



UNISECO

UNDERSTANDING & IMPROVING
THE SUSTAINABILITY OF AGRO-
ECOLOGICAL FARMING SYSTEMS IN THE
EU

Institutional change towards the diffusion of agroecology in traditional winegrowing areas. The case of Chianti, Italy

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CREA - Research Centre for Agricultural Policies and Bioeconomy

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Agroecological transitions in different geographic contexts 1: Governance and sustainability

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AMERICAN ASSOCIATION
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ANNUAL MEETING

UNderstanding and Improving the Sustainability of agroECOlogical farming systems in the EU

Horizon2020:

transdisciplinary, 18 partners,
16 European countries

May 1st, 2018 – April 30th, 2021



Dilemma: *How to produce **public goods** whilst having viable production of **private goods** and securing **economic and social sustainability** at the farm level?*



Mixed



Livestock



Perennial



Arable

Farming system



National



Subnational



Local

Scope

Chianti, Tuscany



- **Farming system:** specialized vineyards, olive trees, arable, abandoned land
- **Main sustainability issues:**
 - Soil erosion, biodiversity loss and pollution
 - Land abandonment, degradation of the cultural landscape



Key dilemma: *how to promote cropping system diversification in a highly specialized and market-oriented winegrowing area while maintaining the profitability of farming through local value chains*

Co-construction of the transition strategy

- **System perspective** and **participatory approach** to bring together information about system components (farms, value chains, stakeholders, policies) and their interactions.
- **Key actors:** farmers, local administrations, Region Tuscany, farm advisors, value chain (Chianti wine consortium for PDO wine), Biodistrict association (NGO)



AGRO-ECOLOGICAL TRANSITION STRATEGY

Dilemma

Actors

Practices

Actions

Instruments

Step-by-step methods and data

Dilemma

Actors

Practices

Actions

Instruments

Description of
the system,
sustainability
challenges

**Interviews
(10 p)**

NetMap -
participatory
mapping
(Schiffer and
Hauck, 2010)

**Interviews
(4 p) and
Workshop
(12 p)**

Identification
of key
practices -
improvement

**Interviews
(13 p)**

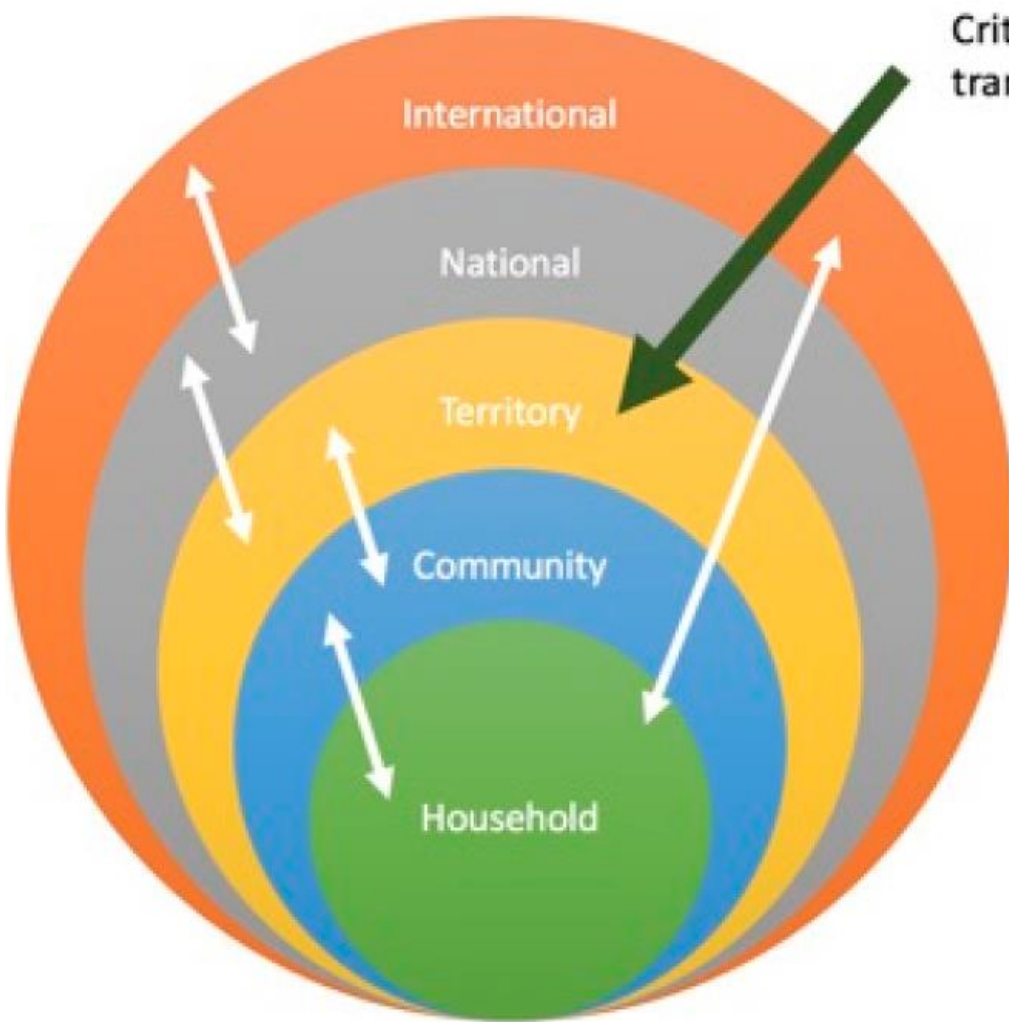
Identification
of barriers,
drivers and
policy needs

