



WUITIPS

Wildland-Urban-Interface fire Touristic Infrastructures Protection Solutions

SUMMARY OF THE FINAL WORKSHOP

*Developing a novel wildfire risk management framework for
the tourist sector*



Delegation of the Government of Catalonia to the European Union - Brussels, February 13th, 2025

AGENDA

9:30 – 9:45	Welcome (Generalitat de Catalunya and DG-ECHO representatives)
9:45 – 10:15	Introduction to the WUITIPS Project – Identifying wildfire-vulnerable tourist areas at regional and municipal Level. <i>(Elsa Pastor, Universitat Politècnica de Catalunya)</i>
10:15 – 11:00	Tools for assessing building vulnerability – Fire Protection Engineering in practice at pilot sites. <i>(Pascale Vacca, Universitat Politècnica de Catalunya and Bruno Guillaume, Efectis France)</i>
11:00 – 11:30	Coffee Break
11:15 – 11:45	Tools for assessing human vulnerability – Evacuation of tourist infrastructures <i>(Arthur Rohaert and Enrico Ronchi, Lund University; Borja Rengel, Efectis France)</i>
11:45 – 12:15	European outreach and scaling program of WUITIPS products <i>(Maria Pipió, Diputació de Girona; Philippe Meresse, Entente pour la Forêt Méditerranéenne)</i>
12.15 – 13:00	Round table discussion – Implementation challenges and opportunities <i>(Facilitator: David Caballero – Meteogrid)</i>

Venue: Delegation of the Government of Catalonia to the European Union, Rue de la Loi 227, Brussels

INTRODUCTION TO WUITIPS

Background

- Wildfires pose an increasing **threat to tourist destinations**:
 - Tourists are generally unaware of the risks associated with wildfires.
 - Tourism-oriented facilities often lack preparedness for wildfire impacts.
 - Fire events often result in large-scale evacuations, fatalities, extensive damage to tourist facilities and long-lasting economic impacts.
 - This is particularly evident in **Mediterranean Europe**.

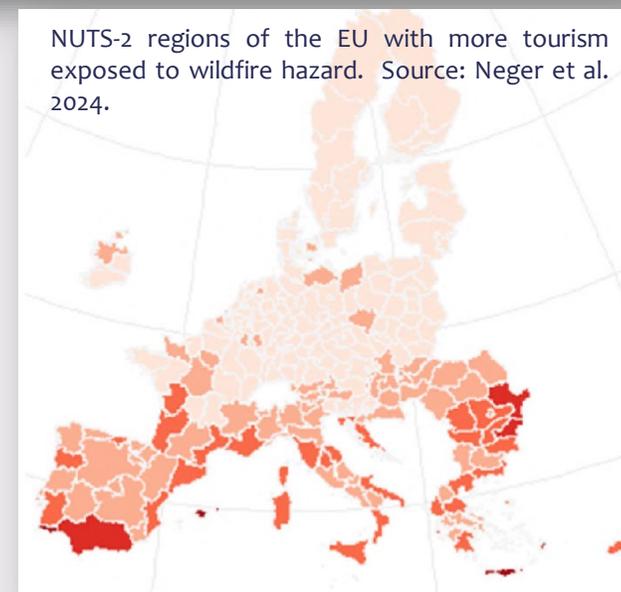


Le Lavandou (2017). Source: Claud Paris AP

Gaps and needs

- The wildfire risk management challenge in the tourism sector is recognized at the EU regional level, but there is still a significant need to enhance resilience at the municipal and property levels:
 - No harmonized approach shared between neighbouring Member States.
 - Specific, science-based tools for wildfire risk management are lacking.
 - Coherent messages and recommendations for good practices are absent.

NUTS-2 regions of the EU with more tourism exposed to wildfire hazard. Source: Negeer et al. 2024.



AIM AND OBJECTIVES OF WUITIPS

- WUITIPS has developed an innovative **wildfire risk management framework** for the tourism sector, designed to be harmonized and applied across Europe. This framework will support risk managers, fire agencies, tourism infrastructure managers, and fire protection engineers in tackling risk management planning, risk analysis, and mitigation strategies.
- Key objectives:
 - Develop **standardized methodologies** and tools for vulnerability and fire protection analysis.
 - Create **EU-harmonized guidelines**.
 - Provide end-users with practical **examples of product applications** at pilot sites (e.g., the French-Catalan border).
 - Create a living lab of **knowledge transfer** with a complete ecosystem of stakeholders and end-users across EU.

