



# EU Fire Projects United

## 2nd Joint Newsletter No2



## Current Progress and Main Results till now



#EUFireProjectsUnited

# What is EUFireProjectsUnited?

Firelogue is an EU Coordination and Support Action (CSA) which connects the three EU Innovation Actions (IAs / TREEADS - SILVANUS - FIRE RES) and supports them by integrating their results across all stakeholders and phases of Wildfire Risk Management (WFRM) and to connect them with existing insights from projects such as FirEURisk



Firelogue's main goal is to unite as many fire-related projects as possible and to identify fields for collaboration. So, Firelogue's first effort is to create common dissemination actions with the IAs and other fire related projects. #EUFireProjectsUnited consists of Firelogue, SILVANUS, TREEADS, FIRE-RES, FirEURisk, SAFERS, FIRE-ADAPT and PYROLIFE.



#EUFireProjectsUnited



## Current Progress

Firelogue aims to facilitate the integration of Wildfire Risk Management projects in terms of scientific results as well as with respect to the development of policy recommendations, among others by the means of Clustering Events and Working Groups.

Two Clustering Events have been implemented across the Wildfire Risk Management projects. During the digital event in 2022, baseline discussions were organised between the projects for example related to developing Impact Assessments for Wildfire Risk Management (research) or the collaboration across case studies. The physical event (November 2023) which was organised in close collaboration with DG ECHO, facilitated the presentation of project solutions as well as the discussion around assessing and evaluating risk, wildfire risk governance or aspects of policy coherence.



1st Working Group Meeting in Solsona 2023



Clustering Event 2023

In addition, Firelogue organises the drafting of policy recommendations in 5 thematic Working Groups (Ecology/Environment, Insurance, Infrastructure, Society and Civil Protection). The second workshop, facilitating dialogue around wildfire risk management innovation and related justice aspects from a multi-stakeholder perspective was organised in April 2024 in Nea Makri, Greece. The Working Groups complement their exchanges with webinars which are documented on the project website.



## Current Progress and Main Results till now

FIRE-RES reached the halfway point along the journey and is getting ready to enter the full implementation mode. The consortium marked this moment with exciting news: the project has been invited, along with the Savanna Fire Management Initiative (ISFMI), to set the basis for the newly launched Wildfire-Resilient Landscapes Network.

Plus, the mid-term review meeting provided the team with encouraging feedback, and the consortium met in person in November 2023 to fine-tune the next steps during the second project meeting in Porto.



As the fundamentals for the implementation have been established, the project is progressing towards achieving its four key objectives, backed by the 18 members of its Advisory Board. It already produced 24 deliverables, participated in more than 20 conferences, and featured 14 scientific publications.



## Current Progress and Main Results till now

SILVANUS has carried out in 2023 pilot visits, exercises and demonstrations in Croatia, Slovakia, France, Czechia, Indonesia, Australia, Italy, Romania and Greece. These exercises and demonstrations have tested the various user products and are collecting data for the purpose of validating the platform. The user products are now in advanced stages of development. SILVANUS has also conducted a thorough citizen engagement campaign, which introduced the project to citizens and stakeholders all around the world. This includes a biweekly poster and video campaign on the SILVANUS website and social media, and 'live' exhibitions organized in cities such as Rijeka, Croatia and Limoges, France, with the support of local authorities.



SILVANUS Team in Sebangau National Park, Central Kalimantan Province, Indonesia



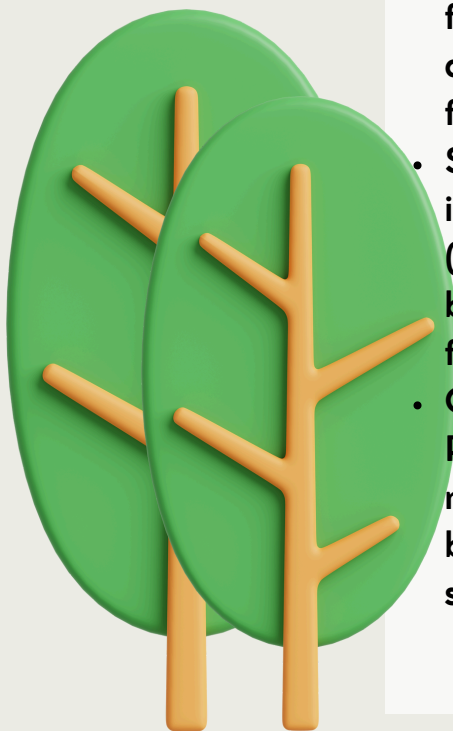


## Current Progress and Main Results

The TREEADS project has made significant strides in wildfire management and prevention, leveraging cutting-edge technology and artificial intelligence.

