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**PREVENTION ACTION INCREASES  
LARGE FIRE RESPONSE PREPAREDNESS**

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**WP4 – FUEL MANAGEMENT SMART SOLUTIONS TOWARDS FIRE RESILIENT LANDSCAPES**

**Deliverable 4.3 – Website module on Landscape  
Solutions to Wildfire**

*28 February 2021*

**Project name:** Prevention Action Increases Large Fire Response Preparedness (PREVAIL)

**Financed by:** DG ECHO 2018 Call for projects on prevention and preparedness in civil protection and marine pollution

**Website:** <http://prevailforestfires.eu/>

**Partnership:** Università degli Studi della Tuscia - UNITUS (Coord.), Università degli Studi di Napoli Federico II – UNINA, Centre de Ciència i Tecnologia Forestal de Catalunya - CTFC, Ellinikos Georgikos Organismos - DIMITRA, Instituto Superior de Agronomia – ISA

**Duration:** 2019 – 2021

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**Date of deliverable:** 28/02/2021

**Lead partner of task:** Centre de Ciència i Tecnologia Forestal de Catalunya - CTFC

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## 1. Objectives and contents

According to the PREVAIL project workplan, *Task 4.2 – Fuel management smart solution assessment* has the objective to identify initiatives according to the smart solution definition and offer their visibility and knowledge (according to Work package 6 – Communication<sup>1</sup>) through a website module introduced in the Lessons on Fire<sup>2</sup> platform.

A previous report of the Task 4.2 was delivered (*Deliverable 4.2 – Report on wildfire risk management lessons learnt and fuel management smart solutions selection*), where a total of 32 initiatives were collected according to the definition of “fuel management smart solutions” defined in PREVAIL project (see chapter 2.2). The survey is focused on practical or transferable initiatives directly or indirectly involved in fuel management projects financed by European Union funds through the Rural Development Program (RDP), LIFE Projects, etc., or by private funds. Some of the smart solutions identified have been selected for the PREVAIL project documentary on fuel management and wildfire prevention (Work package 6).

The methodology to collect the initiatives information is explained in *Deliverable 4.1 – Working paper on cases, agencies and actors identified*, and in *Deliverable 4.2 – Report on wildfire risk management lessons learnt and fuel management smart solutions selection*.

## 2. Website module on *Landscape Solutions to Wildfire*

### 2.1 Lessons on Fire platform

The Lessons on Fire is a user-friendly digital platform dedicated to wildfires, where it is possible to exchange knowledge, discuss and network with the fire community.

The platform was created through the Fireefficient project<sup>3</sup> (Operational tools for improving efficiency in wildfire risk reduction in EU landscapes) which was financed by the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG-ECHO)<sup>4</sup>, and coordinated by the CTFC, which is part of the PREVAIL consortium.

The project aimed 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. Some of the results of the project were the development of a participatory platform of land and fire planners for large wildfire spread risk reduction and the knowledge repository platform based on lessons learned on large fires for land and fire planners, which were capitalized through the Lessons on Fire platform.

The platform is managed by the Pau Costa Foundation, which was part of the Fireefficient consortium. The Foundation aims to facilitate the encounter between researchers, emergency services and civil society and

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<sup>1</sup> See Deliverable 6.1 – Communication strategy.

<sup>2</sup> <https://lessonsonfire.eu/>

<sup>3</sup> <http://fireefficient.ctfc.cat/>

<sup>4</sup> Call for proposals 2013 for projects on prevention and preparedness in civil protection and marine pollution.

one of its main objectives is related to the dissemination of wildfire knowledge.

