Civil protection agencies, forest managers, policymakers |
| **Geographic focus** | Europe (plus Brazil, Indonesia, Australia) |
| **Implementation scale** | Multiple scales |
| **Civil Protection Challenges** | Wildfire prevention and response |
| **Solutions** | Integrated technology platform, AI-driven risk modelling, advanced monitoring, VR training tools |
| **Objective** | To develop a climate-resilient forest management platform through innovative technologies for preventing and combating wildfires |
| **Description** | SILVANUS brought together 49 partners across Europe and beyond to build a holistic wildfire management platform. It uses climate and weather data for AI-driven ignition modelling, integrates sensor networks and drones for monitoring, and provides VR/AR training for firefighters ‚Äì all to strengthen wildfire prevention and response capabilities. |
| **Relevant Outcomes** | Climate-resilient wildfire management platform, AI-based fire ignition prediction models, VR/AR firefighting training toolkit, pilot demonstrations in Europe, Brazil, Indonesia, Australia |
| **Relevance to FIRE-SCENE** | Provides advanced early warning and risk assessment tools that align with FIRE-SCENE‚Äôs objectives, enhancing its capabilities with AI-driven predictive approaches (including applications in wildland-urban interfaces) |

### 5.2.25 TREEADS

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| **Acronym** | A Holistic Fire Management Ecosystem for Prevention, Detection and Restoration of Environmental Disasters |
| **Coordinator** | RISE Fire Research AS |
| **Funding program** | HORIZON 2020 |
| **Web** | https://treeads-project.eu/ |
| **Status** | Ongoing |
| **Duration** | 2021-2025 |
| **Hazards** | Wildfires |
| **Stakeholders** | Emergency services, forest authorities, local communities, policymakers |
| **Geographic focus** | Europe (and Taiwan) |
| **Implementation scale** | Multiple scales |
| **Civil Protection Challenges** | Holistic wildfire management (prevention, detection, restoration) |
| **Solutions** | Holistic fire management platform, AI-based risk evaluation, fire-resilient materials, drone surveillance |
| **Objective** | To unite advanced wildfire management solutions into an integrated ecosystem for more effective prevention, detection, response and restoration |
| **Description** | TREEADS is a 42-month project (47 partners) creating a unified wildfire management platform. It integrates high-TRL solutions: real-time risk evaluation with AI-powered neural network indicators, fire-adapted community measures (e.g., building materials using wood ash for resilience), and drone swarms for enhanced detection. Eight pilot campaigns across Europe and Taiwan demonstrate these innovations in different environments. |
| **Relevant Outcomes** | Integrated wildfire management platform, AI-driven real-time risk assessment tool, novel fire-resistant construction materials for communities, drone-based wildfire detection systems, pilot validations in 5 countries and Taiwan |
| **Relevance to FIRE-SCENE** | TREEADS,Äôs comprehensive approach (covering prevention through post-fire recovery) and technological innovations (AI risk tools, WUI protection strategies) support FIRE-SCENE,Äôs goals in wildfire risk reduction and resilience planning |

### 5.2.26 PYROLIFE

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| **Full name** | PyroLife, training the next generation of integrated fire management experts |
| **Coordinator** | Wageningen University & Research |
| **Funding program** | HORIZON 2020 |
| **Web** | https://pyrolife.lessonsonfire.eu/ |
| **Status** | Finished |
| **Duration** | 2019-2023 |
| **Hazards** | Wildfires |
| **Stakeholders** | Researchers, practitioners |
| **Geographic focus** | Europe-wide |
| **Implementation scale** | Multiple scales |
| **Civil Protection Challenges** | Integrated fire management, WUI building vulnerability |
| **Solutions** | Transdisciplinary training network, wildfire research collaboration |
| **Objective** | To train a new generation of interdisciplinary wildfire experts and develop integrated approaches for wildfire risk reduction and resilience |
| **Description** | PyroLife was a four-year Marie Curie Innovative Training Network that supported 15 PhD researchers across Europe in wildfire science. Through cross-disciplinary research on wildfire risk assessment, communication, and WUI resilience, the project produced new scientific insights, practical tools (e.g., factsheets, community engagement toolkits), and trained experts to advance integrated fire management. |
| **Relevant Outcomes** | 15 PhD experts trained, 10+ wildfire research projects (e.g., wildfire risk quantification, WUI fire safety), numerous publications and practitioner factsheets, toolkit for community engagement in fire-prone areas |
| **Relevance to FIRE-SCENE** | PyroLife,emphasis on interdisciplinary training and integrated fire management (including built environment resilience) aligns with FIRE-SCENE,Äôs holistic approach, providing research outcomes and expertise that FIRE-SCENE can leverage. |