Key developments include:

- **Fire Daily Forecasting:** Utilizing AI, we've developed a municipality-scale forecasting system that enhances fire prediction accuracy beyond traditional weather data-based models.
- **Simulation Tools:** Advanced tools for simulating fire spread, wind, and pollutant dispersion have been introduced, offering comprehensive analysis capabilities.

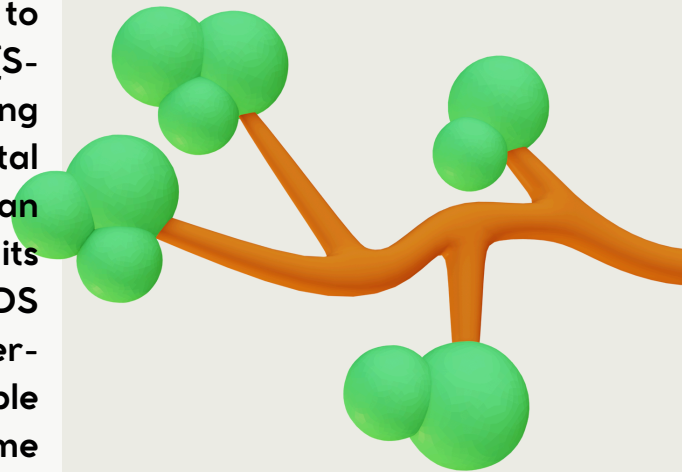


- **Forest Mapping:** Through the integration of public and private geospatial data, detailed forest mappings are now possible, highlighting areas at greater risk, such as wildland-urban forests.
- **Social Media Analysis for Fire Detection:** An innovative approach using social media (specifically tweets) for fire event detection has been developed, enabling real-time mapping of fire events.
- **Guidelines for Fire Resilient Materials:** Recommendations have been provided for materials that enhance the fire resilience of buildings and infrastructure, contributing to safer community environments.

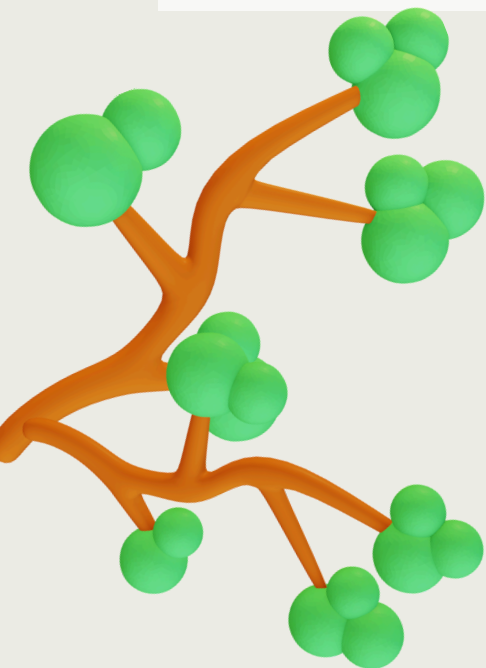


## Current Progress and Main Results

The TREEADS S-ROI Methodology introduces an innovative approach to calculating Social-Return on Investment (S-ROI) for wildfire management, incorporating over 30 social and environmental parameters tailored to diverse European regions. Shared insights enhance its applicability across projects. The TREEADS Holistic Platform (THP) provides a user-centric design, featuring customizable dashboards and widgets for real-time wildfire management. Future directions include advancements in AI soil assessment, Seed Container Capsules (SCC) for plant growth, Bioclip technology, and drone-suspended equipment for reforestation seeding.



The project is finalizing a Post-Fire Decision Support System and a deep learning model for precise burnt area mapping. These initiatives signify TREEADS's dedication to innovating wildfire management, aiming to mitigate risks, improve recovery, and support sustainable ecosystem management, showcasing a commitment to advancing the field with cutting-edge technologies and comprehensive solutions.

