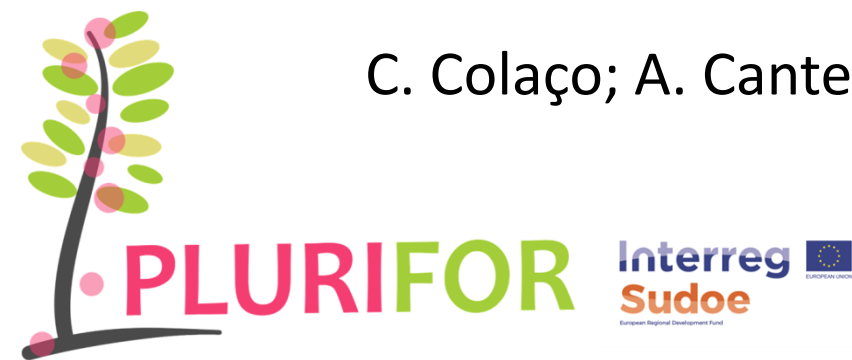


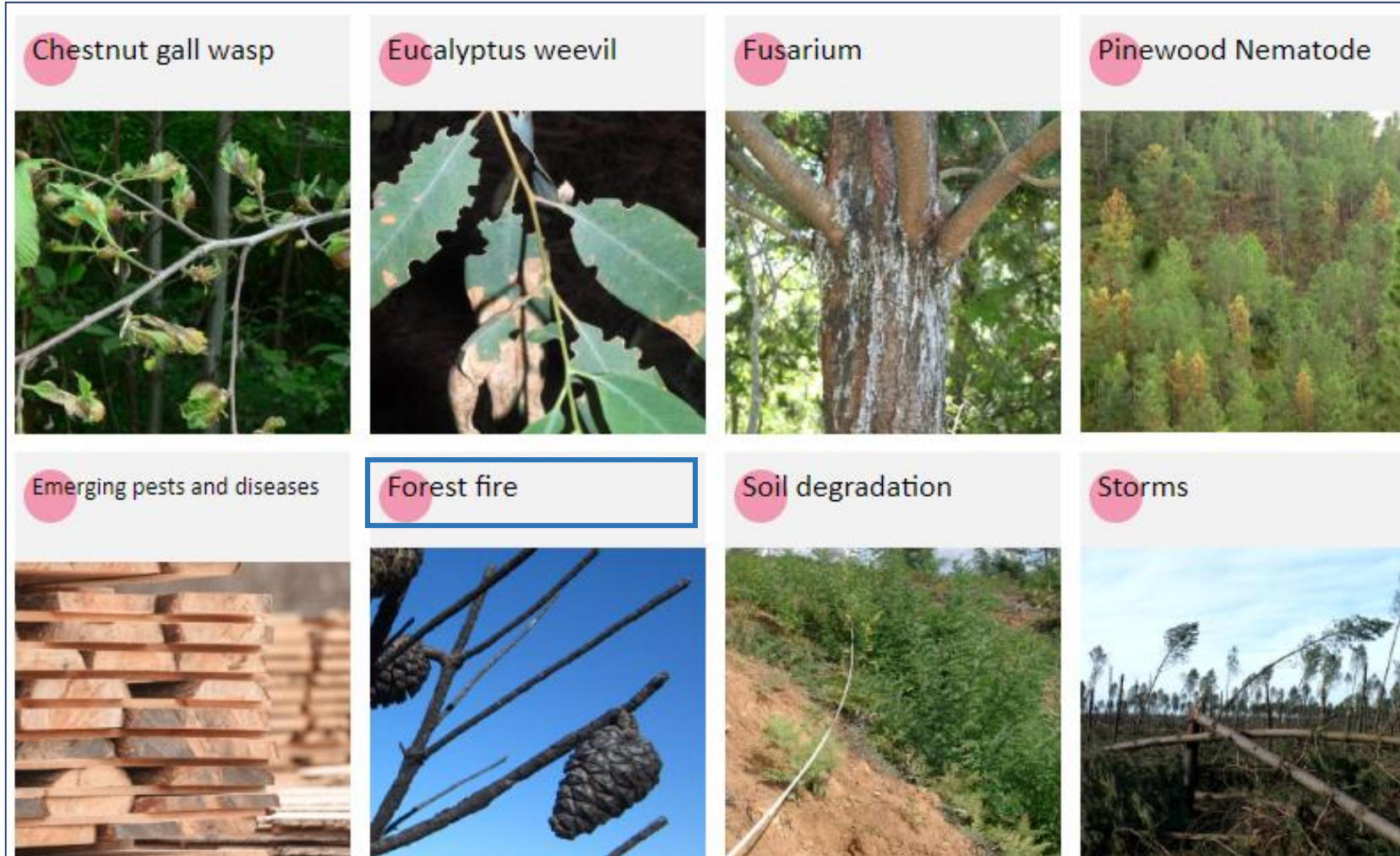


# Plurifor project: a transnational plan for the management of forest fire risk

C. Colaço; A. Cantero; E. Jimenez; J.Fernández; C. Fernández; S. Sánchez; E. Canga; F. Rego

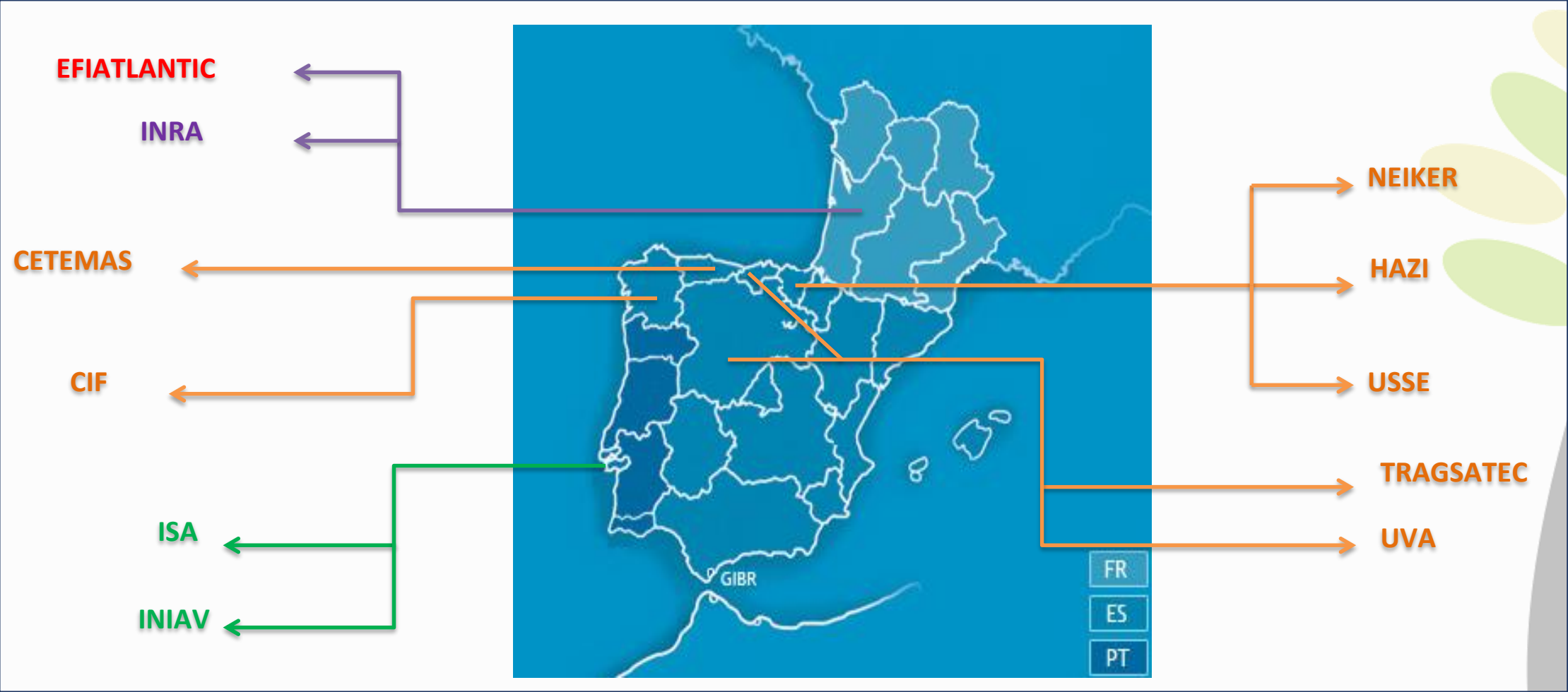


# Plurifor: a multi-risk approach

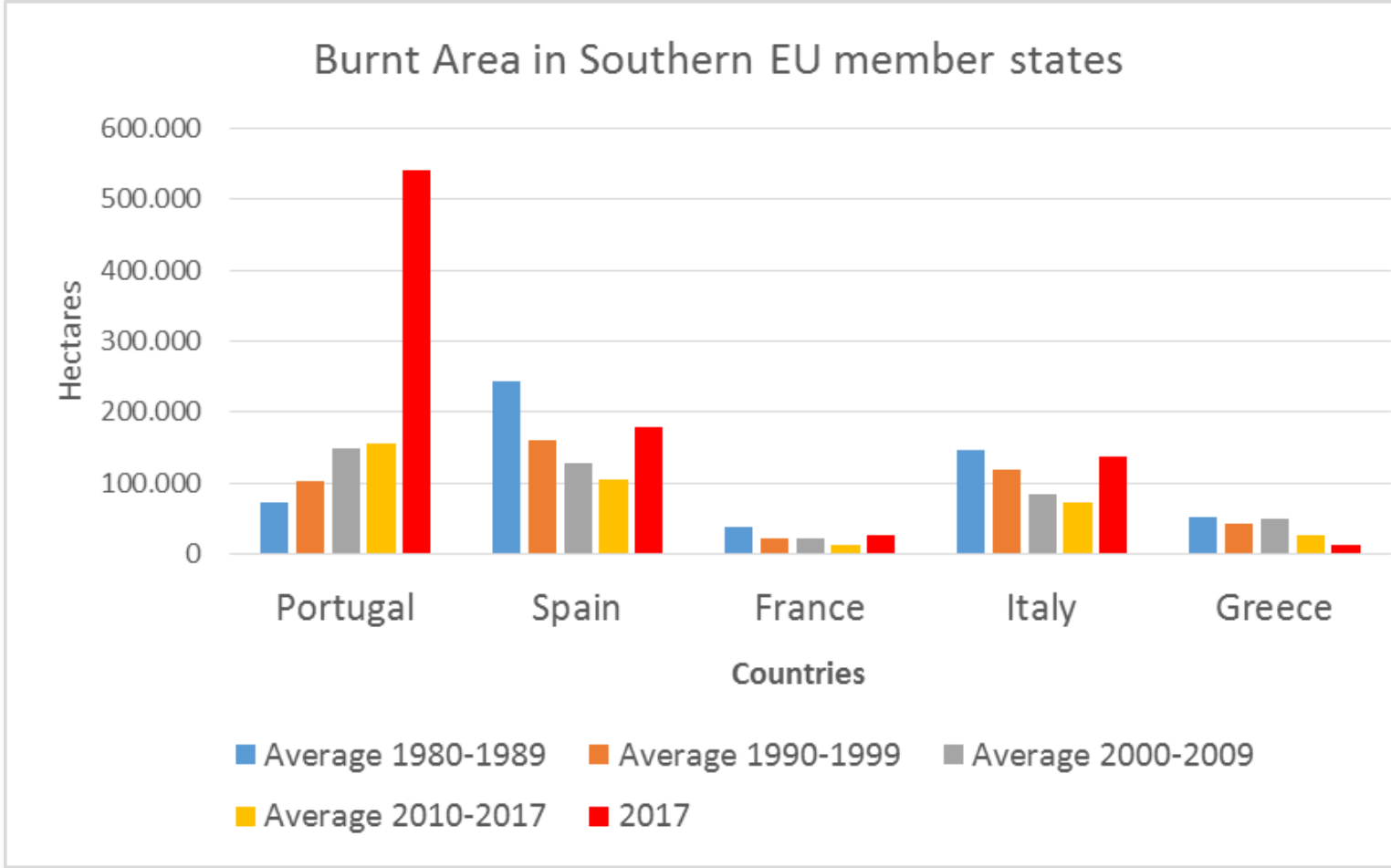


