

# Agroecological Living Labs as entry points for the transformation of the food systems: definition and testing of the theoretical framework

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## Introduction

This study is targeted at assessment of the living labs (LLs) activity, dynamics and potential impact on territorial development. Three pilot European LLs were created in the Netherlands (national scale), Italy (Varaita Valley in the Western Alps, regional scale), and in the UK (Ryton, Coventry University, local scale) within the H2020 project E4EU. This study is focused on the user-driven LLs for agroecological transitions at different geographical scales: local, regional, and national. In a broad sense LLs are considered as a structured user involvement in the innovation process (Shuurman et al., 2013). LLs are expected to be the basis of the driving forces to achieve the agroecological transition and/or transformations. Apart from creating three agroecological LLs and defining them, a theoretical framework for their comparison was developed within the frame of the AE4EU project and was tailored to practical realities of the LLs in order to perform a cross-cases comparison of LLs at different scales.

## Research question

Do the new user-driven agroecological LLs (ALLs) contribute to agroecological transition and/or transformations at different scales?  
To what extent?

## Research objectives

The main research objective of the paper is to carry out inter-scale comparison of the living laboratories. This objective was achieved through (i) using the adopted framework for carrying out a cross comparative analysis of the three LLs; (ii) assessing the actual and potential impacts of the three LLs on the created networks, agroecological practices and food chains; (iii) providing a definition of the agroecological LLs.

## Materials and Methods

**Materials:** project reports of the three ALLs (NL, IT, UK)

### Methods for data collection:

- developed and adjusted theoretical framework for comparison of the LL performance,
- workshops for data collection (providing indicators),
- on-line questionnaire with Likert scale questions and open-ended questions

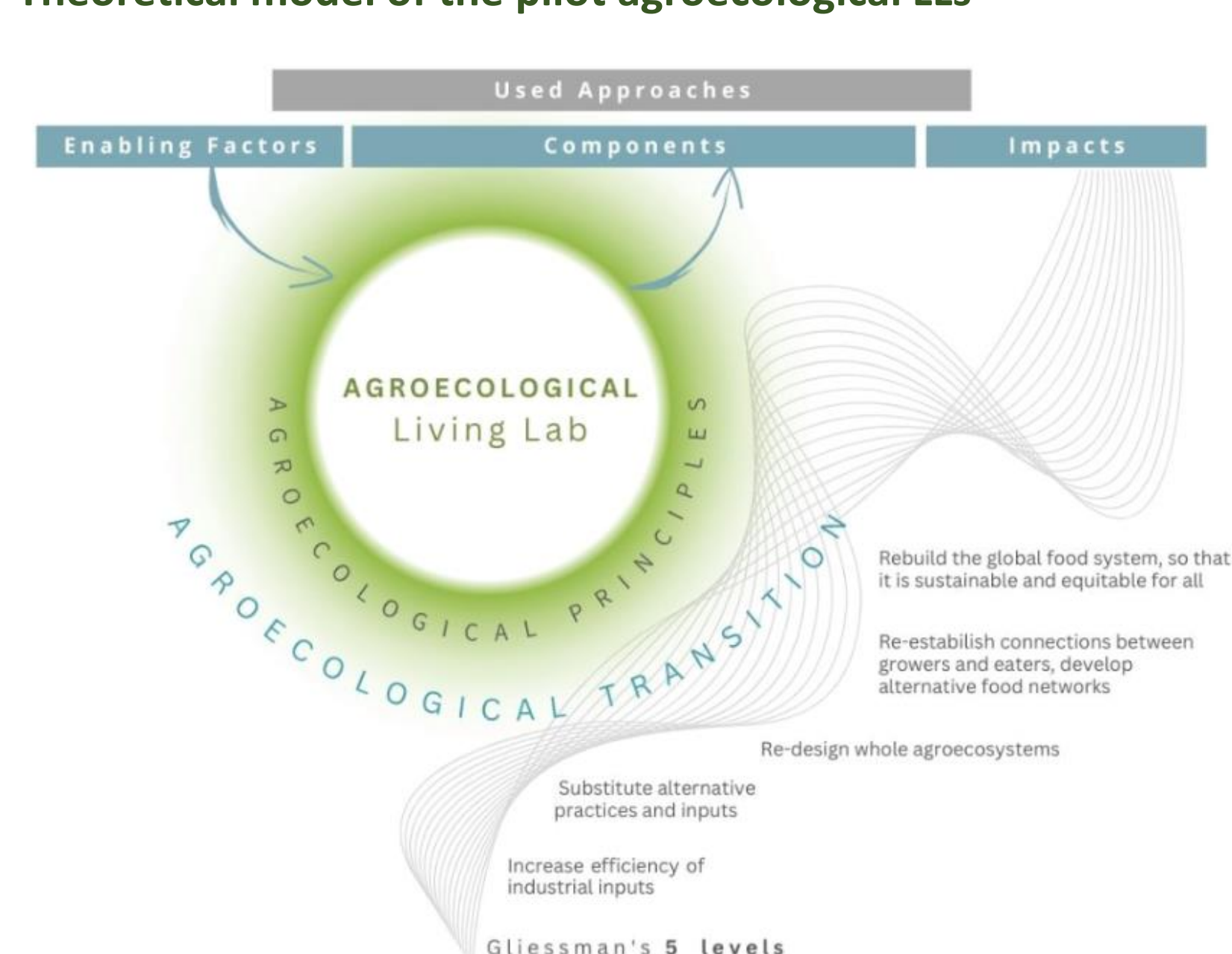
### Methods for data analysis:

- Quantitative data analysis: descriptive statistics (means, St. dev), one-sample t-test (SPSS 28);
- Qualitative data analysis: comparative analysis of indicators, coding (NVIVO)

## Definition of the Agroecological LL:

a transdisciplinary methods which involves multi-stakeholders actors of the agri-food sector in co-learning, co-design and monitoring the enhancement of agroecological principles, approaches and practices aimed at food system transformation.