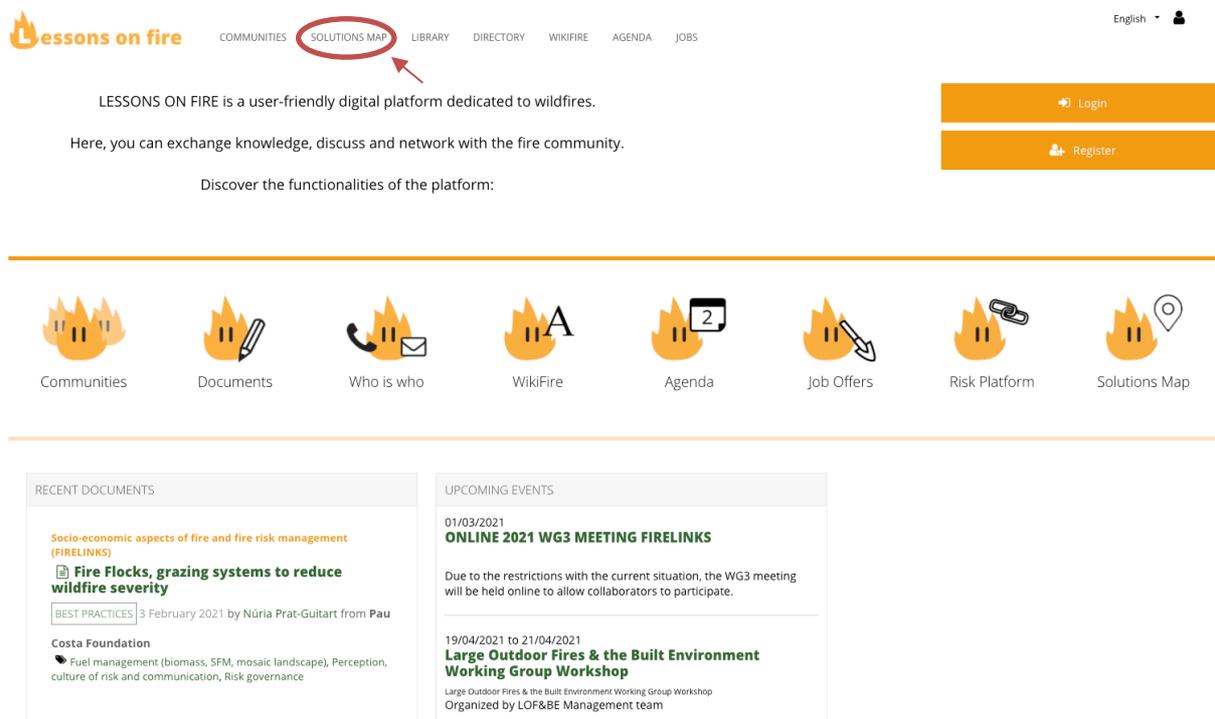
The Lessons on Fire was created in 2013 as a long-term platform, and nowadays it is a consolidated platform with more than 800 users registered coming from the fire community.

The platform has different functionalities:

- *Communities*: virtual spaces to discuss, share documents and other multimedia resources with other peers.
- *Documents*: repository to share technical and scientific papers, reports, news, videos and more.
- *Who is who*: repository to find experts on a specific topic or country to contact easily.
- *WikiFire*: open dictionary of fire terms where to search and edit existing terms, and post new ones.
- *Agenda*: agenda of the fire community to share events.
- *Job offers*: repository of job offers.
- *Risk Platform*: direct access to Risk Platform<sup>5</sup>.

A new functionality called “Solutions map” (Figure 1) includes the “Landscape Solutions to Wildfire” module (see chapter 2.2), and will appear on the menu where to find all the initiatives collected in PREVAII project (Task 4.2).

