



UNISECO

UNDERSTANDING & IMPROVING
THE SUSTAINABILITY OF
AGROECOLOGICAL FARMING SYSTEMS
IN THE EU

UNISECO Project

European Regions for Smart Communities
Future Lab session
05th May 2021

Gerald Schwarz
Thünen Institute of Farm Economics



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 773901.



- Project introduction
 - Background and objectives
 - Key elements of the UNISECO approach
- Main outputs
- Key lessons and Horizon Europe



No.	Partner	Country
1	Thuenen Institute of Farm Economics (TI)	DE
2	Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (CREA)	IT
3	Agricultural University Athens (AUA)	GR
4	University of Natural Resources and Life Sciences	AT
5	The James Hutton Institute (HUT)	UK
6	The University Court of the University of Aberdeen (UA)	UK
7	Institut Supérieur D'Agriculture Rhone Alpes (ISARA)	FR
8	Baltijas Vides Forums (BEF-LV)	LV
9	Baltijos Aplinkos Forumas VSI (BEF-LT)	LT
10	Forschungsinstitut für Biologischen Landbau Stiftung (FiBL)	CH
11	Geonardo Environmental Technologies LTD (GEO)	HU
12	Luonnonvarakeskus (LUKE)	FI
13	Sveriges Lantbruksuniversitet (SLU)	SE
14	Gestion Ambiental de Navarra, S.A. (GAN)	ES
15	Asociația WWF Programul Dunare Carpati Romania (WWF)	RO
16	Ústav zemědělské ekonomiky a informací (UZEI)	CZ
17	European Landowners Organization (ELO)	BE
18	Bioinstitut, o.p.s.	CZ

➤ Transdisciplinary consortium with 18 partners across 16 countries



Key dilemma to be addressed:

How to produce sufficient amount of public goods from agriculture while having viable production of private goods securing economic and social sustainability on farm level, which is not too dependent on public funds?

How to produce environmentally sustainable and be profitable at the same time?

Overarching objectives:

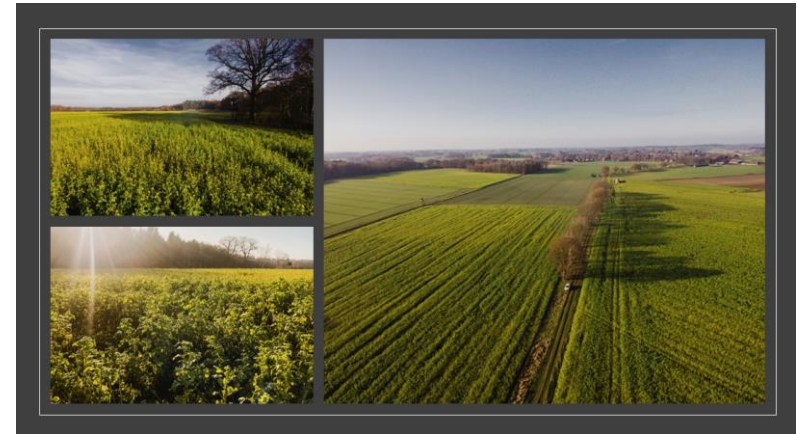
- **To strengthen the sustainability of European farming systems, through co-constructing improved strategies and incentives agro-ecological approaches.**
- **To improve the knowledge base of agro-ecological farming in the EU to inform future policies at European, national and regional levels**



Importance of the European diversity and local context for agro-ecological transitions, for example:



Small-scale farming in Transsylvania



Arable farming systems in Lower Saxony

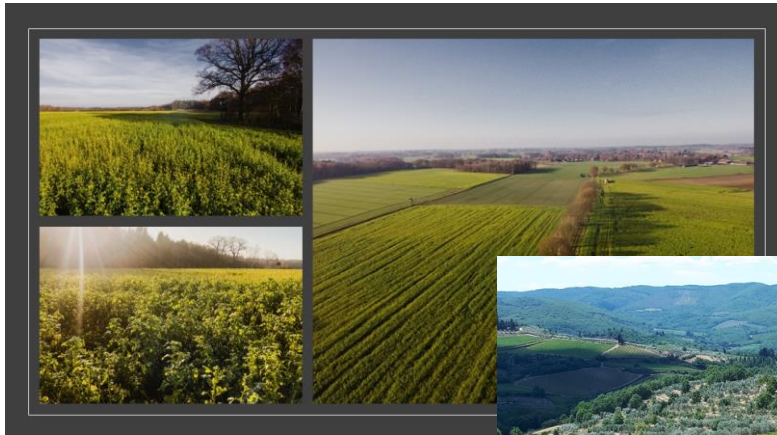


More crops for human consumption, Sweden



Agro-ecological farming systems in Northern Spain

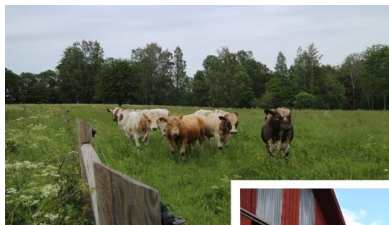
Importance of the European diversity and local context for agro-ecological transitions, for example:



