CONFERENCE TOPIC

Bridging Science, Innovation, and Communities to Reduce Wildfire Ignition Risks - A FIRE-RES Perspective

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SHORT BIO(S)

Brigite Botequim – holds a Ph.D. in Forestry and Natural Resources from the University of Lisbon and is a senior researcher at CoLAB ForestWISE, where she co-leads the Portuguese Living Lab and serves as deputy coordinator of the H2020 FIRE-RES project. With over 18 years of experience, she has contributed significantly to the development of tools/methods for designing fire-resilient landscapes and assessing ecosystem services. Her work spans integrated fire management planning, wildfire behavior simulation, risk communication, and participatory governance. She is the author of numerous peer-reviewed publications, supervises MSc and PhD students, and serves as a jury member and fire-related consultant with national and international partners. Her approach combines science, innovation, and participatory methods with a strong focus on stakeholder engagement to foster resilience across communities and forested territories in Europe.

Conceição Colaço – is a forestry engineer with a Ph.D. in Education from the University of Santiago de Compostela. She is a researcher at the Centre for Applied Ecology "Prof. Baeta Neves" (CEABN/ISA), University of Lisbon, where she links environmental education, sociology, and forest sciences. Her work focuses on wildfire education, traditional fire use, and invasive species. She has coordinated national and international educational projects, including exhibitions and manuals, and serves as a consultant for national and international entities such as AGIF, ICNF, and FAO. She leads CEABN's environmental education program.

José Guilherme Borges – is an associate professor at the School of Agriculture (ISA), University of Lisbon, and leader of WP2 in the FIRE-RES project. With a Ph.D. in Forest Sciences from the University of Minnesota, he has over 25 years of experience in forest management planning, decision support systems, and ecosystem service trade-off analysis. He coordinates the IUFRO unit on forest management scheduling and the Erasmus Mundus Master MEDfOR. José has led numerous international projects and authored over 100 peer-reviewed publications on sustainable forest management and planning under global change.

WORKSHOP DESCRIPTION

This workshop will present and explore how the **FIRE-RES project** (*Innovative Technologies and Socio-Ecological-Economic Solutions for Fire-Resilient Territories in Europe*, https://fire-res.eu/) addresses the diverse, complex, and context-dependent causes of wildfire ignitions. As extreme wildfire events become more frequent and severe across Europe, there is an urgent need for a systems-based, innovation-driven response that integrates landscape, social, and technological dimensions.

The sesion will provide a dedicated forum for researchers, practitioners, and stakeholders to share experiences, enhance knowledge, and identify gaps related to ignition causes. It will showcase how the project's **Innovation Actions** (IAs), tested in real-world conditions through **Living Labs**, and complemented by the **Open Innovation Challenge** (OIC) campaign, build a multi-level ecosystem for identifying risks, co-developing solutions, and ensuring their implementation and replication across fire-prone territories.

Objectives

- To identify and analyze critical wildfire ignition causes across rural-urban, socio-ecological, and land-use contexts in Europe;
- To showcase how integrated fire management approaches, including Innovation Actions (IAs), Living Labs, and Open Innovation Challenges (OICs), contribute to ignition risk reduction;
- To highlight participatory tools and community engagement strategies that support ignition prevention, planning, and education;
- To foster dialogue among scientists, community representatives, policy-makers, and solution providers;
- To identify knowledge gaps and opportunities for future research, innovation, and policy alignment.

Content and Activities

The workshop will begin with an overview of the **FIRE-RES integrated fire management approach**, which combines ecological, technological, economic, and social dimensions to address wildfire ignition causes holistically. We will present **selected IAs that directly target ignition risks** such as fuel accumulation, traditional land use, recreation, and urban-forest interface vulnerabilities - offering tested examples from across Europe.

Case studies from the **Portuguese Living Lab (Lousã and Vale do Sousa)** will illustrate how participatory methodologies - including policy clinics, mental models, risk mapping, structured surveys, and perception questionnaires - have been applied to co-design and implement context-specific solutions.

We will also share how bridges are being built between the **Community of Wildfire Innovation (CWI)** in each Living Lab and the OIC framework, creating a dynamic interface between local needs and external innovation. This collaborative process engages innovators beyond the project consortium to co-develop and field-test solutions tailored to stakeholder-identified ignition challenges.

The **Fire Education Platform** will also be showcased as a scalable tool for behavioral change and community engagement, targeting different audiences from schools to decision-makers.

The session will close with an **interactive segment** where participants will collaboratively identify persistent knowledge gaps and explore pathways to scale, replicate, and integrate innovative approaches into research, operational, and policy frameworks.

Relevance to Wildfire Ignition Causes

This workshop is directly aligned with the WIC25 conference scope, offering a practical and science-based perspective on understanding and preventing wildfire ignitions - particularly those caused by human activity - across diverse land-use and socio-ecological contexts. It highlights how the **FIRE-RES project integrates research**, **field-tested solutions**, and **community-based action to address ignition risks**.

Emphasizing **transdisciplinary collaboration** and **system-level approaches**, the workshop presents a portfolio of tools, methodologies, and participatory practices with strong potential for replication and scalability across European and international settings. It aims to foster a shared understanding of ignition drivers and promote effective, evidence-based strategies for reducing them through **innovation**, **governance**, and **education**. Wildfire Ignition Causes

Keywords: Wildfire ignition causes; Integrated fire management; Innovation Actions; Living Labs; Community engagement; Open Innovation Challenge; Participatory methods

More information

Length of the workshop:	3 hours
Number of participants*:	Minimum 20
Special facility needs:	LCD Projector, computer lab, internet access for attendees

* Workshops with fewer attendees than the minimum number may be canceled at the discretion of the conference organizers.

Acknowledgments

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