modextreme

modelling vegetation response to extreme events

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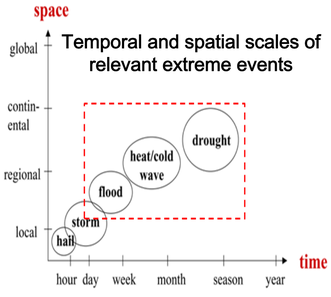
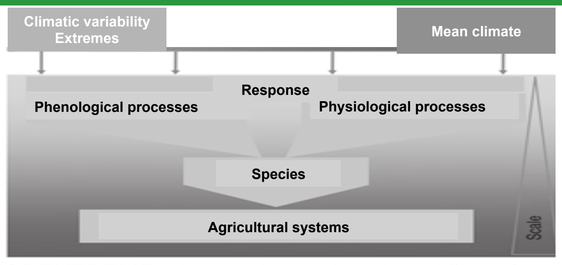
Background

Extreme weather events such as **heat waves**, **cold shocks**, **droughts** and **floods** are expected to increase in intensity, frequency and extension with climate change.



For addressing climate change impacts on food security, there is a need to better integrate the effects of extreme events into model-based assessments.

Aims



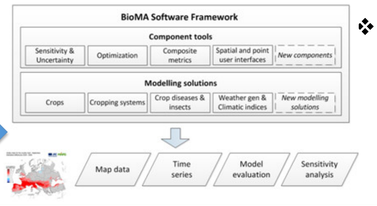
MODEXTREME aims at improving the ability of crop and grassland models to estimate the **impact of extreme weather events on agricultural production** in the short-medium term (up to mid 21st century).

MODEXTREME will:

- Integrate into crop and grassland models the **responses to extreme climatic events**
- **Improve yield monitoring and forecasting systems** across different climate conditions
- **Estimate trajectories of agricultural productivity** in the short (in-season) to medium time horizons
- **Develop reusable software units** to extend the multi-model platform BioMA - Biophysical Model Applications of the European Commission Joint Research Centre (MARS)

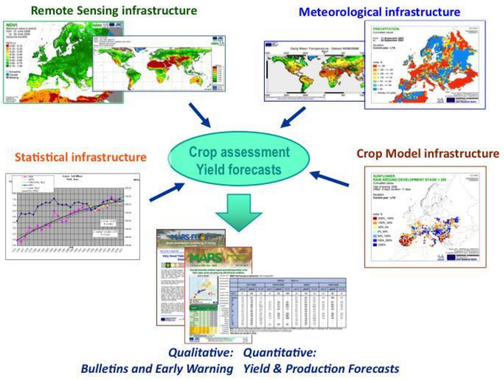
Expected impacts

- **Transfer of knowledge** via model objects and improved operational tools for yield forecasts
- **Technological support** in and outside Europe for in-season crop and grassland yield modelling
- Contribution to early warning to decision-makers to **improve food security** assessment



- Support to the **EU-28 Common Agricultural Policy** by forecasting agricultural yields

MARS: Monitoring Agricultural ResourceS



Consortium

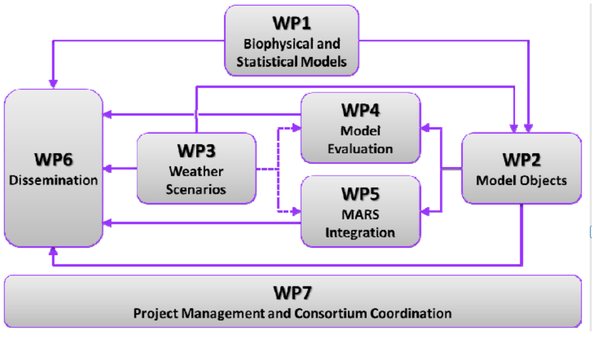
All countries involved in MODEXTREME

European countries involved in MODEXTREME

INRA

INTA UEA University of East Anglia Embrapa dmi CRA

Project structure



Workpackage leaders

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Scientific Advisory Board

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Organisation

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Website:
http://www.modextreme.org