

# **Expanding collaborations through the Pau Costa Foundation:**

## **From theory to practice**

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Complete  
Uncertainty

More means for suppression  
will not solve the problem.

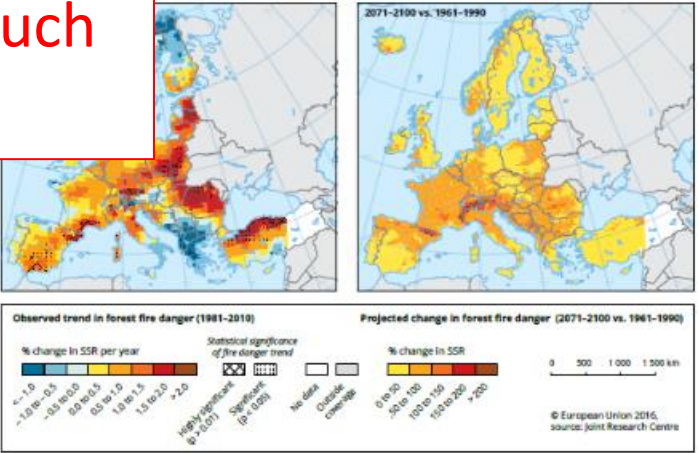
Understanding fire behavior  
and managing fuels according  
to fire ecology can be much  
more efficient.