Arable farming systems in Lower Saxony, Germany



Agro-ecological farming systems in Transylvania, Romania



Promoting agro-ecological transitions, Biodistrict Chianti



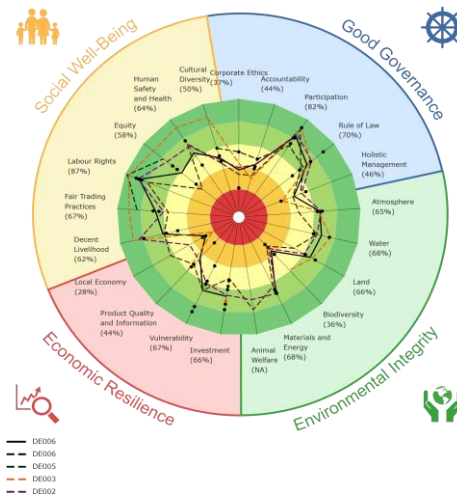
More crops for human consumption, Sweden



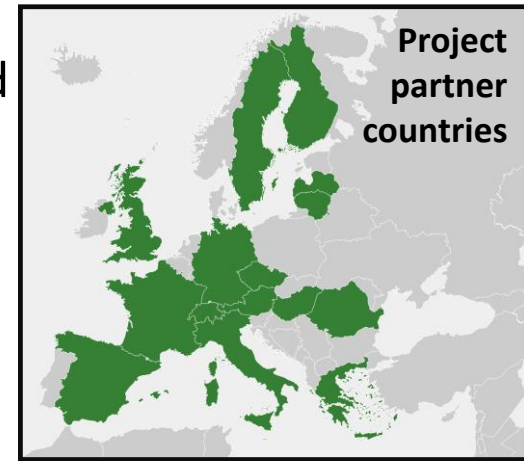
Agro-ecological farming systems in Northern Spain

To address the key dilemma in these specific local contexts, there is a need for:

- Systems-based approach to understand barriers & drivers
- Multi-actor engagement with farmers, advisors, value chain actors, consumers, and policy makers
- Range of tools / methods for co-learning and assessment



- Setting-up, managing & monitoring **multi-actor platforms** to foster engagement and cooperation of key actors of agro-ecological farming systems (AEFS)
- Adapted **Social-ecological Systems (SES) framework** and **typology** for assessing transition pathways to agro-ecological farming systems
- Empirical data collection in **participatory case studies** and **co-construction** of knowledge, transition strategies and **market and policy incentives**
 - Understanding of barriers and drivers of transitions
 - Assessing sustainability performance and trade-offs
 - Lessons learnt for practice and policy
- **Biophysical and socio-economic modelling** and scenario development for assessing sustainability of AEFS at **territorial level**
- Development of a **UNISECO agro-ecological knowledge hub**



- **Improved understanding** of the sustainability issues across main farming systems
- **Performance and trade-off** assessments of agro-ecological practices at farm level
- **Territorial level** impacts of agro-ecological transitions in the context of different future scenarios
- **Strategies of agro-ecological transitions** with co-constructed solutions to address key barriers in different local contexts
- **Innovative market incentives and policy instruments** that have the potential to successfully promote agro-ecological transitions
- Local and EU-level Multi-Actor Platforms to engage key actors and stakeholders in **group learning processes**, integrating practical and theoretical knowledge
- Agro-ecological **knowledge hub** with different functions and targeted at different audiences



- Improving farmer **knowledge** on the benefits of agro-ecological practices and economic opportunities is a key aspect for successful agro-ecological transitions
- Important role of education - focus on **young generation and school programmes**
- Horizontal and vertical **collaboration in the value chain** are of crucial importance to address key barriers
- Tailored policy support to increase the capacity of local actors to create **agro-ecological networks and territories**
- Transformational change requires several interlinked strategic pathways addressing the **whole food system (farm to fork)**

Horizon Europe:

- Governance and sustainability of agro-ecological transitions
- Circular economy and externalities of agri-food production
- Linkages between Horizon Europe and EU-level partnerships
- Role of Multi-actor Platforms – involving the young generation

Thank you for your attention.

Contact and information:

Gerald Schwarz: gerald.schwarz@thuenen.de

Website: <https://uniseco-project.eu/>

Zenodo: <https://zenodo.org/communities/uniseco-h2020/?page=1&size=20>





UNISECO Project European Regions for Smart Communities Future Lab session 05th May 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 773901.