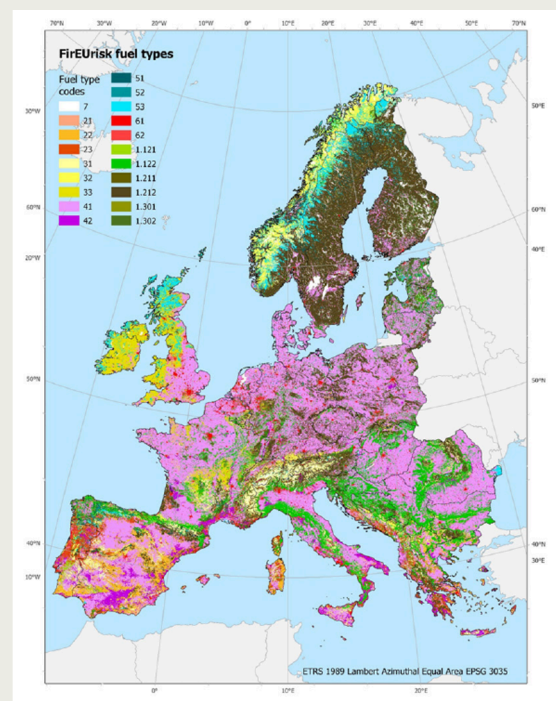


## Current Progress and Main Results till now

The project is currently in its 3rd year (M38) with most of the research topics near completion and under implementation on the designated 06 pilot sites (Northern Europe, Central-Eastern Europe, European Territory and in the Mediterranean region represented by Portugal, Spain and Greece), with 03 pilot sites (Central-Eastern Europe, Portugal and Spain) demonstrations being completed. In the pilot sites events are demonstrated the results/products produced under FirEURisk based on the dual framework approach by integrating Wildfire Risk Management (IWFRM) into Holistic Landscape Fire Management (HLFM) to address present and future extreme wildfires.

Among the extensive work performed by the project partners leading on the main outcomes and key achievements are:

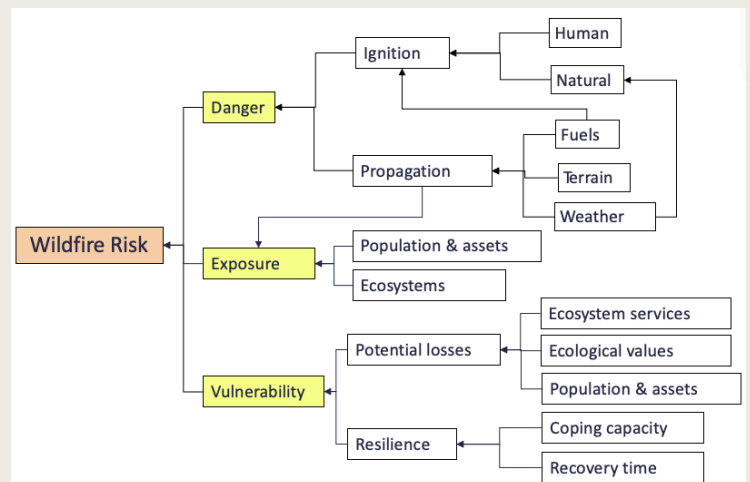
- The classification and mapping of the European fuels using a hierarchical-multipurpose fuel classification system mainly focused on the projects 06 pilot sites
- Development of a mobile app for citizens and lang-managers assessing the wildfire risk. The mobile app is currently in Demo version.
- The development of an Integrated Approach to Wildfire Risk Assessment  
(<https://www.mdpi.com/2571-6255/6/5/215>),





## Current Progress and Main Results till now

- The engagement with fire prone communities for reducing the ignitions caused by humans, increase socio-ecological resilience.
- Improve training and preparedness of all stakeholders.
- Reviewing and presenting the WFRM related policies and strategies in the project partners EU member states for creating the Policy brief on integrated and holistic fire risk management.
- Mapping the suitability of Land Management Strategies (LMS) which can affect wildfire risk in Europe.  
(<https://www.sciencedirect.com/science/article/pii/S0301479723017292?via%3Dihub>)



- Organizing and delivering a series of Training events on the project results (products) open to the public. (<https://fireurisk.eu/training-event-materials/>)
- Analysis of 2021 critical wildfire events in the Mediterranean region (<https://publications.jrc.ec.europa.eu/repository/handle/JRC133972>). It is nearly under completion the analysis for the 2022 critical wildfire events and shortly FirEUrisk partners will become gathering information for the 2023 wildfire events.



## **Current Progress and Main Results till now**

PyroLife is providing an innovative and balanced PhD curriculum that trains through:

- **Research:** to acquire core research skills at the host organisation and through secondments.
- **Education:** to acquire advanced research skills and transferable skills; organised through network-wide training and local courses. This training is based on the vision that all those working in IFM require:
  - Understanding of fire processes.
  - Broad knowledge, skills, and competencies regarding socio-economic and policy dimensions of fire.
  - Integration skills to link and synthesise fire process, socio-economic and policy dimensions.
  - Understand the interdisciplinary context of fire, including fire history, management, processes, impacts, and diversity.
  - Mastering of transdisciplinary methods to enhance scientific knowledge with local knowledge.
  - Be able to identify and deal with knowns and unknowns.
  - Be able to disseminate and communicate findings to both stakeholders and the general public, while developing their own specialisation and acquiring transferable skills following the Salzburg VI Principles.





