Towards a policy coherence for integrated wildfire risk management

Eduard Plana Bach. Head of Forest Policy and Risk Governance Unit

Forest Science and Technology Centre of Catalonia

eduard.plana@ctfc.cat

Policy event “Towards a fire-resilient Europe: can we do better?”

October 24th 2023

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Task force: **Analysis of policy coherence towards integrated wildfire risk management in the EU**

Plana Bach, Eduard | Serra Davos, Marta | Nebot Meneu, Sara | Smeenk, Annick

Forest Policy and Risk Governance Unit

Forest Science and Technology Centre of Catalonia

CTFC

Task 4.2 Inclusive and coherent fire-smart risk governance and planning (CTFC Coord.)

FIRE-RES

Working Group Ecology/Environment (CTFC Coord.)

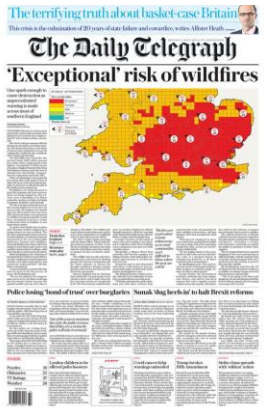
Contribution to **WG_Insurance** (WFRM&NBS)

Firelogue

In terms of **fire weather**, the <u>situation is (and will be)</u> worsening:

Increased severity in fire-prone areas & WFR **extended to new territories** (ecosystems, people, business) + <u>unprecedented/uncertain</u> events and <u>multi-risk situations</u>

☞ Ecosystems' (& society) response to changing fire-prone conditions

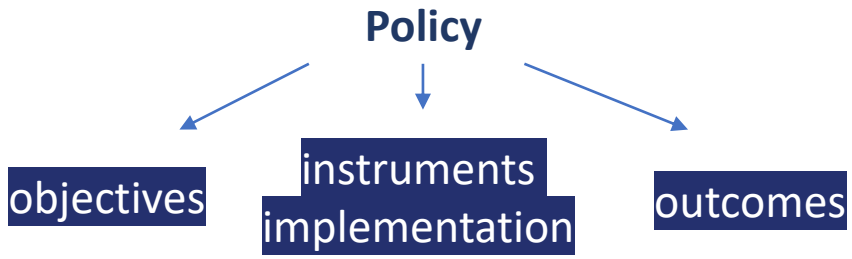


Definition & management of (wild)fire-*adapted* landscapes
(from WF to DRR: Defending forests from WF to protecting societies from forests)

Influence of sectoral (beyond forest) policies to landscape shaping

What and why for a policy coherence on WFRM

an "*attribute of policy that **systematically reduces conflicts and promotes synergies** between and within different policy areas to achieve the outcomes associated with jointly agreed policy objectives*"
(Nilson et at. 2012)



"*systematic promotion of mutually reinforcing policy actions **across government departments and agencies** creating synergies towards achieving the agreed objectives*"
(OECD)

The 8 principles for promoting policy coherence (PCSD, OECD 2019)

Vision and Leadership	***Policy Interactions***	***Impact***
1. Political Commitment and Leadership	4. Whole-of Government Coordination	7. Policy and Financing Impacts
2. Strategic Long-term Vision	5. Subnational Engagement	8. Monitoring, Reporting and Evaluation
3. Policy Integration	6. Stakeholder Engagement	

SDG. 17.14 enhance policy coherence for sustainable development

OECD, 2019. Recommendation of the Council on OECD Legal Instruments Policy Coherence for Sustainable Development

What and why for a policy coherence on WFRM

"Increase the **level of coherence** between public policy objectives with an impact on wildfire management."

Sparking firesmart policies in the EU (DG RDT 2018)

"Good practice guide on wildfire prevention, with national civil protection and forest management experts **building on other EU policies** (e.g. EU Forest strategy 2030, Biodiversity strategy, Adaptation strategy actions) (..)"