Source: Ignazio Graziosi

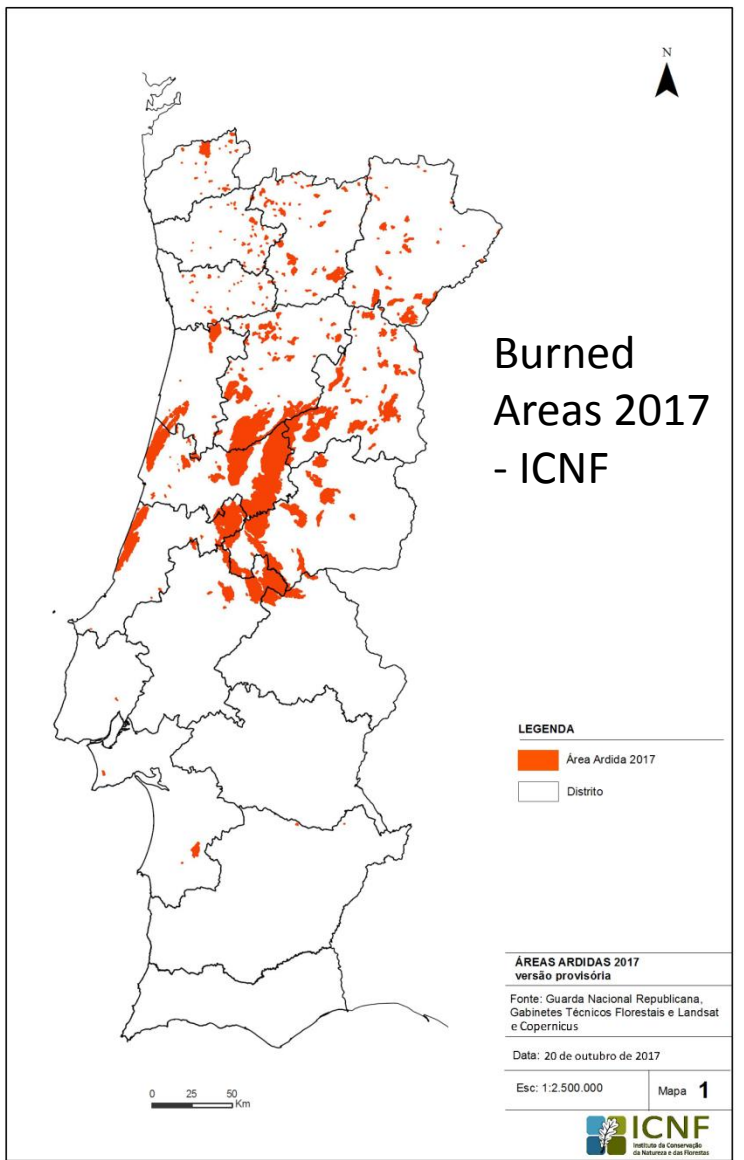
# SUDOE : 11 partners, 3 countries



# Wildfires: South Europe Context



(JRC, 2018)



# Objective

The aim of this group is to assess the Portuguese national and Spanish regional forest fire management plans and establish a set of recommendations.



# Methodology

**GT1: Analysis of organisations involved in forest risk management : interviews**



**GT2: Tools implementation and Writing/Improving risk management plans : workshops**



**GT3: Risk management plans evaluation : workshops**



**GT4 : Validation and transfer**



# Results

## WEAKNESSES

- Prevention and rehabilitation phases are the weakest ones, the latter being completely absent from the plans, **except in Galicia and in the National Plan for Forest Fire Defense in Portugal;**
- In Portugal, civil protection priority is to save lives and not fighting forest fires. This is probably the most important problem related to forest fire crisis management: not having specific forest fires fighting crews.