### 5.2.27 FireAId

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| **Full name** | FireAId: Harnessing AI to Predict and Prevent Wildfires in Turkey |
| **Coordinator** | World Economic Forum, Centre for the Fourth Industrial Revolution |
| **Funding program** | DELOITTE, HOLDING, TMAF |
| **Web** | https://initiatives.weforum.org/the-adaptation-and-resilience-network/fireaid-harnessing-ai |
| **Status** | Ongoing |
| **Duration** | 2022-ongoing |
| **Hazards** | Wildfires |
| **Stakeholders** | Authorities, decision-makers |
| **Geographic focus** | Turkey (pilot), expanding globally |
| **Implementation scale** | National/Regional |
| **Civil Protection Challenges** | Unpredictable fire ignitions, optimal resource allocation |
| **Solutions** | AI-driven wildfire risk mapping, predictive resource allocation tools |
| **Objective** | To harness artificial intelligence and machine learning to predict wildfire outbreaks and optimise the distribution of firefighting resources. |
| **Description** | Launched in 2022 by WEF and partners, FireAId uses AI to produce interactive wildfire risk maps and simulations. In its Turkish pilot, it analysed over 400 variables (weather, terrain, human activity) to predict fire ignition with about 80% accuracy 24 hours in advance, and to recommend optimal deployment of firefighting resources. The successful pilot is now being scaled to other regions through a global multi-stakeholder collaboration. |
| **Relevant Outcomes** | AI-powered wildfire ignition probability map, optimised firefighting resource allocation model, pilot in Turkey demonstrating 80% prediction accuracy and faster response, global expansion of the initiative. |
| **Relevance to FIRE-SCENE** | FireAId,Äôs AI-driven predictive capabilities complement FIRE-SCENE,Äôs risk assessment approaches by introducing advanced data analytics for early warning and resource planning in wildfire management. |

### 5.2.28 RESILOC

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| **Full name** | Resilient Europe and Societies by Innovating Local Communities |
| **Coordinator** | Fraunhofer IML |
| **Funding program** | HORIZON 2020 |
| **Web** | https://www.resilocproject.eu/ |
| **Status** | Finished |
| **Duration** | 2019-2022 |
| **Hazards** | Multiple hazards (earthquakes, floods, wildfires, etc.) |
| **Stakeholders** | Local authorities, civil protection, citizens/community |
| **Geographic focus** | Italy, Greece, Bulgaria, Norway, Croatia (pilots) |
| **Implementation scale** | Local (community-level) |
| **Civil Protection Challenges** | Low community disaster resilience, limited local engagement in planning |
| **Solutions** | Resilience assessment platform, community engagement framework |
| **Objective** | To improve the disaster resilience of local European communities by combining local knowledge with national and international resources and tools |
| **Description** | RESILOC was an EU project (2019‚Äì2022) that developed a framework and cloud-based platform to assess and enhance local community resilience to disasters. It combined objective risk indicators (hazard exposure, vulnerabilities) with input from community stakeholders to identify resilience gaps. Pilots in Italy, Greece, Bulgaria, Norway and Croatia tested these tools, leading to new models, procedures and training to empower local civil protection and communities. |
| **Relevant Outcomes** | RESILOC Cloud Platform (integrated with civil protection systems like JIXEL) for community resilience assessment, pilot community resilience reports and action plans, guidelines and e-learning modules for building local resilience |
| **Relevance to FIRE-SCENE** | Although multi-hazard, RESILOC‚Äôs approach of engaging communities and measuring local vulnerability is valuable for FIRE-SCENE. It offers tools and methodologies to strengthen community resilience to wildfires, complementing FIRE-SCENE‚Äôs technical risk assessments with social dimensions |

# 6 Potential synergies

The initiatives analysed offer significant added value to FIRE-SCENE, both in terms of content and methodology. They represent a wide range of knowledge, tools and experiences that can frame and improve FIRE-SCENE results. Rather than starting from scratch, FIRE-SCENE can take advantage of the results already generated. For instance, technological solutions for monitoring, methodologies for risk analysis and planning, and governance models for multi-agency coordination. In fact, the project already considered, during its proposal stage, some of the initiatives identified.

All the initiatives together contribute to set a starting point of FIRE-SCENE, both in terms of understanding the main civil protection challenges related to wildfire risk and in guiding the type of solutions the project will develop. They provide a clear picture of the key problems to address and also serve as references for the three main areas of action: risk analysis, risk planning, and risk governance.

These projects also present important opportunities for synergies, particularly those that are ongoing. Many initiatives have already developed operational frameworks, pilot actions, and networks of stakeholders at local, regional, and international levels. FIRE-SCENE can connect with these existing structures to strengthen its implementation capacities, engage relevant stakeholders more efficiently, and promote the transfer and scaling-up of successful practices. Another key synergy is the participation, or even the organisation of common activities in order to disseminate FIRE-SCENE, and get to know other related projects.

Additionally, by considering the outputs and lessons learned from previous projects, FIRE-SCENE can avoid duplication of efforts and focus its resources on addressing remaining gaps and innovating in the field of wildfire risk management according to civil protection authorities requirements. This will allow the project to complement existing methodologies to the current and future wildfire risk challenges posed by climate change and social and landscape dynamics.

Finally, the wide thematic coverage of previous initiatives aligns well with the multi-dimensional approach of FIRE-SCENE. This alignment facilitates a comprehensive integration of technical, social, and institutional aspects of wildfire risk management, which makes project outcomes more sustainable beyond the project lifespan, and adapted and implemented in other regions.

In conclusion, existing initiatives provides FIRE-SCENE with valuable advantage: it offers a tested base of solutions and experiences that can be further customised and adapted, helping the project to consolidate its role as a key reference in advancing civil protection strategies against wildfire risk.