TREEADS

A Holistic Fire Management Ecosystem for Prevention, Detection and Restoration of Environmental Disasters

Stay in Contact

🌐 https://treeads-project.eu

🐦 @TREEADSH2020

in @treeads-h2020

Kemal S. Arsava
RISE Fire Research AS
Project Coordinator
kemal.sarp.arsava@risefr.no

Pantelis Velanas
ACCELIGENCE Ltd
Dissemination &
Communication
Manager
pvelanas@accelligence.tech

Project Facts

Work programme:
Horizon 2020
Duration
42 months | Starting from
1 December 2021
Total cost
€ 22.918.035,01
Coordinator:
RISE FIRE
RESEARCH
AS

Consortium

RISE · VNIVERSIDAD Đ SALAMANCA · CARTIF · SQUAREDEV · BAM · SIMAVI · Information Technologies Institute · DIE JOHANNITER · ACCELIGENCE · PUI · Universitat de Girona · IFR · RINA · one seven · OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG · DIPUTACIÓN DE ÁVILA · WOODIFY · GlobalBiodesign · GRUPPO Maggioli · Capgemini engineering · DCNAustria cir Network Austria · DRONE HOPPER · Innov-acts · FRONTIER INNOVATIONS · School of Production Engineering & Management TECHNICAL UNIVERSITY of CRETE · TAFCYLE · LITHUANIAN RESEARCH CENTRE FOR AGRICULTURE AND FORESTRY · FEDERICO II · ENGINEERS FOR BUSINESS · ACaMIR · FUNDATIA Pentru SMURD · TAIWAN TECH · EIGHTBELLS · Adrestia · TECNOSISTEM · vipo · DEMOKRITOS · GUVERNUL ROMÂNIEI Ministerul Mediului, Apelor și Pădurilor · Jotne · CIHEAM · STADT GRAZ · KEY · HELLENIC REPUBLIC DECENTRALIZED ADMINISTRATION AUTHORITY OF CRETE · asfor · stress · DTU · CBS · COPENHAGEN BUSINESS SCHOOL HANDELSHØJSKOLEN

The project

The TREEADS project will adopt a holistic forest fire management and an adaptive, collaborative governance approach based on the deployment of a new systemic and technological framework covering all three interconnected fire management stages.

ADVANCED SUPPORTING TECHNOLOGIES

TREEADS computational system is supplemented by state-of-the-art technologies regarding monitoring, safety, evacuation, prediction, restoration and training activities:

3D

Forest 3D mapping: 3D models of the current state of the forest which provide info about plant and tree species and their physical characteristics

Hotspot early detection, fire and smoke spread analysis and simulation

Resilient Materials for key infrastructures and residential buildings for increased fire safety in high-risk areas

Four layered approach: Low and Medium altitude UAVs, airship for high altitude tasks and satellite data

Advanced restoration techniques: restoration of ecological balance, seed container capsules, development of a decision support system for adaptive postfire management

Infrastructure fire emergency management strategy, risk analysis and transfer solutions

Pilot Activities

All TREEADS technologies will be tested and validated in real-life simulations covering all three stages of fire management.

1 Prevention & Preparedness

2 Detection & Response

3 Restoration & Adaptation

TREEADS pilot use cases will be performed in seven European countries as well as Taiwan by a significant number of end users.

Taiwan
Fire resistance materials

Norway
Wildfires in Northern Europe

Germany
Fire science of wildfires and safety measures

Austria
Peri-urban wildfire

Romania
Wildfire in a National Park

Spain
Wide Area Wildfires

Italy
Cable car system in the Sorrento Peninsula

Greece
Human and Animal Evacuation