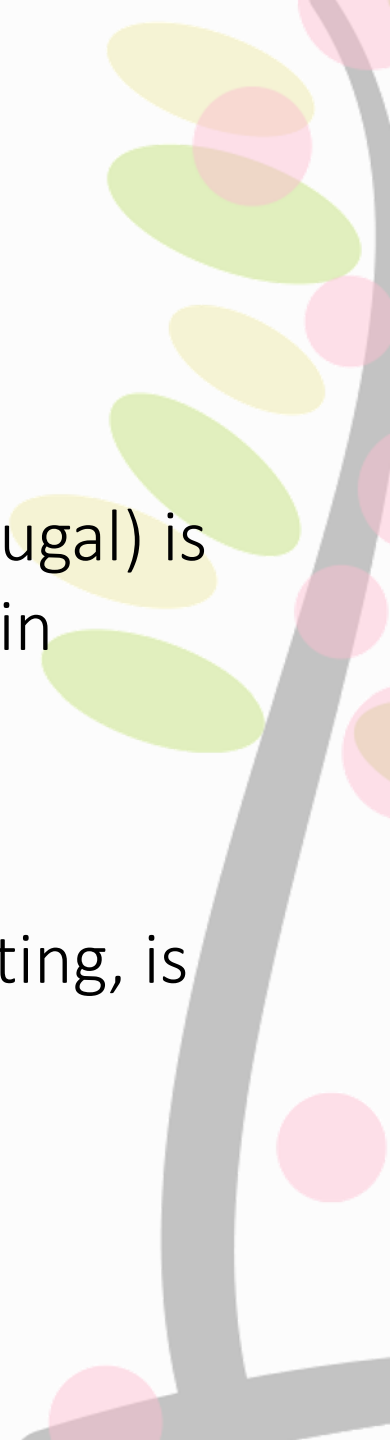




# Results

## STRENGTHS

- The general opinion of the interviewed organizations (Spain and Portugal) is that they have access to technical tools and to advanced technology in prevention, prevision and crisis management phases;
- Prevision is judged adequate, and crisis management, mainly firefighting, is perceived efficient and well equipped.

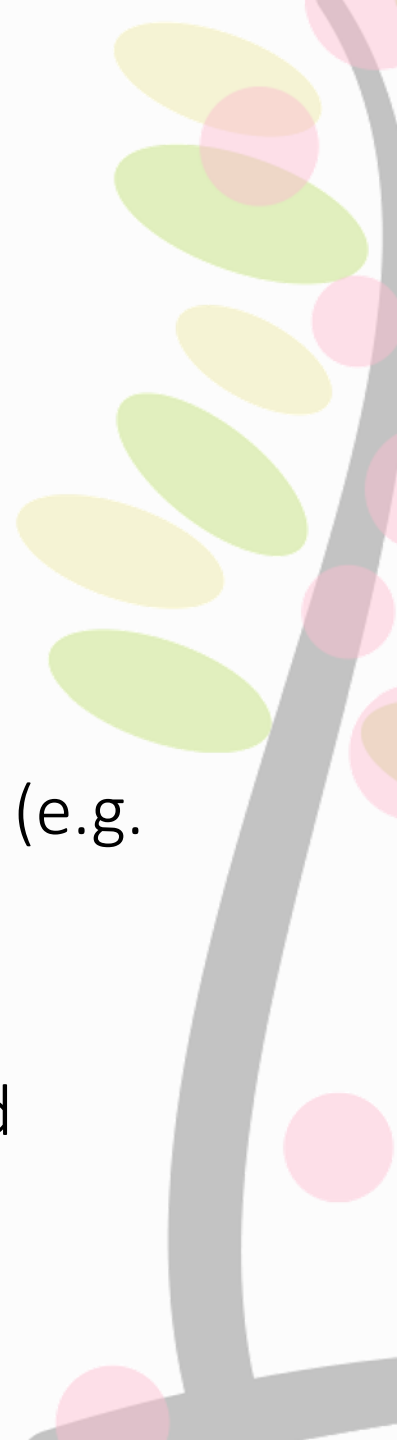






# Results

- Not all the regions have wildfire risk plans however all of them have institutions responsible for the prevention, warning and emergency/extinction of wildfires;
- Some of the regions don't have fuel map (e.g. Asturias);
- or don't have enough work in the fire risk education and awareness (e.g. Portugal);
- The use of fire behavior simulators as a decision support tool for prevention and extinction is not a common tool used on the studied regions.



# Development of new tools

## Fire risk plans – a common language for Iberian Peninsula

Small Book with best practices concerning the risk components that should be taken in consideration when preparing a wildfire risk plan.

The book contents are:

