



AKIS and advisory services in Romania Report for the AKIS inventory (WP3) of the PRO AKIS project

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Executive summary

The main aim of the report is to provide a comprehensive description of the Agricultural Knowledge and Information System (AKIS) in Romania, with a particular focus on agricultural advisory services. The description includes history, policy, funding, advisory methods and a section on how the Farm Advisory System (FAS) was implemented.

This report represents an output of the PRO AKIS project (Prospects for Farmers' Support: Advisory Services in the European Agricultural Knowledge and Information Systems'). It is one of 27 country reports that were produced in 2013 by project partners and subcontractors for compiling an inventory of Agricultural Knowledge and Information Systems. AKIS describe the exchange of knowledge and supporting services between many diverse actors from the first, second or third sector in rural areas. AKIS provide farmers with relevant knowledge and networks around innovations in agriculture. Findings from the 27 country reports were presented at three regional workshops across Europe in February and March 2014, discussed with stakeholders and experts, and feedback integrated in the reports.

The agricultural sector in Romania is characterised by the most atomized agrarian structure in EU-27, with 32.2% of the total number of farms and 7.7% of the utilized agricultural area. Although in the period between the two agricultural censuses (2002-2010) the number of farms declined from 4.48 million to 3.86 million, the extremely fragmented structure of Romania's agriculture (3.45 ha average area) and the semi-subsistence and subsistence character of most farms was maintained. At present, Romania's agriculture features strong polarization: the small farms, under 2 ha, account for 73.3% of the total number of farms and 13.0% of total area. At the other pole, the large-sized farms, over 100 ha, which, although accounting for only 0.3% of the number of farms, control 48.8% of the agricultural area.

In Romania, AKIS integrates five subsystems: Romanian farmers, agricultural research, agricultural education, agricultural consultancy and the private sector, in order to use the knowledge and information from various sources for the purpose of agriculture development. The government's policies regulate and play an important role in the existing interactions between the subsystems.

The public advisory system in Romania is represented by County Agricultural Chambers (CAC) coordinated from the technical-methodological point of view by the Ministry of Agriculture and Rural Development, through the Consultancy, Extension and Vocational Training Department (CEVTD). The main objectives targeted by this service are to provide support to the rural population by extension and technical assistance actions, support for accessing the structural funds, promotion of association forms, managerial consultancy, information, vocational training and refresher courses.

There are also private agricultural consultancy structures in Romania, namely: i) consultancy firms; ii) input traders and suppliers; iii) farmers' organisations. They provide consultancy through drawing up the financial applications for different types of projects. In the case of large-scale projects, the private consultants can help the rural entrepreneur and/or farmer with their expertise throughout the project period.

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List of Acronyms

Acronym	Explanation			
AKIS	Agricultural Knowledge and Information/ Innovation Systems			
APIA	Agency for Payments and Intervention in Agriculture			
APRD	Agency for Payments for Rural Development			
CAC	County Agricultural Chambers			
CACO	County Agricultural Consultancy Offices			
CAP	Common Agricultural Policy of the European Union			
CESAR	Complementing EU Support for Agricultural Restructuring in Romania			
CEVTD	Consultancy, Extension and Vocational Training Department			
EAFRD	European Agricultural Fund for Rural Development			
EIP	European Innovation Partnership			
EU	European Union			
FAS	Farm Advisory System			
GDP	Gross Domestic Product			
ITC	Training and Information Centers			
LACC	Local Agricultural Consultancy Centers			
MAKIS	Modernization of the Agricultural Knowledge and Information System			
MARD	Ministry of Agriculture and Rural Development			
NGO	Non-Government Organisation			
NAAC	National Agency of Agricultural Consultancy			
PROAKIS	Prospects for Farmers' Support: Advisory Services in European AKIS			
R&D	Research and development			
SMR	Statutory Management Requirements			
AAFS	Academy for Agricultural and Forestry Sciences "Gheorghe Ionescu - Sisesti"			
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1. Main structural characteristics of agricultural sector of the country

With a total area of 23,839 thousand ha and a population totaling 21.4 million people, Romania is a medium-sized country in the European Union (EU). Its GDP per capita of about 6200 euro, places Romania among the medium developed countries. According to the typology agreed at EU level, in Romania the predominantly rural areas account for 59.8% of the territory and 45.7% of the population¹.

Romania has *important land resources* – 14.6 million hectares agricultural land, over 60% of its total area; out of these, 64% is arable land, 33.5% meadows and pastures and 2.5% permanent crops. There are also *significant forest resources* – 6.8 million ha, out of which the area under exploitable forests sums up to about 4.1 million ha.

After land, labour represents the next most important resource. The labour force in the agricultural sector accounts for 30.1% of the total labour; although it has followed a decreasing trend in recent years, it is oversized compared to the EU-27 average. In the conditions in which the share of agriculture in GDP is quite modest (6.5%), this situation reveals a *low level of labour productivity*. Although in the year 2011 agriculture generated more than thirty percent more of gross value added than in 1989, this situation was not the result of technical-economic performance increase, but rather the result of the large labour input, poorly remunerated and with a deficient endowment in production factors. Furthermore, the population working in agriculture are older in age: according to the data provided by Agency for Payments and Intervention in Agriculture (APIA), in 2010, almost 60% of the farmers eligible for support under the form of direct payments were over 60 years of age (operating more than 25% of the arable land) (Otiman & Steriu 2013).

As we previously mentioned, although the natural potential is quite favorable, Romania's agriculture is far from a level that could enable its compatibility with the EU structures. The yields, both in the crop production and livestock production sectors, are low and very different, both in quality and in quantity, across the agricultural years, in close correlation with the weather conditions, under the background of obsolete technology, under utilization of agricultural inputs (seeds, fertilizers, pesticides, irrigations). Thus, we can conclude that the main problem that agriculture is facing is not the high share of agriculture in the national economy, but rather the problem of its extremely *low productivity*.

From the farm structure point of view, before the communist regime changed (year 1989), it was the large-sized farms that prevailed. This situation changed, land was restituted to private owners and the farm size drastically decreased. In the year 2010, Romania had *the most atomized agrarian structure* in EU-27, with 32.2% of the total number of farms and 7.7% of the utilized agricultural area. Although in the period between the two agricultural censuses (2002-2010) the number of farms decreased from 4.48 million to 3.86 million, the extremely fragmented structure of Romania's agriculture (3.45 ha average area) and the *semi-subsistence and subsistence character* of most farms was maintained. Food self-consumption on Romania's subsistence

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¹ http://ec.europa.eu/agriculture/statistics/rural-development/2011/ch31 en.pdf

farms account for 90–92% of the production of these farms, while on the semi-subsistence farms it represents 50–52% (Otiman & Steriu, 2013).

At present, Romania's agriculture features a *strong polarization*: the small farms, under 2 ha, account for 73.3% of the total number of farms and 13.0% of total area. At the other pole, the large-sized farms, over 100 ha, which, although account for only 0.3% of the number of farms, operate 48.8% of the agricultural area.

The development of a profitable agricultural sector is seen as an essential component of Romania's development. There is a wide spread agreement among farmers, policy makers and experts that an effective AKIS will be required for agricultural performance.

2. Characteristics of Agricultural Knowledge and Information System (AKIS)

2.1 AKIS description

In Romania, it has been recognized that a competitive agricultural sector is also linked to a great extent to the existence of an efficient agricultural knowledge and information system (AKIS). Connecting institutions and people, AKIS was created in order to promote mutual learning and to generate the utilization of agricultural technologies, knowledge and information on a participatory basis. The system integrates farmers, agricultural research, agricultural education, agricultural consultancy and the private sector, in order to best use the knowledge and information from various sources for the purpose of agriculture development. Each AKIS subsystem is, in its turn, part of some more general systems, such as the education system, science policy, agricultural and rural development policy etc. The government's policies regulate each subsystem and play an important role in the existing interactions between subsystems.

