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# **Knowledge system driving multifunctionality: a challenge for the Italian agricultural sector**

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## Objective

to analyze the role of the Agricultural Knowledge System (AKS) in providing Italian farmers instruments to manage the process towards a more multifunctional agriculture and to provide indications to policy/decision makers

## The hypothesis/1

Changes are involving farmers and their “productive” role within the agricultural sector (food security, sustainability, public goods, climate change, green energies).

Changes driven by:

- *market forces*
- *collective requests*
- *agricultural policies and public subsidies*
- *the new debate about post 2013 CAP, that seems to require to change, diversify and to offer new goods and new services (sometimes no marketable)*
- **AKS policies**

## The hypothesis/2

“Multifunctionality” represents one among the different scenarios, allowing farmers to increase their income and to satisfy sustainability demand.

*Innovation and transfer of knowledge are the key drivers for these challenges (European Chambers' of Agriculture, 2010)*



AKS is fundamental to support farmers in taking into account multifunctionality (economic, social, environmental aspects) in their management.

## Methodology

Analysis of:

“investments in AKS in 1999 – 2004 devoted to multifunctionality

“characteristics in terms of multifunctionality (MF) of the Italian agricultural sector in 2007



connections between AKS and MF (static)

Next step:

“multifunctionality in 2008 – 2009 (dynamic)



potential impact of AKS on farmers!

## Multifunctionality, diversification, pluriactivity: theoretical references

“broadening, deepening and regrounding  
(Van der Ploeg and Roep, 2003)

“farm or farmer level (European  
Commission, 2008)

“localization of activities and production  
factors (OECD, 2009)

## Multifunctionality in Italy/1

Focus on on-farm activities (supply of the activity originates on the farm):

“previous studies underline the simultaneous activation of more multifunctional practices within the same farm

“FADN 2007: 8,207 farms, statistically representing 749,712 farms. Approximately 95% of the total farms are individual

“MF: organic, sustainable productions, quality systems and certifications [ISO, Haccp, etc], traditional and typical products, diversification (on-farm processing, direct sale, agritourism, rentals)

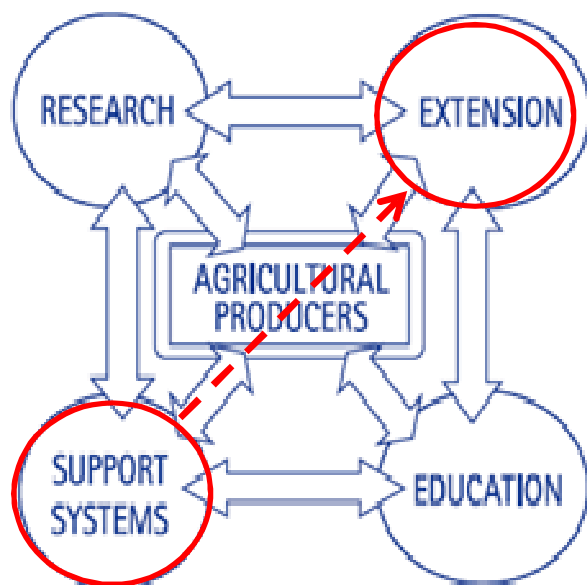
## Multifunctionality in Italy/2

57% of total farms involved in at least one MF activity.

	n° of farms	% of total	UAA	TWU	value added	crop specialization	ESU	farmer's age
organic	9,755	1.3	27.82	1.92	57,939	permanent	8 to 16	40 to 60
environmental issues	46,447	6.2	15.07	1.48	53,376	permanent	8 to 16	40 to 60
certifications (ISO, Haccp)	30,356	4.1	11.24	1.41	<u>62,699</u>	permanent	up to 8	over 60
traditional and typical products	97,439	13.0	10.45	1.49	38,320	permanent	16 to 40	over 60
diversification: direct sale	171,336	22.9	11.73	1.26	24,901	permanent	8 to 16	over 60
agritourism	9,847	1.3	26.69	2.49	<u>79,978</u>	permanent	16 to 40	40 to 60
processing	289,290	38.6	11.82	1.22	23,875	permanent	8 to 16	over 60
rentals	25,203	3.4	15.00	1.33	30,269	permanent	8 to 16	40 to 60