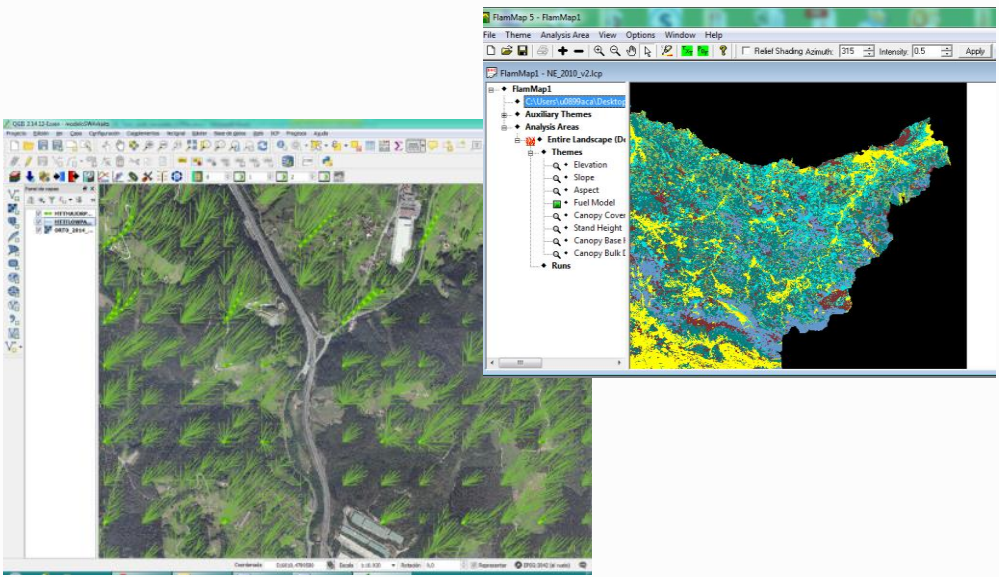
- » Typology of past fires using historical records;
- » Meteorology;
- » Fuel Maps;
- » Simulation tools;
- » Environmental education and fire risk awareness;
- » Practical example.



# Development of new tools

## Basque country

Two new tools were developed to facilitate the use of fire simulators: Landscape Maps by LiDAR flight 2012 (LCP file) and Maps of areas of high fire risk in the Basque Country (by WindNinja software)

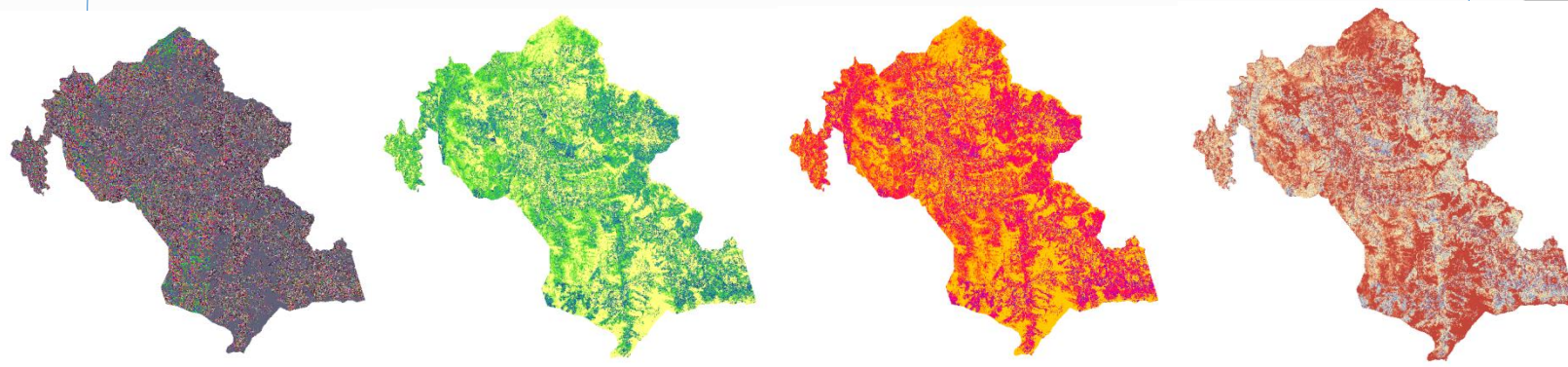
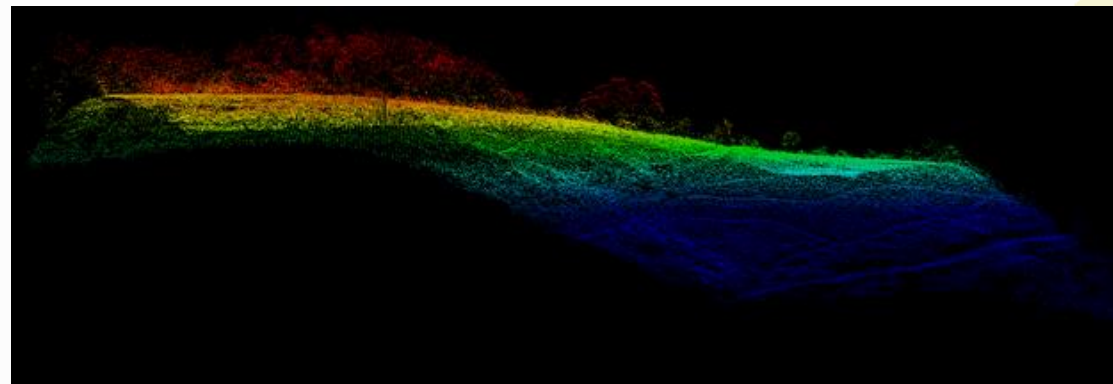
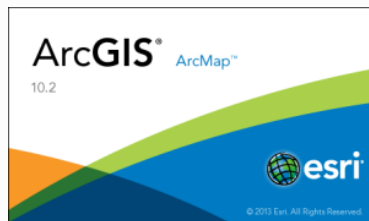


