

Agricultural Knowledge and Innovation Systems (AKIS) in the EU – what is their relevance for research and practice?

Transfer of Knowledge and Innovations in Agriculture of S-E European Countries |
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Jun.-Prof. Dr. Andrea Knierim
Rural Sociology, University of Hohenheim
Germany



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Key statements

- ❖ **AKIS dialectics:**
there is no *real* Agricultural Knowledge and Innovation System (AKIS) versus there are *many real* AKISs
- ❖ The **diversity of AKIS** in the EU is translated by a pluralism of agricultural advisory service (AAS) providers
- ❖ **AAS pluralism** bears both potentials and challenges for knowledge users, advisors and for the governance of service provision
- ❖ New approaches towards **agricultural innovation within the AKIS** add to advisors' roles and functions

Structure of the presentation



(1) Why and how is **the AKIS** relevant?

- Concepts, perspectives, empirical evidence

(2) Particular actors: agricultural advisory service (**AAS**) providers

- features, indicators, empirical evidence

(3) How to does the AKIS concept **support agricultural innovation?**

- Multitude of functions, future role(s) of agricultural advisors

What is an agricultural knowledge and innovation system?

- What do you think of when you imagine an AKIS? Which pictures or words come into your mind?

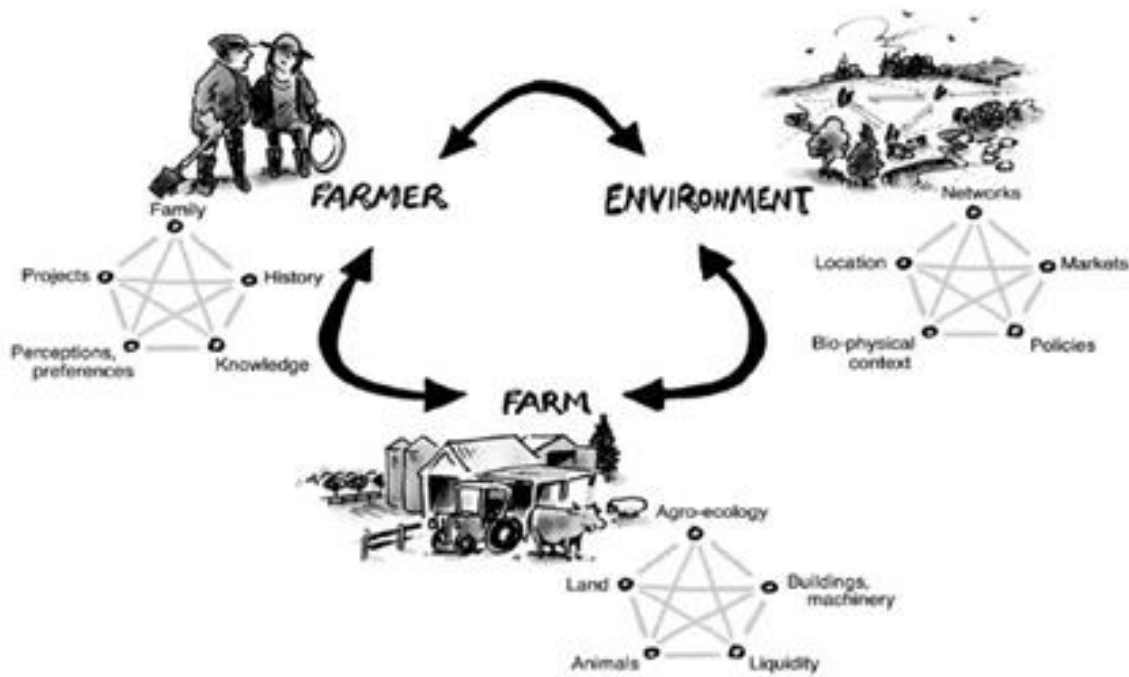


What is an agricultural knowledge and innovation system (I)?

