

Governing Wildfire Risk Breakout Groups – Synthesis Report

This report represents a synthesis of two break-out groups on governing wildfire risk, one coordinated by Eduard Plana (CTFC) and Maike Overmeyer (FhG) and the other one by Georgios Eftychidis (AUTH) and David Martin (PCF). The sessions related to governance frameworks presented in an earlier session during the Clustering Event, namely a proposal by the FirEURisk project as well as the Landscape Fire Governance Framework presented by AGIF.

1 Governance definition

The aspects discussed related to the following definition of governance as *“the processes through which public and private actors articulate their interests, frame and prioritize issues and make, implement, monitor and enforce decisions”* ([Sulaiman et al. 2022](#), in [Kirshner et al. 2024](#))

2 Advances towards more integrated wildfire risk governance and community resilience

2.1 Integrated vs. holistic wildfire risk management

An important aspect that as mentioned in the break-out groups is the need for a unified terminology which would help scientists and practitioners to better understand each other. In this respect, the FirEURisk project is currently promoting the definition of *integrated* and *holistic* wildfire risks management as two related yet different concepts.¹ their differences in Planning Horizons: Mid-long term for a holistic, short-midterm for integrated. Focus: Problem-oriented (preventive) for holistic, solution-oriented (responsive) for integrated. Management: Forest & landscape (NBS-foc) for holistic, fire management & civil protection (tech-foc) for integrated. Dominant Factors: Science/Governance for holistic, Technology/Operations for integrated. FirEURisk aims to provide risk management frameworks that could accommodate in synthesis of the two approaches

2.2 General contributions by all stakeholders

In this section, the following statements were also pointed out: “new governance guidelines present an opportunity to build sustainability by involving all potential stakeholder”; “new approaches from different countries – best practices – may drive in new forms for risk mitigation and to lead to increased landscape resilience”; and “the contribution of the projects on knowledge consolidation and the facilitation of exchange between relevant stakeholders and actors (trainings, project consortium, financing)”. Moreover, the projects also serve to reach society (information and dissemination) and “engage end-users in the development of knowledge, methods, tools and strategies”. In this regard,

¹ See for example the FirEURisk Dual Framework Approach: [RISE-FIREURISK-BRIEF 231114 GE](#) (2023).

good governance should “consider the involvement of population in planning (e.g., including the perspective of the communities) and in preparedness (enhancing awareness/education and capacity building)” to which projects may contribute throughout their activities.

All participants reported that they are working on integrating multiple stakeholders and identifying key elements in WFRM. Activities to strengthen the interaction between stakeholders include:

- **Stakeholder Engagement:** Initiating dialogue among diverse stakeholders to foster inclusive discussions in wildfire risk management.
- **Key Elements Identification:** Pinpointing crucial topics for the Wildfire Risk Management (WFRM) community to address in management strategies.
- **Strategies for Large Wildfire Tackling:** Development of approaches for more effective cooperation related to large wildfire management.
- **Communication and Education Programs:** Implementing risk awareness and educational initiatives to establish a culture of wildfire management.
- **Social-Based Scientific Approach:** Using a social-sciences-based scientific method to enhance forest resilience against wildfires.
- **Analysis Methods for End-User Needs:** Employment of analysis methods to precisely cater to end-user needs in resilience strategies.
- **Iterative Development with User Involvement:** Iterative development processes with active user participation.
- **Software Engineering Methods:** Application of software engineering approaches like SCRUM for developing resilience solutions.

2.3 Project contributions

In terms of projects’ outcomes and activities, the contribution (and need) of “advancing on the integration (of approaches; frameworks; definitions), seeking for a harmonization from Strategic to Operational and Tactical levels” was mentioned.

The projects presented highlight the importance of engaging stakeholders, integrating scientific insights and policies into the development of technologies and frameworks, adopting comprehensive disaster management strategies, differentiating and synthesizing approaches. This collective effort demonstrates a deep understanding of the complexities of wildfire risk management, reflecting a commitment to evolving and improving strategies that encompass both integrated and holistic perspectives. More specifically, the projects work on the following aspects of enhancing integrated wildfire risk management²:

Pyrolife project listed the following governance-related contributions:

- “Academic training in wildfire governance (@PhD and Master level);

² Of course, the aspects are not encompassing in the sense that for some projects, only specific aspects were highlighted, depending on the discourse and the individual(s) attending the session.

- Review of governance theories and concepts, proposal for systematic analytical framework ([Krishner et al. 2023](#));
- EU/global analysis of wildfire policies ([Pandey et al 2023](#));
- Need to address diversity and learning from each other ([Stoof and Kettridge 2021](#))”.