Agricultural research

The agricultural research is the subsystem that plans, administers and implements the activities that develop, evaluate, adapt and test the agricultural technologies for farmers and other users in the first place. While certain research activities find solutions for specific scientific problems, other activities provide the decision makers with instruments and methods that they need for a proper management of the agricultural sector. In Romania, the research activity is also involved in the evaluation of the effectiveness of agricultural practices and agricultural policies.

An initial group of players in this subsystem is represented by the *public research institutes* under the subordination of the Academy for Agricultural and Forestry Sciences "Gheorghe Ionescu - Sisesti" (AAFS). This is a public academic recognition institution, which operates in conformity with its own statute. This is under the coordination of the Ministry of Agriculture and Rural Development (MARD) and it collaborates with the Ministry of Education and Research. AAFS has 17 Agricultural R&D Institutes and Centers and 51 Agricultural R&D Stations under its subordination, located in the territory, where more than 800 specialists are working, out of which 700 are certified specialists².

As regards to the research theme, there are institutes and centres where the approached thematic is quite comprehensive, covering several research fields, as well as institutes and centres focusing on a narrower themes. The research-development objectives of each organisation are inconsistent with the National Research-Development Plan. Ninety percent of the research-development activity is carried out in the public agricultural research institutes³.

The research institutes are financed from several sources: extra-budgetary incomes obtained through research-development contracts, royalties received from biological creations, consultancy services, sale of agricultural products (seeds, planting stock, breeding animals) obtained in the development sectors and other. The research-development units have a logistics

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² http://www.asas.ro/academia_astazi.html

³ http://www.asas.ro/Strategia%20de%20cercetare%20ASAS%202014-2020%20NOV%2015%202011.pdf

base consisting of analysis laboratories of phytotron, zootron, apitron type, greenhouses and vegetation chambers, experimental fields, banks of genetic resources and other facilities.

The conducted interviews revealed a series of important problems with a negative impact upon the research subsystem development, namely:

- "the privatization initiated after 1989 brought about many disservices to the research institutes: their land and assets became a prey to the policy makers' rapacity in numerous cases";
- "the chronic under financing of the research activity has been a constant for the last two decades";
- "no young staff in the research sector, small wages, the posts are frozen, so that the employee pyramid is reversed. Old-aged employees prevail.";
- "the research plan was made by AAFS, the ministry gives the money, but many themes are of no use, nobody benefits from them, neither the ministry nor the farmers";
- "within AKIS, research is one of the subsystems with the greatest resistance to change".

In Romania, besides the public research, there are also a small number of independent (private) research suppliers. These organisations generally focus on applied research and their funds come from their own financial resources or from different projects. The agricultural universities have also research departments in their structures, yet they are less involved in the research activities. At the same time, it should be ntoed that a series of large companies in the field of agrochemistry, seeds, agricultural machinery, software, etc. carry out their own research-development activities.

Public agricultural consultancy

The experience provided by the countries with advanced agriculture where the agricultural production is assisted by strong advisory services as well as the particularities of agriculture from Romania determined the promotion of certain strategies and legislative acts beginning with the year 1998, meant to support the organizational structures providing agricultural advisory services.

The public advisory system in Romania has a pyramid-like structure. This is coordinated from the technical-methodological point of view by MARD, through the Consultancy, Extension and Vocational Training Department (CEVTD). At the county level (NUTS3) there are County Agricultural Chambers (CAC) under the subordination of county councils and the theoretical-methodological coordination of CEVTDs. At the level of communities (NUTS5) there are Local Agricultural Consultancy Centers (LACC) under the subordination of CACs.

The main objectives targeted by this service are to provide support to the rural populations by extension and technical assistance actions, support for accessing the structural funds, promotion of association forms, managerial consultancy, information, vocational training and refresher courses, providing information flows in both directions and specialized technical, economic and legislative databases. The main beneficiaries of the public advisory services are the farmers and/or the rural population in the sector of agricultural/non-agricultural services.

There are also other institutions under MARD subordination, which, besides the specific activities for which they were designed, they also provide agricultural advisory services. Among these, we mention the Agency for Payments and Intervention in Agriculture (APIA), Agency for

Payments for Rural Development, the County Agricultural Directorates and other agencies under MARD subordination.

Agricultural education

Agriculture, more than any other economic activity field, needs permanent training. The permanent vocational training need also appears in the context of competitiveness increase and diversification of products and activities in agriculture and forestry, of restructuring and modernization of agricultural, forestry, agro-processing and marketing sectors, of reaching the sustainable land management and environment protection objectives, application of environment friendly technologies and practices.

In Romania, agricultural education consists of agricultural higher education, high-school level and vocational training. These are under the coordination of the Ministry of Education (as part of the traditional education system). The agricultural schools and universities network covers the entire territory of Romania. Many of these education units have demonstration farms and plots for the practical activities, for pedagogical purposes, for experiments. Many land areas were ceded to be utilized for other purposes, in general, under the market pressure and political pressure. These farms had an important role in the area where they were located, initiating development and innovation projects under partnership with research centres, extension services, associative networks and private farms.

Theoretically, the agricultural universities have a recognised teaching, research and advisory role. However, it is impossible for most of them to play all these three roles efficiently. They often remain separate from the agricultural research and consultancies. They do not have a MARD's subordination and most of them develop theory-oriented programmes.

The conducted interviews highlighted that the "educational programs provided by the agricultural universities have a relatively low quality" and that "there is an obvious under financing of these universities". There is also an obvious tendency of "extensive development, of enrolling the largest number of students in order to increase their revenues".

Private consultancy structures

Besides the public advisory services, there are also private agricultural consultancy structures in Romania, namely: i) consultancy firms; ii) input traders and suppliers; iii) farmers' organisations.

Recent years proved that the consultancy activities in the private sector experienced an increasing trend, mainly as a response to the financing possibilities provided through European programmes. In almost all cases, this type of consultancy presupposes drawing up the financial applications for different types of projects. In the case of large-scale projects, the private consultants can help the rural entrepreneur and/or farmer with their expertise throughout the project period.

The interviewed specialists consider that:

- "a threshold existed in the private consultancy activity, namely the year 2007: before 2007 the agricultural consultancy market had only a few players - the academic environment, universities – the researchers and the professors were the consultants; we can say that no private consultants

existed in agriculture before 2007. At present there is an agricultural consultancy market in place and this is a market for serious people";

- "there are many small and large-sized companies that, even though they have a big turnover, there are totally untrained people behind them, no training was made for these private consultants";
- "people complain that they cannot access European funds but there are situations when many projects cannot go forward because nobody knows how to work, nobody knows what to do....most often people are groping for solutions";
- "in Romania, in particular, the economic sector is fully uncovered economic analysis; even at the Academy of Economic Sciences you do not learn how to calculate certain indicators for certain types of projects....a measure under the new CAP should exist that should train the consultants, to understand the philosophy of measures";
- "most private consultancy firms are not located in the rural area, but in the urban area. Constancy is needed; firms are needed to provide advisory services on the spot. Many times many firms disappear after they have won the projects. When they have problems, farmers cannot discuss them with anybody, as the firms have disappeared.....";
- "a law for certifying the consultants is needed, and a black list of consultants who have not respected their obligations is also needed".

The producers' organisations and the farmers' associations are among the most important players in this subsystem. For an adequate operation of AKIS these organisations are a guarantee that the groups of interest/stakeholders are correctly represented and that farmers' priorities are well-known. The farmers' organisations try to improve the access to the production, market and managerial resources for their members. Farmers have an important role to play, not only as producers, but also as contributors to the AKIS development process.

The input suppliers combine the sale of products (for instance animal feed, seeds, fertilizers and pesticides) with the knowledge transfer. In general, the extension cost is included in the product price. These organisations most often provide advisory services specialized in narrow fields.

