



## net risk work

Networking for the  
European Forest Risk  
Facility initiative

# LAYMAN'S REPORT



Funded by  
European Union  
Humanitarian Aid  
and Civil Protection

## New challenges in an evolving context of forest risk

Changing climatic conditions, together with changes in land uses, might modify intensity, frequency and distribution of natural hazards. It can also promote the incorporation of new risk areas in unusual territories all across Europe (e.g. wildfires in northern Europe) or new hazards interactions such as wildfires affecting mountain forests, consequently, increasing avalanche risk. This changing context presents new risk management requirements and generates new needs for collaboration between countries and agencies.

Actions encouraging the sharing of knowledge and good practices between local/regional expertise about natural hazards, should improve Disaster Risk Reduction strategies, preparing the national Civil Protection systems to cope with the impact of climate change.



### The project in brief

**NET RISK WORK** project promotes knowledge and lessons learned exchange and networking around risk management of four major European natural hazards: wildfires, storms, avalanches, floods and their interactions. Throughout the project, best practices capitalization, tools for assessing risk evolution under climate change scenarios and knowledge exchange with experts across Europe has been carried out. The project gives continuity to the European Forest Risk Facility Initiative started in 2014, encouraging networking under informal and permanent multi-actor platforms seeking a better transfer of knowledge into practices and policy making. On the website there is free access to all Project results.

**Partnership:** Forest Science and Technology Centre of Catalonia (Lead partner)  
European Forest Institute  
Forest Research Institute Baden-Württemberg  
Entente pour la forêt Méditerranéenne  
Civil Protection General Directorate of Autonomous Region of Sardinia  
Pau Costa Foundation

**Duration:** 2017-2018

Co-funded by European Union Humanitarian Aid and Civil Protection (ECHO/SUB/2016/740171/PREV10)



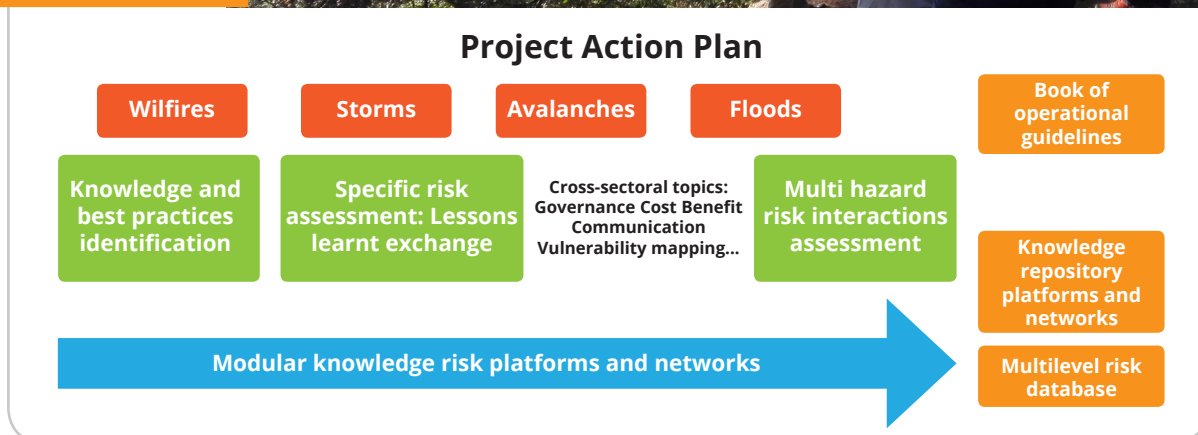
**WHAT DO WE KNOW ABOUT  
EUROPEAN FOREST RISKS ?**

