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# The southern **EU**rope biomass **BURN**ing project

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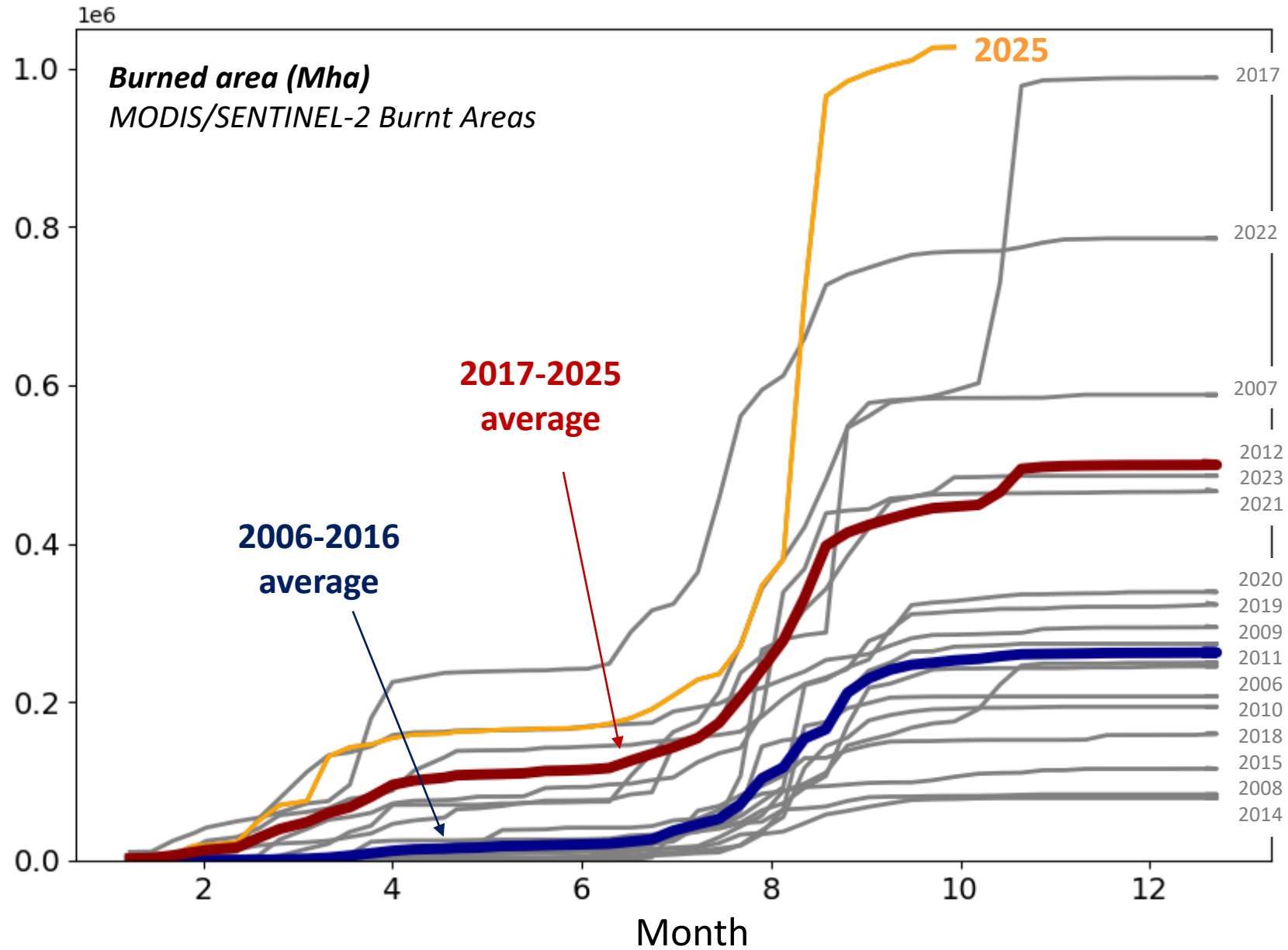
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# The new wildfire regime in Europe