Box 1. Projects devoted to the organization of a Modern Agricultural Knowledge and Information System

Considering the importance of advisory services in agriculture, which should facilitate Romania's conformity with the EU membership obligations, the International Bank for Reconstruction and Development (IBRD) provided financial assistance for the organization of a modern knowledge and information system in agriculture. The project "Modernization of the Agricultural Knowledge and Information System" (MAKIS), funded by the World Bank, under its component "Support to the Advisory and Information System", had as its main objective the establishment of four Training and Information Centers (ITC), located in the main regions of Romania. These were integrated into the four main agricultural universities of the country – in Bucharest, Cluj-Napoca, Timişoara and Iaşi. These centres operated as resource bases for improving and updating the professional capacity of agricultural consultants, of food safety specialists and of agricultural researchers. These categories were thus prepared to be able to provide farmers with the necessary knowledge and technologies targeting production, quality control, processing, food safety, etc.

In 2007, under MAKIS, the Integrated Office for Agricultural Consultancy Tecuci was created, by merging five local agricultural consultancy centres; this office operated in the local main office of APIA. In 2008, by World Bank Mission Agreement, it was agreed that based on the needs identified by NAAC, four such new pilot centres should receive support. The staff at these Centres were trained in the TICs. Under the Project, these Offices were endowed with furniture, IT equipment and means of transport. The technical activity received support from NAAC, which elaborated a "Set of Rules for the organisation and operation of the Integrated Offices for Agricultural Consultancy" providing for the attributions, organisation structure and collaboration relations between them. The Offices were organised under the form of public institutions as non-legal entities under the subordination of former LACCs, with the headquarters in the locations at the community level where at least one of the services provided by the other agricultural institutions operated. These Offices were coordinated by a Consultative Council (consisting of the representatives of local authorities, Local Agricultural Consultancy Offices, APIA, DARD, farmers' associations/farmers from small, medium and commercial farms, etc.). The main objectives established through the creation of these Offices were the following: they provided farmers with fast, correct and competent access possibilities to the information services; removal of institutional parallelism, which enabled the administrative institutions from agriculture to mostly efficiently use the material and human resources; improvement of the farmer-state-European Union interaction; ensuring an adequate framework to the permanent consulting and information of the stakeholders' representatives (association forms, producers and processors, local administrative units, MARD, education and research units in the area, as well as the local public administration).

In 2011, the Project "Complementing EU Support for Agricultural Restructuring in Romania (CESAR)" was initiated, under which socio-economic counselling activities for the rural population were supplied in 15 counties. The activities were the supply of relevant information and counseling for the rural population, the proposal of mechanisms to identify solutions to the challenges and adaptation problems of agricultural production, households, family and social and economic relations. Following the restructuring of CESAR Project, a series of technical assistance activities for MARD was introduced (carried out by the World Bank experts). One of these activities provided for the improvement of rural services through the extension and endowment of the Integrated Offices for Agricultural Consultancy. In this respect, the establishment and organization of other 10 Offices was proposed, which, together with the four Offices already established in the year 2008 should cover the development regions of Romania. From the conceptual point of view, for the location of the other ten new Offices, the balanced coverage of the regions of the country, as well as the representativeness with regards to agriculture specificity in these regions, so that each agricultural sector (crop production, livestock production, agro-tourism, etc.) should be represented. The offices were intended to provide fast, correct and competent access to the information services, an adequate framework to farmers' permanent consulting and information and to contribute to the improvement of interaction between the farmers, the state and the European Union (Ștefănescu, 2013).

2.2 AKIS diagram

In Romania, the effort to develop a modern AKIS was focused on its three main subcomponents from the very beginning – research, agricultural education and consultancy. Although the joint actions were also present, in most cases these act on an independent basis. The linkages between these subsystems were considered by the interviewed persons as weak, the same as their links with the farmers: "these subsystems are like separate slices of the same loaf of bread". There are

overlapping and a lack of cooperation of the subsystems, and competition exists for accessing the same type of resources (access to projects) (Figure 1).

Figure 1. Agricultural Knowledge and Information System (AKIS) in Romania

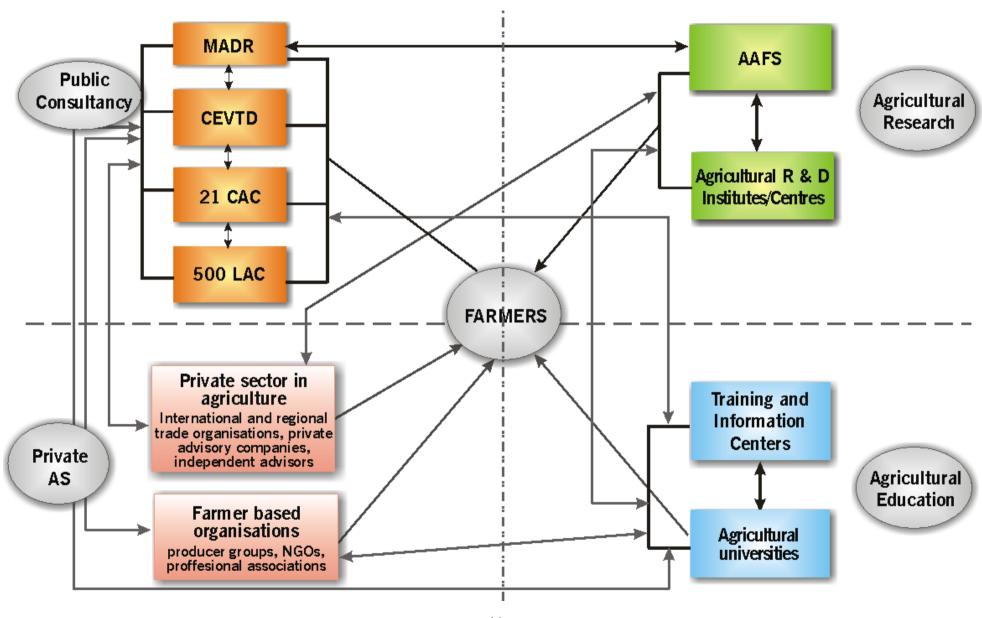


Table 1. Overview of organisations creating the AKIS

	Provision of service							Source of finan	cing			
		Number	Number		Public funds			Farmers		Private	NGO	
Status of the organisation	Type of organisation of orga- o	ranisation Type of organisation of orga-	of	EU funds	National funds	Regional funds	Farmers' levies	Farmers' contribution	Billing services	Other products (inputs, outputs)	founda- tion	Other (specify)
Public sector	Ministry of Agriculture and Rural Development	1	-		Х							
	County Agricultural Chambers	41			Х				Х			
	Local Agricultural Consultancy Centers	500			Х				Х			
	Agency for Payments and Intervention in Agriculture (APIA)	1 N*/ 41C**		Х	Х							
	Agency for Payments for Rural Development (APRD)	1N/ 41C		Х	Х							
	County Agricultural Directorates	41C			Х							
Research and	University	4		Х	Х				Х	X		
Education	Training and Information Centres	4		Х					Х			
	Academy for Agriculture and Silviculture Sciences	1		Х	Х							
	Research Institutes and Experimental Fields	17/ 51		Х	Х				Х	Х		
Private sector	International trade organizations	unknown							Х	Х		
	Regional suppliers	unknown							Х	Х		
	Independent consultant	unknown							Х			
	Private agricultural advice company	unknown							Х			
Farmer based	Farmers' cooperative	unknown						Х	Х	Х		
organisations	Producer groups	205		Χ				Х	Х	Х		
NGO	Professional associations and foundations	unknown		X					Х			

^{*} national ** county

3. History of the advisory system

The changing nature of the information from the agricultural sector and the important transformations that took place in Romania after 1989 significantly shaped the evolution of agricultural advisory services. The public advisory service will be presented in this subchapter, which influenced the post-1989 history, namely:

Before 1989: - prevalence of the technical agricultural consultancy

In the communist period, the agricultural consultancy activity had mainly a formal nature and was oriented towards the technical aspects of production. The economic and commercial problems were neglected at farm level, and these were most frequently addressed by specialized bodies at county and central level. The agrarian management training was very weak and was provided through the courses organised by the County Agricultural Directorates or by the Agronomist's House. These practices very much diminished after 1990.