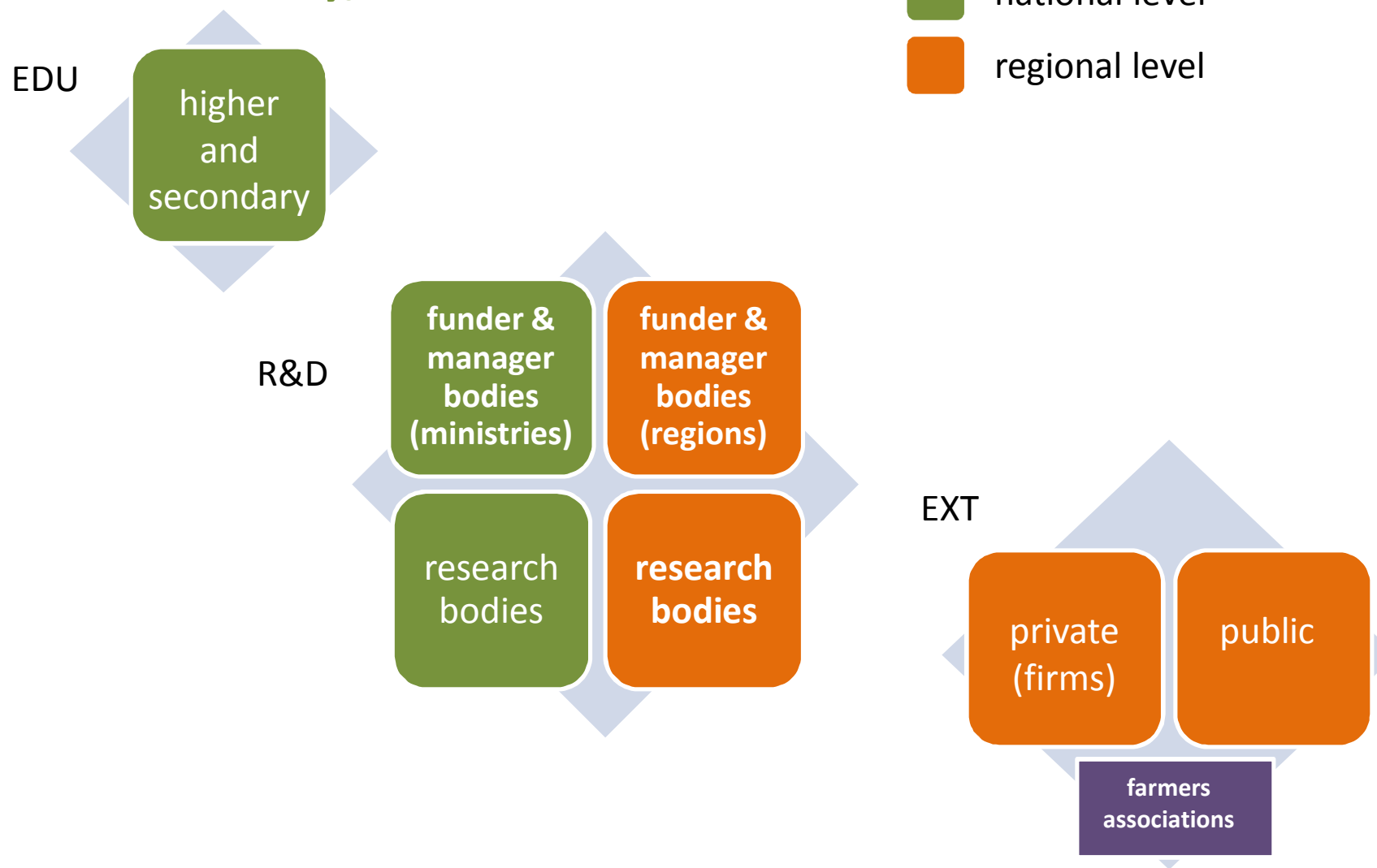
## The AKS in Italy/1

The Italian AKS is characterized by different organizational models, contents, working methods, relationships in all its components



