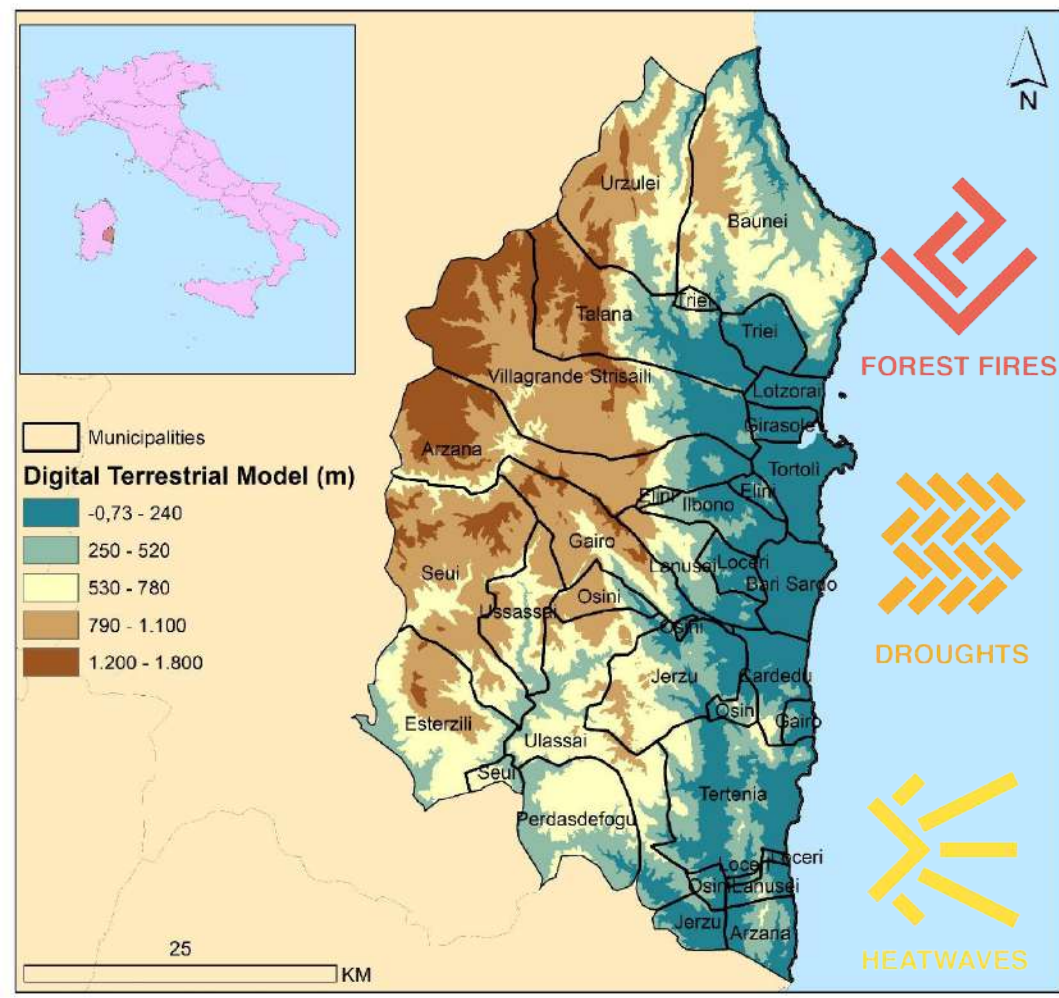


THE CONTEXT



FLAGSHIP 1: Development of a **Modeling process** that integrates, at local level, science-based fire risk modeling with stakeholders knowledge, policies and governance for ensuring that the fire risk mitigation solutions developed are grounded in real-world needs, acceptable to stakeholders, and feasible