1989-1998: "invisible" agricultural consultancy

After 1990, Romania's agriculture was subject to dramatic changes. Agricultural land was restituted to former owners, which resulted in the emergence of more than 4 million very small-sized farms. A fast deterioration of production means took place (destruction of irrigation systems, of agricultural equipment, of agricultural buildings, etc.) and the specialists in agriculture were "removed" from the system. These evolutions determined the return to traditional farming on small land areas, with obsolete technology and no modern production means and specialized advice. In this period, most small farmers were "own-account workers", being obliged to adopt individual strategies of adaptation to the new conditions: these were mainly based on informal aid networks – friends and neighbors. This situation contributed, together with other factors of economic and juridical nature, to the strong decline of Romania's agriculture.

1998 – The "birth" of the public agricultural consultancy service

The existing situation imposed the creation of organisational structures specialized in agricultural consultancy, to serve both the small individual farms and the farms of associative type. Thus, in the year 1998, the National Agency of Agricultural Consultancy (NAAC) was created under a PHARE Project, with the purpose to initiate the supply of agricultural advisory services to the Romanian farmers. Besides NAAC, County Agricultural Consultancy Offices (CACO) and the Local Agricultural Consultancy Centers (LACC) at local level were also established. The agricultural consultancy service was conceived as a centralized system, under the authority of the MADR, as a legal entity funded from the state budget and from their own incomes. It was established with the main objective "to provide support to the reform in agriculture through specific advisory, extension and vocational training activities, so as to organize modern, efficient and competitive agricultural holdings".

2001 - "decentralization" of the agricultural consultancy service

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⁴ It was established based on Government's Decision no. 676/1998, with subsequent modifications and completions approved by Government's Decision 676/1999.

⁵ PHARE Project RO 9505-01-01

In the year 2001, the public agricultural consultancy system was decentralized. CACOs and LACCs came under the local administration's control. They were coordinated technically and methodologically by NAAC, which remained under MARD subordination. Under these circumstances, the quality of advisory services for farmers was debatable due to the large-scale utilization of CACO and LACC staff for other different activities to the detriment of agricultural advisory activities.

2005 – "recentralization" of the agricultural consultancy service

In 2005, the agricultural consultancy service became centralized again, and CACOs and LACCs were retransferred under NAAC and MARD authority⁶. After this date, NAAC objectives became more comprehensive, and the agricultural consultants attended different training courses and participated to different programs with international technical assistance and finance. Thus, in its new mandate, NAAC had three main objectives: (i) training farmers and support to producers' associations, (ii) making available to farmers the information on the EU requirements and on the funding sources that can be accessed in order to comply with these requirements, (iii) helping farmers to design the multi-annual agricultural business plans. Most interviewed specialists recognize the significant role of NAAC in providing support to MARD in the process of accession to the EU. Once Romania joined the EU, NAAC also addressed the problems related to environment protection and animal welfare, the focus being on agricultural production.

2009 – establishment of agricultural chambers at county level

The consultancy service was subject to another transformation this year. NAAC was reorganised again and CACOs were transformed/got the name of County Agricultural Chambers (CAC) and under the subordination of county councils. This law again separated NAAC from its structures in the territory. Thus, NAAC role consisted of only technical consultancy compared to the operational role it used to have in the previous period.

2010 – liquidation of NAAC

In the year 2010, under the financial crisis background, the government decided on the public advisory service reform by the liquidation of NAAC⁸. Its activity was taken over by MARD that established a Consultancy, Extension and Vocational Training Department⁹.

2013 - return to the "invisible" agricultural consultancy

After almost 20 years, Romania returned to the "invisible" agricultural consultancy. On one hand, the public agricultural consultancy, represented by the CAC are in a difficult situation: the staff has not received any wages for almost four months and part of the consultants left the organisation. In many counties, the agricultural chambers no longer have access to the telephone

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⁶ Reorganization based on the Government's Ordinance no. 22/2005, approved by Law 77/2005, on the reorganization of the agricultural consultancy activity, NAAC was organized as specialized institution of the central public administration.

⁷ By Government's Decision no.1609 issued on the basis of Law 329/2009 that had in view the reorganization of certain public authorities

⁸ Government's Emergency Ordinance no.70/2010 with regard to certain measures for the reorganization of the Ministry of Agriculture and Rural Development, as well as of certain structures under its subordination

⁹ Government's Decision no. 725/2010 with regard to certain measures for the reorganization of the Ministry of Agriculture and Rural Development

and internet. The entire staff is in a provisional situation, without knowing what will happen in the future. On the other hand, there is a process of establishment of the new *Chambers for Agriculture, Food Industry, Pisciculture, Forestry and Rural Development* at county level and of the National Agricultural Chamber¹⁰ as private, non-profit institutions of public interest. This process was subject to massive modifications and delays, and it has not yet been implemented.

Box 2 - New Chambers for Agriculture

In the year 2010, a group of farmers at the national level proposed the establishment of the Agricultural Chambers led by farmers in the conditions in which their name was attributed to the former County Agricultural Consultancy Offices (CACO) renamed County Agricultural Chambers (CAC) in 2009. The establishment of Agricultural Chambers in the year 2009 was a serious error, "a great confusion was thus created". "The CACO would have had to be left in place, to be privatized gradually: as far as farmers became more productive, the agricultural advisory services developed, and they could be privatized". There are opinions according to which "the establishment of these new Agricultural Chambers does not serve the farmers' interest, but they rather satisfy the needs of certain people with managerial functions, at national and regional level". "Law 283/2010 represented a first attempt to aggressively change the system management. It was an attempt to radically change the organisation modality, but not the financing". "This law was not implemented due to its aggressive provisions. This is a law that cannot ensure the financial sustainability". For this law implementation, no impact studies and no studies on system viability have been made, and no pilot centres were established in order to see how the system is working in real/concrete conditions.

In the year 2012, another interest group, smaller in size, proposed Law 122/2012, by which an election system was proposed for the new Agricultural Chambers. "In this case, as well, this was not a bottom up approach, from the county to the national level, but rather from top to bottom". The existing risk is the lack of representativeness for farmers: "the farmers are not interested. They did not come with the initiative. There was political interference in the initiation process". There is no guarantee that these will be successful, under their present form. The Law provides for the establishment and operation of these Agricultural Chambers to be funded from the state budget. However, there is no estimation of the necessary costs. Law no.122 is based "on fees that should be paid obligatorily by farmers, otherwise their access to different EU programs will be restricted". The law creates a similar situation "to that in the 1950s, when peasants were obliged to become members by the force of whip".

As it can be noticed, the public consultancy service has suffered a series of changes over time. The main causes and motivations that lay at the basis of these evolutions were the following: lack of experience, lack of financial resources and political interference. As the interviewed specialists declared "NAAC establishment was quite formal – it did not have an adequate size – it was wrongly tailored from the very beginning: the number of small farms was very big, the number of employees was very small and furthermore, it was subordinated to MARD".

 $^{^{10}}$ Law no. 283/2010 on Chambers for Agriculture, Silviculture and Rural Development

4. The Agricultural Advisory Service(s)

4.1 Overview of all service suppliers

As mentioned in subchapter 2, many AKIS players provide advisory services. Among these, the public service is most recognised and important. This operates based on the following current legal framework:

- Government's Decision no. 1609/2009, on the establishment of county agricultural chambers, through the reorganisation of the county agricultural consultancy offices/centres, under the subordination of the NAAC¹¹;
- Emergency Ordinance no. 70/2010, with regards to certain measures for the reorganisation of the MARD, as well as of certain structures under its subordination ¹²;
- Government's Decision no. 1901/2004, on the establishment of the Agronomist's House¹³.

The agricultural advisory system is organised according to a pyramid-like structure. In the territory, the agricultural consultancy service is organised over two levels:

- county level 41 County Agricultural Chambers subordinated to the county councils and coordinated by MARD from the technical and methodological point of view. These were formed by the reorganisation of the County Agricultural Consultancy Offices;
- communal level 500 Local Agricultural Consultancy Centers under the subordination of the CAC.

The public consultancy service has as activity objectives, the promotion and implementation of MARD strategy and programmes; organisation of extension, consultancy, technical assistance, vocational training actions; support to agricultural producers in accessing the EU funds and other internal and external funding sources; support to agricultural producers in the establishment of association forms.

