PARTNERS



BESTMAP

UK

> University of Leeds (UNIVLEEDS) Centre for Ecology and Hydrology (CEH) Cambridge Econometrics Limited (CE)

Germany

Helmholtz Centre for Environmental Research - UFZ (UFZ) Technische Universität Dresden (TUD) Mundialis GmbH & Co.KG (MUND)

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Switzerland University of Basel (UNIBAS)

Czech Republic Univerzita Palackého v Olomouci (UPOL)

Spain **(\$)**

Centro de Investigación Ecológica y **Aplicaciones Forestales (CREAF)** Departament d'Agricultura, Ramaderia, Pesca i Alimentació (DARP)

Belgium

> The Rural Investment Support for Europe Foundation (RISE)

Ŵ Serbia

Research and Development Institute for Information Technologies in Biosystems (BIOS)

Bulgaria Pensoft Publishers (PENSOFT)

KEYWORDS %

Behavioural change theory, Ecosystem services, Agricultural economics, Rural policy impact assessment, Agent-based modelling, Biophysical modelling, Farming Systems Archetypes

CONSORTIUM 🚢

13 partners from 8 European countries

DURATION

September 2019 - February 2024

PROJECT COORDINATOR

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BEHAVIOURAL, **ECOLOGICAL AND SOCIO-ECONOMIC TOOLS FOR MODELLING AGRICULTURAL** POLICY

chooses >

owns 📐

↓ has

Land Use

Land Parcel

yield : double

neighbour_list : List

aes list : List

flip_probability [1..external_conditions_size] : double {frozen}

land_use : Land Use

owner : Land Manager

Land Manager

makes

aspiration_threshhold : double land parcel list : List

AES contract

holding ref: text

p_imitate : double

lp : Land Parcel

option : double

Im : Land Manager

MISSION & VISION

The European Common Agricultural Policy (CAP) supports the livelihood of 11 million farmers while maintaining environmental standards and good agricultural practices over half of the European Union (EU) land. However, pressures including land-use intensification, abandonment and climate change remain a challenge to the current CAP and its implementation.



BESTMAP IS WORKING ON

- Developing a behavioural theoretical modelling framework to take into account the complexity of farmers' decision-making.
- Developing, adapting and customising a suite of open source, flexible, interoperable and customis-able computer models linked to existing data e.g. LPIS/ IACS and remote sensing e.g. Sentinel-2.
- Linking economic, individual-farm agent-based, biophysical ecosystem services and biodiversity and geostatistical socio-economic models.
- Producing a simple-to-use dashboard to compare scenarios of Agri-Environmental Schemes adoption.
- Improving the effectiveness of future EU rural policy design, monitoring and implementation.

CASE STUDIES

- BESTMAP is demonstrating its novel modelling framework in five case study areas across the EU
- Protocols, guidelines and a roadmap to extend the approach are being developed
- Initial upscaling efforts to an EU analysis are being conducted



	Humber (UK)	Mulde (DE)	South Moravia (CZ)	Bačka (RS)	Catalonia (ES)
Area (km²)	4 664	5 814	2 089	8 218	32 106
Precipitation (mm)	626	828	657	613	575
Temperature (°C)	9.6	6.9	8.5	16	13.9
Field size (ha)	2.5	6.3	6.1	5.4	0.7
Farm size (ha)	90	157	96	10.6	19
Land in agriculture	79%	54% 9%	57% 5%	84%	27%
Main crops (in order of prevalence)					
Other agricultural uses					