As a final result of the collaboration, it is expected to be able to use fire simulators in the drafting of forest management plans and in the fight against forest fires.

# Development of new tools

Asturias

## LiDAR data to create fuel maps



Canopy height

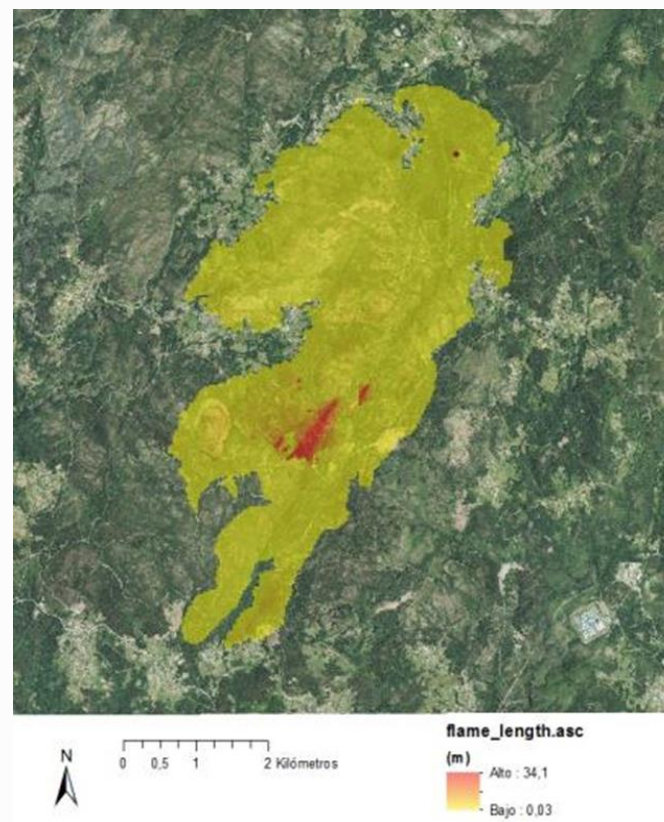
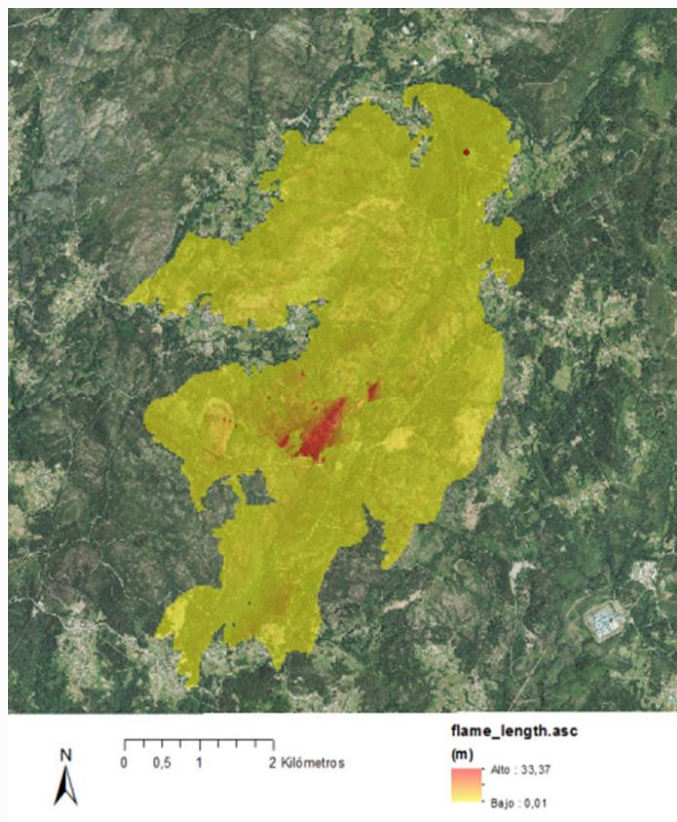
Scrub height