- A system
- An ecosystem
- A farming system

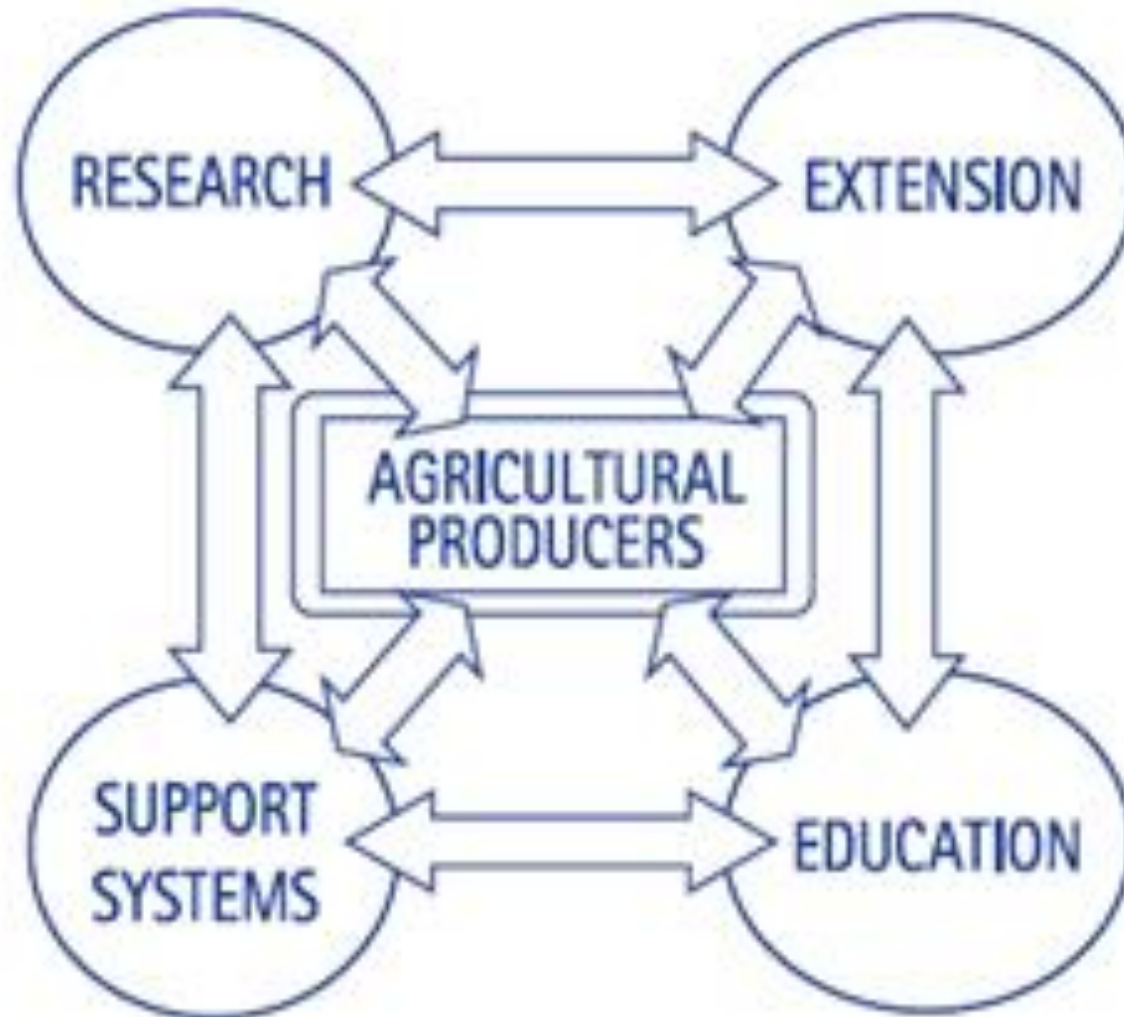


UHOH, Sacha Dauphin



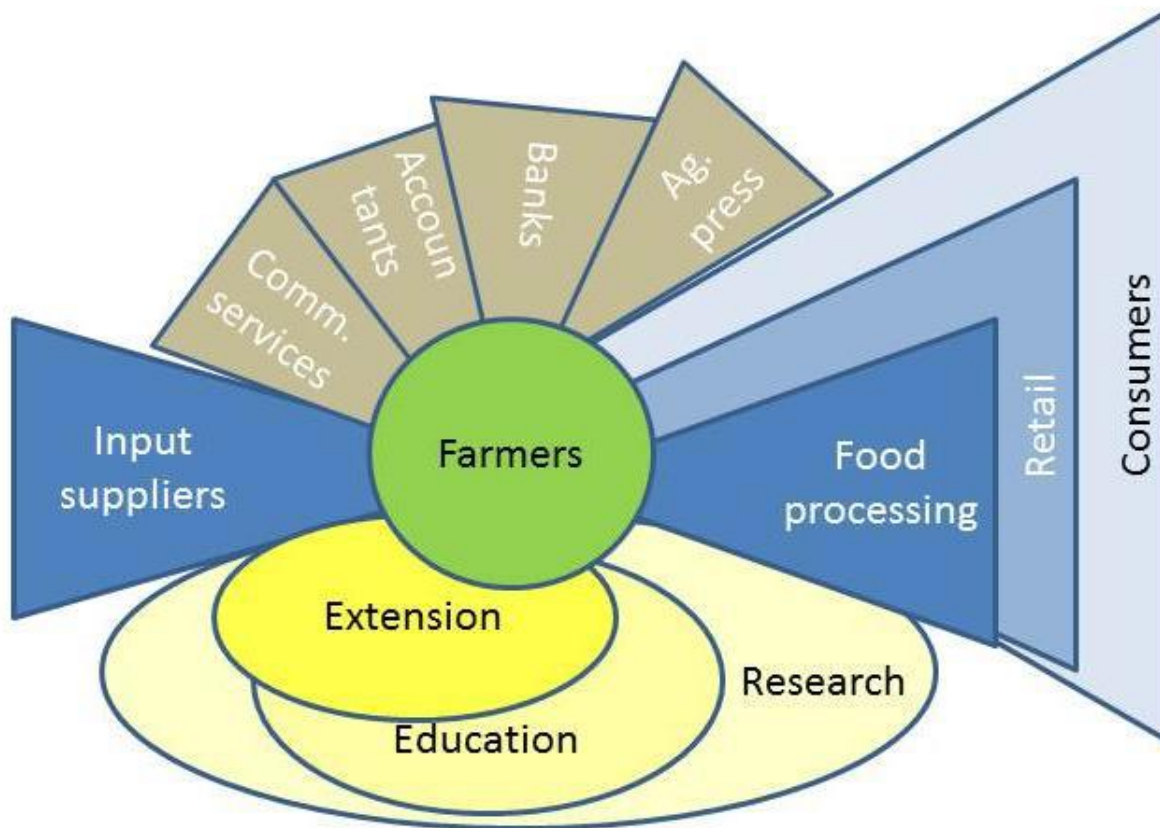
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What is an agricultural knowledge and innovation system (II)?