**EUBURN**  
The southern Europe biomass BURNing project

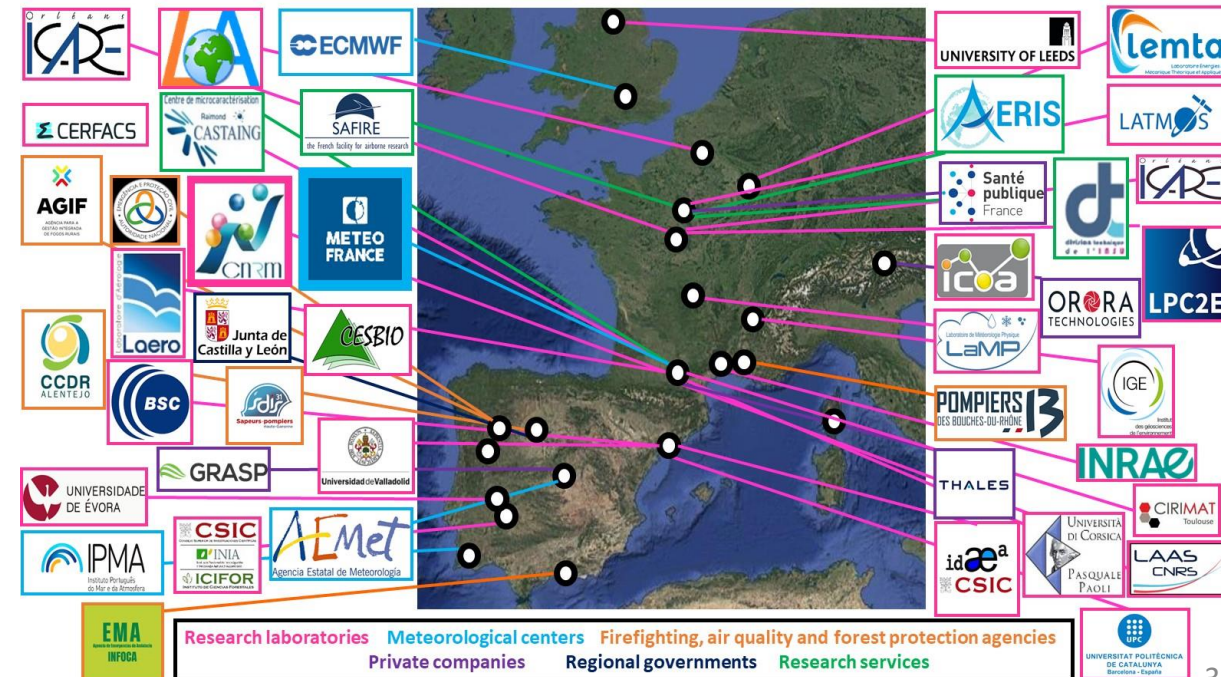
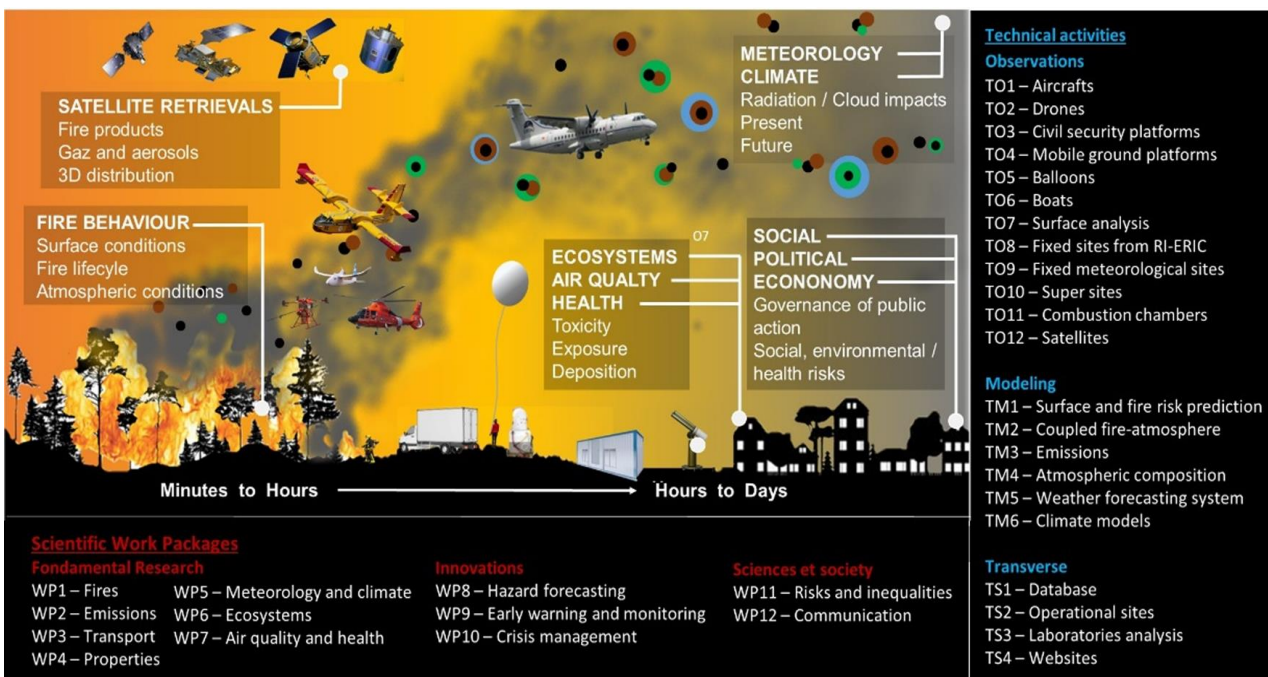