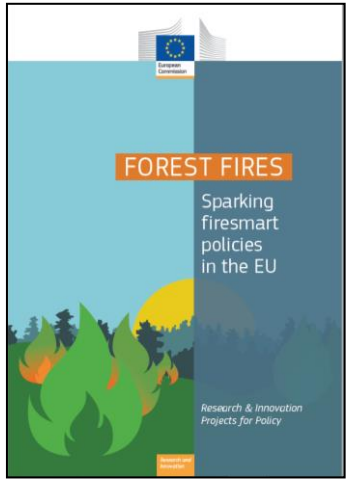
Wildfire Prevention Action Plan (DG ECHO, 2022)

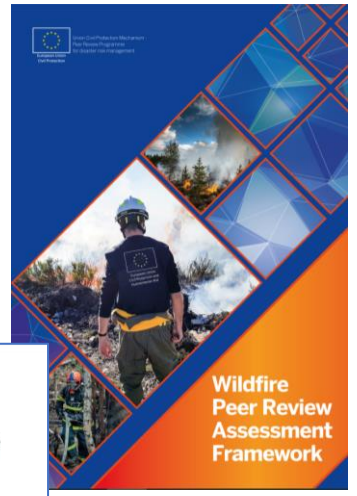
Policy coherence: Wildfire Peer Review Assessment Framework (DG ECHO 2023)

- Wildfires should directly influence the drafting of other key plans [list]. Procedures to ensures alignment with sectoral plans should be in place.
- Important sectors related to cross-cutting topics (such as tourism and urban planning) should take wildfire risk into account.

"Integrate wildfire risk prevention across all relevant sectors, ensuring **policy coherence** and alignment, especially in land use, infrastructure development and forest management."

Taming Wildfires in the Context of Climate Change (OECD, 2023)

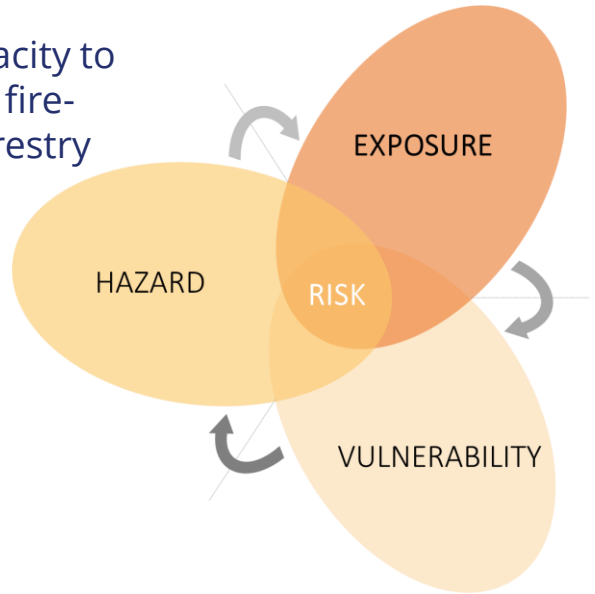




What and why for a policy coherence on WFRM

Wildfires materialize in an evolving context of risk, where physical and sociocultural dynamics of **hazard**, **exposure** and **vulnerability** (HEV) interact