OUR APPROACH

STEP 1

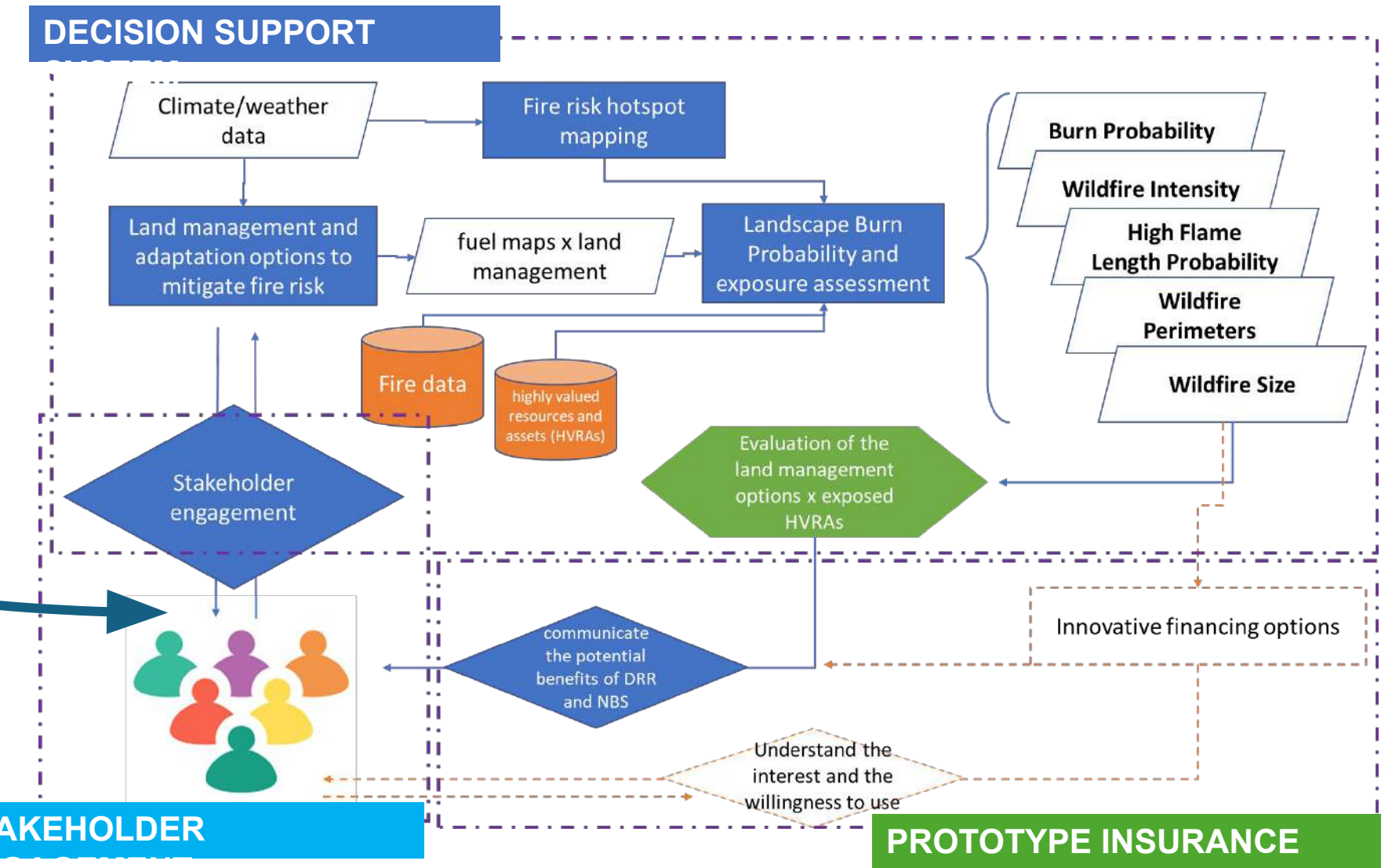
- ✓ **Stakeholders mapping**
- ✓ **Identification of barriers and enablers** to prevent fire risk, focusing on several approaches (NbS compatible) towards fire-risk mitigation and climate change adaptation
- ✓ **Identification of areas of opportunities** on potential strategies and interventions for land management and wildfire prevention



STEP 2



- ✓ **Fire modelling 1/2**
Analysis of the most recurrent past weather scenarios leading to large fires. Climate data analysis to develop future climate change scenarios. Landscape probability and exposure assessment.



STEP 3

- ✓ **GIS Participatory mapping**
Participatory mapping of high-value areas and co-design of fire prevention strategies.
1. Which areas are most valuable?
2. What stories and meanings are attached to these places?
3. What actions are needed to reduce wildfire risk and bring benefits to these areas?