Large population + WUI

1 person per square km



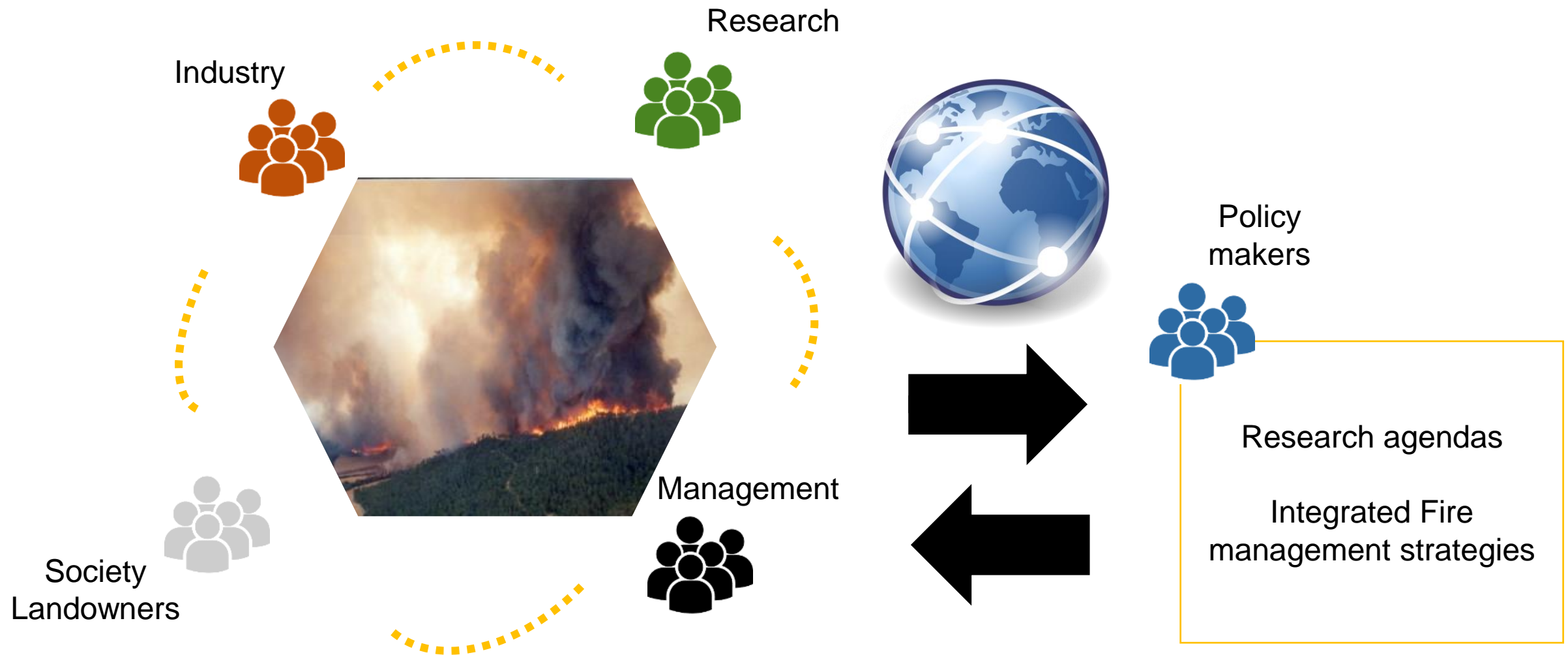
Climate change impacts



**Note:** Fire danger is expressed using the SSR. Daily severity values can be averaged over the fire season using the SSR index, which allows for objective comparison of fire danger from year to year and from region to region. The coarse scale of the map does not allow specific conditions of given sites to be accounted for, as, for example, in the Alpine region, where the complex topography may strongly affect local fire danger.

**Source:** Camia, 2012 (personal communication), based on Camia et al., 2008.





# Pau Costa Foundation: Wildfires, Fire Ecology and Crisis Management

Contact point to facilitate the exchange of wildfire knowledge at different scales



## KNOWLEDGE FROM THE EXPERIENCE



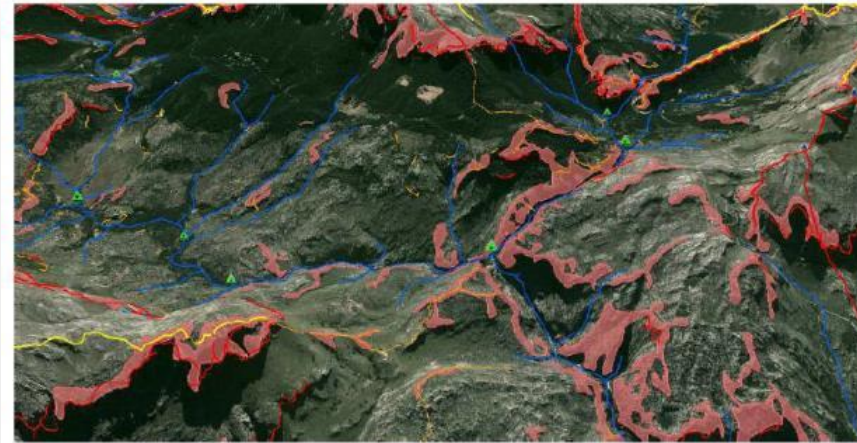
## **Approaches for collaboration at different scales:**

- **Engagement of different actors to create resilient landscapes and societies**
- **Support initiatives to exchange and create fire (management) knowledge & tools around the world**



## Sustainable models involving local communities

- Strategic management → involve fire experts, researchers & citizens.
- Sustainable rural economies → contribution to mosaic & resilience.
- Empower landscape managers → training shepherds on fire ecology & landscape resilience.
- Participatory processes → democratising wildfire strategies.



## Engage through communication

Community resilience → *Firewise*



Toolkit with communication resources:

→ Education programs. MEFITU: “The Mediterranean Forest, the Fire and You”.

→ Cartoon series.

→ Art.

→ Guidelines for educators, journalists and policy makers.