# EUBURN in a few words



**EUBURN**  
The southern EUrope biomass BURNing project

- **Objectives:** To conduct high-impact research on wildfires and their smoke plumes in order to develop new observational and modelling tools for preventing, monitoring, forecasting and mitigating risks associated with these events in Southern Europe.
- **A large multidisciplinary collaborative framework:** >50 international partners, including multidisciplinary research institutes, meteorological centers, firefighting protection agencies, air quality monitoring agencies and industries.
- **A series of complementary projects :**
  - 9 european and national projects funded
  - 8 projects submitted

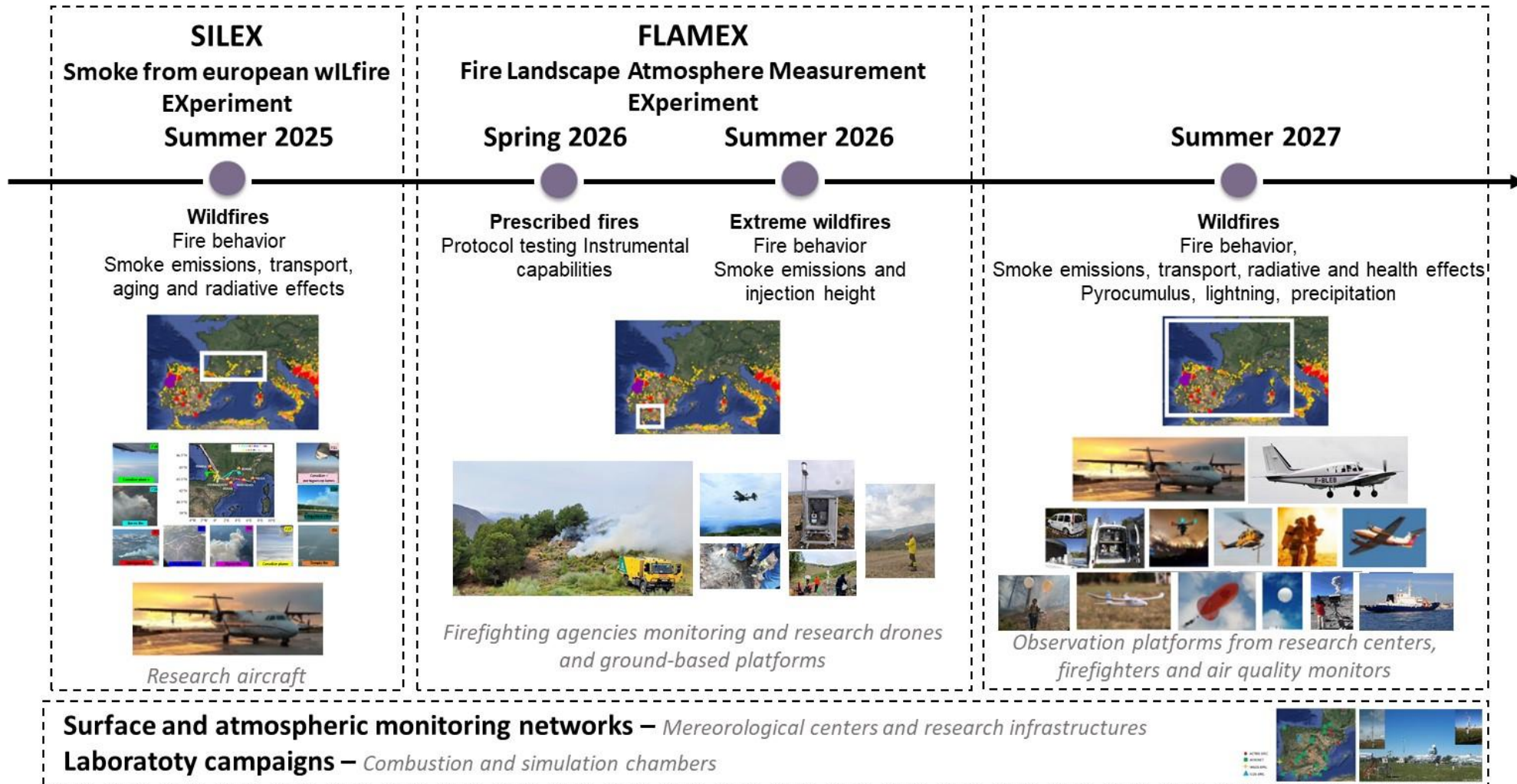


# A series of field and laboratory experiments



**EUBURN**  
The southern EUrope biomass BURNing project

- **Objectives:**
  - Characterize the interaction between fuel status, fire ignition and propagation
  - Uncover the mechanisms that leads to extreme wildfire behaviour
  - investigate the modification that wildfire-induced smoke produces on weather and climate