At the declarative level, the public agricultural advisory service carries out its activity in collaboration with the research-development institutes and stations, higher education units, commercial companies supplying inputs, agricultural producers' associations, agricultural and food industry companies, as well as with private agricultural advisory services.

4.2 Public policy, funding schemes and financing mechanisms

The establishment of the strategic development directions of the agricultural advisory service is still MARD responsibility.

The financing of the activity of county agricultural chambers is from the state budget and from their own incomes. The funding from the state budget is by transfer from the central budget to the county budgets. The own revenues of the county agricultural chambers come from the specific services provided to farmers and economic operators. The types of services, the fees that are asked for each type of service, as well as the modalities of cashing and utilization of funds

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¹¹ Published in the Official Gazette 924, December 30, 2009

¹² Published in the Official Gazette, Part I no. 451, 02/07/2010

¹³ Official Gazette no. 1097,November 24, 2004

are approved each year, by the county council decision, while observing the legislation into effect.

The funding level for the agricultural advisory service is quite limited. There are severe financial constraints that hinder the carrying out of basic activities. Both the budget for wages and the budget for the technical endowment are inadequate. The small wages mean it is impossible to attract and maintain qualified staff, with a negative impact upon the provided services. The financial resources for the material endowment are low and lead to the diminution of the consultants' mobility in the territory, and frequently to their isolation in terms of information and communication.

4.3 Methods and Human Resources

In the year 2012, the staff of the public agricultural consultancy service totaled 850 persons, which was about half of the staff they had when it was established. Out of these 850, 500 were employees of LACCs and 350 of CACs. Thus, compared to the great number of localities (about 3000 communes) and the volume of activities, the consultants number who are active at the community level is inefficient. On average, the consultant/beneficiary ratio is about 1/5000. From a strictly quantitative point of view, it is obvious that the number of staff is far from covering the consultancy need even for a small proportion of farmers from Romania. Historically, not even in the years when the hired personnel had maximum numbers of clients was there a satisfactory clients – consultant ratio.

The interviewed experts' opinion is that "for the Ministry, the consultancy activity has never been an important activity". Thus, the staff hired in the consultancy sector were often used for other activities: "the existing agricultural chambers do not provide advisory services at the county councils, they are like non-existent. They (the consultants) do work where the county council sends them – they perform other tasks". The financial constraints in the last years determined a strong pressure that led to staff rationalization, and the staff in this field were most affected. The existing situation – lack of mobility, lack of equipment and the extremely low wages (even the absence of remuneration) – determines the consultants' downheartedness. For many consultants, the attraction of additional income sources became a problem of survival. While the working conditions of the extension staff deteriorated, the expectations with regards to their role increased; the extension worker is not only a technical expert, he must also know participatory methods, to recognise and respect gender issues, to serve as a connecting belt to the rural world, etc.

Performance in the advisory activity is constrained by the low qualification level of consultants and by the lack of possibilities to advance in the conditions of the system instability. In fact, "there is no faculty where the consultants are trained – if you are an agronomist this does not mean that you are also a consultant. You must acquire skills that you do not learn in the faculty". The labour force "is like a heterogeneous picture: some people are competent and have expertise in the field, some people are not. But the best people migrated to the private system."

In order to get the NAAC/CACO staff qualified, the MAKIS project had in mind the certification and training of the human resource in consultancy, research and food safety. The following specialist's categories were trained:

Table 2. The specialists categories trained in TIC

Category	TIC București	TIC Timişoara	TIC Cluj- Napoca	TIC Iași	Total
Trainers/lecturers	36	-	-	-	36
Inspectors in food safety	200	80	80	60	420
Agricultural consultants	1000	400	400	240	2,040
Researchers	105	40	40	40	225
TOTAL	1,341	520	520	340	2,721

Source: Rusu, 2010

The participants were selected by the representatives/staff of the beneficiary organisms – NAAC, CACO, LACC, inspectors in food safety, research institutes from the network of the AAFS, representatives of some professional associations and graduate students from the participant agricultural universities.

In their activity, the agricultural consultants use a wide range of advisory methods. The communication from person to person is one of the information transfer methods valorized by both consultants and beneficiaries. As the Romanian consultancy system is in charge of a great number of farmers, the most usual method is *group consultancy*. In this way, a greater number of farmers are involved, even though the technical endowment and the staff are limited. The main constraint of this method is related to the consultant's methodical and organizational skills. Demonstration is another method used in the public consultancy service. Working technologies (new technologies and techniques) and production results are presented following the implementation of new varieties, pesticides, fertilizers, etc. Special courses for farmers are provided in the training centers - rural education centers. By these courses, mostly basic knowledge and information are transmitted for solving up the farmers' specific problems. In order to disseminate simultaneously useful information to a great number of beneficiaries, the mass consultancy is used. In the case when the information of the entire population is desired, campaigns are used. In order to develop the beneficiary groups' interest in campaigns, influent persons and organizations from the rural area are attracted, such as farmers' organisations, credit societies, etc. The consultancy service also organises exhibitions where different organisations set up presentations and information stands. These exhibitions are national or regional. Mass media – newspapers, radio and television are methods that are sometimes used by the consultancy services. The internet also connects the beneficiaries, mainly the young beneficiaries, to the information suppliers (Lăcătuşu, 2013).

4.4 Client and topics/content

The main *beneficiaries/clients* of the consultancy service are the different categories of farmers and rural inhabitants:

• the small farmers, who receive support in order to surmount the subsistence stage and set up a commercial family farm;

- the medium-sized farmers with development potential, who are supported to develop their holdings, for production adaptation and diversification in order to increase profit;
- the agricultural associations, mainly supported in the development of marketing strategies.
- the rural population involved in different gainful activities.

The public advisory service provides the following types of services to its clients:

- a) vocational training in connection to the agricultural sector restructuring and modernization. This is addressed to a wide range of beneficiaries differentiated by age and educational level and who are involved in different activity fields agriculture, forestry, food industry, pisciculture and rural development. The CACs are authorized by the Ministry of Labor, through the Labour Employment Agencies at county level, as vocational training suppliers in agriculture. These offer a wide range of courses: qualification, initiation, training, refresher courses in agriculture, training of trainers.
- b) *extension actions*. These actions focus on the information activity optimization, with the theoretical activity correlation with the practical demonstrations and applications, depending on the zonal specificity. In this category, the following are frequently used: demonstration plots, practical demonstrations, fairs, exhibitions, workshops, symposiums, debates, round tables, visits and experience exchange, films and other audio-visual means (cassettes, CDs, pictures), radio and TV shows at national and local level, etc.
- c) elaboration of projects for accessing EU funds. The public advisory service is an important player in the elaboration of the necessary documentation for accessing EU funds under the EAFRD program, in monitoring during the project implementation period and in providing specialized consultancy for the potential beneficiaries of these funds.
- d) *specialized technical assistance*. The advisory service employees provide guidance to farmers in choosing the holding type and system, the optimum and environment friendly technologies, the machinery and implements, the high quality genetic stock, etc. At the same time, these also provided advice in the following fields: crop production, horticultural production, livestock production, etc.
- e) specialized consultancy for the establishment of the association forms in agriculture was mainly provided at county level. This targeted the establishment of agricultural cooperatives, of agricultural associations and of other legal entities.

