



FIRE-RES



Can economic incentives help reduce wildfire risk?

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Towards a fire resilient Europe: can we do better?

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Managing wildfire risk: *a wicked problem*

- *Nexus* of climate change, rural exodus, urban sprawl → game changers coming

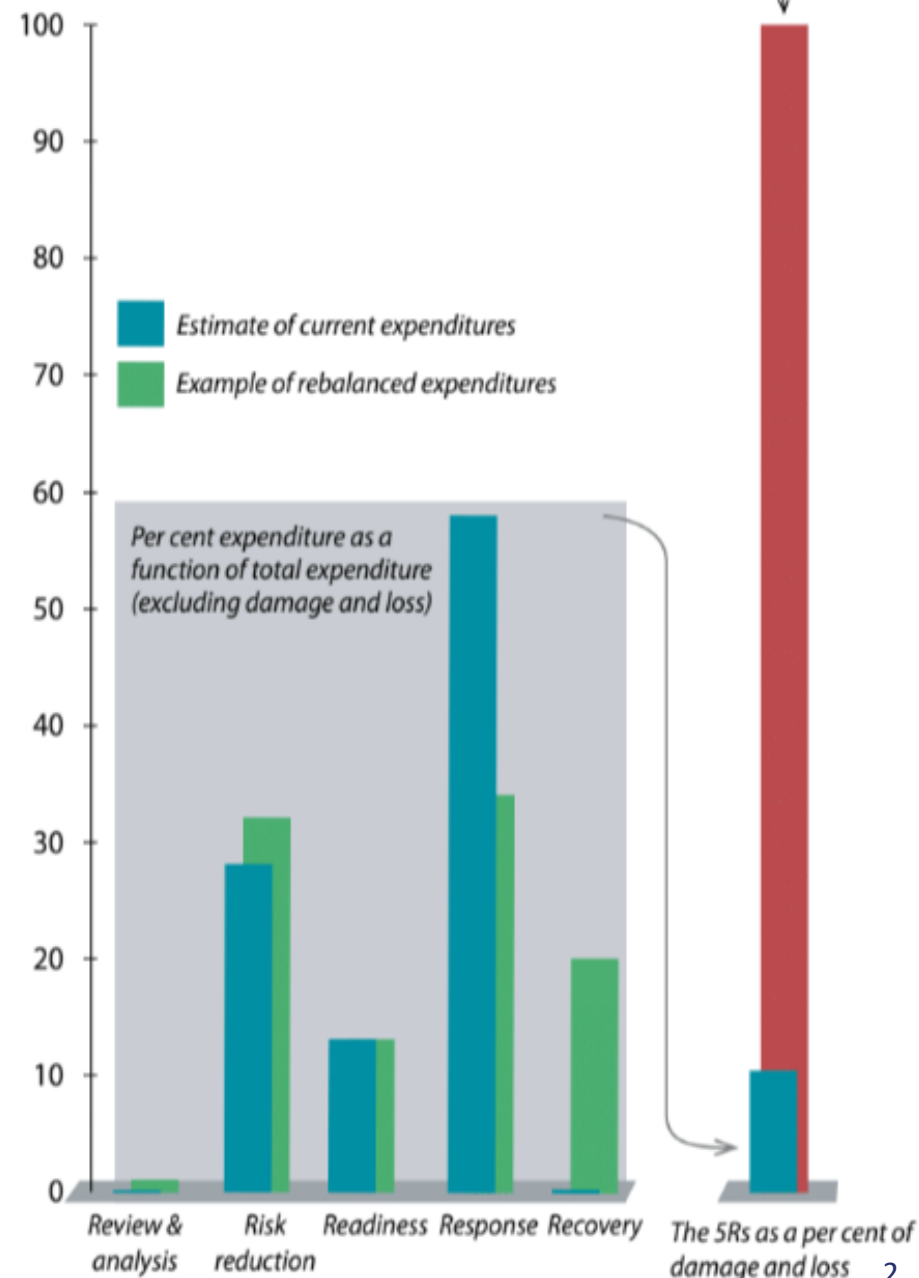
Wunder et al. (2021)

- *Fire paradox*: the more effective we are at suppressing (small) wildfires, the worse fires eventually become → 'let it burn'?