The **Support System** is inside the Extension, funded and managed only by the public institutions (Regions)

## The AKS in Italy/2



## EXTENSION SERVICES CLASSIFICATION

### *First level services (target: farms and local territories)*

<p>a. Information</p> <ul style="list-style-type: none"> <li>a1. Technical magazines</li> <li>a2. Fairs and exhibitions</li> <li>a3. Conferences and seminars</li> <li>a4. Other</li> </ul>	<p>b. Basic and local services</p> <ul style="list-style-type: none"> <li>b1. Cultural activities</li> <li>b2. Basic farm advises</li> <li>b3. Technical advices</li> <li>b4. Marketing advices</li> <li>b5. Customer advices</li> <li>b6. Other</li> </ul>	
<p>c. Advanced level support services</p> <ul style="list-style-type: none"> <li>c.1 Network of environmental monitoring</li> <li>c.2 Specialized supports</li> <li>c.3 Marketing promotion</li> <li>c.4 Networks, data base and multimedia</li> <li>c.5 Other</li> </ul>	<p>d. Product specialized services</p> <ul style="list-style-type: none"> <li>d1. Test</li> <li>d2. Technical advices</li> <li>d3. Marketing advices</li> <li>d4. Farm advises</li> <li>d5. Other</li> </ul>	<p>e. Managerial services</p> <ul style="list-style-type: none"> <li>e1. Accounting</li> <li>e2. Managerial and financial advices</li> <li>e3. Support to implement policy</li> <li>e4. Other</li> </ul>

### *Second level services (target: technical organizations)*

- f. Planning and management advices
- g. Analysis of innovation demand
- h. Other

*Source: National Institute of Agricultural Economics*

## Data on AKS

“R&D and Extension at regional level (but not all regions)

“R&D 1999-2004: Regional Agricultural Research Data Bank, managed by Inea, collecting regional research projects

