European Wildfires

CAN THESE BECOME A CAT EVENT ?

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Introduction

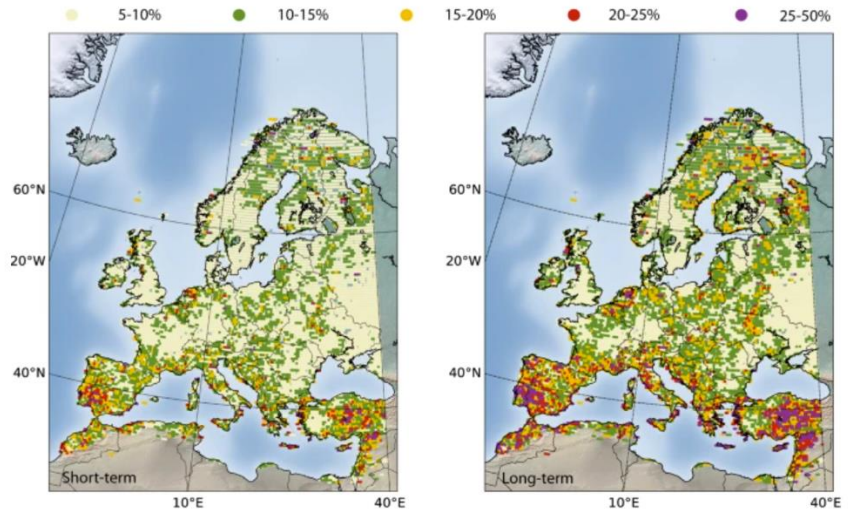
Wildfire risk in Europe : an insurer's perspective

- France and Mediterranean Europe countries have produced the wildfire insured losses we have recorded in Europe. The worst two wildfire seasons are 2022 and 2025.
- In France, the most severe wildfire seasons are associated with severe drought seasons (2003, 2022, 2025).
- Scientific papers agree that the risk of wildfire events in Europe will increase in the future (JRC Report: DeRigo et al 2017, Nature: El Garoussi et al 2024, picture on the right).
- 90% of ignitions are man-made in Europe. In France, 30% of them are intentional.
- In France, legal actions are expected to alleviate the PD* losses.

*__PD__=Property Damage

Fig. 5: Maps of increased probability for extreme fires and extension on the length of the fire season in the coming decades.

a) Probability of extreme fires (exceedance of a 20y return period event)



Ignition on the motorway, Marseille 2025

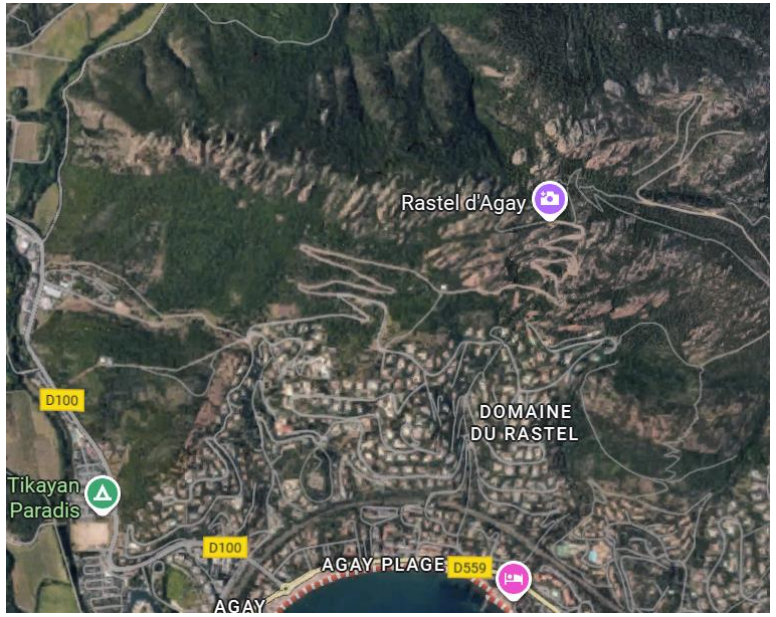
Ignition in the forest, Teste de Buch 2022

Where do we stand today with respect to European Wildfires ?