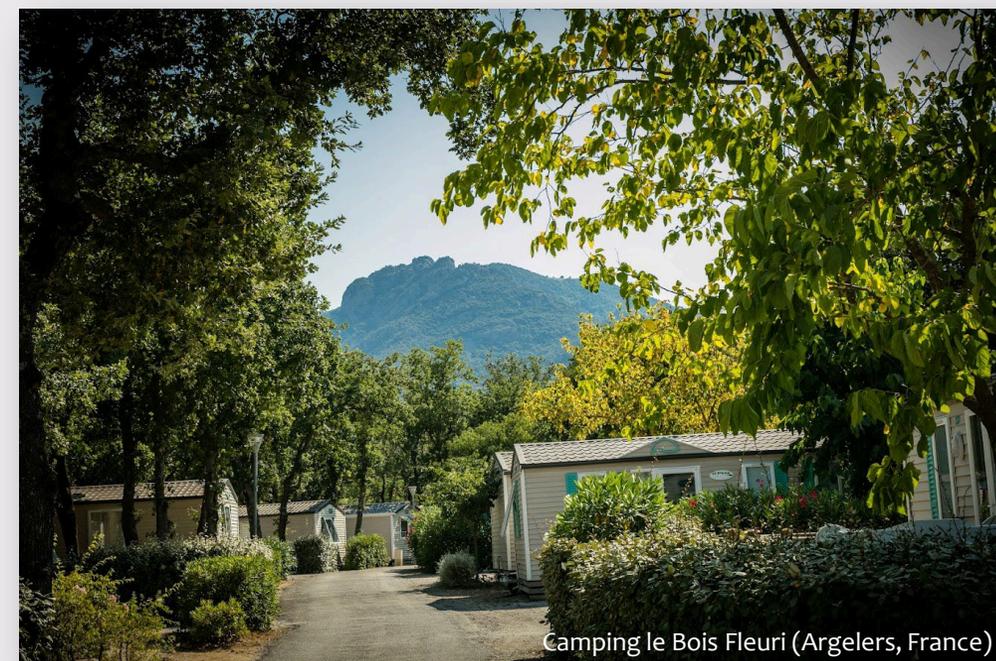


WUITIPS PRODUCTS – 2) TOURGUARD



TourGuard - Tourist infrastructure vulnerability assessment and resilience development tool

- Designed for managers of tourist infrastructure to evaluate their vulnerability and provide feedback on **how to improve their fire resilience**.
- **Vulnerability analysed through a questionnaire** that examines issues related to the property's surroundings, the property itself, key building characteristics, and the level of preparedness with emergency planning tools.
- Responses are processed to generate a **quantitative index** and tailored recommendations for improvement.
- Developed as a web application that can be **easily integrated into GIS platforms** used by wildfire management and tourism agencies.



WUITIPS PRODUCTS – 3) TOURSAFE



TourSafe - Tourist population vulnerability assessment tool

- Designed to assess the **vulnerability of tourist populations** within a specific municipality or tourist area.
- For use by **municipal emergency managers**, civil protection agencies, fire departments, community representatives, and public information officers.
- Presented in the form of a user-friendly questionnaire. Results are categorized into vulnerability levels.
- **Tailored guidelines for best practices in human protection** are then provided, addressing the issues identified through the responses.



Forest fire Greece (2023) Source: Globovision

WUITIPS PRODUCTS – 4) FIRE SAFETY ENGINEERING METHODS



Performance Based Design

- **Guidelines** for detailed analyses of tourist infrastructure buildings.
- Advanced **CFD modeling tools** to assess fire exposure scenarios (wildfuels, ornamental natural fuels, and man-made fuels).
- **Examples of application** of firebrand attack in buildings



Fire attack simulation in Camping Punta Miilà (Spain)

Evacuation modelling

- New **tourist archetypes** for human behavior models, focused on decision-making variables: e.g. attachment to property, experience, risk awareness, and safety culture.
- **Examples of application** of evacuation simulations in campings

Evacuation density simulation in Le Bois Fleuri



BEYOND THE PROJECT: IMPLEMENTATION AND SCALABILITY

Opportunities and challenges

- **Regional coordination:** Sharing data and best practices can ensure consistent wildfire management and preparedness across regions.
- **Collaboration for integration:** Fire prevention and management agencies must partner with tourism associations at local, regional, and national levels to incorporate WUITIPS tools into existing services.
- **Application:** Municipalities can use Tourist Hotspot Mapping, TourGuard, and TourSafe to assess risks, enhance infrastructure resilience, and safeguard tourist populations.
- **Outcome:** Proactively safeguard communities, improve preparedness, and reduce wildfire risks for residents and visitors.



Linking vulnerability assessments with certification and end-user's engagement remain to be addressed to ensure broader application and impact!