(Rivera et al 2005,
adapted in EU SCAR 2012)

An agricultural knowledge and innovation system is



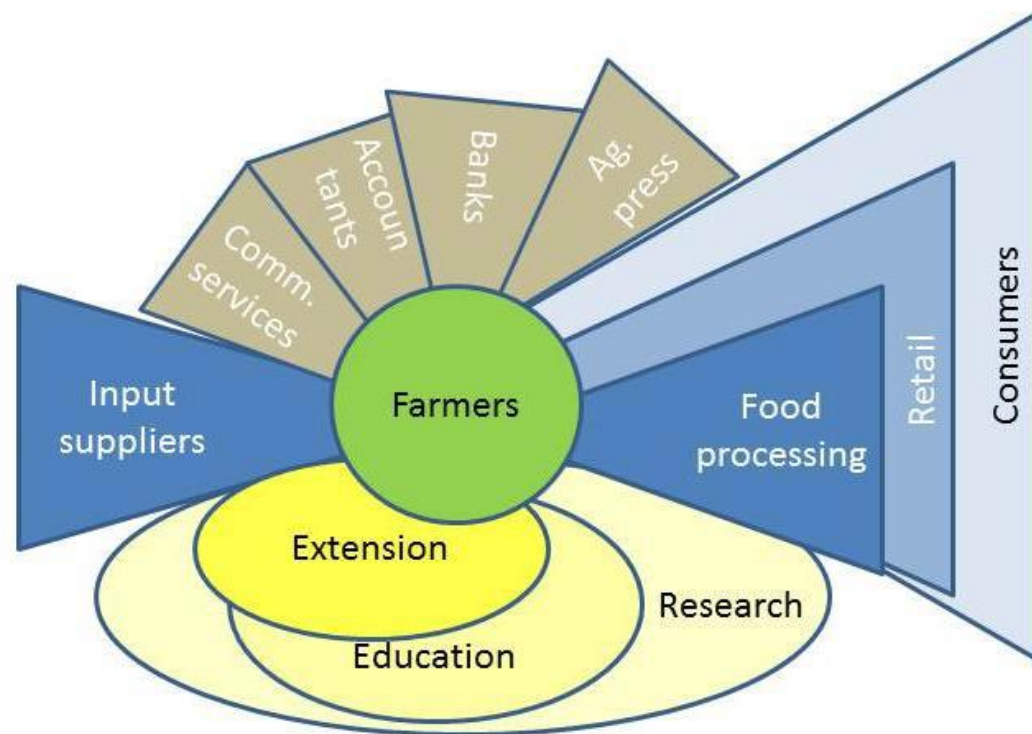
- *“the set of agricultural institutions, organizations, persons and their linkages and interactions,*
- *engaged in the generation, transformation, transmission, storage, retrieval, regulation, consolidation, dissemination, diffusion and utilization of knowledge and information,*
- *with the purpose of working synergetically to support opinion formation, decision making, problem solving and/or innovation in a given sector, branch, discipline or other domain”*

(Röling 1988)

An agricultural knowledge and innovation system is

- *“a network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect the way different agents interact, share, access, exchange and use knowledge”*

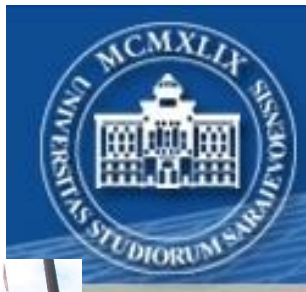
(Leeuwis with van den Ban 2004)



Three different concepts for the AKIS

Infrastructural view

- Assess knowledge infrastructures:



EUFRAS EUROPEAN FORUM FOR AGRICULTURAL AND RURAL ADVISORY SERVICES

(Knierim et al. 2015)

UNIVERSITY OF HOHENHEIM



Process view

- Understand change: networking, learning, initiating change, improving practices and products, innovating ...