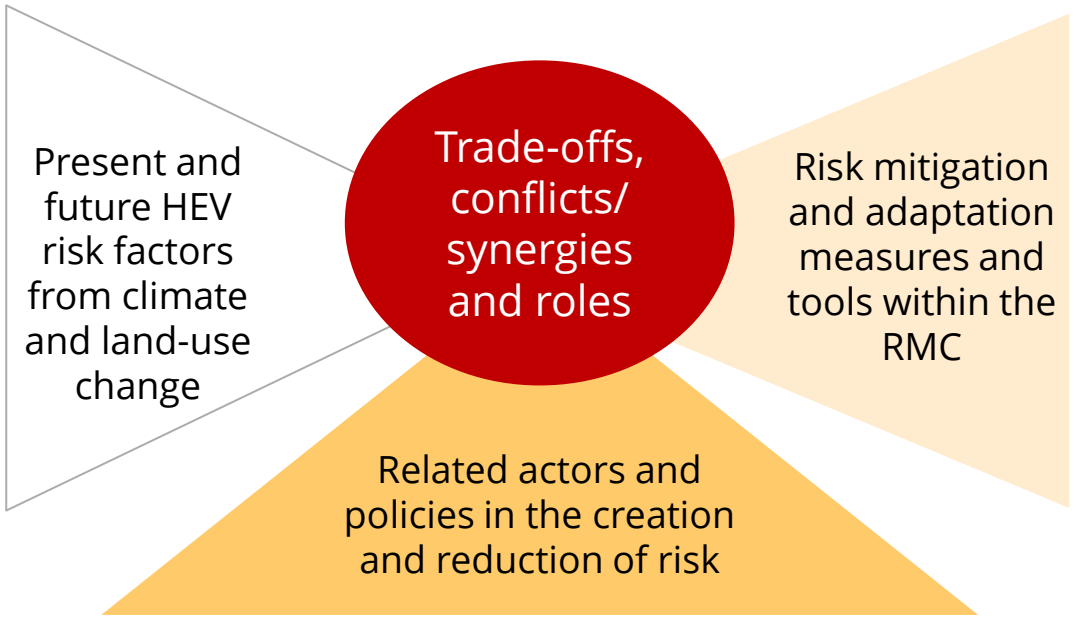
e.g., Capacity to promote fire-smart forestry



e.g., Capacity to limit urban development into fire-prone territories

e.g., Capacity to implement self-protection measures

Differential vulnerabilities and exposure to wildfires, in combination with prevailing issues of intersectional justice, cause an **unequal distribution of WF risk** and **WFRM responsibilities** across society, business, sectors and institutions



Plana, et al. 2021. Just Transition concept review and adaptation for Firelogue. Deliverable 4.1

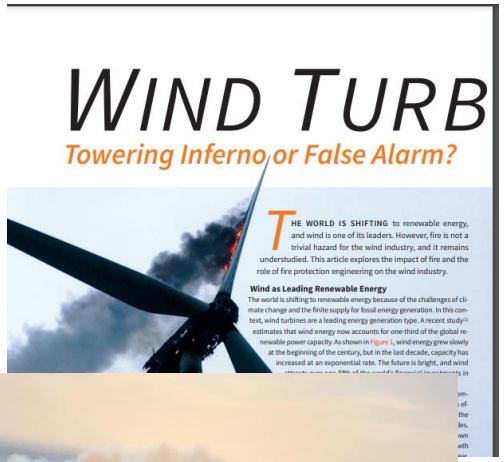
Schinko, T., Berchtold, C., Handmer, J, Deubelli-Hwang, T., Preinfalk, E., Linnerooth-Bayer, J., Scolobig, A., Serra, M., Plana, E. A framework for considering justice aspects in integrated wildfire risk management. Nature Climate Change volume 13, pages788–795

What and why for a policy coherence on WFRM

Tossa de Mar, Catalonia
Author: SACE (Servicios Aéreos Comerciales Españoles)
Date: 1962-07-22

Tossa de Mar, Catalonia
Google Earth
Date: 2023

Trade-offs across risk creation/reduction process and potential policy synergies/disfunctions