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Two consortium-wide meetings at Study Hubs have already taken place in Spain and Mexico, with exchanges among work packages, fieldwork and a Prescribed Fire Training Exchange (TRES).



carbon  
fluxes



well-being



cultural  
services



biodiversity





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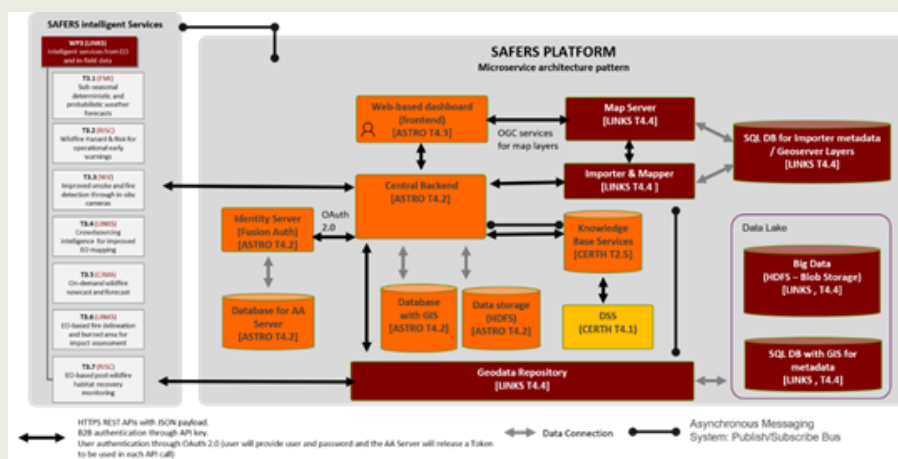
SAFERS has created an integrated emergency management platform featuring 9 Intelligent services, including a forest fire Decision Support System. The platform uses heterogeneous data from different sources: earth observations from Copernicus, optical cameras placed in strategic locations, topographic data, open data, weather forecasts and even crowdsourced data from social media and ad-hoc apps (Chatbot) that can be used by citizens and first responders to provide situational in-field information.

Such Big Data is processed using Artificial Intelligence algorithms to generate useful information, such as risk maps to better plan preparedness actions, early detection of active fires, fire propagation predictions, burned area and fire front delineation, impact assessment estimations, and habitat recovery maps.

Moreover, the SAFERS Decision Support System suggests best practices according to the emergency phase (prevention and preparedness, detection and response, restoration and adaptation) and to the current situation using a semantic knowledge base.

Starting from April 2024, the SAFERS platform is published with an open-source license, while the 9 Intelligent Services will be offered according to a B2B model.

Moreover, SAFERS has launched a 12-month free trial of the integrated Platform targeting various end-users (e.g., firefighters, civil protections, Banking, Financial Services and Insurances, etc..) interested in testing the SAFERS solutions.



Italian demo



## **Current Progress and Main Results till now**

To evaluate the effectiveness of newly developed services in enhancing wildfire risk management throughout all stages of the emergency management cycle, four in-field demonstrations and pilot projects were successfully completed across Europe between 2022 and 2023. These demonstrations aimed to test the webbased dashboard and comprehensive suite of intelligent services with a variety of end-users (e.g., technical bodies, first responders, local governments, and citizens) in a realistic yet controlled environment, drawing on lessons from past emergencies.



The inaugural demonstration took place on October 19, 2022, in Corsica, France, hosted by the Fire and Rescue Service of Haute-Corse (SIS2B). The Italian demonstration followed on February 9, 2023, in Piedmont, and was organized by the Consorzio per il Sistema Informativo (CSI). The Pau Costa Foundation (PCF) facilitated the Spanish demonstration in El Perelló, Catalonia, on October 10, 2023. The final demonstration was held in a suburban forest near Thessaloniki, Greece, on December 12, 2023, organized by the Hellenic Rescue Team (HRT) with the support of the Hellenic Ministry of Defense (HMOD).



## **Current Progress and Main Results till now**



**French demo**



**Spanish demo**



**Greek demo**



**Italian demo**

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## End of Joint Newsletter



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