Calculating the WUI cover (Wild Urban Interface)

There is no single definition for the term WUI.
We follow the FirEURisk definition, where **WUI = WUI Intermix + WUI Interface**
Applying a different definition considerably impacts the results obtained.

WUI Intermix = High proportion of flammable cells within radius



WUI Interface = Short distance from a flammable forest patch

WUI
WUI Interface (yellow)
WUI Intermix (red)
Source = FireEURisk

Where do we stand today with respect to European Wildfires ?

Claims haven't gone beyond the WUI.

In Europe, claims are in the WUI. Rising claims are seen in the WUI interface

Event Loss = $\sum_{1}^{n1}$ Attritional assets in the WUI **+** **{0 or 1}** x High-value assets in the WUI **+** **ε**

High destruction rates	Minor destruction rates

- Single and Multiple families dwelling
- Restaurant/Hotels/Cottages
- Forestry related occupancies
- Agricultural related occupancies (Vineyards)
- Partial BI *
- NDBI* losses due to access restrictions

- Industrial sites
- Automobile fleets
- Solar parks
- Total BI losses
- High fees (guarding, removal of debris)

- Garden elements
- Cleaning costs due to fumes and/or fire retardants

***BI**=Business Interruption

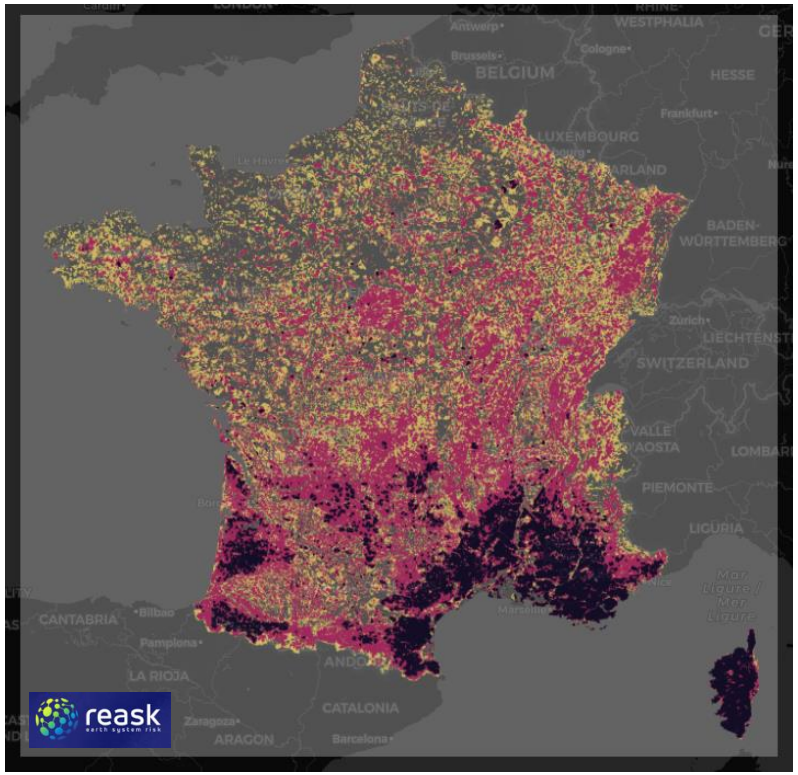
***NDBI** = Non-Damage Business Interruption

