BESTMAP
Behavioural, Ecological & Socio-economic Tools for Modelling Agricultural Policy

BESTMAP

PARTNERS

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

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

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)

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 7 European countries

DURATION 🗓

September 2019 – August 2023

PROJECT COORDINATOR 👤

Prof. Guy Ziv
School of Geography, University of Leeds
G.Ziv@leeds.ac.uk, +44 113 343 7994

CONTACT ✉

Jodi Gunning
BESTMAP Project Manager
School of Geography, University of Leeds
J.Gunning@leeds.ac.uk, +44 113 343 5959

WEBSITE ➤
bestmap.eu

TWITTER 🐦
@Bestmap_EU

FACEBOOK f
@BestmapEU

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

Subpopulation

Land Manager
holding ref: text
aspiration_threshhold : double
land parcel list : List
aes list : List
p_imitate : double

chooses

Land Use

has

owns

Land Parcel
yield : double
land_use : Land Use
owner : Land Manager
aes list : List
neighbour_list : List

makes

AES contract
lp : Land Parcel
lm : Land Manager
option : double

belongs

has

Environment
flip_probability [1..external_conditions_size] : double {fro
clumped : Boolean {frozen}

BACKGROUND

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.

Understanding farmers' decision making	**+**	Big Data including geospatial databases and satellite imagery	**+**	Environmental, hydrological and socio-economic computer models

New tools and methods for Policy Impact Assessment

Better Common Agricultural Policy
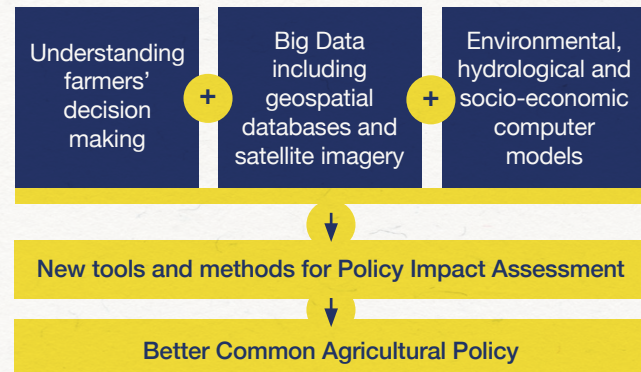
BESTMAP WILL

- Understand and model the ways farmers make decisions on land use

- Link land-use intensity to public goods and ecosystem services, including production of crops, regulation of water quality, mitigation of greenhouse gas emissions, and prevention of soil and biodiversity loss.

- Use computer models, survey data and satellite imagery to see how policies can make farming and the environment better.

- Produce a friendly online tool to compare policy scenarios for future Common Agricultural Policy reforms.

- Improve the effectiveness of future EU rural policies to better address farmers' needs, protect the environment and mitigate climate change.

CASE STUDIES

- **Humber Catchment (UK)**
- **Mulde River Basin (DE)**
- **South Moravia (CZ)**
- **Bačka (RS)**
- **Catalonia (ES)**

The project will:

- **demonstrate** novel modelling framework in five case study areas across EU

- **develop** protocols, guidelines and a roadmap to extend the new framework

- **upscale** the concept to an EU-level analysis

Humber

Mulde

South Moravia

Bačka

Catalonia