Between 2005 and 2012 the public agricultural consultancy service undertook the following activities:

Table 3. Agricultural Consultancy Activities

No.	Activities (2005 – 2012)	Number of participants				
Training	Training courses for farmers					
1	Qualification courses	158079				
2	Initiation courses	501994				
3	Improvement courses	6778				

4	Training of trainers	1714				
Dissemi	Dissemination events					
1	Demonstration lots	9418				
2	Practical demonstrations	69505				
3	Symposia	105149				
4	Seminars	294959				
5	Meetings	724550				
6	Roundtables	200643				
7	Debates	264850				
8	Fairs	719771				
9	Exhibitions	346457				
10	Competitions	26305				
11	Festivals	197525				
Advice a funds th	and assistance in preparing the necessary document rough:	ation to access				
1	SAPARD	1046				
2	EAFRD	22165				
Advice and technical assistance in the establishment of associative forms						
1	Cooperatives	340				
2	Producers' groups	2190				
3	Producers' associations	1002				

Source: data processed by Lacatusu, 2013

4.5 Linkages with other AKIS actors

In the activity it performs, the public advisory service establishes different collaboration linkages with the other AKIS players. Thus, together with the research institutes, demonstration parcels were established, mainly for the new varieties and hybrids and the implementation of new technologies. Fairs and exhibitions for the display of the latest results and products were organized together with the input suppliers and the local public administrations. Researchers, teaching staff and input suppliers were frequently invited at the seminars, symposiums and round tables that were organised.

4.6 Programming and planning of advisory work

The public advisory service implements a wide range of activities in the field of information supply, vocational training and practical demonstrations and it performs additional tasks. The agricultural consultancy management is ensured at the level of Consultancy, Extension and Vocational Training Department by a head of department who has 10 employees under his/her subordination (at the moment when this report was produced, out of the 10 existing jobs only 4 were occupied).

The Agricultural Chambers at the county level are managed by an executive director and a deputy executive director. These coordinate both the administrative-financial department and the

technical office, which in most cases consists of three departments: vocational training department; extension, consultancy and promotion of associative forms department; project elaboration, implementation and evaluation department. These are also in charge of the coordination of advisory activity at the level of communities (LACC).

CAC activity is carried out based on an annual plan. Meetings are periodically organised to discuss problems and present the results. Each year, the agricultural advisory service elaborates a report on the activities performed in the previous year, as well as the programme on the present year.

5. Characteristics of Farm Advisory System

Although the establishment of the Farm Advisory System (FAS) – as a system to get farmers aware of the impact of farm practices on the environment, on the food safety and animal health and welfare – is an important component stipulated in 2003 CAP Reform, this has not yet been established in Romania.

The regulation framework leaves the member states with an ample playing margin in setting up their own FAS but at the MARD level there are still debates on establishing this system.

6. Summary and conclusions

Having in view Romania's agriculture characteristics, which are mainly dominated by highly fragmented and atomized structures and by low productivity, the agricultural information and consultancy needs to be intensified in the future. Under the new 2014-2020 CAP, farmers will have to become more efficient and more specialized. At present, a large part of farmers lack proper knowledge, experience and skills with regard to agricultural development and the relevant EU requirements.

In Romania, AKIS bears the imprint of its history. This suffered successive modifications in order to face the new challenges and realities. There are no coherent policies targeting AKIS, and its subsystems are largely under the influence of certain sectoral policies. The current system is inefficient in assisting the farmers: the existing subsystems – research, consultancy and agricultural education are weakly prepared to support Romania's approach to implementing the CAP 2014-2020. There is a limited integration of the consultancy, agricultural research and agricultural education activities. Furthermore, there is a lack of collaboration between farmers and the staff of the three subsystems, and this leads to farmers' lack of confidence in the activity performed by these subsystems.

Romania spends one of the lowest budgets in EU on agricultural research. The general diminution of public finance for agricultural research led to insufficient funds for wages, investments in infrastructure and low efficiency in implementing the research programmes. The number of researchers diminished and the attraction of young people in this field of activity remained a desideratum. The loss of researchers' mobility and the low access to external information led to output quality diminution. In this context, more and more often, a great number of institutes perform commercial activities in order to increase their insufficient budgets, to the detriment of supplying the necessary information to farmers.

The agricultural education system is also facing difficulties in the process of adaptation to the farm sector requirements. The curricula of the education units, although have suffered a series of modifications, have still theory oriented structure. The present education system lacks educational and vocational training modules addressed to farmers. The agricultural education should be restructured in agreement with the structure and needs of the agri-food system.

Throughout the period of transition and integration of Romania's agriculture and rural area into the EU structures, the place and position of the agricultural advisory services have experienced ups and downs, formations and transformations. The current situation of the public advisory service is quite uncertain. As shown under point 2, at present there is a structure under dissolution, which "has finance only until September 2013" and a structure in the stage of desire. The interviewed specialists' opinions are contradictory. Some believe that "NAAC should have got privatized but they were not able to do this, they were not competitive enough", other has a contrary opinion, stating, "many CACs could become private companies without any problems, mainly in the counties where the small farms prevail... the large-sized farms can manage by themselves". Yet "it was instability that characterized its history/evolution throughout the years."

Although it had courageous general and specific objectives, the public advisory service could not assert itself on the agricultural consultancy market. Romania is in the situation of the year 1998, when the creation of an efficient agricultural advisory service represented a stringent need. The support form and modality of this service will represent a challenge, but it will also have to take the tradition and history into consideration.

Regardless of the path to be followed in the future, the policy makers must not neglect the fact that "there is no progress in agriculture in the absence of a competitive advisory service". This will have the mission to respond in the best way possible to farmers' needs and to gain their confidence. As well as gaining the farmers' community confidence, which is very important, the quality and constancy of services, as well as their support through agricultural policy measures and professional representation are also required. This alternative is most realistic, taking into consideration the European context of Romania's agriculture.

7. Methodological reflections and acknowledgements

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http://www.madr.ro/ro/consultanta-extensie-si-formare-profesionala.html

http://www.usamv.ro/

http://www.usamvcluj.ro/

http://www.usab-tm.ro/

http://www.uaiasi.ro/

9. Appendices

9.1. List of interview partners

No.	Name	Position	Contact details
1.	Lăcătuşu Gheorghe	Director of the Consultancy, Extension and Vocational Training Department (first director of the former National Agency for Agricultural Consultancy)	Str. Carol 1, nr. 24, Sectorul 3, Bucuresti Tel: 021-3072341 Fax: 021-3078631 extensie.formare@madr.ro
2.	Alecu Ioan Nicolae	President - University of Agronomic Science and Veterinary Medicine – Bucharest and director of TIC Bucharest	B-dul Marasti, nr. 59, Bucuresti Phone: 021 318 2266; Fax: 021 318 2288 http://en.usamv.ro/ post@info.usamv.ro
3.	Sorin Liviu Ştefănescu	Education-Extension Coordinator, PMU MAKIS/CESAR	sic.stefanescu@gmail.com
4.	Daniela Giurcă	Independent expert, former director of the General Department for Agricultural Policy - MARD(2010 -2011) and former Research Coordinator, PMU MAKIS (2006 -2010)	dgiurca@gmail.com
5.	Dragoş Alexandru	Manager	Calea Vacaresti 310, sectorul 4, Bucuresti www.fidman.ro office@fidman.ro

9.2. List of completed questionnaires

No. Chest.	Organizations	Contact details	Who filled in the questionnaire
1	County Agricultural	Str. 1 Decembrie 1918, nr.3, localitatea	Pricop Silviu
	Chamber -Suceava	Suceava, jud. Suceava	Deputy director
		camagricolasv@yahoo.com	
		www.cajsv.ro	
2	County Agricultural	Str. Marasesti nr.13, localitatea Targu-	Gusatu Ileana
	Chamber - Mures	Mures, jud. Mures	Deputy director
		Phone: 0365 882410	
		ojcams@clicknet.ro	
		www.ojcamures.ro	
3	County Agricultural	Str. Mihai Viteazu, nr.32, localitatea	Doina Clopotariu
	Chamber - Neamt	Piatra Neamt, Jud. Neamt	
		Phone: 0233 213 712	
		cjcaneamt@yahoo.com	
4	Research and	Sos. Barlad- Bacau, Com. Perieni, jud.	Nelu Popa
	Development Centre for	Vaslui	Scientific director
	Soil Erosion - Perieni	Phone:0373 550 155	
		www.cesperieni.ro	
		office@cesperieni.ro	