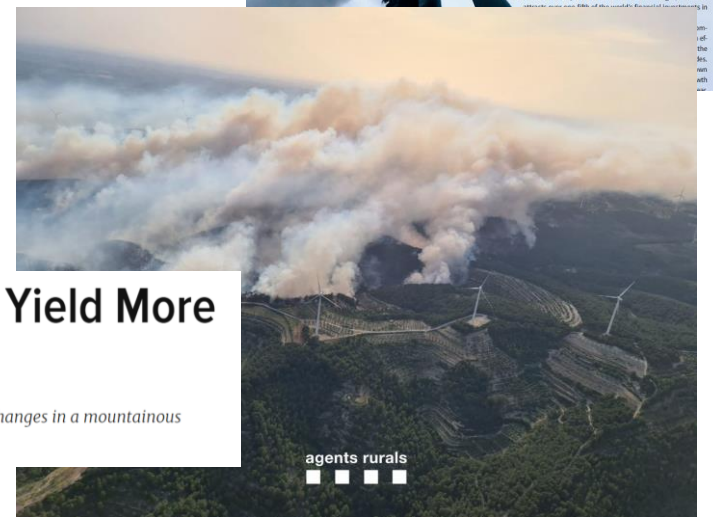

WIND TURB

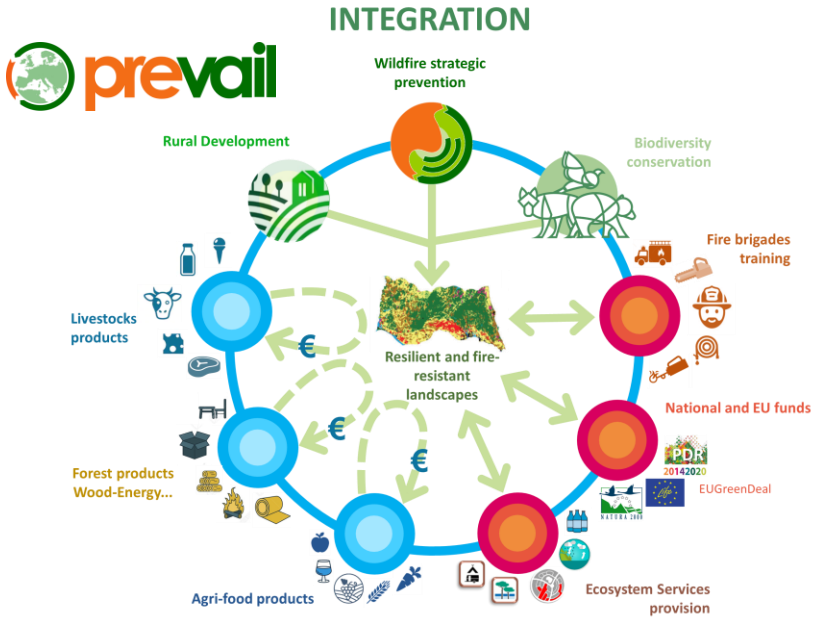
Towering Inferno or False Alarm?

THE WORLD IS SHIFTING to renewable energy, and wind is one of its leaders. However, fire is not a trivial hazard for the wind industry, and it remains understudied. This article explores the impact of fire and the role of fire protection engineering on the wind industry.

Wind as Leading Renewable Energy

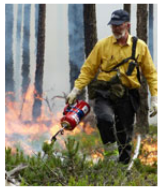
The world is shifting to renewable energy because of the challenges of climate change and the finite supply for fossil energy generation. In this context, wind turbines are a leading energy generation type. A recent study estimates that wind energy now accounts for one-third of the global renewable power capacity. As shown in Figure 1, wind energy grew slowly at the beginning of the century, but in the last decade, capacity has increased at an exponential rate. The future is bright, and wind





Restoring Natural Fire Regimes Can Yield More Water Downstream

Research in Yosemite National Park offers a new benchmark for understanding water balance changes in a mountainous basin 4 decades after its natural wildfire regime was reestablished.



Reintroduction of burning in Boreal western taiga woodlands

Reference: LIFE13 NAT/SE/000065 | Acronym: LifeTaiga

Ascoli, D., Plana, E., et al. 2023. Fire-smart solutions for sustainable wildfire risk prevention: Bottom-up initiatives meet top-down policies under EU green deal. International Journal of Disaster Risk Reduction 92

Landscape of policies influencing WFRM

(Goal) Prevent new and reduce existing disaster risk through the implementation of **integrated and inclusive** (…) measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recov and thus **strengthen resilience**.