## Theoretical model of the pilot agroecological LLs

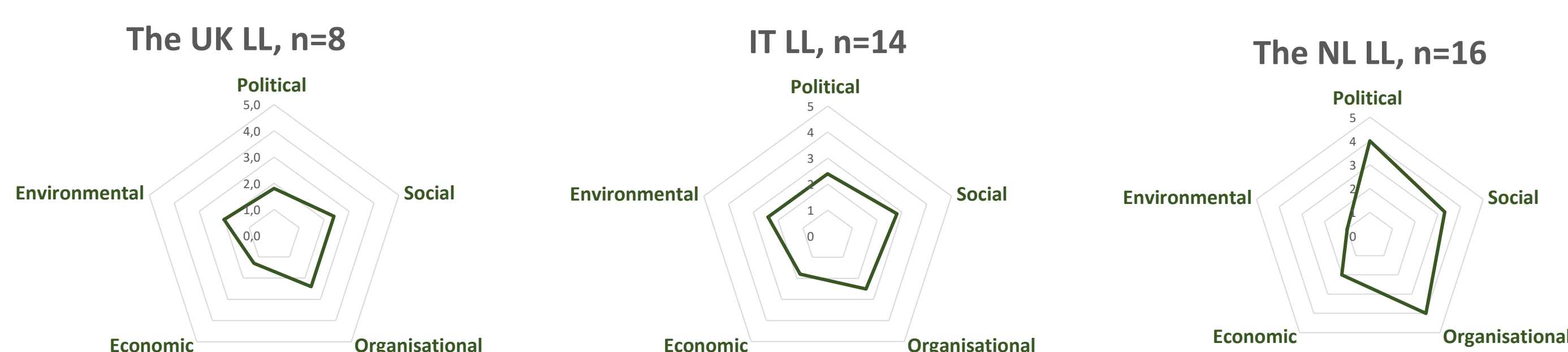


**The enabling factors** work as triggering events, process accelerators, barriers, constraints, and potential pathways of change that can have an influence on the design, formulation process, conception and orientation of the LLs Dörninger et al., 2020)

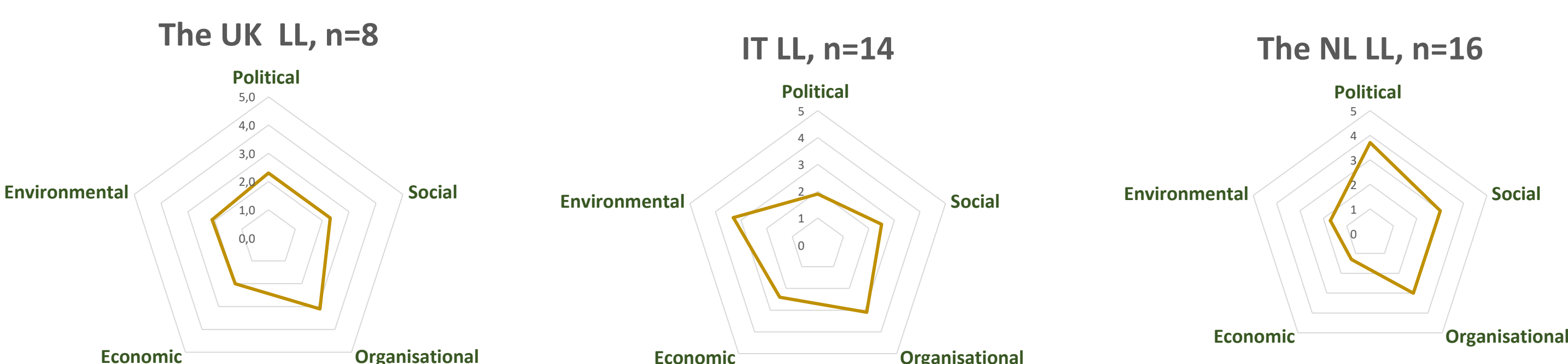
**Components** are used for mapping a current state of the three ALLs. The components contain theoretical and practical information in order to compare development of the three ALLs.

**Impacts (transformative changes)** are results of the impact assessment or evaluation, which are referred to as essentially identifying effects of certain actions, decisions and evaluating a certain change caused by a specific intervention (Ballon et al. 2018).

## Preliminary results of impact assessment (Action)



## Preliminary results of impact assessment (Learning)



The UK				
Policy	Social	Organisational	Economic	Environmental
n.s.	***	***	**	***

Italy				
Policy	Social	Organisational	Economic	Environmental
***	***	***	***	***

The Netherlands				
Policy	Social	Organisational	Economic	Environmental
***	***	***	***	***

## Theoretical framework

Dimensions	Components	Indicators	Principles of Agroecology
Organizing	Geography	Country, scale, focus	
	Communication and network management	Channels of communication within the group, Frequency of dialogue/meeting	
	Participants of LL	Type of authorities involved, type of relationship with authorities	
	Roadmap	Timeframe, activities within LL	
Thinking	Needs and constraints expressed by the participants	Participants' needs for, Constraints for development of LL	
	Social values and beliefs	Relational, agroecological/thematic	
	...	...	
Acting	Management	Management and decision making, Leadership/facilitation	
	Committed actions and target audience	Dissemination activities, Types of other organised actions	
	Outcomes	Written output evidence	



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