- Wildfire are a *public bad* → shared mitigation strategies needed

The 5Rs compared to damage and loss

Damage and loss expenses are set to 100 per cent



Why do land stewards not self-mitigate enough?

Land abandonment



credit: Staffan Widstrand

Lack of knowledge



Source: letgodbefoundtrue.net

Low risk perception



Source: legacy.climatecentral.org

Responsibilities not well-organized

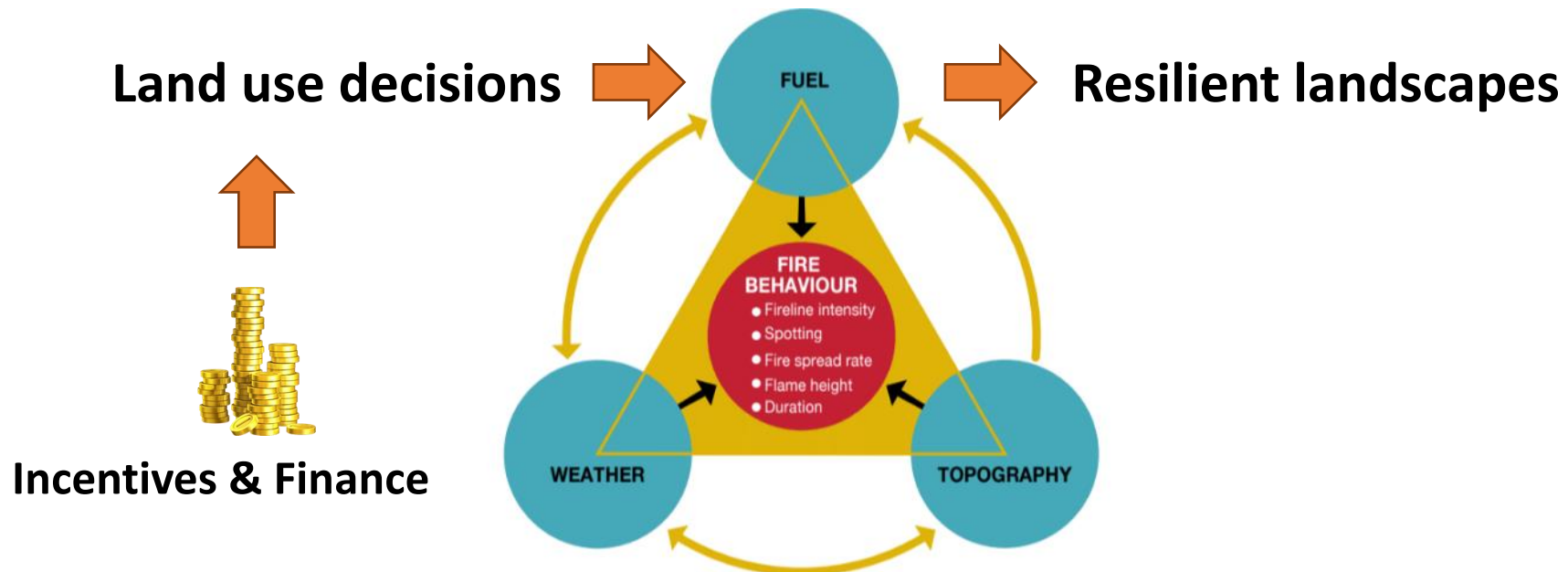


Source: eptinktank.eu



Key questions

1. What economic incentives for wildfire risk mitigation are currently in use?
2. What is their record of success, and (how) could it possibly be improved?