UCPMechanism (ECHO)

Wildfire Prevention Action Plan
Good practices building on (..) other EU policies (e.g. EU Forest strategy 2030, Biodiversity strategy, Adaptation strategy actions)

WF-PRAF The pivotal role of appropriate forest management and agriculture as primary tools for fuel management should be highlighted in the overall governance structure for wildfire risk management

Sendai Framework for Disaster Risk Reduction 2015 - 2030

11. Promoting **nature-based solutions** for adaptation
14. Reducing **climate-related risk**

EU Strategy on Adaptation to Climate Change

2.2.4.Increasing the quantity of **forests** and improving their **health and resilience**

EU Biodiversity strategy for 2030

AGENDA 2030

The European Green Deal

Common Agricultural Policy

Eco-schemes & land management **contracts for forest-environment-climate services and forest conservation**;

Nature Restoration Law

"The proposal aims to restore ecosystems (…) , resilient nature contribute to achieving the EU's climate mitigation and climate adaptation objectives!

Farm to fork Strategy

sustainable food **labelling framework** that covers (..) climate, **environmental and social aspects** of food products.

"to restore the **health of ecosystems**, ensure that **natural areas remain connected** together, and allow species to thrive across their entire natural habitat"

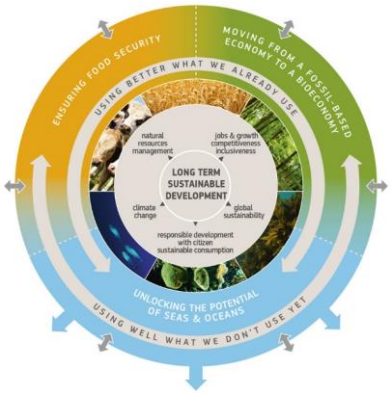
The EU Strategy on Green Infrastructure

EU Forest Strategy 2030

EU Bioeconomy strategy

• protecting forests in a changing climate whilst **promoting sustainable forestry management to mitigate against climate change**;
•Protecting forests and enhancing ecosystem services;

1.Strengthen and scale up the **bio-based sectors**, unlock investments and markets
2.Deploy **local bioeconomies** rapidly across the whole of Europe



Methodology

Systematic review

- ✓ EU strategy of adaptation to climate change
- ✓ EU biodiversity strategy 2030
- ✓ EU forest strategy 2030
- ✓ 3 billion trees pledge
- ✓ EU strategy of Green Infrastructure
- ✓ Nature Restoration Law
- ✓ Directive 2014/52/EU of environmental impact assessment
- ✓ EU bioeconomy strategy
- ✓ Common Agricultural Policy (CAP)
- ✓ Farm to fork strategy
- ✓ REPowerEU clean energy
- ✓ Zero pollution plan
- ✓ + LULUCF, Cohesion fund, Habitats, Critical infrastructure directive..

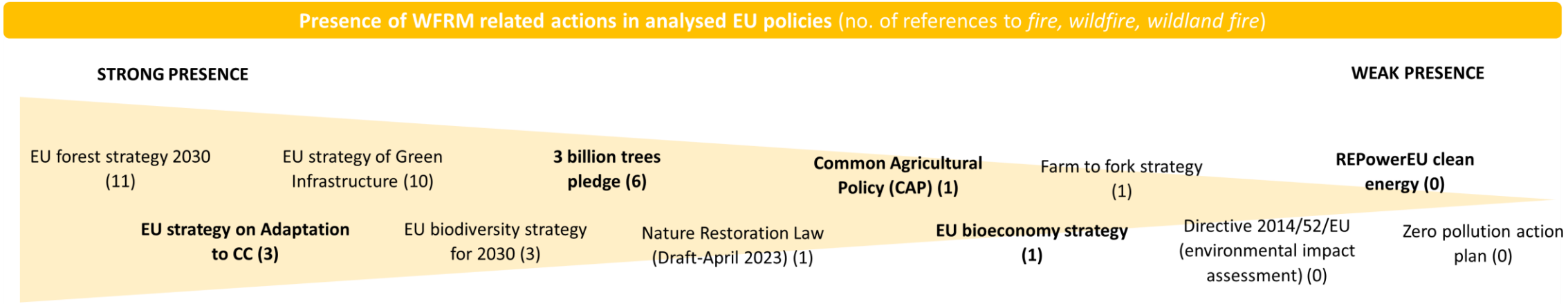
STEP 1
number of mentions of the terminologies/keywords ‘fire’, ‘wildfire’ and ‘wildland fire’ in each of the EU policies