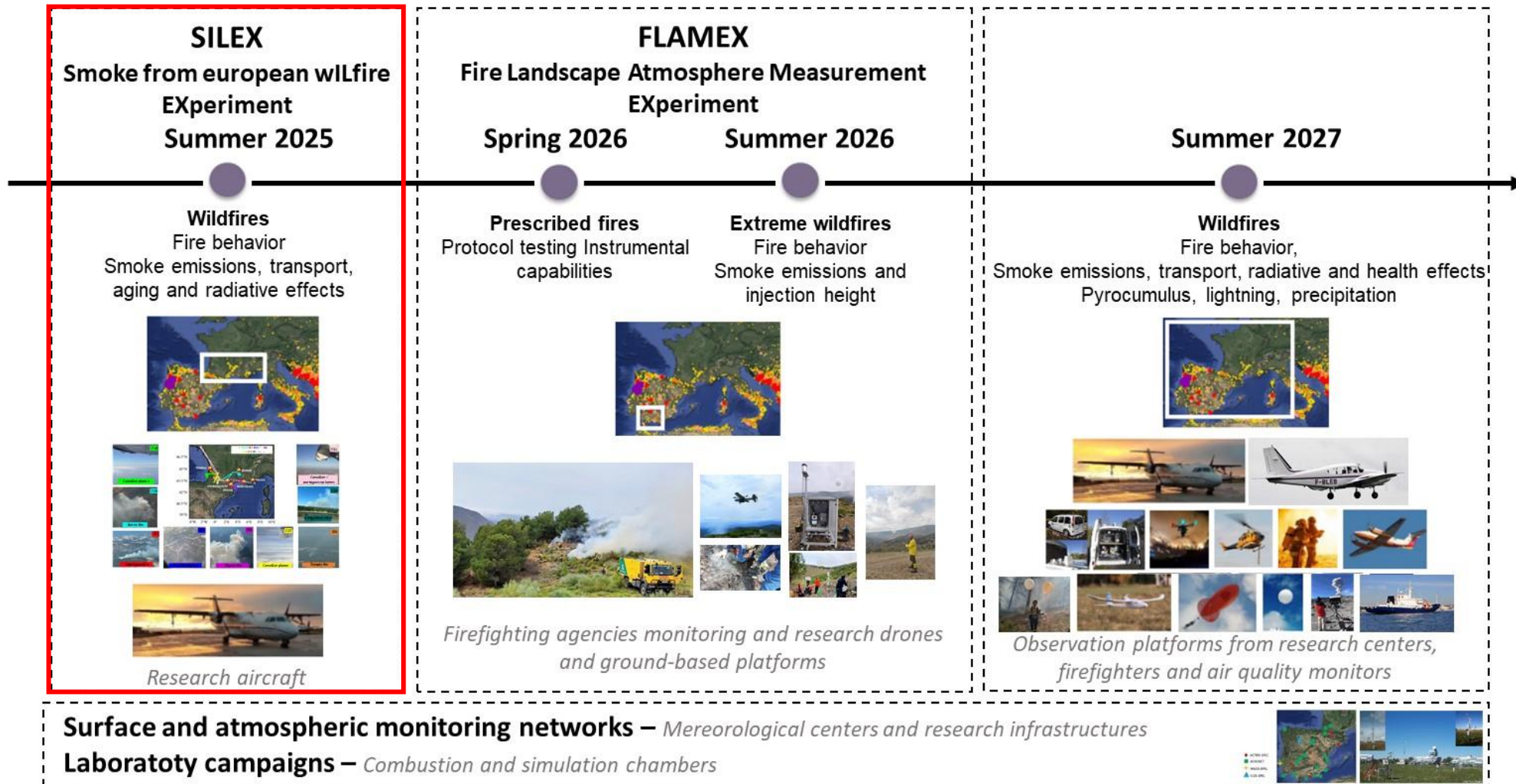


# A series of field and laboratory experiments



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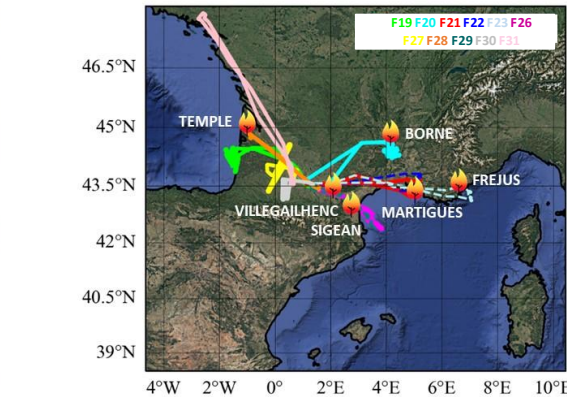


# SILEX, the first airborne campaign dedicated to studying wildfires in Europe



**EUBURN**  
The southern EUrope biomass BURNing project

- **Ten scientific flights** carried out with the ATR-42 research aircraft operated by SAFIRE from 15 July to 3 August 2025 in southern France
- **State-of-the-art remote-sensing and in situ instruments** to characterise:
  - Wildfires location and intensity
  - 3D smoke transport
  - Concentrations of gaseous compounds
  - Microphysical, chemical, optical, and hygroscopic properties of aerosols.
- **6 wildfire events that occurred in southern France**
- **10 long-range transport smoke plumes** emitted from Canada, Portugal and Spain