**2 Workshops
(12 p; 6 p)**

Multicriteria
analysis of
Market and
policy
instruments
(MPIs)

**Workshop
(12 p)**

A new governance model



Biodistrict as key tool to adopt participatory planning, ensure a greater involvement of local institutions, and a more conscious involvement of the local community

Source: Anderson et al. (2019)



Improving the sustainability of local farming systems:
green cover of vineyards;
composting of agricultural
residues; crop monitoring



Re-shaping farming systems:
recovering of olive groves,
cereals and vegetable
production on abandoned
land, new food chains



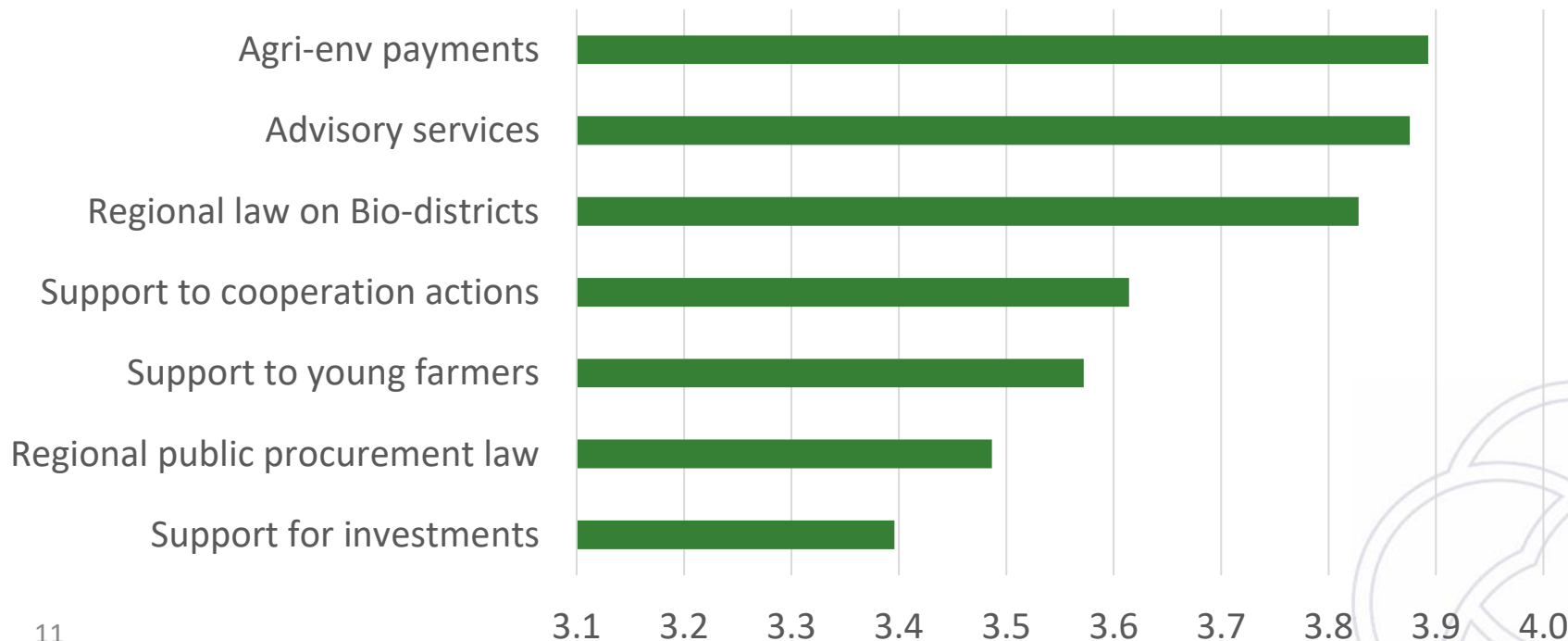
Barriers, actions and instruments

Barriers	Actions	Instruments
Knowledge and social capital	Empowering regional and local networks of knowledge about agroecology	<ul style="list-style-type: none"> • Coordination centre for regional AKIS • Machinery rings
Value added, processing and markets	Promoting the coordination among farmers and other local food chain actors	<ul style="list-style-type: none"> • Pilot projects for the provision of meals from short supply chains • Development of information and awareness-raising campaigns
Institutional and policy design	Strengthening and empowering existing local initiatives via institutional formalization	<ul style="list-style-type: none"> • Regional Law on Organic Districts of Tuscany Region • Law for the procurement of locally grown food for public canteens

Multicriteria analysis of MPIs

- Performance criteria co-selected with EU-level stakeholders: Effectiveness; Undesired effects; Targeting; Efficiency; Feasibility
- Instrument scoring based on criteria (0=very bad to 5=very good performance)
- Criteria weight with respect to the exercise (0%=irrelevant to 100%=the only relevant one)

Instrument ranking



- **Effective cooperation** and **targeted knowledge diffusion** are key actions to operationalize agroecological practices
- **Biodistrict** may represent an effective approach to foster AE transition
- **Need for a tailored support:** mix of market and policy instruments (support of agro-ecological networks, AKIS and food chain initiatives)



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