5	Research and Development Centre for Viticulture and Enology -Murfatlar	Str. Calea Bucuresti, nr.2, localitatea Murfalar, jud. Constanta www.scv.murfatlar.ro scv.murfatlar@gmail.com	Ranca Aurora Director
6	Potatoes Research and Development Centre Covasna	Str. Ady Endre, nr.55, Targu Secuiesc, jud. Covasna Phone:0267 363 755 scdc@clicknet.ro	Baciu Anca Scientific director
7	Horticulture Reaserch and Development Centre- Targu Jiu	Str. Calea Bucuresti, nr.71, localitatea Targu Jiu, jud. Gorj Pomicola@intergorj.ro	Calinoiu Ion Director
8	Research and Development Centre for Pomiculture - lasi	Sos. Oinesti, nr. 175, localitatea lasi, jud. lasi Phone:0232 215 065	Corneanu Gelu Director
9	Research and Development Institute for Pastures - Brasov	Str. Cucului, nr.5, localitatea Brasov, jud. Brasov Phone:0268 472 781 www.pajisti-grassland.ro office@pajisti-grassland.ro	Blaj Vasile Adrian Researcher
10	Agricultural Research and Development Centre Livada - Satu Mare	Str. Baia Mare nr.7, localitatea Livada, jud. Satu Mare Phone:0261 840 361 www.scdalivada.ro scdalivada@yahoo.com	Moisa Floare Director Crucita Sarca Scientific director
11	Romanian Farmers Asociation - Bucharest	Bulevardul Marasti nr. 61, cam. 6-8, sector 1, Bucuresti Phone: 0213 177 332	Cioroianu Ion Vice President
12	Agrom Ro Asociation - Mures	Str. Principala 1227, loc. Sangeorgiu de Mures, Jud. Mures Phone:0744 838 692 0265 319968 www.agromro.ro office@agromro.ro	Stefan Tiberiu Director
13	Fidman Merkat SRL	Calea Vacaresti 310, sectorul 4, Bucuresti www.fidman.ro office@fidman.ro	Dragos Alexandru Director
14	S.C. Pioneer Hi-Bred Romania SRL	Sat. Sindrilita, com. Ganeasa, jud. Ilfov Phone: 0213 035 300	Cristina Cionga Public Affairs Manager

9.3. List of main AKIS actors

Agricul	Agricultural Extension subsystem				
Nationa	al level - Ministry of Agriculture and	Rural Development			
No.	No. Name of Department Contact details				
1	Vocational Training Department	Str. Carol 1, nr. 24, Sectorul 3, Bucuresti Tel: 021-3072341,Fax: 021-3078631 http://www.madr.ro/ro/ extensie.formare@madr.ro			
Regional level - List of County Agricultural Chambers					
No.	County Agricultural Chamber	Contact details			

1.	Alba	Str. Al. Ion Cuza, nr.4, Alba Iulia, Tel/fax0258/83.40.60,0258/83.02.08		
2	Arad	ojca@alba.rdsnet.ro Bd. Revolutiei 81, Arad Tel0257/25.43.38,fax0257/27.02.44		
3	Argeş	consultantaagricola@rdsar.ro str. Armand Calinescu, Nr.44, Pitesti Tel/fax0248/22.39.31;0248/40.14.38;		
4	Bacău	ojcaag@yahoo.com str. George Bacovia nr.20, Bacau, Tel/fax:0234/58.89.32; 0234/51.42.94		
5	Bihor	cajbacau@clicknet.ro str. Roman Ciorogariu, nr. 65, Oradea, tel. 0259/46.72.53; Fax: 0259/46.72.59 ojca@rdsor.ro		
6	Bistriţa Năsăud	str. Ioan Slavici, nr.2-4, Bistrita, cod postal 420132 tel/fax: 0263/21.36.878; 0263/21.75.87; danielfransicari@yahoo.com		
7	Botoşani	str. I. C. Bratianu, nr.100 Botosani, Tel/fax: 0231/51.20.33 cjcabt@yahoo.com		
8	Braşov	str. Feldioarei, nr. 20B,Brasov, Tel/fax:0268/31.35.64 caj.brasov@yahoo.com		
9	Brăila	str. Calarasilor, nr.58, Braila, 0239/69.18.49 ojcabr@ojcabr.ro		
10	Buzău	str. Victoriei, nr.1, Buzau, Tel/fax: 0238/72.16.97; 0238/72.79.21; office@ojcabuzau.ro		
11	Caraş - Severin	str. Paul lorgovici, nr.34, Resita, 0255/21.35.04 Fax: 0255/21.39.83		
12	Călăraşi	str. Prelungirea Bucuresti, nr.26, bl.D3, et.1, Calarasi, 0242/32.40.20; fax: 0242/33.12.75 consultanta@ojcacl.ro		
13	Cluj	Bulevardul Muncii, br. 18, et. 3, Cluj, Tel/fax:0264/59.17.90 mirceacrisan69@yahoo.com		
14	Constanţa	Str. Capitan Petre Romulus, nr. 7 bis,Constanta, tel/fax.0241/48.14.45 ojca_cta@yahoo.com		
15	Covasna	str. Arcuşului nr.2, Sf. Gheorghe, jud.Covasna, Tel/fax: 0267/35.10.64 cjcacv@yahoo.com		
16	Dâmboviţa	str. I.C.Bratianu, nr.24 - 25, Targoviste, tel: 0245/61.40.45, Fax: 0245/21.63.66 ojca-dambovita@yahoo. com		
17	Dolj	str. Bibescu nr.3, et. 2 Craiova Tel/fax:0251/41.72.98 ojcadolj@yahoo.com		
18	Galaţi	str. Alexandru Ioan Cuza, nr. 45 bis, Galati, Tel: 0236/41.57.12, Fax: 0236/41.41.49 cameraagricola@yahoo.com		

19	Giurgiu	Sos. Ghizdarului, nr.2, Giurgiu
. ,	Clargia	Tel:0246/21.71.61, Fax: 0246/21.40.63
		ojca_gr@clicknet.ro
20	Gorj	str. Unirii,nr.18-20, et.3, Tg. Jiu, cod postal 210144
	201)	tel/fax:0253/21.64.50
		cjca_gorj@yahoo.com
21	Harghita	str. Piata Libertatii nr.5, cam. 245, Miercurea Ciuc,
۲ ا	rargina	tel:0266/31.23.18, fax: 0266/31.03.86
		cjca@cchr.ro
22	Hunedoara	str. Aurel Vlaicu, nr.25, Deva,
22	Tuncuoara	0254/23.48.17; 0254/21.88.97 Fax: 0254/21.69.23
		ojcahd@rdslink.ro
23	lalamita	B-dul Chimiei, nr.19, Slobozia
23	lalomiţa	Tel/fax:0243/21.49.98; 0243/21.30.70
		cajial@yahoo.com
2.4	lee:	
24	laşi	Bd. Stefan cel Mare si Sfant, nr.47-49, lasi, 0232/21.38.08, Fax:0232/26.75.29
		ojcaiasi@yahoo.com
2E	II.F.o.	
25	Ilfov	Sos. Oltenitei 35-37, sect. 4, Bucuresti, Tel/fax: 021/332.60.01
27	N.A	foaiadeilfov@yahoo.com
26	Maramureş	str. Gheorghe Sincai, nr.46, Baia- Mare,
		0262/21.30.01, Fax: 0262/21.30.02
07		cjcamm2001@yahoo.com
27	Mehedinţi	str.Crisan, nr.87, Drobeta Turnu Severin
		0252/31.66.24, Fax: 0252/32.58.10
0.0		angelbaloi@yahoo.com
28	Mureş	str. Mărăşeşti nr. 13, Tg. Mureş
		0365/882410, Fax: 0365/882409
		ojcams@clicknet.ro
29	Neamţ	str. Mihai Viteazul, nr. 32, Piatra Neamt 610262; tel:
		0233/21.37.12, Fax: 0233/23.69.86
		cjcaneamt@yahoo.com
30	Olt	str. T. Vladimirescu, nr. 165, Slatina
		Tel/fax: 0249/41.57.70
		evmarinescu@yahoo.com
31	Prahova	Bd. Republicii, nr. 2, Ploiesti
		Tel/fax: 0244/59.28.82
		ojcaprahova@yahoo.com
32	Satu - Mare	str. 1 Decembrie 1918, nr.13, Satu Mare
		0261/71.78.90, 0261/71.73.48, Fax: 0261/71.73.48
		cjca.sm@xnet.ro
33	Sălaj	str. Corneliu Coposu, nr. 79/A Zalau
		0260/63.18.83, Fax: 0260/61.44.98
		cjcasj@info-plus.ro
34	Sibiu	str. Somesului nr. 49, Sibiu
		0269/21.00.54
		ojca_sb@yahoo.com
35	Suceava	str. B-dul 1 decembrie 1918, nr.3, Suceava, Tel/fax:0230/52.05.33
		ojcasuceava@yahoo.com