STEP 4

- ✓ **Fire modelling 2/2**
Integrating selected land management scenarios into a new round of fire modeling. Evaluation of fire risk mitigation and prevention actions on fire impacts

Results clusterization and analysis

Analysis of common proposals and location to derive three land management scenarios

SCENARIO'S NAME	DESCRIPTION
WUI & ROADS	REDUCTION OF FUEL LOAD AROUND BUILDINGS AND ROADS ~17,000 ha of treated land • Reduction from 20 to 70% of fuel load
PUBLIC FOREST MANAGEMENT	SILVICULTURAL ACTIVITIES IN PUBLIC FORESTS. ~ 1850 ha of treated territory, • 40 to 70% reduction in fuel, pruning up to 5 m in height • Realization and/or restoration of fuelbreaks, with 60% fuel reduction
MOSAIC	RESTORATION OF AGRO-PASTORAL ACTIVITIES IN ABANDONED PORTIONS OF LAND ~4390 ha of land returned to agricultural or grazing use

STEP 5

- ✓ **Evaluation of strategies' impacts**
Discussion and evaluation of fire risk mitigation and prevention actions through SWOT analysis. Co-definition of effective adaptation and mitigation strategies that effectively reduce fire impacts in the short- and medium-term under a changing climate



PUNTI DI FORZA	DEBOLIZZE
- La presenza di risorse umane e professionali (tecnici, esperti, ecc.) presenti in territorio e in grado di intervenire in caso di emergenza. - La presenza di risorse economiche (fondi, ecc.) per la gestione del territorio. - La presenza di risorse tecniche (macchinari, ecc.) per la gestione del territorio.	- La mancanza di risorse umane e professionali (tecnici, esperti, ecc.) presenti in territorio e in grado di intervenire in caso di emergenza. - La mancanza di risorse economiche (fondi, ecc.) per la gestione del territorio. - La mancanza di risorse tecniche (macchinari, ecc.) per la gestione del territorio.
MINACCE	OPPORTUNITÀ
- La presenza di risorse umane e professionali (tecnici, esperti, ecc.) presenti in territorio e in grado di intervenire in caso di emergenza. - La presenza di risorse economiche (fondi, ecc.) per la gestione del territorio. - La presenza di risorse tecniche (macchinari, ecc.) per la gestione del territorio.	- La mancanza di risorse umane e professionali (tecnici, esperti, ecc.) presenti in territorio e in grado di intervenire in caso di emergenza. - La mancanza di risorse economiche (fondi, ecc.) per la gestione del territorio. - La mancanza di risorse tecniche (macchinari, ecc.) per la gestione del territorio.



Providing actionable guidance by translating the results into practical recommendations for policymakers, land managers, and local communities

- Develop integrated fire-smart land management strategies that combine silviculture, prescribed grazing and traditional agricultural-pastoral mosaics practices to address key wildfire risk drivers, and strength local production systems.
- Strengthen territorial coordination and cooperation among municipalities to support integrated landscape and fire risk management through the establishment of 'territorial laboratories'
- Adopt specific wildfire prevention and Civil Protection plans integrated with forest and territorial (land-use) planning
- Enhance forest planning capacity and promote active land management, supported by adequate technical and institutional frameworks.
- Support rural economic development through local value chains, multifunctional agriculture, and sustainable rural tourism.
- Promote a new territorial narrative based on stewardship, local identity, and landscape care, recognizing the role of communities as custodians of the territory.

FLAGSHIP 2: Development of a **Prototype of Innovative Insurance Products** to support communities and stakeholders in managing and mitigating wildfire impacts. The use of DEM8 analyses enabled the development of a prototype forest fire insurance product tailored to the Sardinia region, named **"Fire Safe Community"**. The product's pricing was established using a bespoke natural catastrophe model.

Fire Safe Community
Insurance Product Information Document

Disclaimer: This document does not refer to a real insurance product. It is intended just to represent key information of a prototype product.

What is this type of insurance?
Fire Safe Community is an insurance product that offers businesses coverage for damage to buildings and their contents related to forest fires.

The product includes discounts listed to the implementation of mitigation measures such as forest management of the territory.

What is insured?
Wildfire and related damages to buildings and their contents, plant and machinery, industrial and commercial installations.

What is not insured?
Perils different than wildfires
Losses different than direct damages to buildings and contents.

Are there any restrictions on cover?
Coverage limits have not been considered.

Where am I covered?
Sardinia, Italy

What are my obligations?
To provide needed information for the risk assessing at the moment of policy signature.
During the course of the policy to declare any new circumstances or change in circumstances likely to lead to a significant and lasting aggravation of the insured risk.
Other typical insurance obligations.

