



Prospects for Farmers' Support:
Advisory Services in European AKIS

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

April 2014

Authors:

Jozef Pulkrábek

Katerina Pazderu

Czech University of Life Sciences, Prague



Contact: pazderu@af.czu.cz

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 311994

Please reference this report as follows:

Pulkrábek J., Pazderu K. (2014): AKIS and advisory services in Czech Republic. Report for the AKIS inventory (WP3) of the PRO AKIS project. Online resource: www.proakis.eu/publicationsandevents/pubs

Executive summary

The main aim of the report is to provide a comprehensive description of the Agricultural Knowledge and Information System (AKIS) in Czech Republic, 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 (in Copenhagen and Paris) and March 2014 (in Krakow), discussed with stakeholders and experts, and feedback was integrated into the reports.

Agriculture holdings in the Czech Republic farm cover approximately 3,483,500 ha of land (45% of CR area). The agriculture sector produces 2.31% of GDP (about 300 Euro per capita). The average size of an agriculture company is 152 ha (by ESU, 2010) and the share of agricultural area in the holdings above 100 ha exceeds 88%. Agricultural land is mostly rented. Only 20% of holdings are larger than 100 ha; 33% are up to 10 ha; and 47% are between 10–100 ha. The most cropped group is cereals (59% from harvested area). The Czech Republic is self-sufficient in the industries of milk and beef meat; on the other hand we import pork, poultry and eggs.

The socio-economic situation in rural areas depends more on the inhabitants than on the agricultural sector, there are only 2.62% workers (employees and owners) in agriculture from workers in the CR and agriculture is not the biggest employer of inhabitants in rural areas.

Advisory knowledge and information systems in agriculture comprises of 4 levels. Private advisory companies (about 260) are the most important part, which solve detailed problems on farms. The supporting level is the Ministry of Agriculture and Institute of Agricultural Economics and Information (IAEI) which are responsible for the implementation of rules (law); another supporting level is the research and education sector (universities and research institutes), which produce and transfer new knowledge into AKIS. The fourth level provides information through web portals.

The whole system is financed from different sources, private advisors from Rural Development Program (as contribution to farmers); the research sector takes money from national subsidies and from research grants.

The advisors mostly use face to face, and in farm, methods for giving advice. Linkages between AKIS actors are strong and rather formal, relationships between the levels are more informal, and personal linkages (of schoolmates) are an additional benefit.

Table of contents

| | |
|--|----|
| Executive summary | 2 |
| List of Acronyms | 4 |
| List of Figures | 4 |
| List of Tables | 4 |
| 1. Main structural characteristics of agricultural sector of the country | 5 |
| 2. Characteristics of Agricultural Knowledge and Information System (AKIS) | 7 |
| 2.1 AKIS description | 7 |
| 2.2 AKIS diagram | 8 |
| 3. History of Advisory System | 10 |
| 4. The Agricultural Advisory Service(s) | 12 |
| 4.1 Overview of all service suppliers | 12 |
| 4.2 Public policy, funding schemes, financing mechanisms | 14 |
| 4.3 Methods and Human resources | 15 |
| 4.4 Clients and topics / contents | 16 |
| 4.5 Linkages with other AKIS actors / knowledge flows | 17 |
| 4.6 Programming and Planning of advisory work | 17 |
| 5. Characteristics of Farm Advisory System | 18 |
| 5.1 Current FAS in the Czech Republic | 18 |
| 5.2 Evaluation of implementation of FAS | 18 |
| 6. Summary and conclusions | 20 |
| SWOT analysis | 20 |
| 7. Acknowledgement of partners, information sources, reflection on methodology | 21 |
| 8. References | 22 |
| 9. Appendices | 23 |
| 9.1 List and contact of organisations forming AKIS | 23 |

List of Acronyms

| | |
|------|---|
| AKIS | Agricultural Knowledge and Innovation System |
| CSI | Czech Statistic Institute |
| FAS | Farm Advisory System |
| FMI | Forest Management Institute |
| GDP | Gross Domestic Product |
| IAEI | Institute of Agricultural Economics and Information |
| IAFI | Institute of Agricultural and Food Information |
| LPIS | the Land Parcel Information System |
| MoA | Ministry of Agriculture |
| NGO | Non-Government Organisation |
| RIC | Regional Information Centrum |
| SAIF | The State Agricultural Intervention Fund |
| UAA | Utilized Agricultural Area |

List of Figures

Figure 1. Advisory and Knowledge Information System in the Czech Republic (MZe, 2009) 8

Figure 2. Numbers of accredited advisors from Registry of Advisers (till 15.6.2013) 16

Figure 3. Objectives of advisory services in the Czech Republic (result from interviews) 20

List of Tables

Table 1. Overview of organisations creating the AKIS 9

1. Main structural characteristics of agricultural sector of the country

Agriculture holdings in the Czech Republic farm cover approximately 3,483,500 ha of land (UAA, by ESU). This represents about 45% of total Czech Republic area (7,887 thousands hectares); from that 50.3% are in LFA. Protected natural areas create 21.4% of the Czech Republic area. Animal husbandry represents 1,722,500 of livestock (LSU).