Figure 1. Screenshot of Lessons on Fire main menu

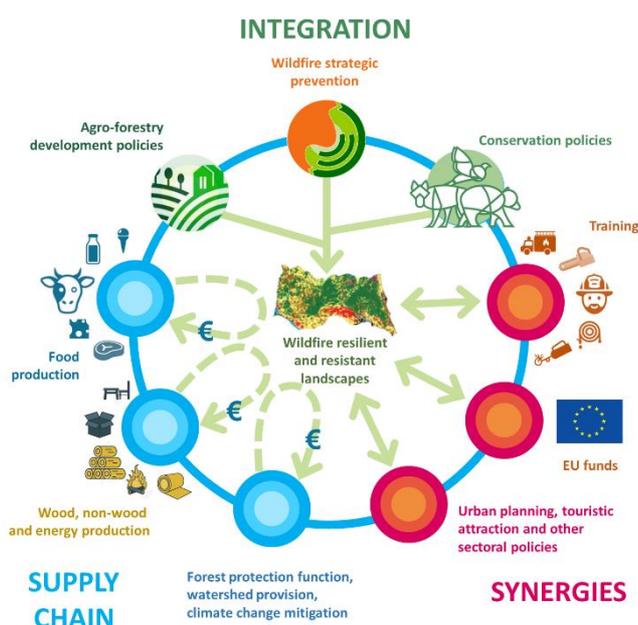


<sup>5</sup> <https://www.riskplatform.org/>

## 2.2 Landscape Solutions to Wildfire concept

Within the PREVAIL scope, fuel management smart solutions are defined<sup>6</sup> as practical measures and initiatives implemented in a **sustainable manner**, enhancing **cost-efficiency**, optimizing the **synergies and cooperation** from a multi-objective perspective, able to capitalize the **best existing knowledge** and being permanently updated under a **lessons learnt** approach (Figure 2).

Figure 2. Smart solutions PREVAIL approach



To introduce the “smart solutions” concept on the Lessons on Fire platform it was necessary to analyze how it might fit on the platform, and how to better address the concept understanding, in order to use a short and clear term on the Lessons on Fire menu.

The concept “SMART” is used as a synonym of “intelligent”, and it is the acronym for a goal setting methodology<sup>7</sup>, which means: **S**: Specific, **M**: Measurable, **A**: Achievable, **R**: Relevant and **T**: Time based.

Nowadays, the term “smart” is mainly linked to technology and artificial intelligence. In order to avoid misunderstandings and to better link the concept with the fuel and wildfire management, finally it is decided to use the term “Landscape Solutions to Wildfire”, which includes the main characteristics of the initiatives collected, which are, direct or indirectly, linked with wildfire management through the Disaster Risk Management cycle (prevention, preparedness, response, and recovery), which could modulate the landscape through the fuel management (grazing, prescribed burning, mosaic landscape, etc.), and which can be presented as a “solution” to deal with wildfires.

<sup>6</sup> See Deliverable 4.2 – Report on wildfire risk management lessons learnt and fuel management smart solutions selection.

<sup>7</sup> Doran, G. T. (1981). “There’s a S.M.A.R.T. way to write management’s goals and objectives”. *Management Review*. 70(11): 35–36.

## 2.3 The website module

The Landscape Solutions to Wildfire module includes the 32 initiatives collected through PREVAIL project (Table 1), as a first database offered. The initiatives include different types of practices, from European projects to strategies at municipality level. According to the diversity of the initiatives, different territorial scopes are represented.