<http://peopleartfactory.com/g/fuego-vs-fuego>

## **Approaches for collaboration at different scales:**

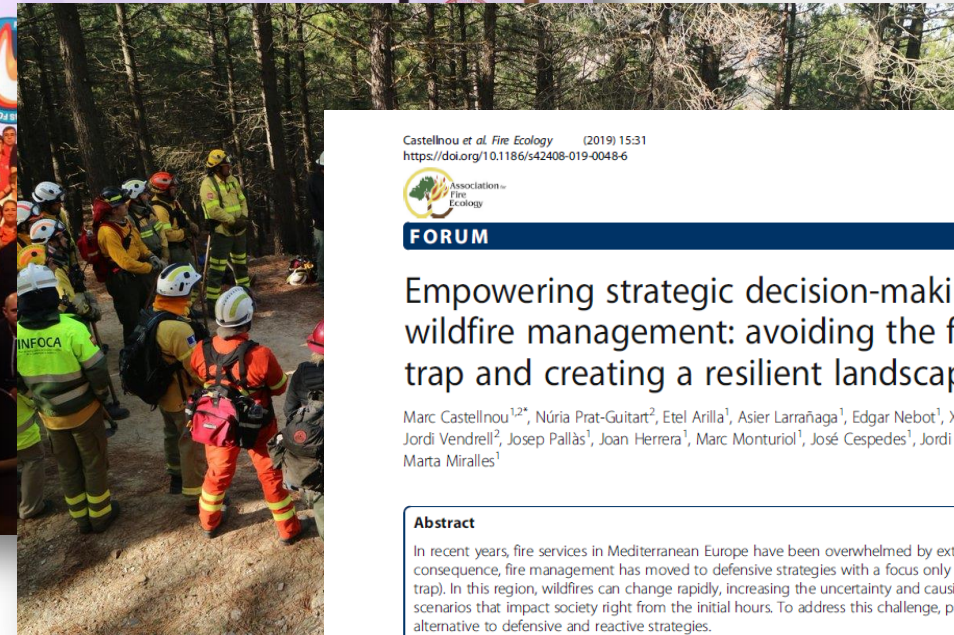
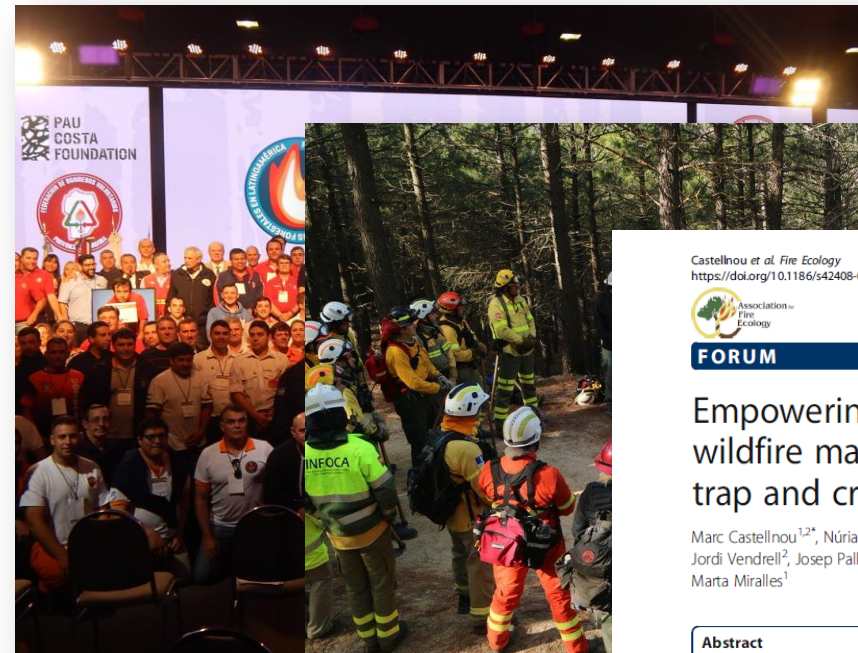
- **Engagement of different actors to create resilient landscapes and societies**
- **Support initiatives to exchange and create fire (management) knowledge & tools around the world**



- Learn from lessons learned → exchanges of knowledge at regional and international level.
- Give visibility to the fire community → active source of knowledge.



*Exchanges between organisations to exchange knowledge and train*



Castellnou et al. *Fire Ecology* (2019) 15:31  
<https://doi.org/10.1186/s42408-019-0048-6>

Fire Ecology



FORUM

Open Access



## Empowering strategic decision-making for wildfire management: avoiding the fear trap and creating a resilient landscape

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### Abstract

In recent years, fire services in Mediterranean Europe have been overwhelmed by extreme wildfire behavior. As a consequence, fire management has moved to defensive strategies with a focus only on the known risks (the fear trap). In this region, wildfires can change rapidly, increasing the uncertainty and causing complex operational scenarios that impact society right from the initial hours. To address this challenge, proactive approaches are an alternative to defensive and reactive strategies.

We propose a methodology that integrates the uncertainty of decisions and the cost of each opportunity into the strategic decision-making process. The methodology takes into account values such as fire-fighting safety, organizational resilience, landscape resilience, and social values.

Details of the methods and principles used to develop and implement a creative decision-making process that empower the fireline are provided. A tool that segregates the landscape into polygons of fire potential and defines the



- Networking events → identify gaps & challenges for management & Open new opportunities for collaboration.