What the model shows: Exposure

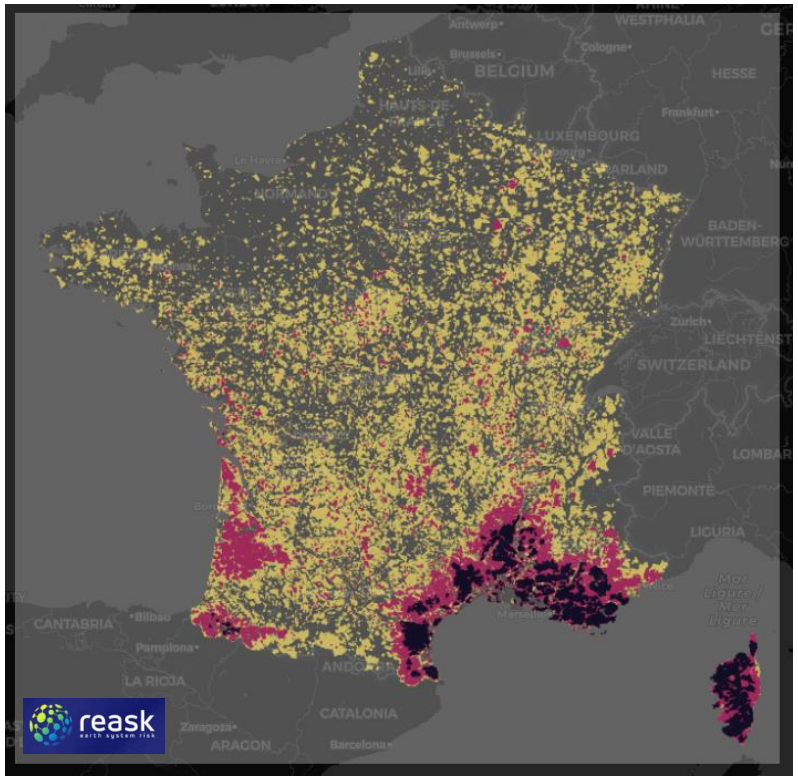
In France, the model shows a 20% exposure to wildfires, largely susceptible to extreme events.

Moving deeper into urban areas, these extreme events could bring about catastrophic losses.