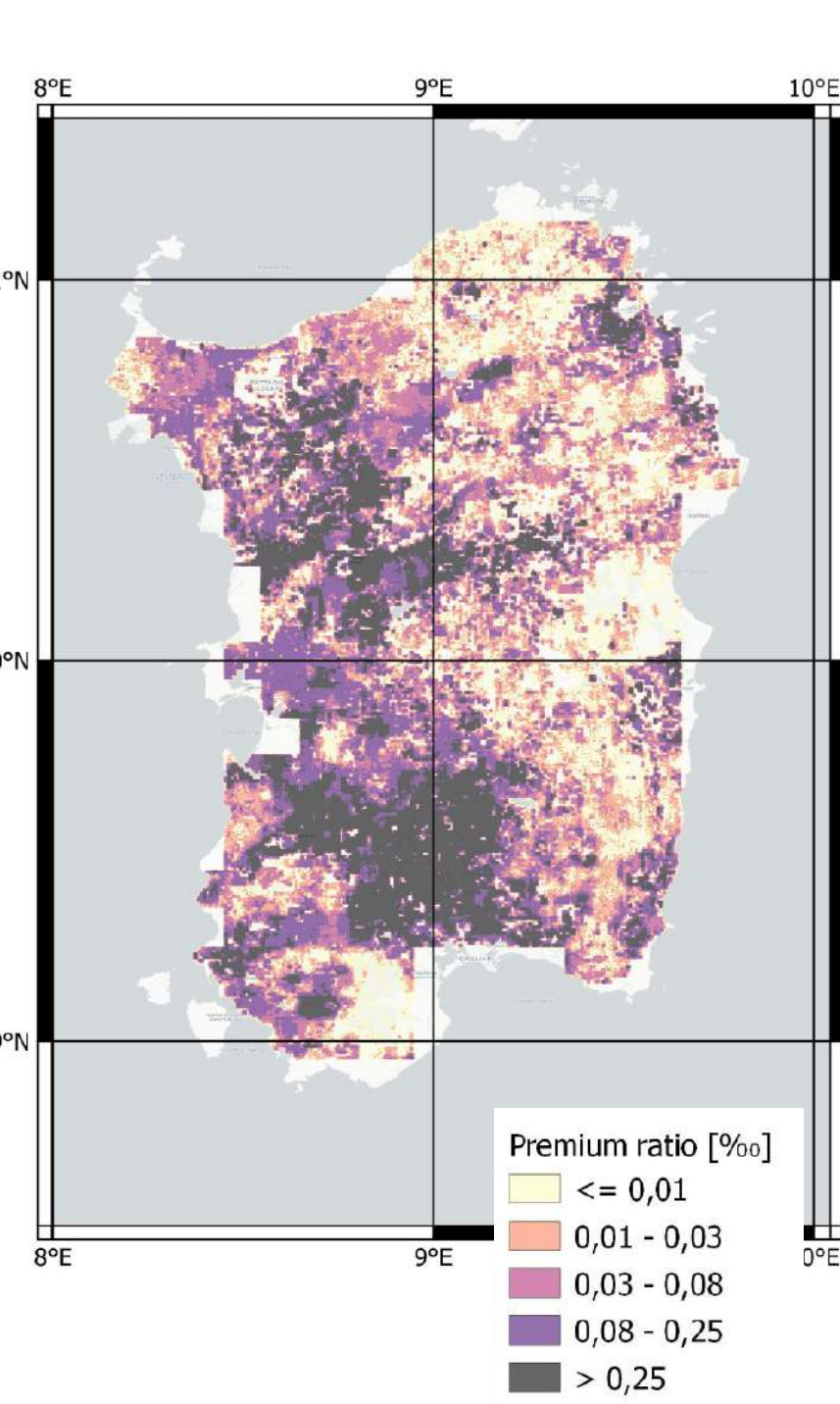
When and how do I pay?
The coverage starts at the date indicated in the policy. It lasts one year and it is tacitly renewable.

When does the cover start and end?
The coverage starts at the date indicated in the policy. It lasts one year and it is tacitly renewable.

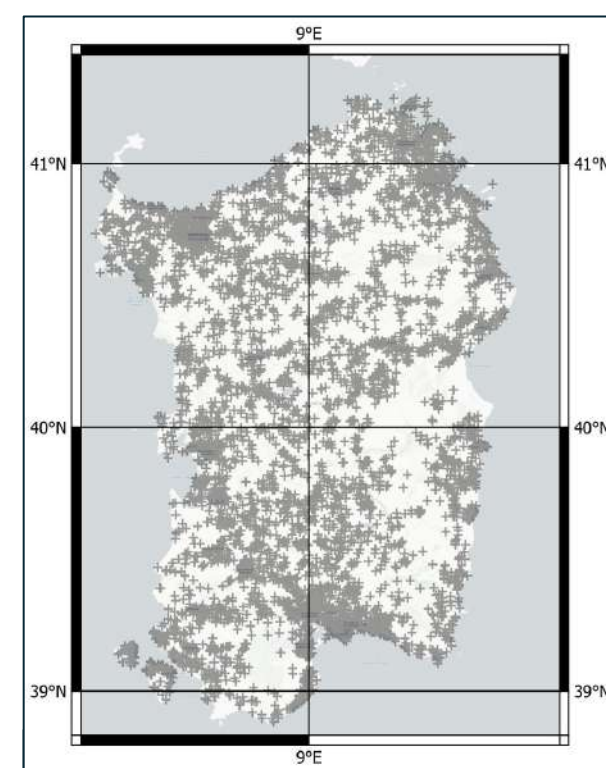
How do I cancel the contract?
The policy can be cancelled following usual methods adopted for similar products.