**Table 1. List of the initiatives related to fuel management smart solutions collected within PREVAIL project**

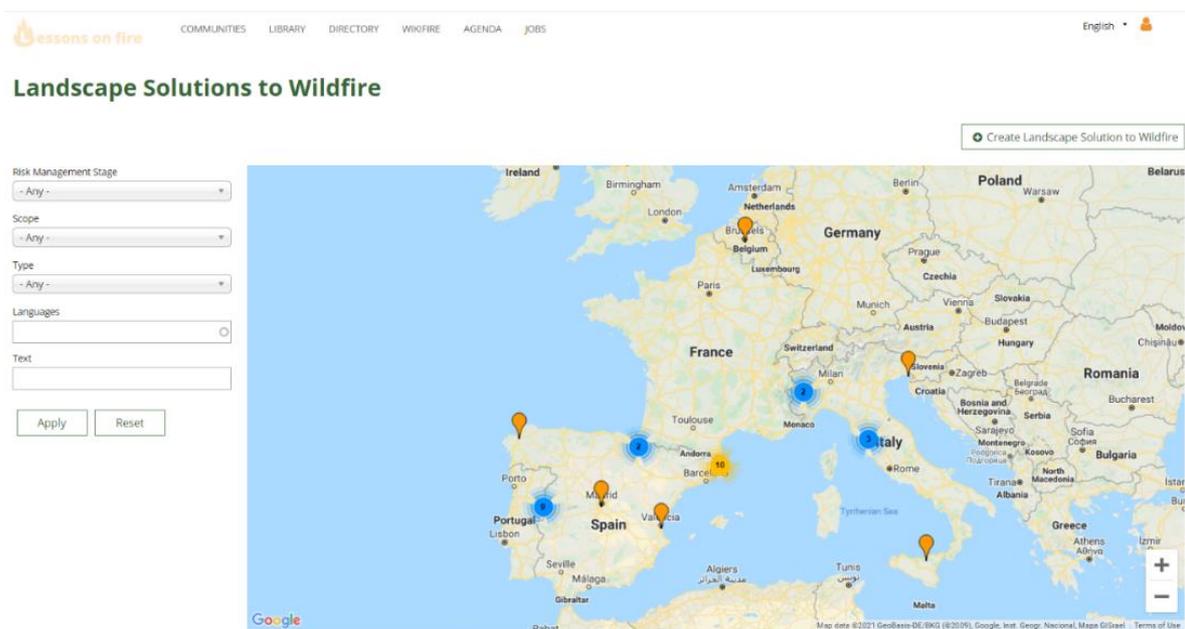
Initiative	Country	Territorial scope
Training Centre of Toscana	Italy	Regional/Sub-regional
LIFE Granatha	Italy	Regional/Sub-regional
LIFE Elia-Art	International	International
Firefighting training centre of the Piemonte Region	Italy	Regional/Sub-regional
Grazing program for fire hazard abatement through the "Landa Carsica" business network	Italy	Regional/Sub-regional
Biomass production and fire hazard reduction in the Unione Comuni Pratomagno	Italy	Regional/Sub-regional
New Business Models for innovating the cork sector and contrasting cork oak woodland abandonment	Italy	National
LIFE Demogest	Spain	Regional/Sub-regional
Fire flocks program	Spain	Regional/Sub-regional
LIFE Montserrat	Spain	Regional/Sub-regional
Assessment of biomass availability in the municipality of Calonge	Spain	Regional/Sub-regional
GEPRIF Project	Spain	National
Promobiomasse Project	International	International
LIFE Pinassa	Spain	Regional/Sub-regional
Boscós del Vallès (Valles Forest)	Spain	Regional/Sub-regional
Alberapastur Project	International	International
Quality-Suber	Spain	Regional/Sub-regional
Sustainable Forest Management Orientations for Catalonia (ORGEST)	Spain	Regional/Sub-regional
Action areas enlargement of large fires prevention plan of Matadepera municipality	Spain	Regional/Sub-regional
Priority Protection Perimeters for Forest Areas (PPPF)	Spain	Regional/Sub-regional
Cabra serrana nos Baldios da Malcata	Portugal	Regional/Sub-regional
Shepherds' School	Portugal	National
Open2preserve Project	International	International
SILVPAST Operational Group	Portugal	National
Forest Management - ACHLI	Portugal	National
Reserva Faia Brava	Portugal	National
Rebanhos da Serra do Açor-Rabadão	Portugal	Regional/Sub-regional
Landscape fire Project	International	International
Resilient forest Project	International	International
LIFETEC Project	International	International
REFOREST Project	International	International
Integrated Fire Prevention Plan - PreFeu initiative Upper Val Susa	Italy	Regional/Sub-regional

## How to use it

The initiatives can be searched and selected in different ways (Figure 3):