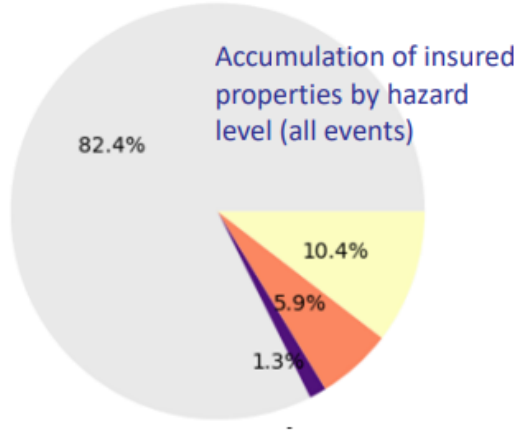
Reask's model-based hazard maps

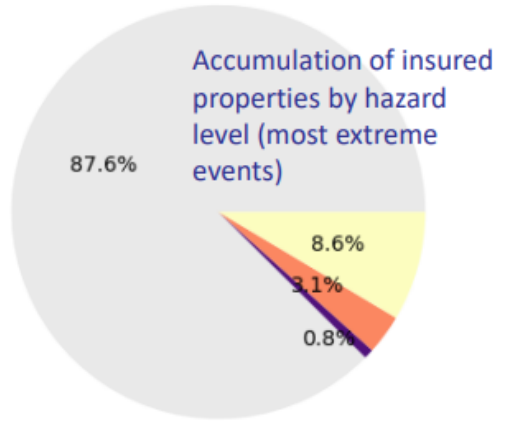


Complete stochastic catalogue



Extreme events





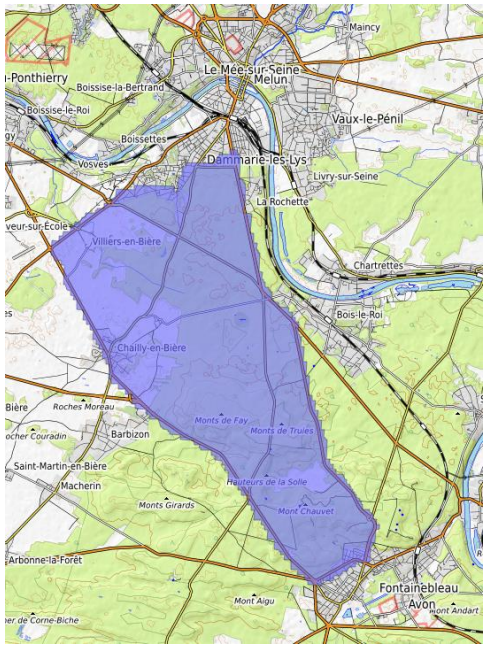
Proportion of exposure

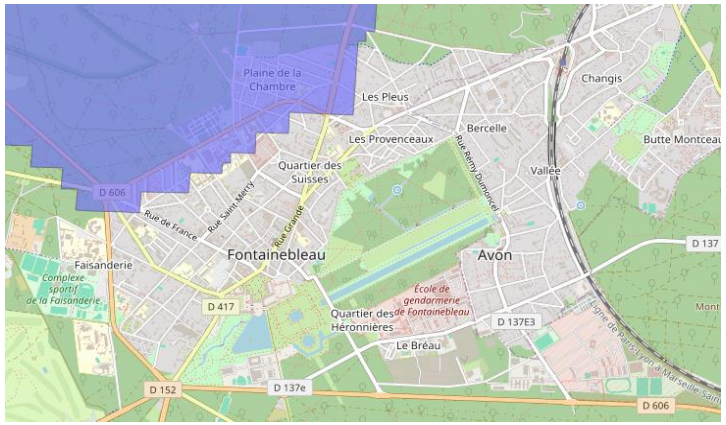
See EGU25-18168

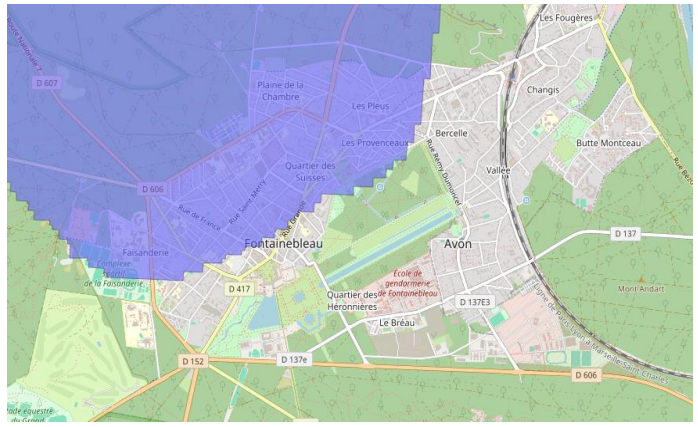
What the model shows: Results

Wildfires in Europe can spread to urban areas and produce catastrophic losses

Fontainebleau (Paris Outskirts)







Original WUI interface event,
Hyp: Ambers +600m

Original WUI interface event,
Hyp: Ambers +1200m

Extreme events can spread deep into cities through ambers but two major unknowns remain:

1. How urban fires could fully propagate inside European cities
2. How firefighting forces would give up on such areas

Full urban spread depends on additional factors (connections and space between buildings, urban fuels). This requires some specific modeling and data.
Firefighting forces could saturate but they wouldn't let go their priorities.

Can European Wildfires become a Cat event ?

Conclusions and reflections

- We expect to face severe wildfire seasons, causing material insured losses

The increased frequency of damaging events:

(i) Increases the probability of destroying high-value assets

(ii) Increases the probability of saturating the fire suppression forces

- And the model suggests we have an exposure to catastrophic events.

20% of the exposure is at risk of wildfire events in France. We expect some of these events to continue going deeper into urban areas. Full urban spreading is plausible but unlikely as it would imply a saturation of fire fighting forces.

- But these preliminary results need to be weighed with caution

Models' outcomes are determined by the hypotheses we make; it is to be noted that these hypotheses are built on insufficient data. The probability of extreme events coming about strongly depends on fire fighting resources and the respect of compulsory prevention measures (vegetation clearing).

- European Wildfires, first and foremost are thus to be considered as (i) an AEP and (ii) a correlated risk.

Thank you

For further information or questions, don’t hesitate to contact us:

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