Wildfire Magazine, Aug 2019

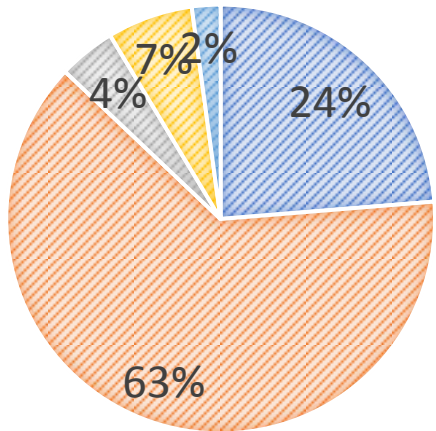
- Understanding wildfires and creating solutions → participation in R+D+i projects to enhance excellence and innovation.

PyroLife

+15 PhD students

## SURVEY PARTICIPANTS

- Academia
- Management
- Industry
- Intermix
- Other



Knowledge from managers is key to develop R+D+i that is applicable for real life problems.

Engagement of fire managers in R+D+i projects is currently not enough (<45% projects).

It is really important to include management experiences and lessons learned in R+D+i (91% of managers).

Final users should be part of the project since the R+D+i design. Validation is not enough to obtain applicable results.

Transdisciplinary teams.

Fire managers as data providers to provide a global database of knowledge and data.

Best ways to communicate the R+D+i outputs is in practitioner online portals and practitioner journals.

Regional events, where theory goes into practice, are the best places for engaging fire managers.





Thank you!

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## FIRE ECOLOGY ACROSS BOUNDARIES: CONNECTING SCIENCE AND MANAGEMENT

October 20-23, 2020

— Florence, Italy —

The Association for Fire Ecology and Pau Costa Foundation are partnering with Regione Toscana and University of Florence to host a conference in Europe for wildland fire scientists and managers. Save the date and join us in Florence for workshops, plenary and concurrent presentations, and field trips.

*More information will be posted soon at  
[fireacrossboundaries.org](http://fireacrossboundaries.org)*



???

How is climate change affecting fires in Atlantic & Northern Europe?

How can fire ecology be used for emergency management?

What is the impact of small fires for future fire regimes?

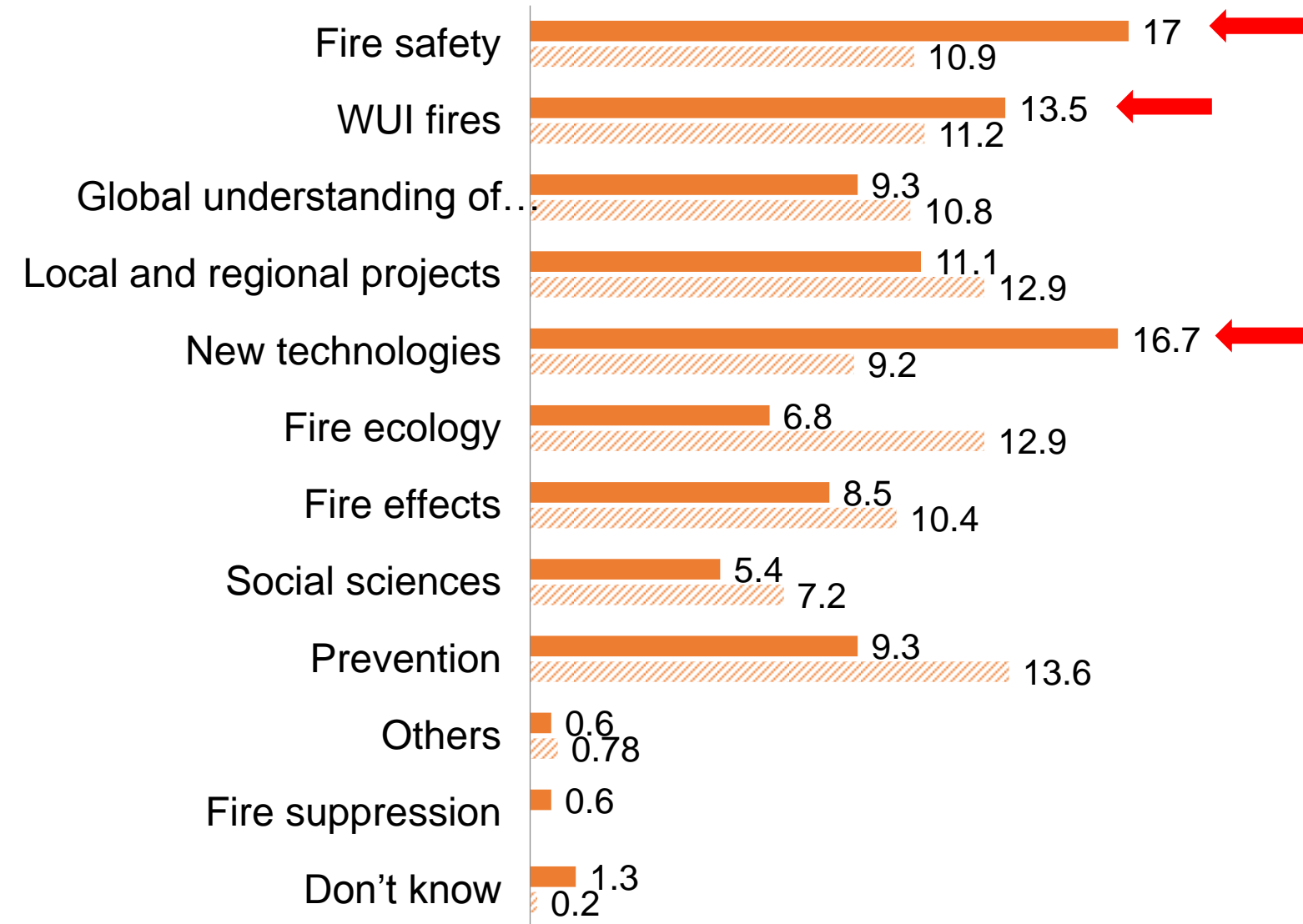
How good is prescribed burning to reproduce natural fires?