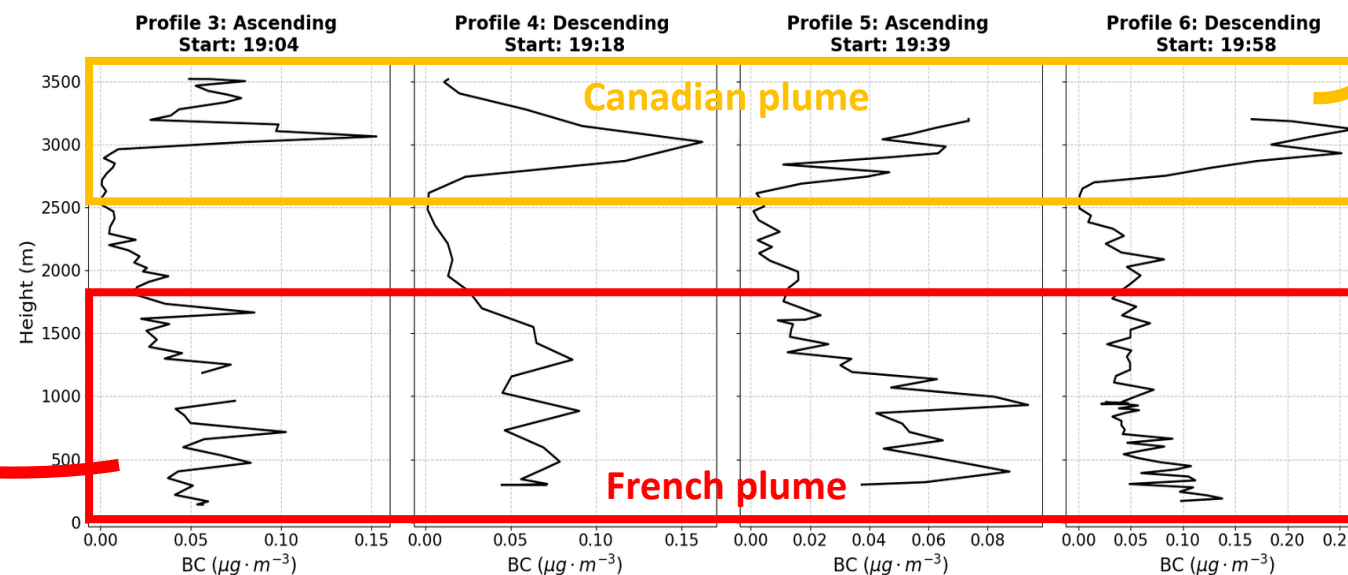
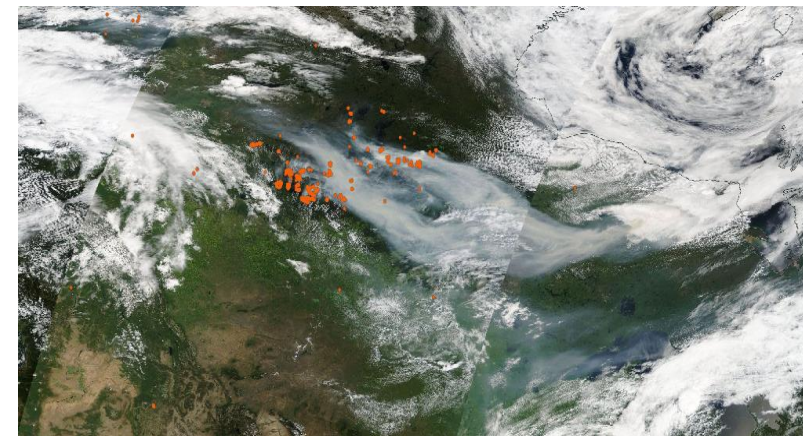
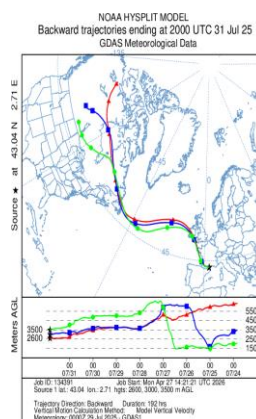
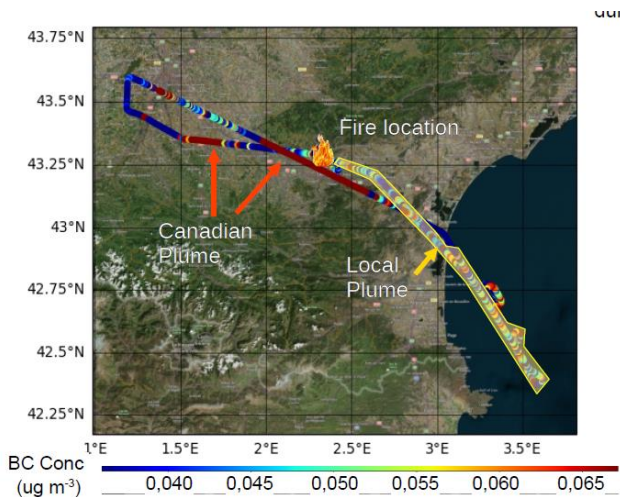
# Troposphere typically composed of two layers of local and long-range transported smoke plumes