“EXT 2001-2004: survey developed by Inea and Regions

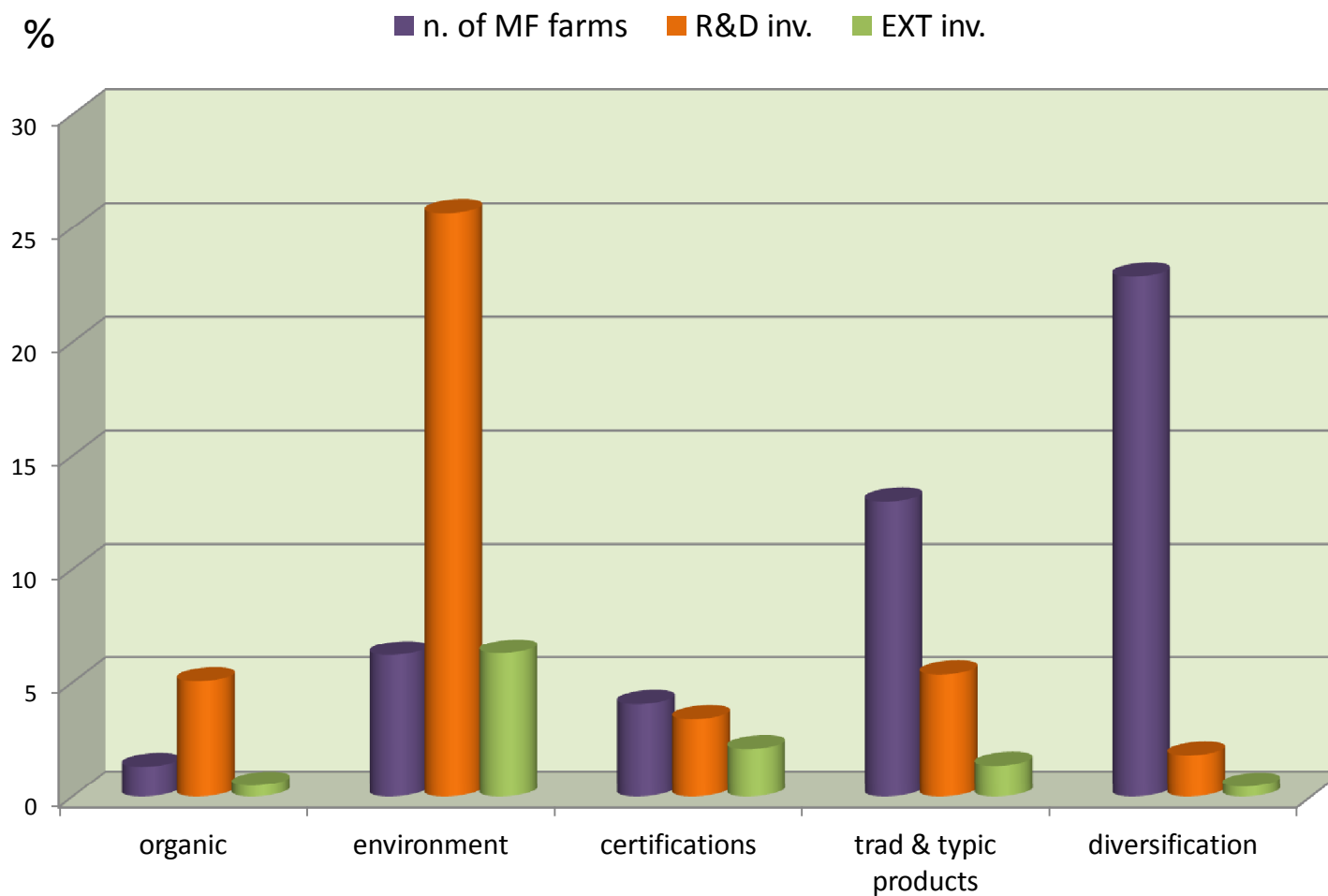
## Multifunctionality, R&D, Extension by regions

	MF farms		MF R&D			MF Ext		
	n.	% on tot agric. farms	n.	investment (euro)	% of tot	n.	investment (euro)	% of tot
Friuli V.G.	6,535	1.53	8	1,914,460	34.33	15	16,668,205	3.40
Piedmont	22,820	5.34	24	492,940	8.55	28	41,485,588	9.30
Veneto	20,164	4.72	5	1,351,232	20.72	5	782,900	3.35

## R&D and Extension by MF functions

	MF R&D			MF Extension			
	n.	budget	% of total	n.	budget	% of total	work units
organic sector	50	5,542,502	5.04	72	5,344,128	0.48	105
environmental protection	205	28,213,030	25.66	207	70,535,129	6.28	881
certification	20	3,726,498	3.39	89	23,334,681	2.08	442
traditional and typical products	68	5,871,546	5.34	48	15,165,337	1.35	110
territorial resources	9	402,838	0.37	24	44,332,047	3.95	47
diversification (agritourism, educational farms, short chain)	15	1,979,949	1.80	46	4,833,415	0.43	162

## Multifunctional farms, R&D, Extension by MF functions



## Regions and main MF functions

	MF activity	R&D	extension
<b>Basilicata</b>	1. diversification (processing) 2. (direct sale)	environment	environment
<b>Campania</b>	1. diversification (processing) 2. (direct sale)	environment	certifications
<b>Friuli V.G.</b>	1. trad & typic products 2. diversification (direct sale)	environment	territorial resources
<b>Lombardy</b>	1. certifications 2. trad & typic products	environment	environment
<b>Piedmont</b>	1. trad and typic products 2. certifications	environment	territorial resources
<b>Puglia</b>	1. diversification (processing) 2. (direct sale)	environment	environment
<b>Sicily</b>	1. diversification (processing) 2. (direct sale)	environment	trad and typic
<b>Tuscany</b>	1. diversification (processing) 2. (direct sale)	environment	environment
<b>Veneto</b>	1. trad and typic products 2. diversification (direct sale)	environment	organic

## Some results

“57% of farms involved in some MF function

“more diversification activities (direct sale, agritourism, processing) rather than proper multifunctional activities (public goods and services)

“the environmental issues are still considered as a constraint rather than an opportunity.