Premium ratio [%w]

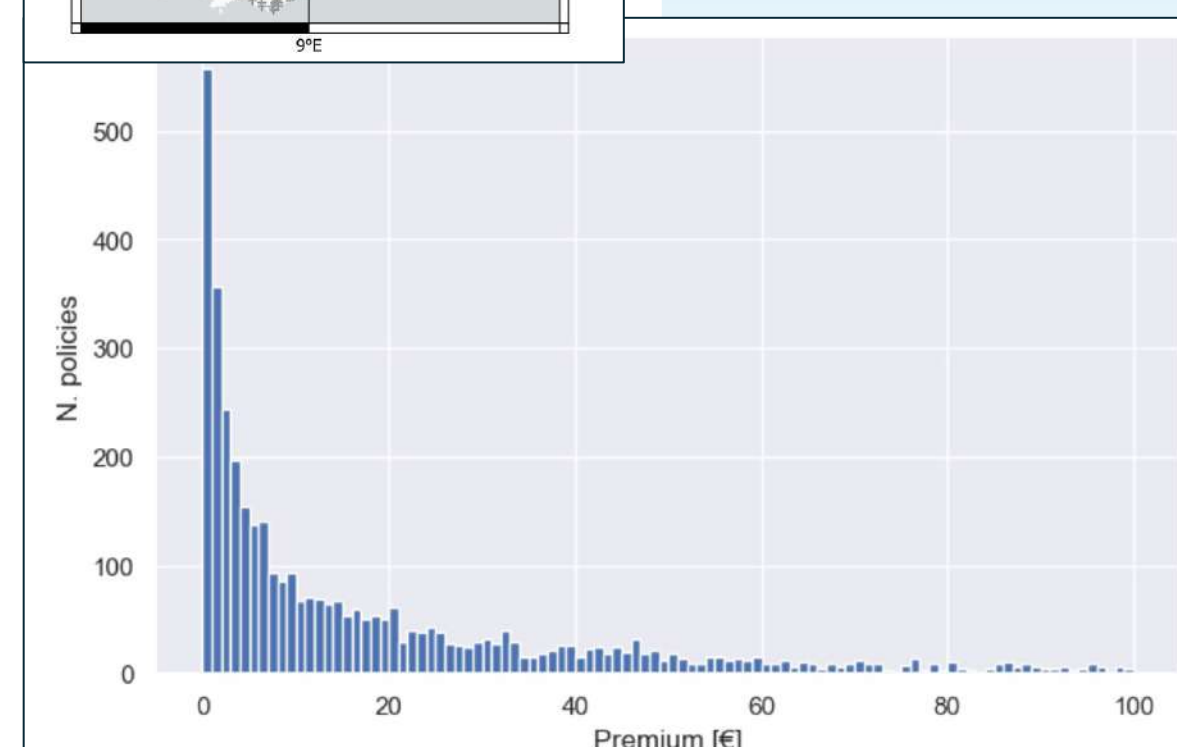
- <= 0,01
- 0,01 - 0,03
- 0,03 - 0,08
- 0,08 - 0,25
- > 0,25



Statistics on wildfires, mean burned area and wildfire intensity, provided by the demonstrator, have been used to design and calibrate the nat cat model used to estimate the risk covered by the product.



A synthetic portfolio, based on urban density and exposure amounts representative of a likely exposure distribution, has been produced to estimate risk related to concentration of events and obtain finite insurance premiums.



Forestry management operations influence the vulnerability to wildfire damage and, consequently, the underlying risk used to calculate insurance premiums. Modeling these effects resulted in a 10% reduction in the premium. This reduction was adopted as the discount to be applied to exposures benefiting from ecological forestry management practices. Such mechanism enables the financing of risk reduction actions by communities and, therefore, enabling Community-Based Catastrophe Insurance (CBCI) underwriting schemes.