

# DAMOCLES

UNDERSTANDING AND MODELING COMPOUND CLIMATE AND WEATHER EVENTS

European COST Action CA17109

## CASE STUDY

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### April-October 2017 heat-drought-cyclone event

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#### Case study aim and description

Describe the meteorological conditions for extreme fires on the Iberian peninsula. Influence of heat and drought in agriculture and water management

This case study is stakeholder driven, by a request of the PT MET office

#### Compound event types

3 Compound climate events will be modelled:

- Summer 2017: heat + drought
- June: heat + drought + fire
- October: heat + drought + fire + wind(cyclone)
- WRF model

#### Stakeholders

- Met office
- Civil protection agency
- Forest managers

#### Method of collaboration

Stakeholders will actively participate in a workshop at the end

#### Case study timeline

June 2019 - December 2020

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#### Contacts

Case study coordinator: Rita Cordosa:

Case study contributors: Rita Pongratz: RegCM model contributions; Gitta Lassop: linking up biophysical data in global fire models; Sonia Quiroga & Cristina Suarez: Economical analysis of agriculture impacts of heat and drought

#### References & resources

Sánchez-Benítez, A., García-Herrera, R., Barriopedro, D., Sousa, P. M., & Trigo, R. M. (2018). June 2017: The earliest European summer mega-heatwave of reanalysis period. *Geophysical Research Letters*, 45. <https://doi.org/10.1002/2018GL077253>