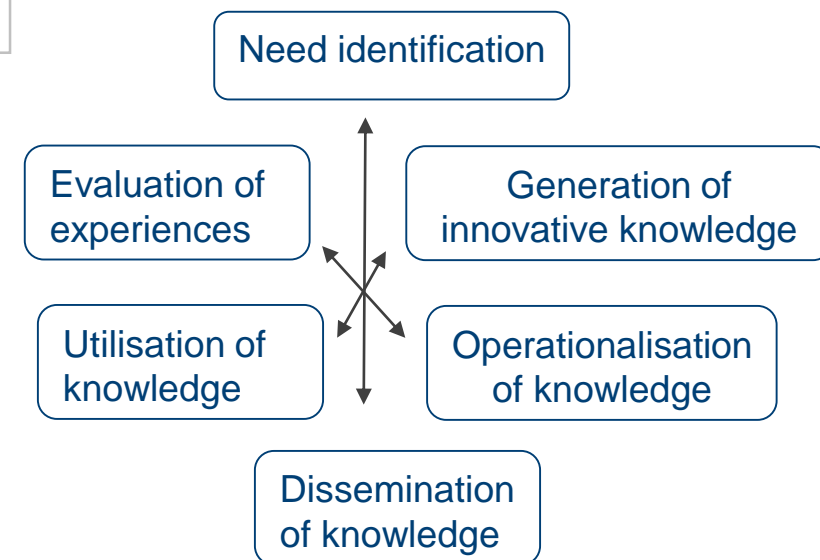


INKA BB, Foos

(Klerkx et al. 2012)

Functional view

- Normativity: what functions should be fulfilled by a performative AKIS?



(Nagel 1979)

The AKIS concept in PRO AKIS



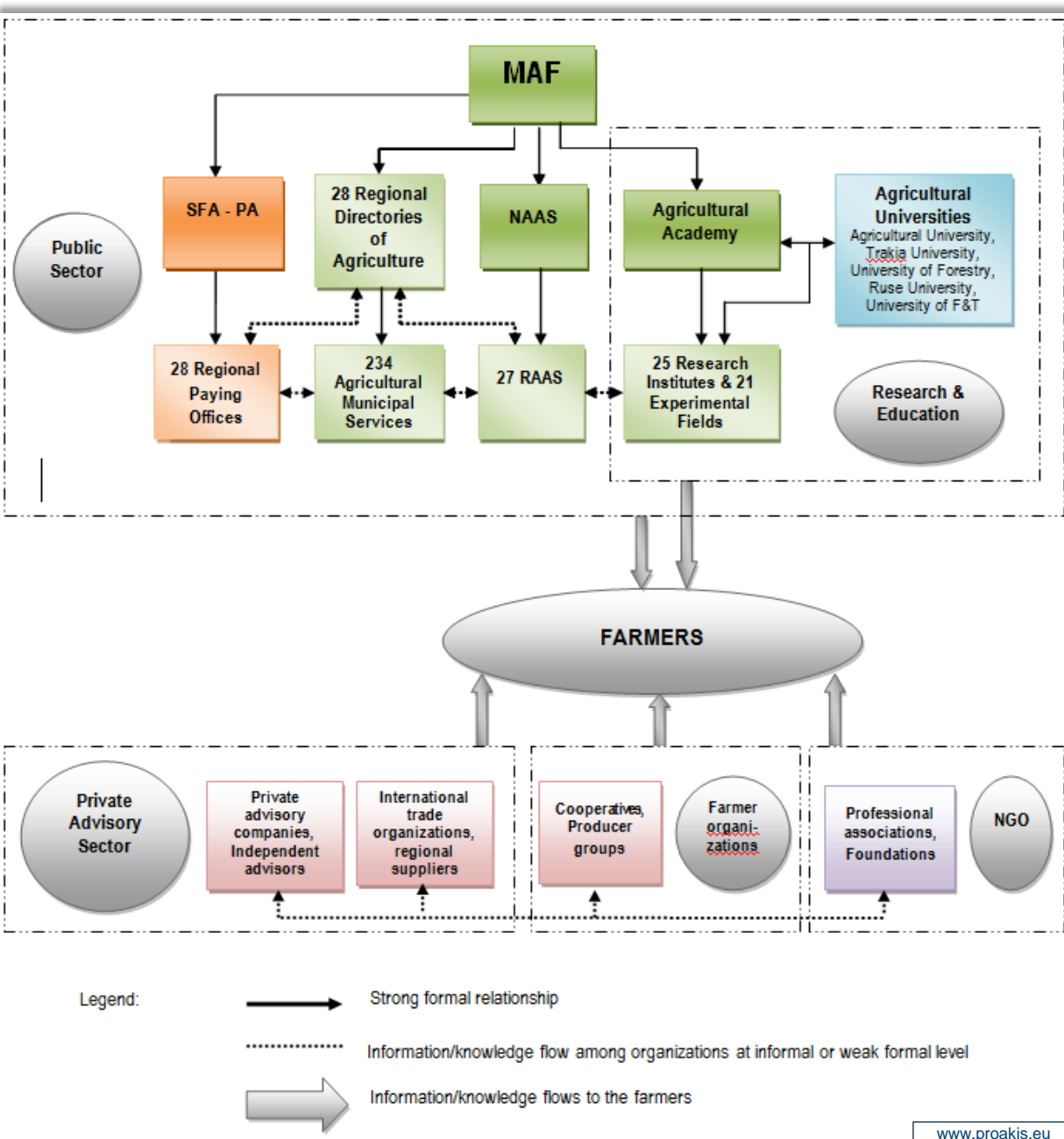
We used the **Infrastructural view** in order to create an overview for the European member states

- AKIS diagrams and characterisations were elaborated and
- Refined in dialogues with AKIS experts
- Exchange with stakeholders in from all EU countries in 3 workshops
- posters and reports are available at www.proakis.eu