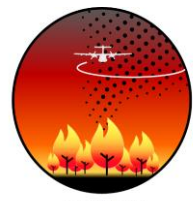
EUBURN

The southern EUrope biomass BURNing project

26 - 27 July 2025 - 600 hectares burned in Southern France



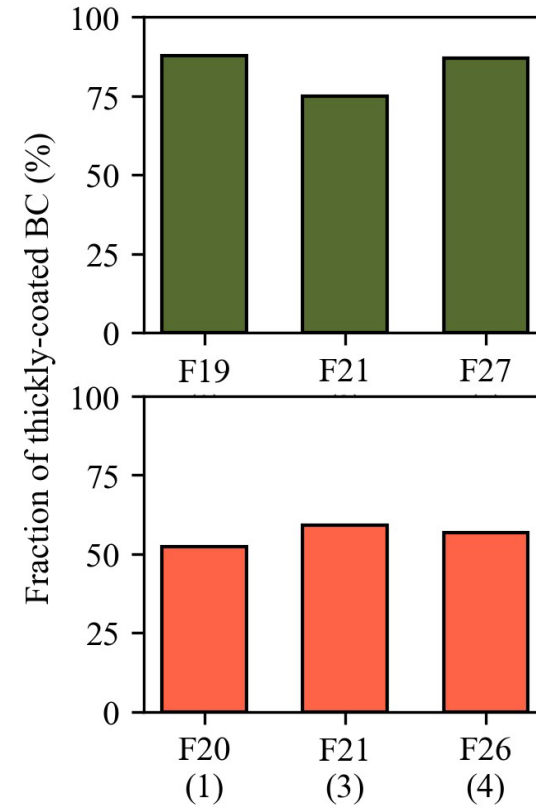
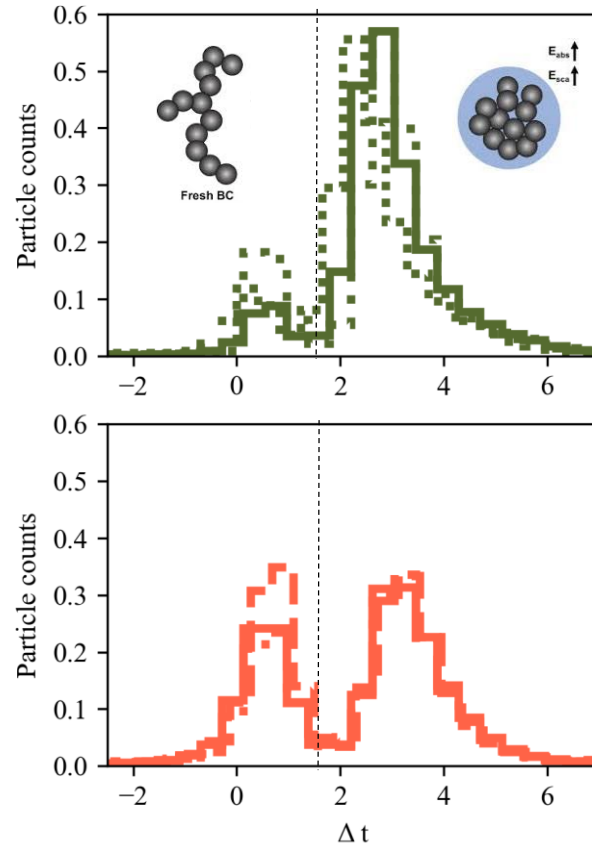
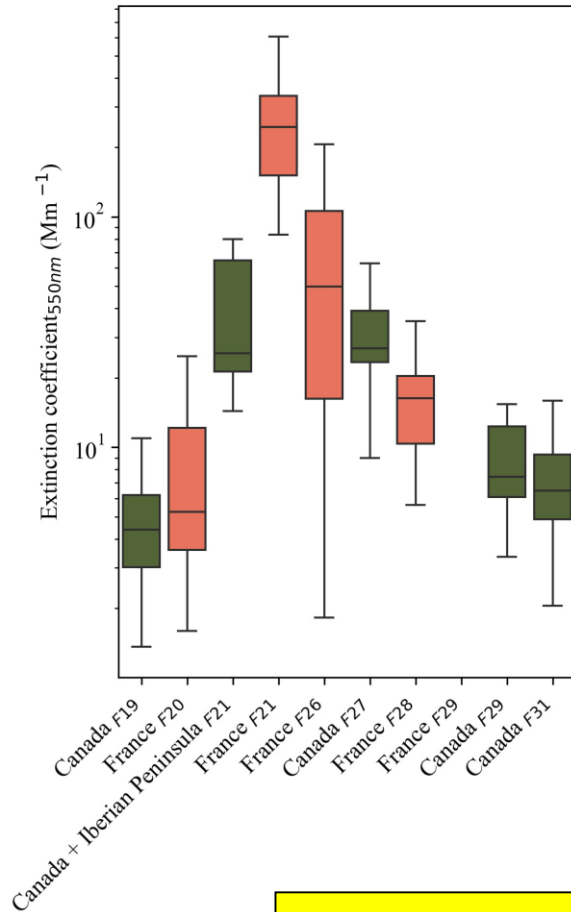
# In-depth characterisation of the aerosol optical properties in relation to black carbon mixing state