**WHAT CAN BE LEARNED  
FROM DIFFERENT RISKS  
REDUCTION STRATEGIES ?**

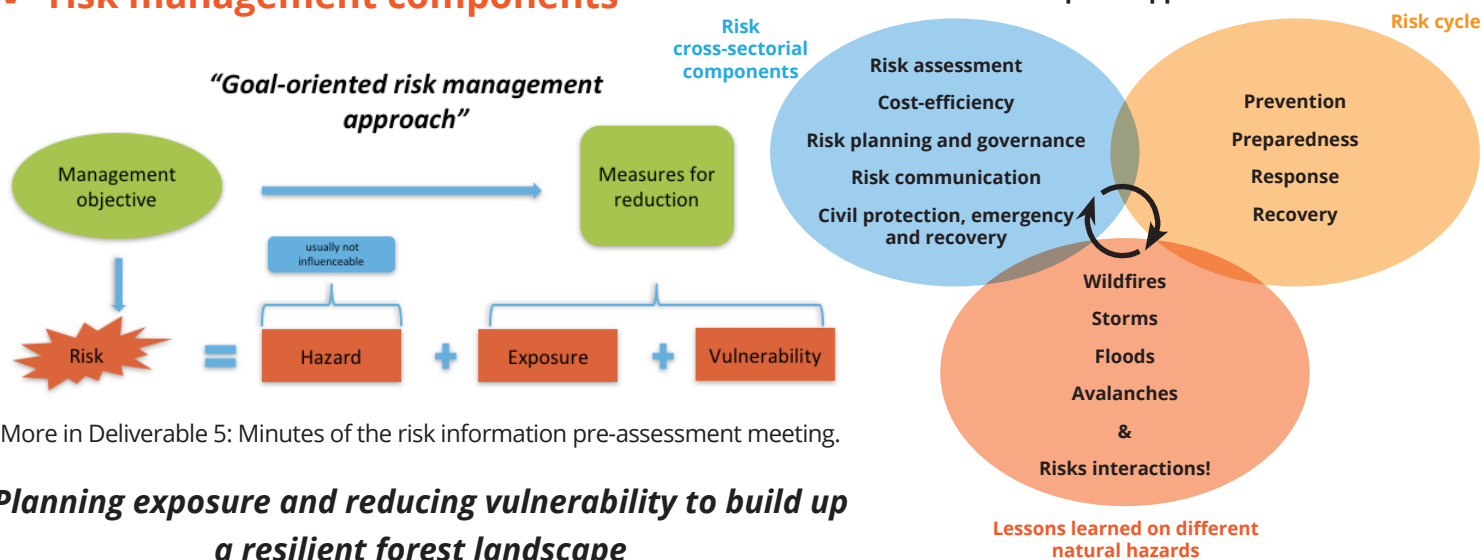
**HOW WILL THESE RISKS  
LIKELY TO INTERACT IN A  
CLIMATE CHANGE CONTEXT ?**



# NET RISK WORK project in action!



## ✓ Defining risk and understanding risk management components



## ✓ Motivating knowledge exchange and networking

2 methodological meetings and 2 international Workshops on Natural Hazards Risk Management (February 2017 Barcelona, May 2017 Freiburg, October 2017 Solsona and April 2018 Cagliari)

**Around 100 experts, practitioners and scientists, representing 36 institutions from 12 EU countries were mobilized.**

More in Deliverable 8 and 9: Proceeds of 1st and 2nd Natural Hazard Risk Management Workshops.





# ✓ Identifying best practices and operational tools for Disaster Risk Reduction

Common template for risk assessment and management operational tools and best practices identification (Action B1)

Title: Operational Tools and Best Practices for Risk Assessment and Management

The identification of tools and best practices on risk assessment and management helps providing an idea of the state of the art in the field. By completing this form, the best practice will be included in the knowledge repository platforms and available for the practitioner community to use. We encourage the user to complete as many fields as possible from the template in order to provide the most relevant information needed to apply the best practice to other practitioners. Instructions:

- Blue boxes are mandatory fields
- More than one item can be selected in multiple choice boxes

Document classification

Title	Description (1 sentence)

Title: Operational Tools and Best Practices for Risk Assessment and Management

- Blue boxes are mandatory fields
- More than one item can be selected in multiple choice boxes

## Document classification

Title	
Description <i>[1 sentence]</i>	
Country, location	
Date	
Contact e-mail	
Institution	
Net Risk Work Partner	Choisissez un élément.
Document type	Choisissez un élément.
Language	<input type="checkbox"/> Catalan <input type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> German <input type="checkbox"/> Italian <input type="checkbox"/> Spanish <input type="checkbox"/> Other
Source/origin	<input type="checkbox"/> Partner's expertise <input type="checkbox"/> Expertise from the network <input type="checkbox"/> Other (internet)

## Topic

Area	Risk assessment	Risk Planning	Risk Management
Risk	<input type="checkbox"/> Wildfires	<ul style="list-style-type: none"> <li>§Fire behavior patterns and typologies</li> <li>§Fire ignition and spread models</li> <li>§Wildland urban interface</li> </ul>	<ul style="list-style-type: none"> <li>§Fuel management</li> <li>§Fire service needs</li> <li>§Prescribed burning</li> <li>§Other</li> <li><i>[Introduce which ones]</i></li> </ul>
	<input type="checkbox"/> Storms	<ul style="list-style-type: none"> <li>§First measures after storm</li> <li>§Work safety during salvage logging</li> <li>§Timber storage and cost containment</li> <li>§Forest protection and pest control</li> </ul>	<ul style="list-style-type: none"> <li>§Regeneration and afforestation</li> <li>§Preventive</li> <li>§Silvicultural measures</li> <li>§Other</li> <li><i>[Introduce which ones]</i></li> </ul>
	<input type="checkbox"/> Avalanches	<ul style="list-style-type: none"> <li>§Technical protective measures</li> <li>§Maintenance of protection forests</li> </ul>	<ul style="list-style-type: none"> <li>§Other</li> <li><i>[Introduce which ones]</i></li> </ul>
	<input type="checkbox"/> Floods	<ul style="list-style-type: none"> <li>§Prevention through land use management</li> </ul>	<ul style="list-style-type: none"> <li>§Other</li> <li><i>[Introduce which ones]</i></li> </ul>
	<input type="checkbox"/> Other	<ul style="list-style-type: none"> <li>§Technical protective measures</li> </ul>	<ul style="list-style-type: none"> <li>§Other</li> <li><i>[Introduce which ones]</i></li> </ul>
Cross-sectoral topics	<ul style="list-style-type: none"> <li>§Risk and vulnerability assessment and mitigation</li> <li>§Cost-effectiveness assessment</li> </ul>	<ul style="list-style-type: none"> <li>§Risk planning, governance and policy framework</li> <li>§Community involvement and risk management</li> </ul>	