Incentive typology

Insurance market
House & Land

Differentiated premiums

Debt market

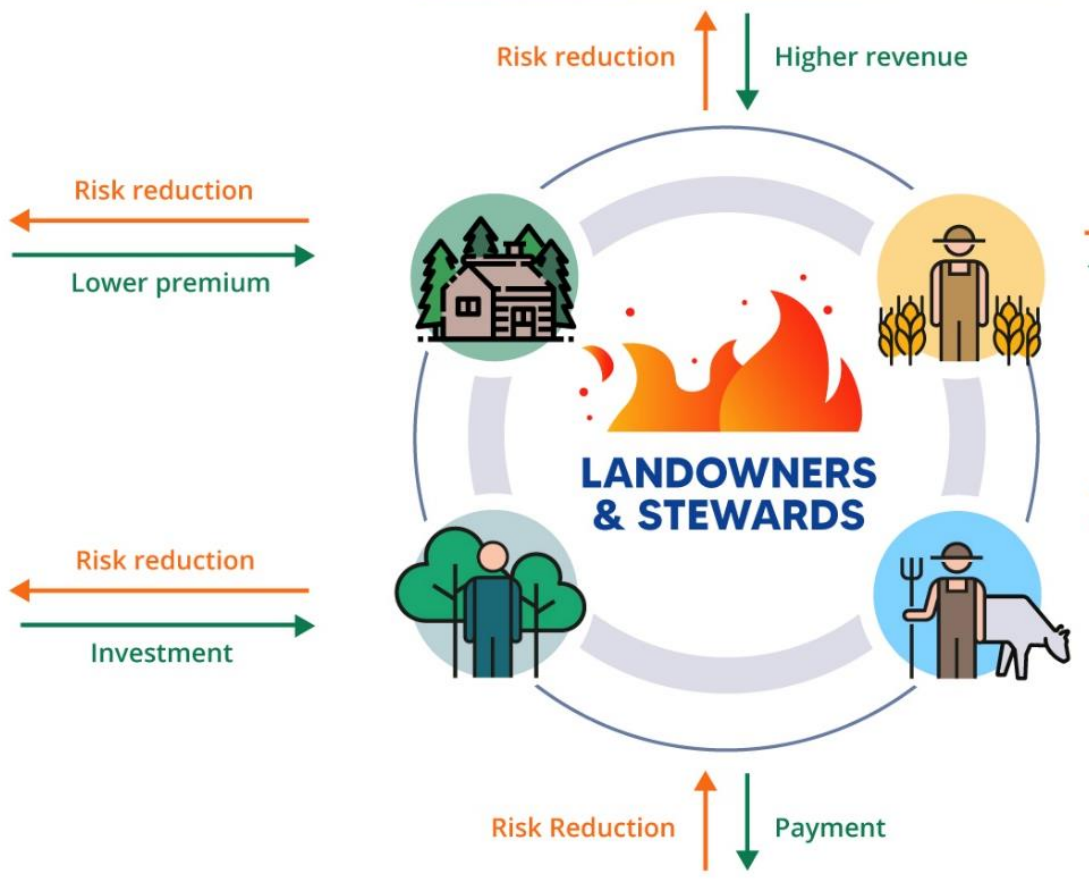
Environmental impact bond

Return / CSR ↑ Investment ↓

Investment → **Carbon credits** ← Return / CSR

Price premium → **Commodity markets**