STEP 2
individual analysis of each of the policies is made in order to know the existing coherences and dysfunctions, synergies and conflicts across policies and WFRM

HEV-4DRM stages

Methodology

- ✓ Potential synergies and disfunctions are identified, providing a reflection towards a more inclusive and policy coherent WFRM.
- ✓ HEV-RMC sequence method (Plana & Serra, 2021) to situate each initiative and related impacts within WFRM structure is used.
- ✓ The analysis can serve as a baseline for dialogue across policy-related stakeholders - Downscaling at regional level through Policy clinics at Living Lab level



Plana, E., Serra, M. 2021. **Integrated wildfire risk assessment and planning method including stakeholder engagement for resilient communities at local level.** In Plana, E., Serra, M., (...) Ferreira, M., Colaço, M.C. *Climate change impacts on natural hazards risk management and Civil Protection of wildfires, floods, storms, avalanches, rockfalls and landslides*. RECIPE project (Reinforcing civil protection capabilities into multi-hazard risk assessment under climate change. Grant Agreement nº 874402). 68 pp.

RECIPE
Funded by European Union Humanitarian Aid and Civil Protection

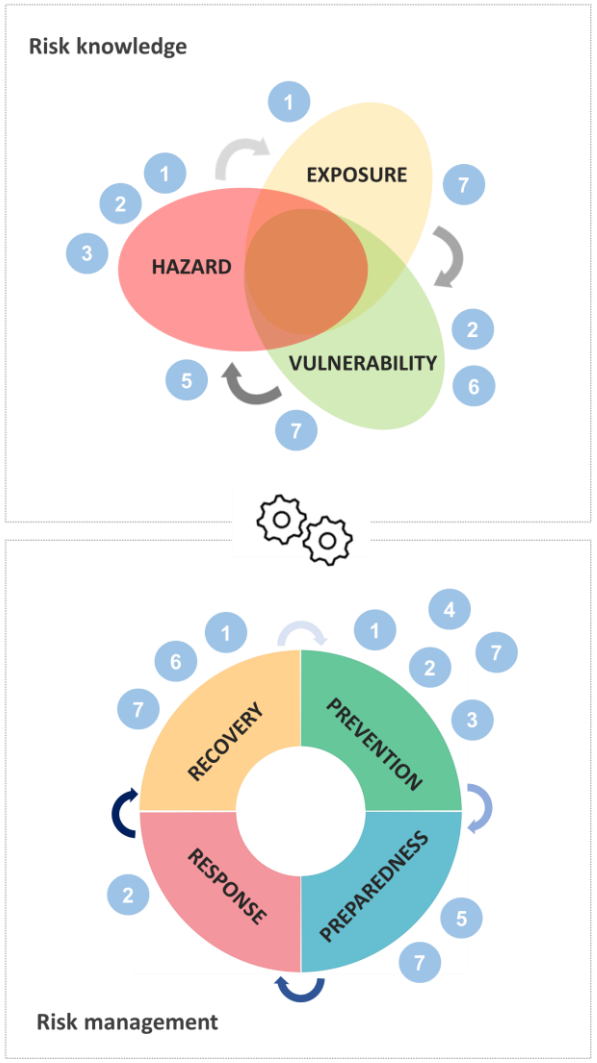
Examples

Coherences and dysfunctions, synergies and conflicts across policies & WFRM

	Hazard	Exposure	Vulnerability	Examples of solution measures
3 billion trees pledge	↑ Increasing hazard of high intensity landscape and Wildland Urban Interface. WF due to the increase of fuel load & continuity (wooded lands as a H)	↑ Increase of WF risk in wooded lands (trees as an exposed element)	↑ Mismatch between growing risk factors and changing conditions as a result of climate change	1 Integration of WF behaviour patterns, fire-smart forestry and climate scenarios into afforestation plans
REPowerEU clean energy	↑ Ignited fires by malfunctioning wind turbines in wooded and windy high WF-prone areas (wind turbines as a hazard)	↑ New infrastructures in place exposed to WF impact (wind turbines as an exposed element)	↑ Difficulties for aerial firefighting (risk of collision) ↓ Increased terrestrial accessibility to remote mountain areas	2 Integrate safe ignition zones and low fuel plots to limit damaging wildfire impact