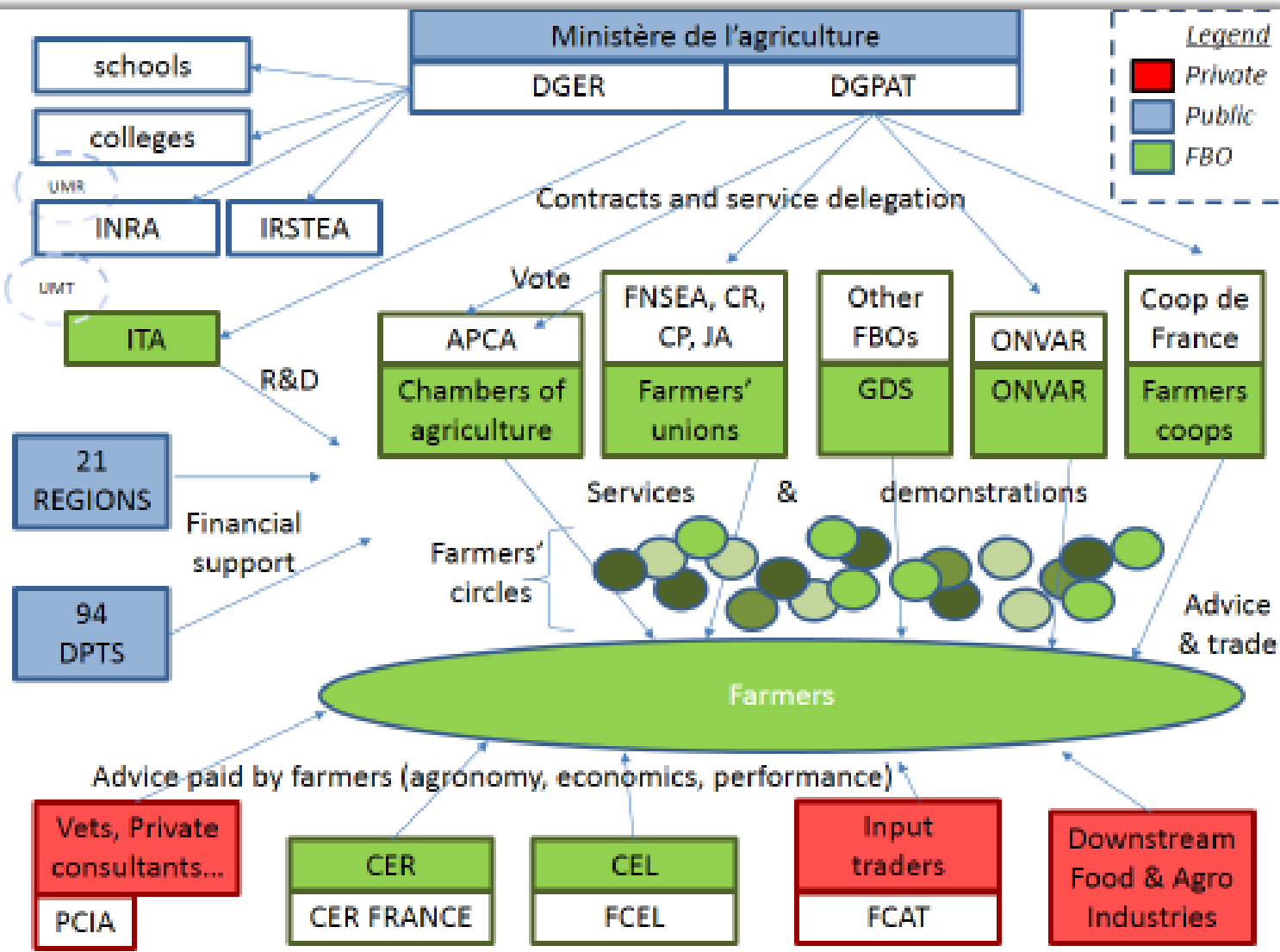
The infrastructural view – examples of AKIS diagrams (I)

The Bulgarian AKIS (2013)

- Strong public sector
- AAS integrated with agric administration
- A certain range of private sector bodies and farmer-based organisations
- That are not well interconnected



The infrastructural view – examples of AKIS diagrams (II)