## on the opposite

“the higher share of research and a good share of extension initiatives and investments focus on the environmental issues

## Some remarks

“it takes time to “innovation” to produce changes in behaviours and approaches

“our analysis takes a picture of 2007 Italian agriculture, in the following years changes are already occurring (Census 2010)

“RDP 2007-2013 introduced specific measures for EXT, but still mainly focused on support on compulsory fulfillments

## Some suggestions/1

AT EXT level:

“to communicate multifunctionality (public goods) as a strategy not only to comply with the rules, but also to increase income, to reduce management risks, to gain consumers trust, to benefit from the rural context

“to differentiate the support in relation with farm size, with a special attention for multifunctional strategies at territorial level (especially for small, marginal, individual farms, more sustainable, but with limited multifunctional possibilities)

“to adopt new instruments and techniques

## Some suggestions/2

AT R&D level:

“to enhance farm and society needs analysis to answer to local problems (sustainability is more local and regional)

“to adopt a multidisciplinary approach, with specific different expertise and professionals

“to improve the knowledge transfer through knowledge networks (participatory approach)

### Some suggestions/3

AT POLICY level:

“to connect EXT with policies, in particular focusing it on public goods (from 2007 RDP measures, but rules compliance)

“to shorten distance between AKS policies and farms (environmental issues analyzed by research but not applied yet)



to adequate AKS (especially EXT) to policy more ambitious objectives as sustainable development of farms and rural areas (*European Chambers' of Agriculture, 2010*) through a specific measure within CAP



**Thank you for your attention!!**

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## Multifunctionality in Italy 2004-2007

	2004		2007		var. % 2007/2004	var as difference of %
	n. of farms	% of total	n. of farms	% of total		
organic	9,210	1.4	9,755	1.3	5.9	-0.1
environmental protection	37,257	5.5	46,447	6.2	24.7	0.7
certifications (ISO, Haccp)	20,767	3.1	30,356	4.1	46.2	1.0
traditional and typical products	124,455	18.5	97,439	13	-21.7	-5.5
diversification: direct sale	157,578	23.5	171,336	22.9	8.7	-0.6
agritourism	7,224	1.1	9,847	1.3	36.3	0.2
processing	238,148	35.4	289,290	38.6	21.5	3.2
rentals	24,440	3.6	25,203	3.4	3.1	-0.3

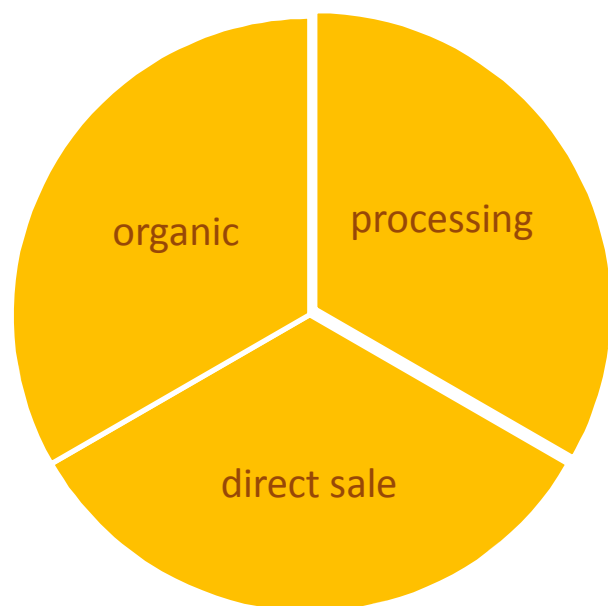
## Distribution of Multifunctionality in Italy

Regions

North 4

Centre: 1

South: 4



**South of Italy**



**North of Italy**