All activities are conducted in synergy with other projects (FIRE-RES, Semedfire) “putting the challenges and needs in temperate Europe on the agenda. (Fire is already here)”.

TREEADS focuses on integrated WFRM by “considering all phases of WFRM (from prevention to restoration, incl. fuel management and restoration techniques); being in contact with the local and national authorities, end users, stakeholder, policymakers, and by developing a platform to integrate the developed technologies, making the platform accessible for the end-users”. In addition, TREEADS integrates technological solutions to address forest fire challenges, enhancing community resilience and conducts **Social Network Analysis (SNA)**, which is a stakeholder collaboration mapping to improve community engagement and resilience strategies.

The **SILVANUS Project** addressed several aspects, including the following:

- **Comprehensive Disaster Management Phases Integration:** Integrating Prevention/Preparedness, Detection/Response, Recovery/Restoration phases for a holistic approach to wildfire management.
- **Holistic vs. Integrated Management Analysis:** Investigating the differences and potential synergies between holistic and integrated fire management strategies.
- **Platform Development for Comprehensive Management:** Creating a platform that incorporates prevention along with biodiversity, restoration, regeneration, and resilience assessment for long-term wildfire management, underpinned by policy recommendations.
- **Understanding Fire Dualism:** Exploring the concept of 'good' and 'bad' fires in the context of wildfire management.
- **Multi-Level Consideration in Wildfire Governance:** Addressing wildfire management at various scales and administrative levels for more effective governance.
- **Integration of Policies in Technological Solutions:** Merging policy frameworks with technological systems to enhance wildfire risk management.
- **Citizen Engagement and Application:** Implements programs and apps for community involvement in forest fire resilience.
- **Restoration for Biodiversity Study:** Conducts studies on restoration and biodiversity, contributing to resilience against forest fires.
- **Resilience and Restoration Focus:** Emphasizes restoration and resilience as key strategies against forest fires.
- **Early Warning Systems:** Develops early warning mechanisms for better preparedness against forest fires.
- **Multifunctional Forest Management:** Transitions towards multifunctional forest management for ecological resilience.

The **FIRERES Project** builds on four pillars, namely “Extreme wildfires’ behaviour and drivers”, “Emergency Management”, “Landscape and economy” as well as “Governance, communication and Risk Awareness”. Under the Emergency Management pillar, it proposes new responder trainings based on scientific insights to improve effectiveness in wildfire response.

The **FirEURisk** project implements the following activities:

- **Policy Briefs and White Papers Development:** Crafting policy briefs and white papers to integrate findings from the project’s results into risk governance.
- **Elaborating Distinctions Between Integrated and Holistic Approaches:** Differentiating between integrated and holistic approaches in terms of planning horizons, focus, management, and dominant factors.
- **Synthesizing Risk Management Frameworks:** Aiming to develop frameworks that harmonize integrated and holistic approaches in wildfire risk management.
- **Combining Protection and Resilience in Risk Governance:** Discussing integrated WFRM management, evaluating fire risk and its root causes, and collaborating to draft common policy recommendations.
- **Forest Fuel Management:** Implementing fuel management to strengthen landscape resilience based on formalized fuel types to mitigate forest fire risks.
- **Nature-Based Solutions:** Investigating the potential of nature-based solutions like prescribed burning and grazing to enhance landscape resilience.
- **Monitoring and Control of Ignition Sources:** Elaborating issues related to monitoring and controlling ignition sources, both human and operational, to prevent forest fires.

FIREWISE is an Austrian National Project (2024) that transfers firefighter knowledge to enhance both integrated and holistic approaches in wildfire risk management.

The **IPAFF** project is funded by DG ECHO and was also presented in an earlier session during the Clustering Event. It concentrates on **integrating science** and **policy** across **various territorial levels** to enhance wildfire risk governance. Furthermore, IPAFF focuses on sharing knowledge and practices with other countries to bolster their resilience against forest fires and provides risk assessment support and technology (GFFF equipment) to IPA countries, which is vital for community resilience.

In conclusion, TREEADS, SILVANUS, FIRERES, FIREURISK, and IPAFF projects presented their contributions. These contributions provide a comprehensive overview of the current state and challenges in the field, covering topics such as strategy development, community resilience, and the integration of governance in project activities. Overall, the discussion highlighted the significant work being done in this area and the importance of continued efforts to address wildfire risk.

As regards strategic development, the projects collectively demonstrate a commitment to developing and implementing strategies that bridge the gap between integrated and holistic approaches in wildfire risk governance. This involves engaging diverse stakeholders, identifying key elements crucial to the Wildfire Risk Management (WFRM) community, and integrating scientific and policy aspects

across various territorial levels. The SILVANUS project, in particular, illustrates an encompassing approach, integrating all disaster management phases and exploring nuances between integrated and holistic management.