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Local plume

Long-range transported plume



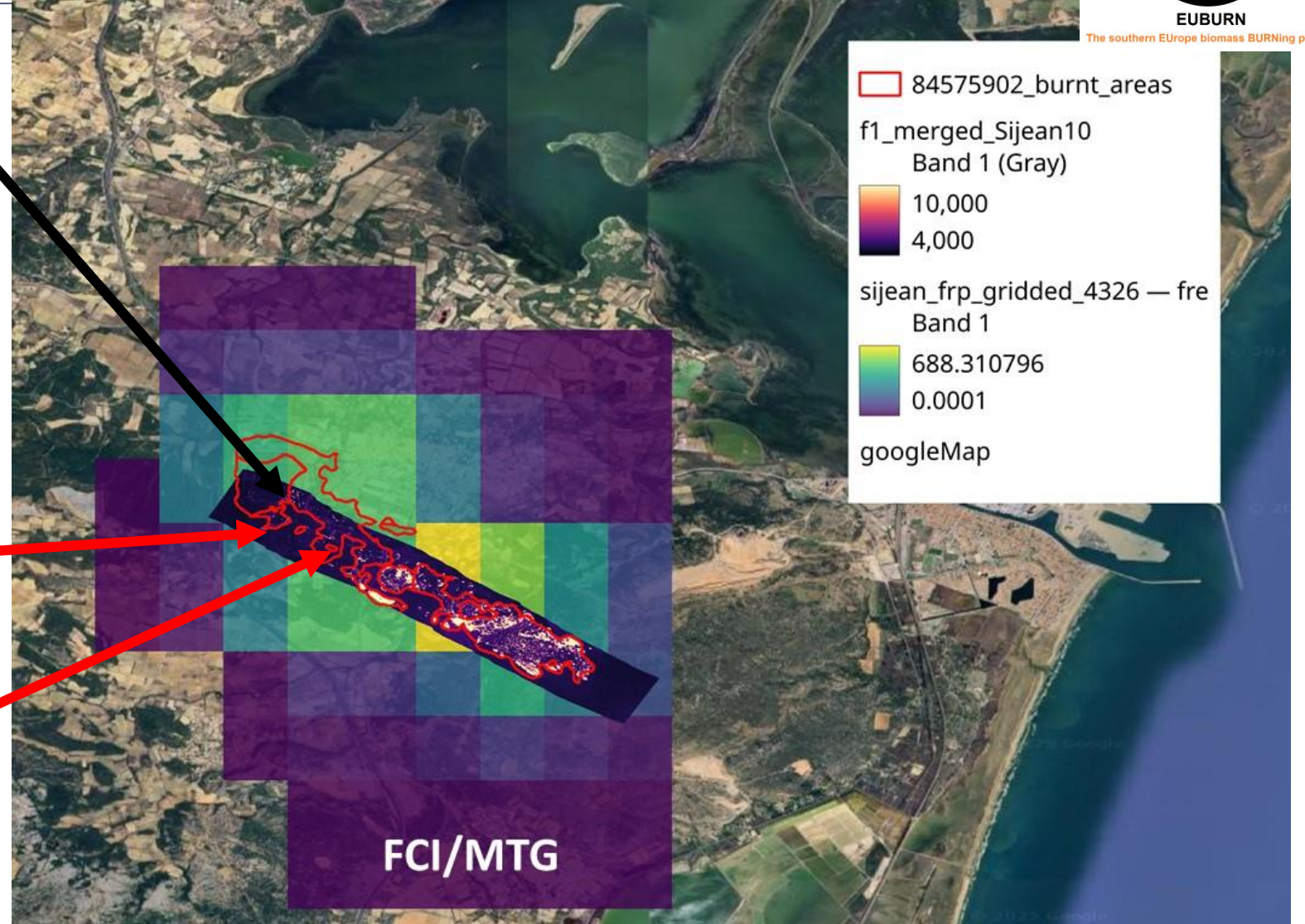
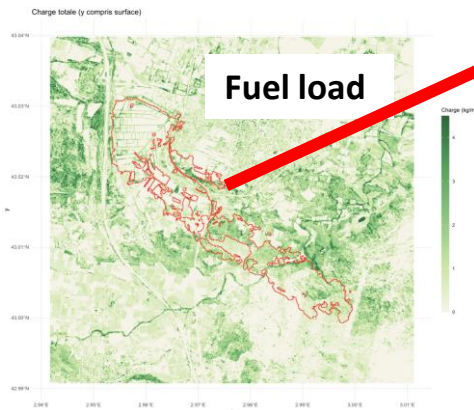
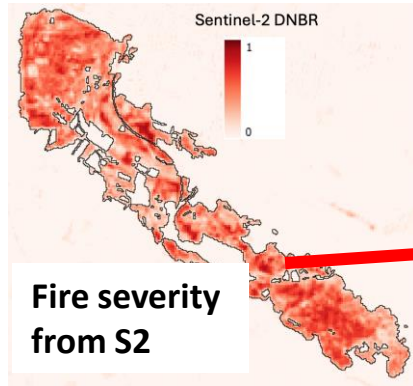
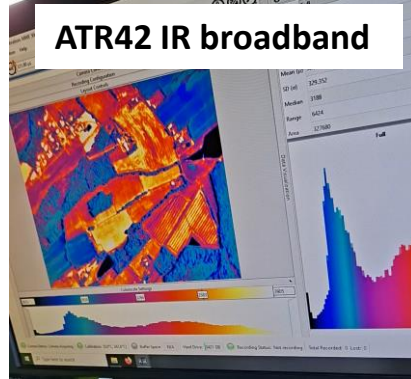
Posters by Alejandra Velazquez Garcia on Wed, 6 May, 16:15–18:00 | Hall X5