### Best practices and operational tools identified by nationalities

## ✓ Assessing risk evolution in a climate change context and multi-risk interactions across EU

**Risk Interaction Assessment**

<b>General information</b>		Forest Research Institute Baden-Württemberg (FVA)
		Category of management objective: <b>income</b>
Author	Please specify: The overall management goal is to maximize income through timber production	
Management Objective	Hazard analyzed: <b>storm</b>	
Hazard type	Previous hazard: <b>wildfire</b>	
	Please specify (time frame, hazard impact etc.) Wind speed > 120 km/h, gusty	
	Please describe regional limitations etc. Central Europe	
Area of applicability		

Impact on Vulnerability		Effect on vulnerability
Natural influence	Description	
Shallow soils	Tree roots less effective to anchor tree	Increase
Deep soils	Trees form strong coarse root system and provide stability	Decrease
Loamy soils	Tree roots formation at optimum and provide stability	Increase
Soil dryness	May negatively affect overall root growth, depends on species	Decrease
Topography	Steep slopes and hill sides, facing to main wind direction encourages trees to root deeper.	Increase
Topography	Valleys and lower slopes	Decrease
Degree of normal wind loadings: low	Steep slopes and lower slopes	Increase
Degree of normal wind loadings: high	Trees are less adapted to wind and more susceptible to storm events	Decrease
(Natural) reforestation	Trees are adapted to wind exposition and can tolerate higher wind speeds	Unknown
standing deadwood	Reforestation after wildfire > young and still small trees	Increase
Exposed forest stands	Deadwood after wildfire	Unknown
Ash	Sharp edges between fire destroyed stands and spared forest stands	Unknown
	Nutrient rich Ash (could be blown away) could build a base for valuable forest stands	Unknown

Human influence	Description	Effect on vulnerability
Natural reforestation	Letting natural processes unfold	Unknown
Planting	Planting adapted tree species after fire	Unknown

Impact on Exposure	
Natural influence	Description
Young growth (natural regeneration) under mature stand	Facilitates regeneration of stand at lower costs and less risks
Human influence	Description
Raise awareness in public	Generating awareness in public that fire can be caused by human mistake

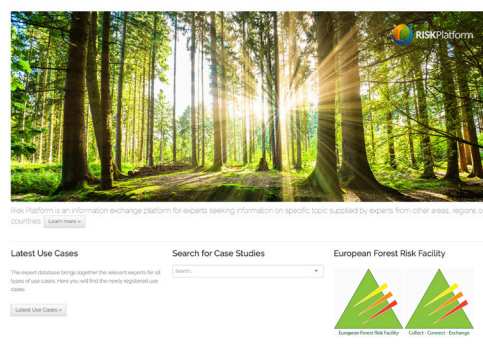
[illegible]



**Healthy forests  
are the best and  
most cost-efficient  
way to protect  
life and properties**

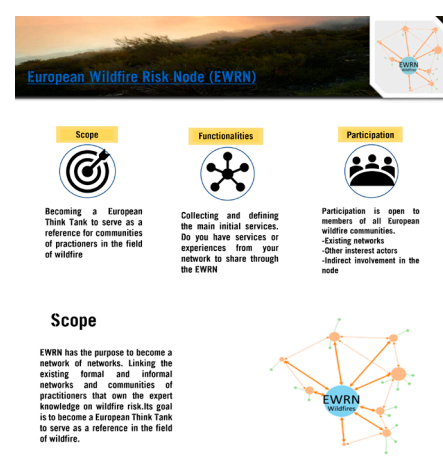


## OPERATIONAL RESULTS



<https://www.riskplatform.org>

The **RISKPlatform**,  
a virtual communication tool  
for the European Forest Risk Facility



<https://firenode.lessonsonfire.eu/>

The **European Wildfire Risk Node**, linking the existing formal and informal networks and communities of practitioners that have expert knowledge about wildfire risk

**Final publication on  
forest risk challenges  
and achievements**

On line available in English,  
Spanish, Italian, German  
and French

Plana, E., Font, M., Serra, M., Hörl, J., Hengst-Ehrhart, Y., Hartebrodt, C., Held, A., Clemenceau, A., Giroud, F., Tola, F., Capula, T., Cinus, S., Visani, C., Soi, F., Manca, G., Prat, N., Borràs, M., Vendrell, J., Ballart, H. and Vilalta, O. 2018 Forest risks in a climate change context: trends and risk management challenges of wildfires, floods, storms, avalanches and their interactions in EU landscapes. Networking for the European Forest Risk Facility Initiative (NET RISK WORK ECHO/SUB/2016/740171/PREV10 Project). CTFC Editions. 76 pp.



On the website there is free access  
to all project results.

<http://netriskwork.ctfc.cat/>

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