How are plant adaptations to fire responding to climate change?

How is the fire ecology and behaviour changing inside a WUI?

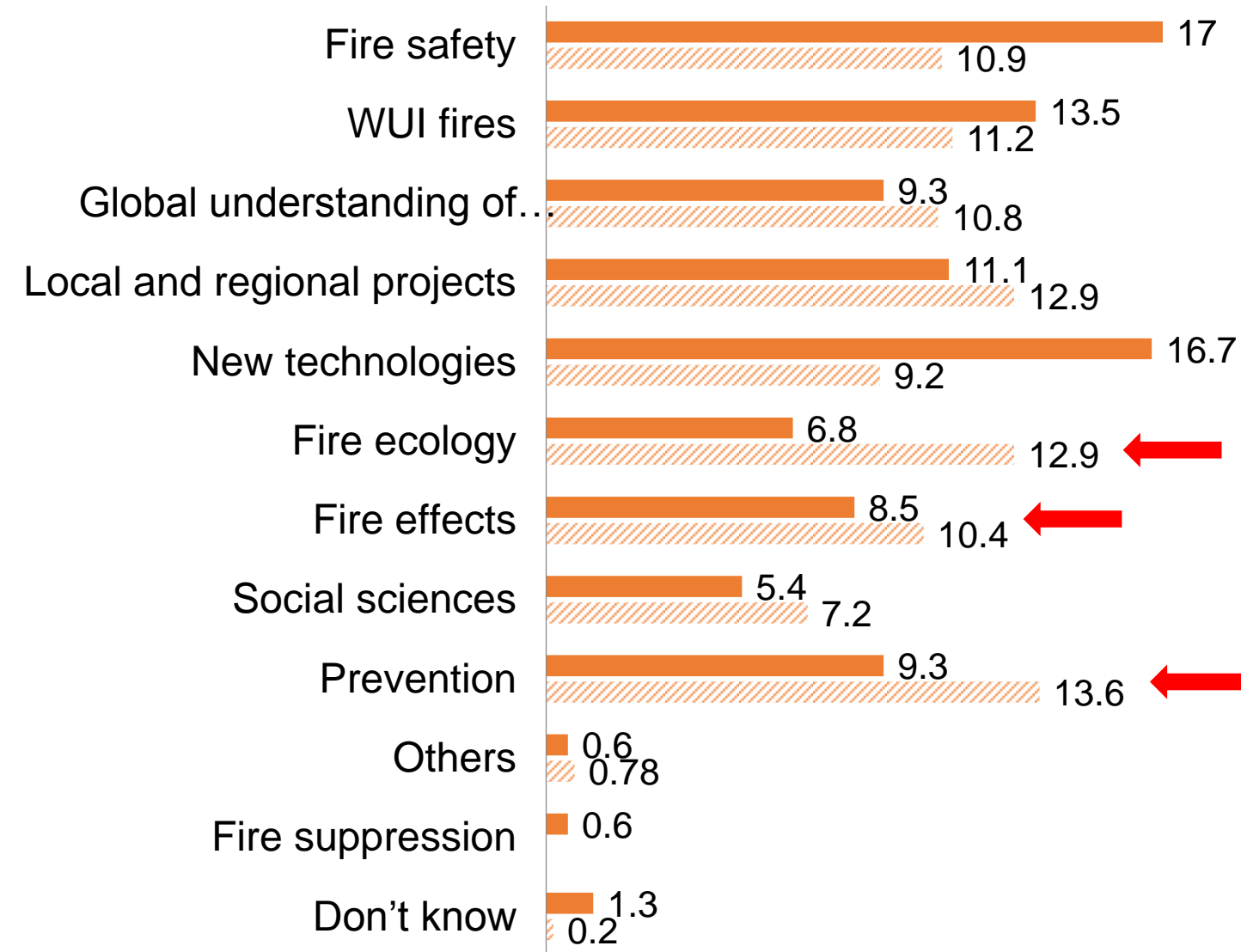
# Perception – What topics are better covered by R+D+i?

