

Agricultural Knowledge Systems In Transition : Towards a more effective and efficient support of Learning and Innovation Networks for Sustainable Agriculture

## Understanding Learning and Innovation Networks to Support Transition Towards Sustainable Agriculture

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### Contents

- Brief overview of the SOLINSA project
- Concepts of Learning in SOLINSA
- Application of the learning processes in SOLINSA: What are LINSA?
- What has been done up to now
- Challenges to come

## **SOLINSA** Partners

- P1 Research Institute of Organic Agriculture, Switzerland
- P2 University of Pisa, Italy
- P3 University of Gloucestershire, United Kingdom
- P4 University of West England, United Kingdom
- P5 Wageningen University, The Netherlands
- P6 Center for Agriculture and Rural Development, Switzerland
- P7 Federal Institute for Technology, Switzerland
- P8 Baltic Studies Center, Latvia
- P9 French Livestock Institute, France
- P10 University Hohenheim, Germany
- P11 Institute of Economics Hungarian Academy of Science, Hungary

## The SOLINSA Project

#### SOLINSA

stands for «Support of Learning and Innovation
Networks for Sustainable Agriculture (LINSA)»

- •explores learning processes towards sustainable agriculture and rural development
- applies participatory action research (transdisciplinary approach)
- •supports the transition from AKS to AIS

## SOLINSA Project structure



## SOLINSA Learning framework

- Social Learning
  - "the process of iterative reflection that occurs when we share our experiences, ideas and environments with others" (Oreszczyn S., Lane A., Carr S., 2010)
- How does learning occur?
  - Participation
  - Reification
- Drivers of learning
  - People: brokering
  - Artefacts: boundary objects
  - Interaction: boundary interactions



# Transdisciplinary learning process in SOLINSA



### Learning within LINSAs: Co-production between researchers and stakeholders in NoP



#### **Co-production within NoP**

•mapping actors, understanding identities, weaving connections, stimulating reflexivity, favouring sense making, participating, supporting reification, finding boundary objects, analyzing context and governance solinsa.net

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## FIRST RESULTS FROM SOLINSA

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## What has been done so far?

- Established the initial conceptual framework: will be revised continually
- Baseline methodology developed and discussed
- Agreed on a shared initial understanding of LINSA
- Assessment of current AKS in eight countries
- Identified 17 LINSAs as case studies

## ASSESSMENT OF CURRENT AKS SOME FINDINGS FROM COMPARATIVE ANALYSIS AND SYNTHESIS OF

## Knowledge infrastructure (1)

- Research facilities :
  - Very good in Switzerland, Germany
  - Improving research facilities in Latvia
- Funds for research in many countries decreasing
  - Latvia
  - Netherlands: money from fundamental research towards applied research and innovation
- Extension and advice:

(Commercial) supply of advice well established, good coverage France, England, Germany, Netherlands Often linked to agro-industry (in all countries)

• Paradox: with increasing diversity, complexity of AKS increases, overview becomes difficult

## Knowledge infrastructure (2)

### • Education everywhere in a difficult position

- Lack of funds and/or students (almost everywhere)
- Great differences in quality of schools (Latvia)
- Difficulty in cooperation between business and education (NL, Switzerland)

### Other facilities

- Banks, insurances for farmers (France)
- Active role of government creates favourable institutional context for innovation in Italy

## Hard institutional failures/ merits (1)

- Fragmentation of innovation policy observed
  - France: lack of stable funding and tenders
  - Switzerland: public financing rules not well focussed
  - Italy: difficulty in translating public discourse in coherent programmes and methodological approaches
  - Regionalised system leads to fragmentation in legislation in Italy and Germany
- Bureaucracy is a serious problem
  - EU subsidies notoriously difficult
  - Hungary only 'successful' advisory business is related to European subsidies...

# Interaction paradox: closed vs. open networks

- Closed AKS network
  - Good overview, short communication lines, shared view of problems and possible solutions
  - However: difficulty incorporating new actors and views
- Open AKS network:
  - With increasing diversity of knowledge supply, complexity of AKS increases, overview becomes difficult, Quality of services becomes uncertain (Germany)
  - Possible confusion of end-users (England and Netherlands)

## ENTERING COLLABORATIVE WORK WITH LINSAS

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# Selection criteria for case study and Short profiles of LINSAs

Characteristics	Low (small)	Range	High (large)
SCALE	small	medium	large
ORIGIN AND FUNCTION	market-based	pluralistic	non-market-based
DEGREE OF INTEGRATION	stand alone bodies	networks	communities
LINKS BETWEEN AKIS AND LINSA	Low	medium	Strong
LEVEL OF LEARNING	imposed learning outsider <u>K&amp;I</u>		co-learning insider K&I
LEVEL OF INNOVATION	incremental innovation		radical innovation
GOVERNANCE	top down bodies		bottom up bodies
TEMPORALITY	Old (> 10 years)	medium (3 – 10 years	) young

## **Diversity of LINSAs**

Scale	Small		medium		large
	N3	L3 H2 I3	L2 F1 F2	I1 H1 N1 G2 UK4	G1 S4 S5 UK1 EU2
Origin and		15		GZ UK4	OKI LOZ
function	market		Pluralistic		Non market
				F1 N3	
	I1 L2 L3		I3 H2 H1	G1 S4 S5	
	UK1		UK4 L1	EU2	N1 N2 G2
degree of					
<i>integration</i>	alone		networks		Communities
		I3 L2	F1 N1 N3		
		L3	S5 UK1	H1 F2	
Links AKIS	H2	<u>S4</u>	UK4 <mark>L1</mark>	G1	G2 EU2
LINSA	Low		medium		strong
	I3 UK1 UK4			L2 F2 H1	I1 H2 N3
Level of	EU2		L3 N1 F1	G1 G2	S4 S5 <mark>L1</mark>
learning	Imposed				Co-learning
		L2 G2		I3 N3 I1	
		S4		N1 UK4	F1 H2 UK1
	H2	S5	G1L3 F2		EU2
Level of	Incremental				Dadical
innovation	Incremental			L2 L3 I3	Radical
			I1 H1 F2	F1 S5	
	N1 UK1	G2 S4	G1 <mark>L1</mark>	EU2	UK4H2 N3
Governance	Top down				Bottom-up
	I1 F2 G2		L2 L3 I3	S5 UK1	UK4 H1 H2
	EU2	N1 G1	F1 N3 L1		S4
Temporality	old		medium		Young
	H2 F1 L3			L2 I1 N1	
	G1 G2 S4 <mark>L1</mark>	1	I3 S5 EU2	H1 UK4	N3 F2 UK1

## Research questions for LINSA

- What is the current situation in this network?
- How does this network work?
- Where do we want to go?
- Where can we go?
- Which major events have put us in this position?
- Which processes have put us in this position?

## Research strategy



#### Order of research questions to be addressed

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## What is to come: challenges

- Tension between variety in case studies and common methodology
- How to effectively collaborate with LINSAs? How to support learning and innovation in LINSAs?
  - Theoretical concepts need to be «translated» to practical context of LINSAs
  - Practical experience needs to be translated into concepts on which to reflect

## Thank you for your attention!





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