Examples

Embedding coherence into Integrated Risk Management



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EU bioeconomy strategy	↓ Forest based value chain may favour fuel management and risk reduction of high intensity WF at landscape level	↑ Forestry practices for production not aligned with prescriptions for WF risk reduction (forest values at risk)	↓ Promotion of managed forests and diversified forest economies less vulnerable to WF impacts	3 Incentives to promote bioeconomy for WF risk passive prevention. PES schemes to meet 4 production and risk reduction objectives
Common Agricultural Policy (CAP)	↓ Agriculture based value chain support mosaic landscapes and rural populations and infrastructures. ↑ Agriculture practices may generate fire ignitions	↓ Creation of croplands as buffer zones to protect villages from WF impact	↓ Improving globally resilient landscapes and rural economies to cope with WF impacts	5 EWS and risk management protocols with farmers in the cereal harvest period. Insurance schemes for 6 the recovery of the economy
EU Strategy on CC Adaptation	↓ Integration of WF into technical guidance on climate-proofing of infrastructure projects (in terms of H reduction)	↓ Idem previous (E reduction). Planning sectors and business E adaptation to increasing WF risk	↓ Idem previous (V reduction) Planning sectors and business V adaptation to increasing WF risk	7 Extend climate-proofing to all WFRM-related strategic sectors (tourism)

Gaps and challenges towards a policy coherent WFRM across EU

EU strategy of adaptation to climate change	WF as climate risk- Adaptation plans for business and (resilient) landscapes WF technical guidance on climate-proofing of infrastructure projects
EU biodiversity strategy 2030 EU forest strategy 2030 3 billion trees pledge EU strategy of Green Infrastructure Nature Restoration Law	Room for the “good fire” and fire-smart forestry as a NbS - restoring fire ecology (?) across EU landscapes Managed forests as CP protection GI (WF prevention as an ES) Expanding wildfire patterns knowledge into SFM
Directive 2014/52/EU of environmental impact assessment	Balancing WF residual risk with ecosystem and nature conservation – embedding direct/cascading effects on WF risk
EU bioeconomy strategy Common Agricultural Policy (CAP) Farm to fork strategy	Promoting forest-based bioeconomy (with effects on WF risk reduction, e.g. residual biomass) – Passive prevention Eco-schemes and PES on resilient landscapes Labelling of WF prevention impact (e.g. Fire sheperds) 
REPowerEU clean energy Zero pollution plan - LULUCF	Counteracting new HEV linked to renewal energies A countability for avoided (high intensity) WF emissions

Final remarks

- ✓ Increasing “normal” & EWE risk context ask for more integrated WFRM **balancing trade-off across risk** factors (HEV) and drivers along risk **building & deconstruction process:** In this context, **WFRM integration across sectoral policies** that directly or indirectly influence risk creation or reduction **becomes fundamental**.

- ✓ Significant dysfunctions, but also potential synergies, exist across policies to move forward to efficient WFRM under a common EU policy frame: This can serve as a baseline for **dialogue and engagement of stakeholders** under a **shared vision of risk responsibility**.

- ✓ **Sectoral expert knowledge need to be mobilized in a two-way** approach; WF expertise needs to be complemented by sectoral policy expertise. Procedures for coordination and collaboration should be in place

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Thank you!

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Eduard Plana Bach

Head of Forest Policy and Risk Governance Unit

Forest Science and Technology Centre of Catalonia

eduard.plana@ctfc.cat **@NAThaz_reciepe**

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