Fire resilience-labelled products



CO₂ mitigation → **Environmental services**

PES-like **Subsidies**

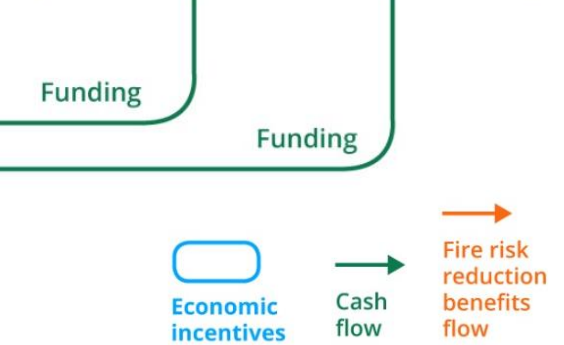
Payment ←

Public sector

Liability

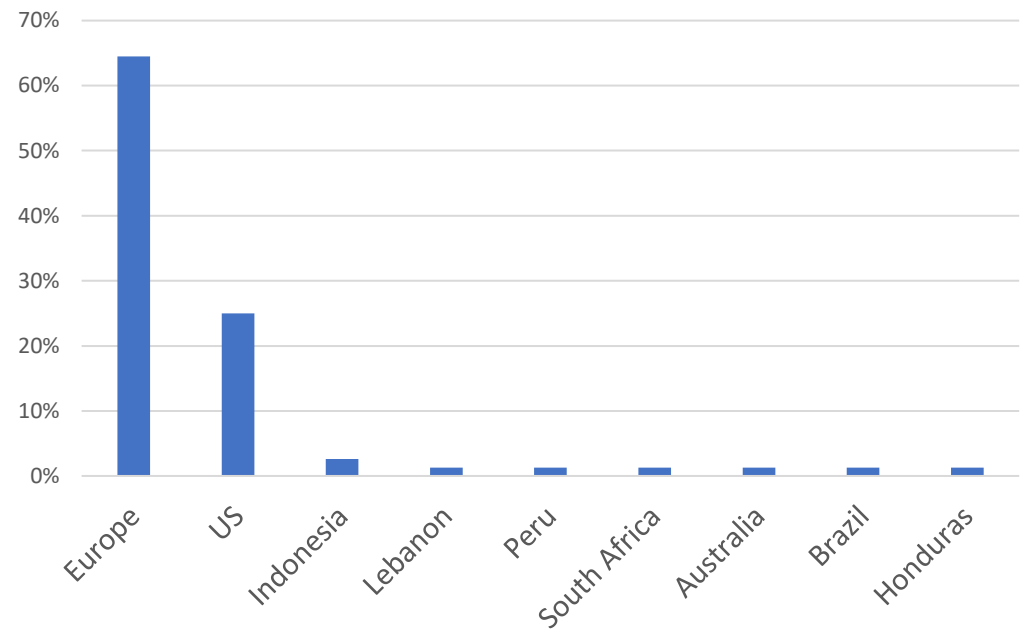
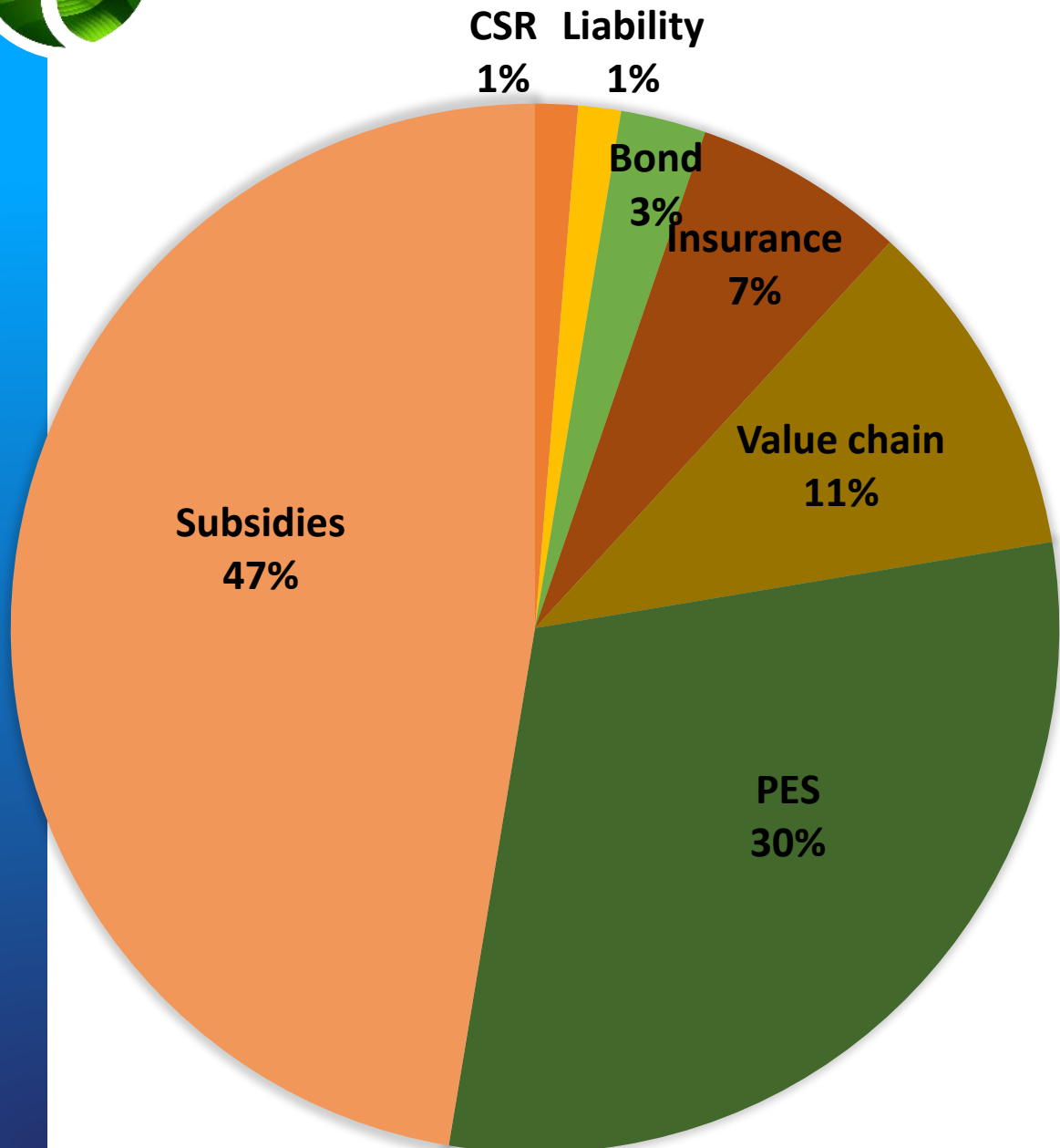
Productive infrastructure