# Event-Scale Fire Behavior characterization from satellite MTG/FCI Observations and Airborne Observation



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Presentation by Ronan Paugam on Mon, 4 May, 08:30–15:45 | Room 1.15/16

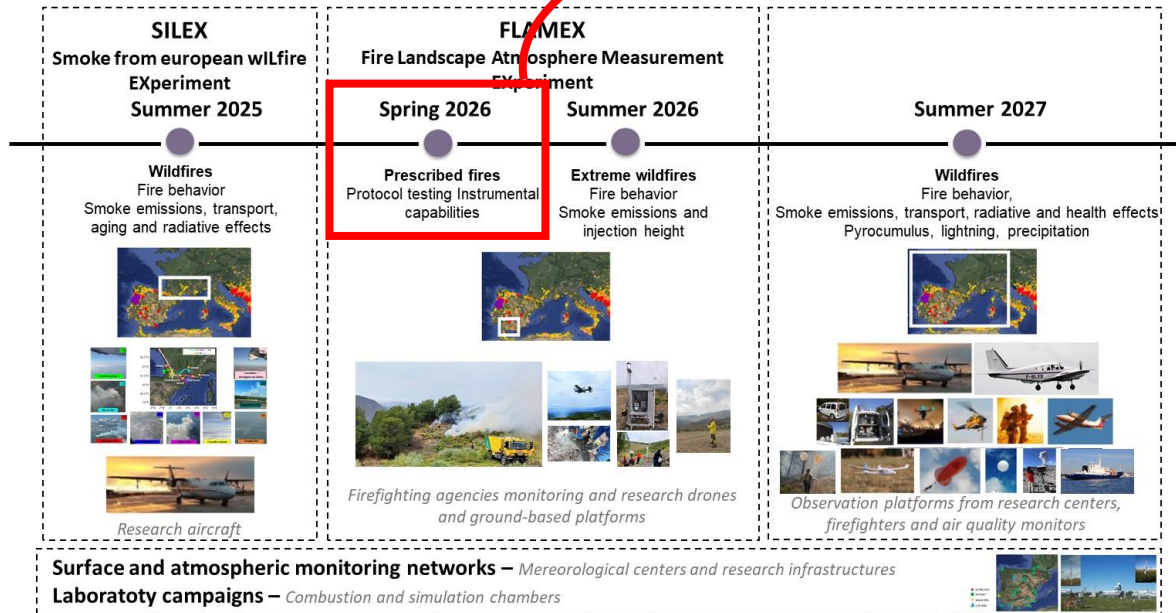
# Concluding remarks



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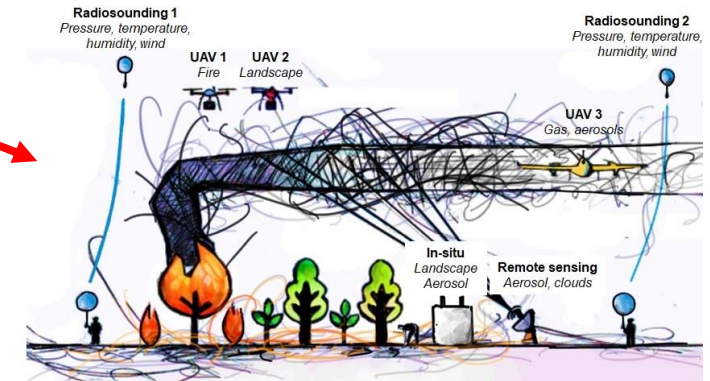
- Open data access for the community: <https://euburn.aeris-data.fr/catalogue/>
- Follow our adventure here : <https://www.linkedin.com/company/euburn-risk/posts/>
- We are only at the beginning of the EUBURN adventure !

Last week in Andalusia



## FLAMEX – Fire Landscape Atmosphere interactions Measurement EXperiment

Special Observation Period1 from 27 to 30 april 2026



# Thank you !

