

# INPRESSIONS



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# **EUROPEAN CASE STUDY**



Aim: To work with decision-makers to improve understanding of the impacts, risks, vulnerability and adaptation options associated with high-end climate and socio-economic scenarios within Europe.

**Theme:** Understanding how impacts and adaptation responses in one sector (e.g. urban, health, agricultural, forestry, water and biodiversity) can have positive or negative effects in other sectors.

## Main outcomes

### **Methods**

- Advancing the CLIMSAVE Integrated Assessment Platform (IAP) for Europe to analyse cross-sectoral for the urban, agriculture, forestry, interactions biodiversity, water, coasts and health sectors under highend scenarios.
- Developing a time-dependent integrated modelling system for Europe to evaluate the influence of timing on adaptation effectiveness under high-end scenarios.
- > Application of a detailed, process-based eco-hydrological soil and water model (SWIM) to understand the impact of extreme events on selected European river basins under high-end scenarios.
- Development of agent-based models for Europe which simulate institutional behaviour through time with respect to climate change, and produce outputs on rural land allocation, socio-economic performance and economywide implications of the high-end scenarios.

- $\geq$  A more thorough understanding of European decisionmakers' needs for increasing the robustness of decisions in response to high-end climate change scenarios.
- > A set of integrated high-end climate and socio-economic scenarios for Europe.
- Improved quantification and mapping of cross-sectoral impacts, risks and vulnerabilities associated with high-end scenarios along with consideration of their uncertainties.
- Advances in how adaptation is modelled by incorporating a more comprehensive representation of associated constraints, triggers, time lags and consequences.
- > A set of sustainable development transition pathways for Europe that offer options for harmonising adaptation and mitigation strategies to enable European society to adapt effectively to potential impacts under high-end scenarios.

# PARTNERS

- Cranfield University
- TIAMASG
- University of Oxford
- University of Edinburgh
- University of Kassel
- LSHTM

- ETH Zurich, Switzerland
- PIK
- SSSA
- CNRS
- SYKE

- > Assessment of the robustness of European policies and the need for transformative strategies to deal with highend scenarios.
- $\succ$  A knowledge network and Information Hub to support mutual learning and enhance European decision-makers' capacity to take up the project's recommendations.

For further information see <u>www.IMPRESSIONS-project.eu</u> or contact:

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