States & Regions





Distribution of incentive cases



n=76



A. Subsidized productive investments

- a) One-time public investment in infrastructure promoting farming and/or active forest management
- b) Agric. production keeps land open
- c) Counteracting problem from inactive/ absentee small landowners
- d) *Examples:* Galicia, Catalunya



B. PES-like targeted grazing

- a) Paying shepherds periodically for targeted livestock grazing (sheep, goat, cattle) in key fire risk areas (conditional incentive)
- b) Agric. production keeps land open
- c) Public administration needs long-term commitment
- d) *Examples:* Gran Canaria, Andalusia





Strategy recommendations

1. **Mixed governance strategies** (e.g., combining carrots & sticks) increase flexibility; improving vis-à-vis pure command & control
2. **Spatial targeting** of high-risk areas: focus on strategic priority areas
3. **Assess opportunity costs** to find the right payment type and level, to effectively incentivize land managers
4. **Scaling-out & adapting** to local conditions – replicate initiatives at a similarly sized, customized scale – rather than the usual ‘scaling-up’
5. **Impact evaluation** needed to know better what tools work best

MAY 2023

POLICY
BRIEF

Can economic incentives help reducing wildfire risk?

Reviewing economic tools to motivate more fire-resilient land management



Wunder, Fraccaroli, Górriz-Mifsud, Varela (2023). **Policy Brief - Can economic incentives help reducing wildfire risk?** Zenodo.

<https://doi.org/10.5281/zenodo.7896861>

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<https://doi.org/10.5281/zenodo.7708751>

Thank you!

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Partners





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