Canopy density

Scrub density

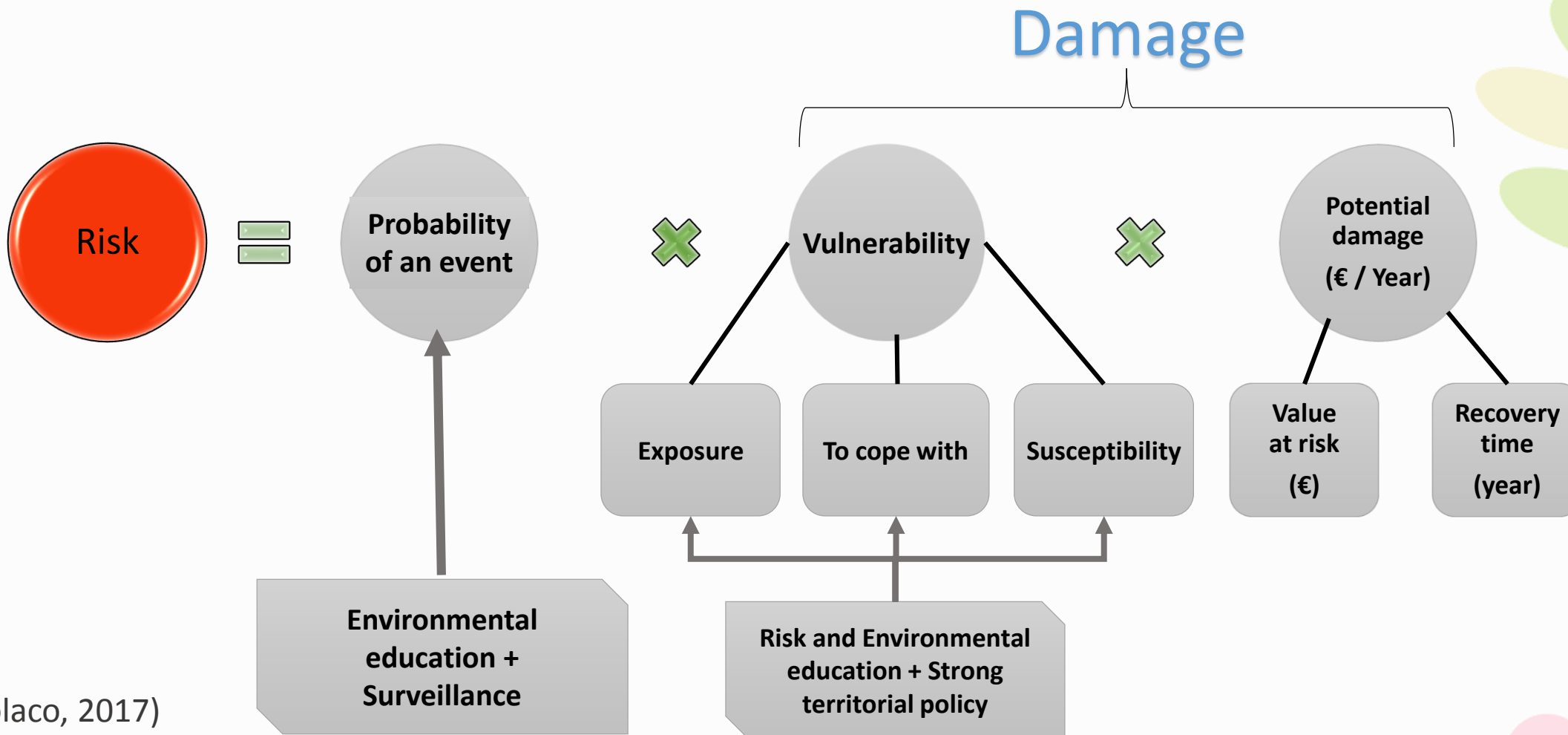
# Development of new tools

Fire simulators to help optimize fuel management and to help on firefighting (eg. FARSITE, FLAMMAP)



# Development of new tools

- social dimension of forest fires to decrease risk



(Colaco, 2017)

# Main recommendations

- Up-to-date input data
- Continuous analysis of fire behavior
- Education and awareness
- Inter-administrative coordination between regional councils and cross-border cooperation



*Thank you for your attention*

*Any questions...*

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