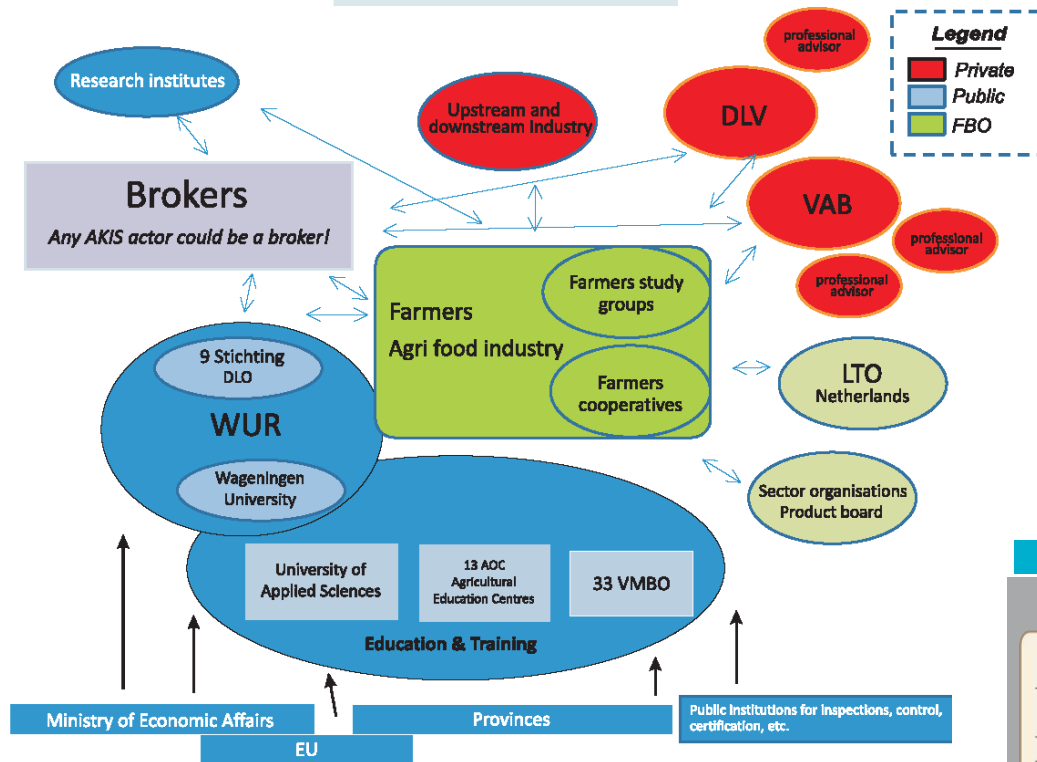


The French AKIS (2013)

- Dominance of farmer-based organisations
- Active farmers
- Private and public actors at distance
- multi-level governance in the AKIS

The infrastructural view – more examples

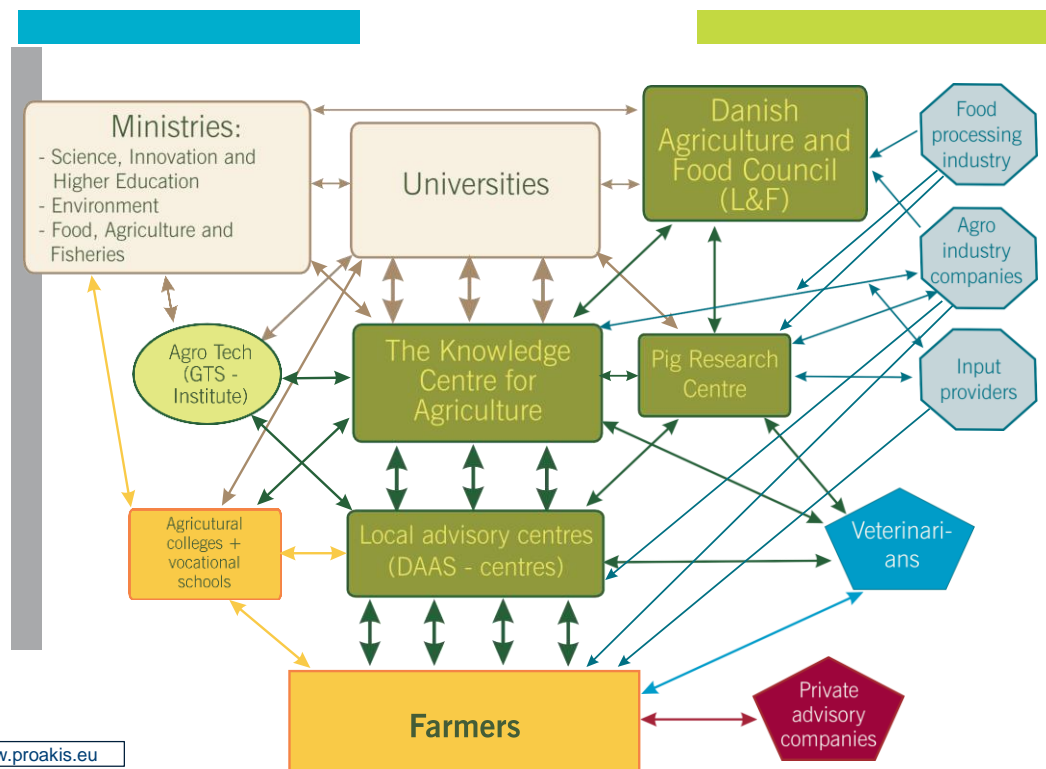
AKIS DIAGRAM



The Dutch example = fragmented



The Danish example = integrated



An agricultural knowledge and innovation system is

- (1) a mental construct, an idea about a number of elements that work together or interfere in order to provide information to farmers
- (2) an agreement; elements and boundaries are negotiated, contested and resettled; they can change and evolve in the course of time
- (3) a useful diagnosis tool for policy makers and decision-making stakeholders in the agri sector

From AKIS to agric advisory services ...