A significant focus has been placed on enhancing community resilience against forest fires. The contributions reflect diverse approaches, including technological innovations, scientific research, community engagement, and nature-based strategies. Projects like TREEADS and FIREURISK emphasize technological integration and the development of risk assessment frameworks, while SILVANUS focuses on multifunctional forest management and early warning systems.

The projects faced various challenges in integrating wildfire governance into their strategies. Political endorsement issues (IPAFF), difficulties in combining integrated management approaches with technology (SILVANUS), and the need for standardized methodologies (FIREURISK) were among the key challenges highlighted. Despite these challenges, there were notable achievements, such as the successful stakeholder mapping in TREEADS and collaborative efforts in risk analysis and wildfire reporting by FIREURISK.

The discussions revealed the intricate and diverse nature of wildfire risk governance. It is essential to adopt a unified approach that considers scientific findings, technological advancements, policy integration, and community involvement. The efficient execution of these methods depends on overcoming political, technological, and operational hurdles, which highlights the need for persistent innovation, collaboration, and research in this crucial field of environmental and public safety.

2.4 Institutional contributions

Besides the projects, several representatives from organizations involved in enhancing wildfire risk governance were represented.

The **OECD** mentioned its contributions to the following aspects:

- Creating links with
 - o Climate change adaptation addressed within the OECD,
 - o Group (G) of G7 and G20 countries
- Providing case studies that can support the implementation of governance actions;
- Connecting practices from within and beyond the EU with policy-makers (national governments and across international organizations);
- Connecting WFRM actors with research initiatives at the European level.

From **DG ECHO's** side, the contribution of the Peer Review Program, and more concretely the recently edited Wildfire Peer Review Assessment Framework (WF PRAF), was also highlighted as “a tool to promote a more integrated WF risk governance”, based on teamwork “considering the key elements of the risk landscape in a holistic way”. Moreover, WF PRAF ensures an alignment with the Union Civil Protection Mechanism (UCPM) legislation and guidelines.

3 Implementing wildfire governance in project strategies

The projects mentioned under section 2.3 above all have similar targets, i.e. enhancing wildfire risk management. However, implementing the project aims is also always dependent on a range of contextual factors. Below, some achievements/outcome/result/success stories and/or major challenges faced by the projects in including/implementing wildfire governance are described:

IPAFF Project

- **Challenge:** Encountered difficulties due to the lack of political endorsement, impacting the effectiveness of wildfire governance implementation.

Silvanus Project

- **Achievement:** Established successful collaboration with local authorities for pilot projects and citizen engagement campaigns, including wildfire prevention exercises and key message exhibitions.
- **Challenge:** Faced challenges in defining and implementing an integrated management approach that combines technological solutions with a holistic fire management system.

TREEADS Project

- **Achievement:** Successfully developed stakeholder mapping using Social Network Analysis (SNA), enhancing stakeholder engagement and understanding in wildfire governance.

FIREURISK Project

- **Achievement:** Created a European standardized fuel map and a fuel type classification methodology, aiding in the standardization of wildfire governance.
- **Achievement:** Developed an integrated risk assessment framework, providing a consistent approach to analysing wildfire risk.
- **Achievement:** Collaborated with the Joint Research Centre (JRC) in reporting and analysing large EU wildfires, contributing to a broader understanding of wildfire risks in Europe.

4 Added value of good governance in WFRM

In this section, the participants were asked about the “benefits” of implementing good governance schemes which offer the chance to move from theory to practice and give visibility to the operational impacts of proper governance schemes, considering the inherent transversal dimension of integrated WFRM and the context of a changing risk landscape.

At **strategic level** “the capacity to establish a common baseline for the priorities” was mentioned, achieving a proper balance among them. A good governance framework “should **cover all interests for different parties**, such as technology providers, end-users, stakeholders, researchers, and policymakers” and across the different interests within the groups. In the end, the aim is “the achievement of common objectives and win-win solutions” across sectoral policies around WFRM.

In the sense of facilitating the **traceability of good governance practices**, the agreed objectives should be linked to target indicators. Nevertheless, there was a discussion on “who (and how to) establishes standards and guidelines”, and how “national differences add difficulties to implementing common governance schemes (different natural landscapes require different solutions/policies).”

At a **conceptual level**, good WFRM governance should aim to “adapt to climate change instead of fighting its results”. Moreover, it could contribute to “making changes without needing a disaster first”. WFRM governance should “promote better policies that lead to improved outcomes for people (less loss of life, damages to critical infrastructure)” and “better alignment of different governance interactions”, offering a “structured center of gravity (Science / Policy / Practices)”.