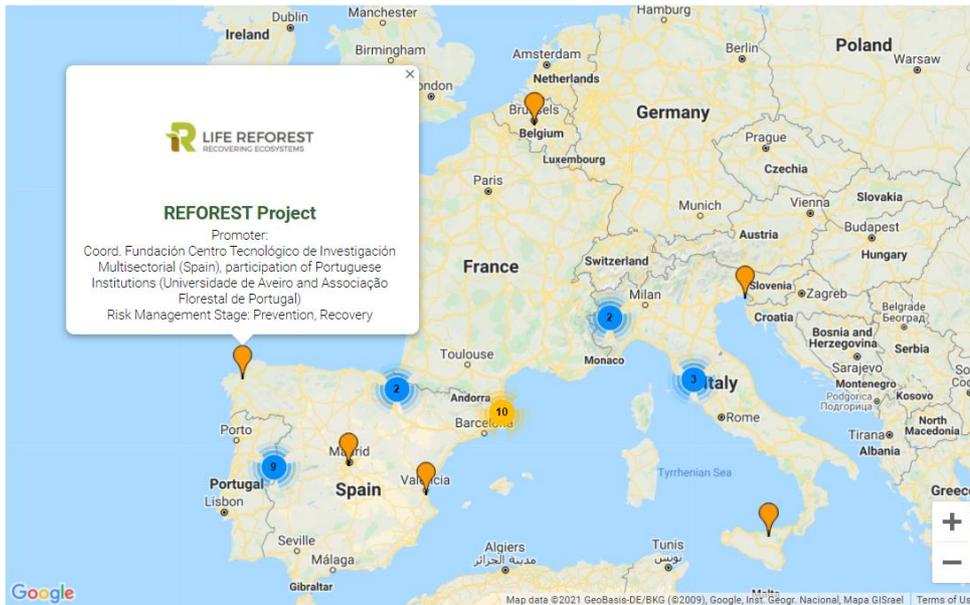
- Risk management phase in which the initiative is acting.
- Territorial scope of the initiative.
- Type of initiative: Best practice, Field reference guide/training material, Mobile app./website, Software/DSS/IT and Video/media resource.
- Language in which the information of initiative is available.
- Text: search by words.
- Map: searching on the map.

**Figure 3. Screenshot of the Landscape Solutions to Wildfire module in Lessons on Fire platform**



The map allows to see the total amount of initiatives collected on the web-module, and where they are located. And it is an interactive tool to see the main information of each initiative (logo, name, promoter, and the risk management stage) (Figure 4).

Figure 4. Screenshot of the Landscape Solutions to Wildfire map



Once one initiative is selected, it is possible to see all the information collected, which must include: location, logo, promoter, type of solution, territorial scope, risk management stage, languages, description, website link, images and videos (Figure 5).

Figure 5. Screenshot of available information of the initiatives

## REFOREST Project

[← Back to the map](#)



### Promoter:

Coord. Fundación Centro Tecnológico de Investigación Multisectorial (Spain), participation of Portuguese Institutions (Universidade de Aveiro and Associação Florestal de Portugal)

**Type of solution:** Best practice **Territorial scope:** Europe **Risk Management Stage:** Prevention, Recovery

**Languages:** English, Español, Português

### Description:

The project will demonstrate the implementation of a strategy to mitigate soil loss using a Technosol, or soil derived from organic waste (including cereal straw, sawdust and wool) treated with fungal species. Use of this material will help boost the natural regeneration of affected areas, improve the soil structure, provide organic matter and nutrients to the soil, and enhance water retention.

The project will test the cost effectiveness of the approach in two areas, with the expectation that the costs will be less than €300 per hectare. The project will also develop and provide recommendations to local, regional and national authorities on post-fire remediation strategies. The project will contribute to realization of European Union priorities such as the prevention of soil degradation (as in the EU Soil Thematic Strategy, COM (2006) 231), forest restoration (EU Forest Strategy, COM (2013) 659), minimization of water pollution (Water Framework Directive, 2000/60/EC) and recovery of carbon sinks (2050 EU Low-Carbon Economy Roadmap, COM (2011) 112).

Expected results: Compared to a baseline scenario in which no additional measures are put in place, the project will:

- Produce the Technosol from organic wastes and agro-industrial by-products including cereal straw, sawdust and wool;
- Reduce the erosion of soils in burned areas by 70 %;