- ❖ To support problem solving, change and innovation: what happens within the AKIS, among the actors?
- ❖ In the past, agricultural advisory services were key for the operationalisation and the dissemination of knowledge – what is the state of knowledge with regard to this group of actors?
- ❖ Empirically, we observe organisational pluralism of providers due to privatisation, commercialisation, decentralisation
- ❖ There is variation of key indicators, e.g.
 - ❖ number of clients per organisation, per advisor;
 - ❖ Back-office/front-office ration
 - ❖ share of one-to-one advice
 - ❖ main target groups and challenges ahead



Dominant Agricultural Advisory Service (AAS) providers in the EU



Type of dominant advisory service provider	EU Countries				
Public organisation (9)	Bulgaria Ireland Slovakia*	Cyprus Latvia*	Greece Poland*	Hungary* Romania*	
Private organisation	Estonia*	The Netherlands			
Farmer-based organisation (10)	Austria* France* Sweden	Belgium Lithuania*	Denmark Portugal	Slovenia*	Finland Spain
Public / Private organisation	Czech Republic*	United Kingdom			
Public / Private/ FBO	Germany*	Italy	Malta		
Public / FBO	Luxembourg*				

Pluralism of AAS providers in terms of staff size (selected EU member states)



		Belg.	Den.	Germ.	Ireland	Italy	Latvia	Lux.	Swed.	UK
Public (40)	#org	2	0	5	1	12	3	4	1	12
	median	228	∅	7	300	10	50	2	4	10
Private (205)	#org	4	7	42	32	51	4	0	15	50
	median	7	30	2	1	3	14	∅	3	3
FBO (63)	#org	4	10	29	0	8	0	5	3	4
	median	3	16	6	∅	8	∅	1	15	6
NGO (29)	#org	12	0	9	0	3	0	0	0	5
	median	3	∅	5	∅	5	∅	∅	∅	4

Pluralism of AAS providers – selected indicators



Farmer clients per advisor

- Differences with respect to type of provider:
 - Public sector > 90 farmers/advisor (median, UK, I, DE)
 - Private sector < 50 farmers/advisor (median, (DE, I, LT, SE, UK)
 - FBO between 50 and 80 farmers/advisor (DK, DE, I, SE)

Back-office / front-office ratio

(data for UK, I, IE)

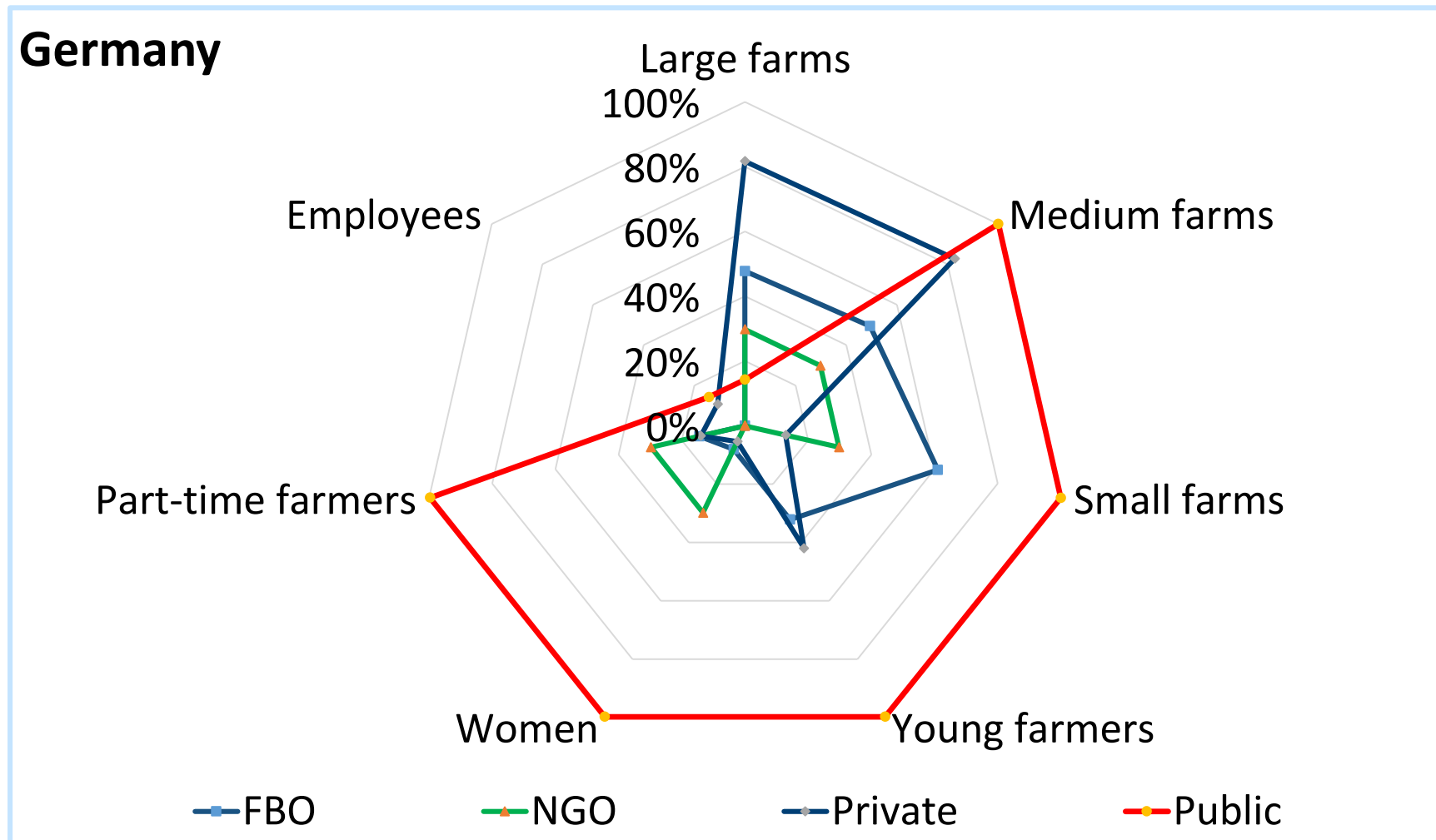
- Number of staff supporting advisors with farmer contact
 - In app 25% of private providers there is no back-office staff
 - In app 75% of private providers there ratio is less than 2 to 3
 - In app 50% of public providers, the ratio is 1:1 and more