36	Teleorman	str. C-tin Brancoveanu, nr.71, Alexandria 0247/31.45.11, Fax: 0247/31.49.78 ojcatr@clicknet.ro			
37	Timiş	str. Piata Libertatii, nr.1, Timisoara 0256/43.03.12, Fax: 0256/29.35.67 ojcatimis@rds.net			
38	Tulcea	str. Păcii, bl.S1, nr.5, ap.2-4, sc. B, parter, Tulcea, 0240/51.12.37, Fax: 0240/51.27.89 ojcatl@x3m.ro			
39	Vaslui	str. Decebal nr.16, Vaslui Tele/fax: 0235/31.43.88, 0235/311707 ojca_vaslui@yahoo.com			
40	Vâlcea	str. Tudor Vladimirescu, nr. 1, Rm. Valcea 0744218968, 0250/74.84.90 consultantaagricolavl@yahoo.com			
41	Vrancea	Str. Comisia Centrala, nr. 80 A, Focsani Tel/fax:0237/62.62.13 ojca_vrancea@yahoo.com			
Agricu	Iltural education subsystem				
List of	main Agricultural Universities				
No.	University	Contact details			
1	University of Agronomic Science and Veterinary Medicine - Bucharest	B-dul Marasti, nr. 59, Bucuresti Phone: 021 318 2266; Fax: 021 318 2288 http://en.usamv.ro/ post@info.usamv.ro			
2	University of Agronomic Science and Veterinary Medicine – Cluj-Napoca	Calea Mănăştur 3-5, 400372, Cluj-Napoca Tel: +40-264-596.384 Fax: +40-264-593.792 http://www.usamvcluj.ro/ contact@usamvcluj.ro			
3	University of Agronomic Science and Veterinary Medicine – Timisoara	Calea Aradului nr.119, 300645 Timişoara, jud. Timiş, România Tel: 0256277001; 0256277009; 0256277122 rectorat@usab-tm.ro/			
4	University of Agronomic Science and Veterinary Medicine – Iasi	Aleea Mihail Sadoveanu nr. 3, Iaşi, 700490, România Tel: 0232 213.069 Fax: 0232 260.650 rectorat@uaiasi.ro, admin@uaiasi.ro http://www.uaiasi.ro/			
List of	List of Training and Information Centres (TIC)				
No.	TIC	Contact details			
1	TIC Bucuresti	B-dul Marasti, nr. 59, Bucuresti Phone: 021 318 2266; Fax: 021 318 2288 www.usamvb-cpi.ro ecaterina.stefan@agral.usamv.ro			
2	TIC Timisoara	Cal. Aradului nr. 119 300645 Timişoara Phone: 0256277090/0726250941 florin.imbrea@cpi-tm.ro http://www.en.cpi-tm.ro/			
4	TIC lasi	Agriculture Faculty Aleea Mihail Sadoveanu nr. 3, Iaşi, 700490 Phone: 0232 407.514/Fax: 0232 260.650 gabriela@uaiasi.ro http://www.uaiasi.ro/CPI_lasi/			

4	TIC Cluj - Napoca	Calea Mănăştur 3-5, 400372, Cluj-Napoca			
		Tel: +40-264-596.384 Fax: +40-264-593.792			
		www.cpicluj.ro			
		roxana.vidican@usamvcluj.ro			
	Itural Research Subsystem				
No.	Organization	Contact details			
1	Academy for Agriculture and	B-dul. Marasti Nr. 61, Sector 1, Bucuresti			
	Silviculture Sciences	Tel: +40-21-3184450; Fax: +40-21-3184478			
		E-mail: <u>asas@asas.ro</u> http://www.asas.ro/en/			
Agricu					
1	National Institute of Agricultural	Fundulea, Str. N. Titulescu 1, Jud. Călărași			
		021/315.40.40, 0242/642.044			
		fundulea@ricic.ro			
2	R&D Institute for Plant Protection,	Bdul Ion Ionescu de la Brad 8, Bucureşti			
	Bucharest	021/269.32.31,021/269.32.39			
		icpp@com.pcnet.ro			
3		Braşov			
	Development for Pastures Brasov - 2 stations	Str. Cucului nr. 5, Jud. Braşov 0268/475.295			
	Stations	pajisti@brasovia.ro			
4	National Institute of Research-	Braşov, Str. Fundăturii 2, Jud. Braşov			
		0268/474.647,0268/476.608			
	Beat, Brasov - 1 station	icpc@potato.ro			
5	R&D Institute for Pomiculture Pitesti	Mărăcineni,			
	- Maracineni -10 stations	Jud. Argeş			
		0248/278.066,0248/278.477			
,	D0 D 1 19 1 () 199 1	icpp_mar@geostar.ro			
6	R&D Institute for Viticulture and	Valea Călugărească, Str. Valea Mantei nr. 1, Jud. Prahova 0244/236.690,0244/236.389			
	Vinification Valea Calugareasca - 7 stations	icdw@xnet.ro			
7	R&D Institute for Vegetables and	Vidra,			
	Flowers - 4 stations	Jud. Ilfov			
		021/468.07.94			
		inclf@mediasat.ro			
8	R&D Institute for Processing and	Bucureşti,			
	,	Intr. Binelui nr.1			
		021/461.07.06,021/330.36.85			
9		horting@xnet.ro Relatacti Calca Ruguracti pr. 1, jud lifey			
7	National R&D Institute for Biology and Animal Nutrition, Balotesti	Baloteşti, Calea Bucureşti nr. 1, jud.llfov 021/266.12.28,021/222.44.10			
	r ummar rvaumon, Dalotesti	ibna@pcnet.ro			
10	R&D Institute for Bovines Balotesti - 6	Baloteşti, Şos. Bucureşti-Ploieşti, Km. 21, Jud.llfov			
	stations	021/266.12.02,021/266.12.06			
		icpcb@k.ro			
11	R&D Institute for Sheep and Goats	Constanţa,			
	Palas - 5 stations	Str.I.C.Brătianu nr. 248, Jud.Constanţa			
		0241/639.506			
		icpcoc@relsys.ro			

	R&D Institute for Aquatic Ecology, Fishery and Aquaculture Galati	Galaţi Str. Portului nr.2-4, Jud. Galaţi 0236/416.914,0236/414.270 ccpppip@xnet.ro		
13	R&D Institute for Agrarian Economics and Rural Development, Bucharest	Bucureşti, Bd.Mărăşti nr.61 021/222.91.30, 021/224.27.95 iea-asas@yahoo.com		
14	R&D Institute for Mountain Sciences Cristian-Sibiu	Cristian , Str. XIII nr. 53, Jud.Sibiu 0269/579.408 montsib@rdlink.ro		
Research Development Stations and Centres				
1	R&D Center for Field Crops on Sandy Soils Dăbuleni	Dăbuleni - Jud. Olt 0251/334.402, 0251/334.347 sccpndabuleni@rol.ro		
	R&D Center for Soil Erosion Control Perieni	Perieni, jud. Vaslui 0235/413.770, 0235/412.837 perieni@spectral.ro		
3	R&D Center for Fishery Nucet	Nucet - Jud. Dâmboviţa 0245/267.003 scp_nucet@yahoo.com		
4	Station for Sericulture Research Baneasa	Bucharest Şos. Bucharest - Ploieşti nr.69 021/230.92.20, 021/230.92.29 sericaro@rdslink.ro		