In terms of **knowledge capitalization and scaling**, there is a need “to enhance the bottom-up approach from local to regional and national levels, and ultimately to the EU level, based on good practices and lessons learned”. In parallel, “wildfire risk management requires individual responsibilities (e.g. of landowners taking measures for prevention by reducing fuels through alternative uses)” that must be defined and properly supported.

5 Next steps: Firelogue’s potential contribution in supporting the integration of solutions and approaches

During the last part of a session, some specific aspects were mentioned about the potential contribution from Firelogue. These included the following:

- **Community building:** “making connection between experts, stakeholders and projects, leading to new opportunities for collaborating and creating a stronger wildfire risk management community”. In terms of project networking, practical contributions from Firelogue could be to open the network and include all wildfire projects (Marie Curie, National funds, etc.) to give people & projects the space to get to know each other, to connect with each other.
- **Exchange of good practices between the regions:** Firelogue could contribute to “identify, transfer and help implementing good practices between more experienced regions and regions with less knowledge”, potentially by the use of the “Lessons on Fire by Firelogue” platform (see figure below).

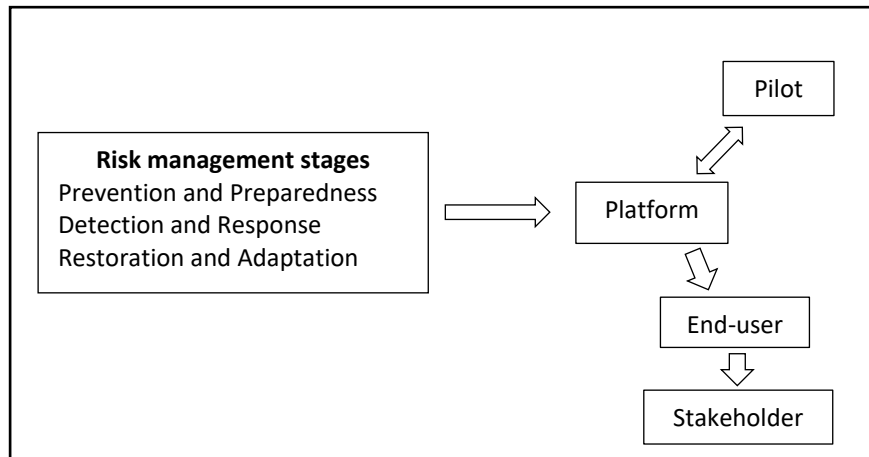


Figure 1: Proposed Knowledge Transfer, facilitated by Firelogue

- **Dissemination of governance activities:** “Edit newsletter about all frameworks’ major developments; Stimulate diverse people in getting together to learn and build collaboration; get information out into the world (Not training people in universities/schools)”. In addition, “the alignment with the UCPM framework (and the one from AGiF) so that terminology matches (and people speak the same language)” was mentioned.
- **Terminology:** A need for “a common language to understand each other” was mentioned. In that sense, knowledge clustering could consider “finding a solution or tags that are assigned to different concepts to help translate all the “languages” into a “dialogue”. It was suggested that instead of aiming for an extensive glossary, the focus should be on reaching consensus on fundamental definitions such as 'wildfire risk governance', 'risk assessment', 'integrated management', and 'holistic approach'.
- **Engaging the public:** the possibility of “considering strategies for the engagement of the public that could be translated into governance frameworks” in the sense of “involving the public in the planning process to make sure all the voices are being (equally) heard; resolving legal issues regarding who makes the decision (who has the power to do so); ensuring a balanced representation to guarantee that necessary perspectives are brought to the table”. In this regard, it is suggested to “take a cue from flood management, as local perspectives are often approached in the planning stage (concrete examples)”.

Many of the highlights from the discussion may be related to the Firelogue scope. From a justice dimension perspective, ensuring that all voices are able to participate in the dialogue becomes a fundamental pillar of good governance. This aspect becomes more relevant in the current changing risk landscape, where both traditional and new stakeholders are being impacted and (should be) asked to be part of the dialogue. In other words, the wildfire problem takes different forms across EU territories, and the intensity of the flames should not limit the approach to all situations (and

operational needs, from prevention to recovery, within the risk management cycle), at least under a common EU strategy.

Extending the networking across additional projects on wildfires (and closely related ones) could offer the chance to reinforce knowledge mobilization and exchange. Moreover, connecting science to practice and policymaking can support and accelerate the lessons-learned process, which needs to consider all wildfire-prone territories' particularities and demands, and how to take advantage of the best practices across them. Finally, the harmonization of concepts can facilitate common understanding, and the dialogue itself, as well as the alignment of governance frameworks, can better guide the corresponding actions.