One-to-one Advice

(data for UK, I, IE)

- Share of one-to-one advisory services on total time
 - More than 50% of private providers with (median) 90% one-to-one advice in UK, Italy and Ireland
 - Public providers in Germany, Italy, UK with (median) < 65%

Pluralism of AAS providers – target groups of advisory services (DE)



Summary on AAS diversity within the AKIS

Farmers are served by increasingly pluralistic providers – cui bono?

- (1) Private AAS providers are now common across the EU
- (2) Medium and large-scale farmers are served by (almost) all types while other groups get little or even no targeted attention (female farmers, farm workers etc.)
- (3) Pluralism of providers needs country-specific governance responses

Enhancing innovation within the AKIS

EIP Agri - European Innovation Partnership 'Agricultural productivity and sustainability'

- it is a translation of the AKIS process concept, a focus on learning and voluntary change processes driven by a group of actors aiming at improving an economically relevant situation in agriculture
- supports the creation of innovation networks = operational groups (RD policy);
- supports the multi-actor approach (horizon 2020)
- How can **AAS providers or advisors** become driving elements within operational groups? What services are supportive to innovations?



Horizon
2020

Objectives of Innovation Research in Agriculture – the AgriSpin example



The overall aim: to improve innovation intermediary practices and support systems in European agriculture

Specifically, there is a need to improve and valorise European agriculture innovation systems by

- 1) Identifying, examining and cross comparing successful/best-fit innovation support practices across Europe
- 2) Analyzing and better understanding the role of innovation intermediaries and support services within agriculture related innovation processes
- 3) Creating and strengthening effective networks among AKIS stakeholders at European level, and
- 4) Facilitating a cross-learning process towards supporting innovation processes, scaling up identified best –fit practices and strengthening innovation capacities of stakeholders.

Horizon
2020

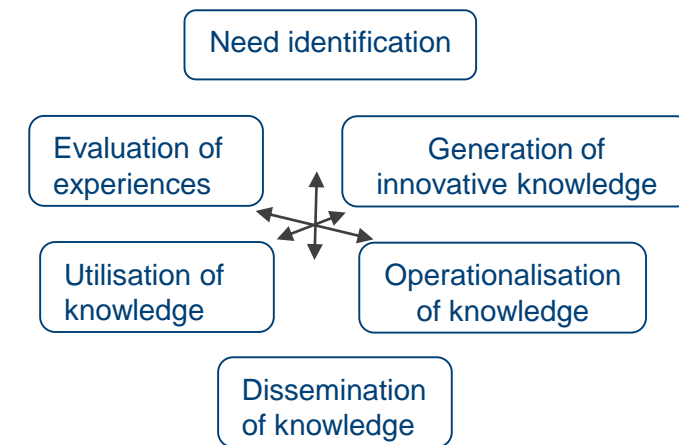


What innovation support services (ISS)?

Findings from AgriSpin:



- Knowledge creation, access and exchange
- Advisory, consultancy and backstopping at farm and at organisations' level
- Capacity building and documenting learning
- Demand articulation
- Networking, facilitation and brokerage
- Access to resources
- Institutional support for niche innovation and scaling mechanisms' stimulation



(Koutsouris, 2014; Mathe et al. 2016: p 6)

Traditional and new advisory service functions to support innovations



- Knowledge creation, access and exchange
- Advisory, consultancy and backstopping at farm level
- Advisory, consultancy and backstopping at organization level
- Capacity building and documenting learning
- Demand articulation
- **Networking, facilitation and brokerage**
- Access to resources
- Institutional support for niche innovation and scaling up

the ,networking, facilitation and brokerage function' requires

- ✓ Increased attention for the coexistence of cooperative, competitive and co-opetitive service providers and the need to identify and realise complementarities
- ✓ the diagnosis of the innovation type and scale – in order to develop ,best fit' support interventions
- ✓ Organisational openness as ISS can be provided by (practically) all types of services providers

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**Thanks for your
attention!**

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AgriSpin: www.agrispin.eu
PRO AKIS: www.proakis.eu