■ Current R+D+i (%)    ▨ Needed R+D+i (%)

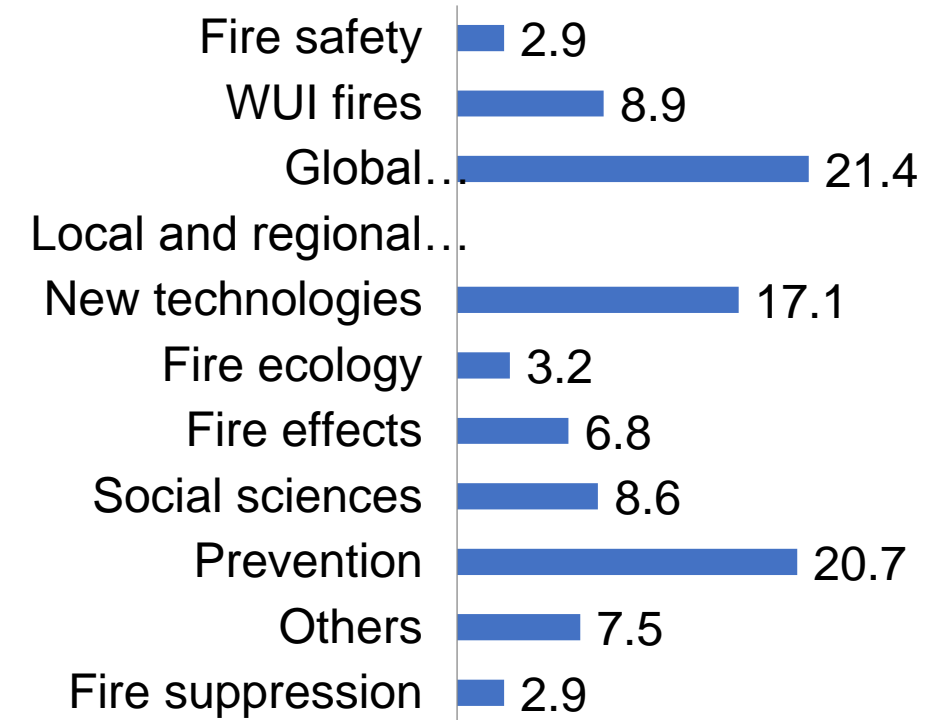


# Perception – What topics are better covered by R+D+i?

■ Current R+D+i (%)    ▨ Needed R+D+i (%)



■ EU Funding (%)



Gap Explorer: <https://drmkc.jrc.ec.europa.eu>