The contribution of agriculture to employment is 3% (109 thousands from civilian employees, Czech Statistic Institute (CSI), 2010). There are roughly 10.5 mln inhabitants in the Czech Republic. Agricultural production represents about 2.31% of GDP (about 300 Euro per capita). The total GDP per capita was 14,600 Euro (average 2010-2012).

There are 22,860 registered agricultural holdings (33% below 10 ha; 47% 10 – 100 ha; 20% above 100 ha). However, the average agriculture holding size is 152 ha (by ESU, 2010) in the CR and the share of agricultural area in the holdings above 100 ha exceeds 88%. Agricultural land is mostly rented in the case of large holdings, but most holdings try to buy rather than rent land. The average price of agricultural land is between 2,300 – 3,500 Euro/ha. The share of owned land increases for medium and small farms. CSI indicates a share of rented soil by natural and corporate bodies to be about 55% and 77% respectively.

Most holdings are small and medium in size (by standard output size classes), only about 7% are large farms. By ESU categorization 17% of holdings are in the category above 100 ESU in the Czech Republic.

The work force comprises mostly of employees (72% of employed persons in agriculture), 15% are working owners and only about 3% are hired employees (CSI, 2010). The share of women employed in agriculture, forestry and fisheries was 26.6% in the year 2011. The majority of agricultural holding managers are people between 45 – 64 years (53%) which creates serious problems for Czech agriculture in the future.

Plant production

32.3% of the land is arable (about 72% from UAA), permanent grasslands represent 11.9% and permanent crops 0.5% in the Czech Republic (2010). Organic farmers use 12.4% of UAA, from 2/3 grasslands. Conventional farmers use 118 kg.ha⁻¹ of fertilizers (N 100 kg, P 11 kg, K 7 kg) and 1,6 kg of pesticides per hectare.

Total production from the agricultural industry was 4 696 mln Euros in 2011 and this trend is increasing (probably thanks to increasing prices). The most popular crop species are wheat (25%, from 93% winter type), barley (11%, 73% of spring malt barley), grain maize (3%), pulses (0.6%), potatoes (0.8%), sugar beet (1.7%), rape 10.7% and poppy 0.9% (CSI, 2011, from UAA area 2011). The harvested area of vegetables was 9,600 ha. Traditional vegetable crops are cabbage, onion and carrot, and apples in terms of fruit. The share of domestic vegetable production permanently decreases. Self-sufficiency in the case of plant production is good, only potatoes, vegetable and apples are imported.

Animal husbandry

There are 960,000 cattle, 457,000 pigs and 264,000 poultry (all in livestock units, EUROSTAT 2010). Other animal numbers are not significant. Cow milk production was 2,524,000 ton and approximately 1/3 was exported. Production of beef meat was 92,000 ton, in case of pork we produce 272,000 ton. The Czech Republic is self-sufficient in milk and beef meat; on the other hand we import pork, poultry and eggs.

Animal husbandry produces about 67 kilotons of ammonia emissions per year. Free group stabling is used for good animal welfare.

Besides direct producers, who carry out their production independently, groups of producers exist in the Czech Republic. There were 197 registered groups (estimated in 2011), 152 for the area of animal production (incl. milk (38) and eggs (2)), 45 for plant production (incl. vegetable and fruits(20)) with several members (2 – 15).

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

2.1 AKIS description

AKIS is present throughout the whole wide education system from primary to tertiary education level including long life adult education. The Ministry of Agriculture (MoA) is involved in this system through the creation of qualification and evaluation standards for agriculture, food, forestry and water management jobs.

Universities, corporate and personal bodies, which fulfil technical requirements and in which its authorized deputies obtained professional qualifications take examinations in authorization for partial qualifications. 92 authorization applicants were registered by 31.12. 2011 and from these 88 applicants have studied authorization and these authorized bodies issued 385 certificates on partial qualification up to this date.

Cooperation of Ministry of Agriculture with Ministry of Education and with National Institute for Education, Agriculture Chamber of CR and Association of Educational Bodies for Rural Development is important for the support of vocational education.

Organised education (by Ministry of Agriculture) for vocational professionals is under way through the accredited Year Education Plan. This is education and enlightenment offered in the public interest, connected with the activities of the Ministry for agriculture, forestry, foods processing and public water management.

The present Agriculture Knowledge and Information System was accepted at the end of 2008 as a Conception of Farm Advisory System for the years 2009–2013. AKIS in the Czech Republic represents a complex agriculture advisory system including the transfer of the newest knowledge and information to agriculture users. This concept guarantees openness of the system and its possible extension to the nearby areas. It is possible to presuppose that the present AKIS state will continue in the next planning period.

The main parts of AKIS are the Division of Education and Advisory MoA CR, Institute of Agricultural Economics and Information (IAEI), Agricultural Agencies MoA, research and educational institutions, non-governmental non-profit organisations (for example Agrarian Chamber) and advisors. Private companies supporting agriculture by different means also play an important role in the transfer of vocational information. There are tools in the frame of the system for synergic operation between all parts of AKIS, as advisory, educational training, information transfer and research; with respect of tool specificity.

2.2 AKIS diagram

Complex system of AKIS with linkages and relations describes fig. 1.

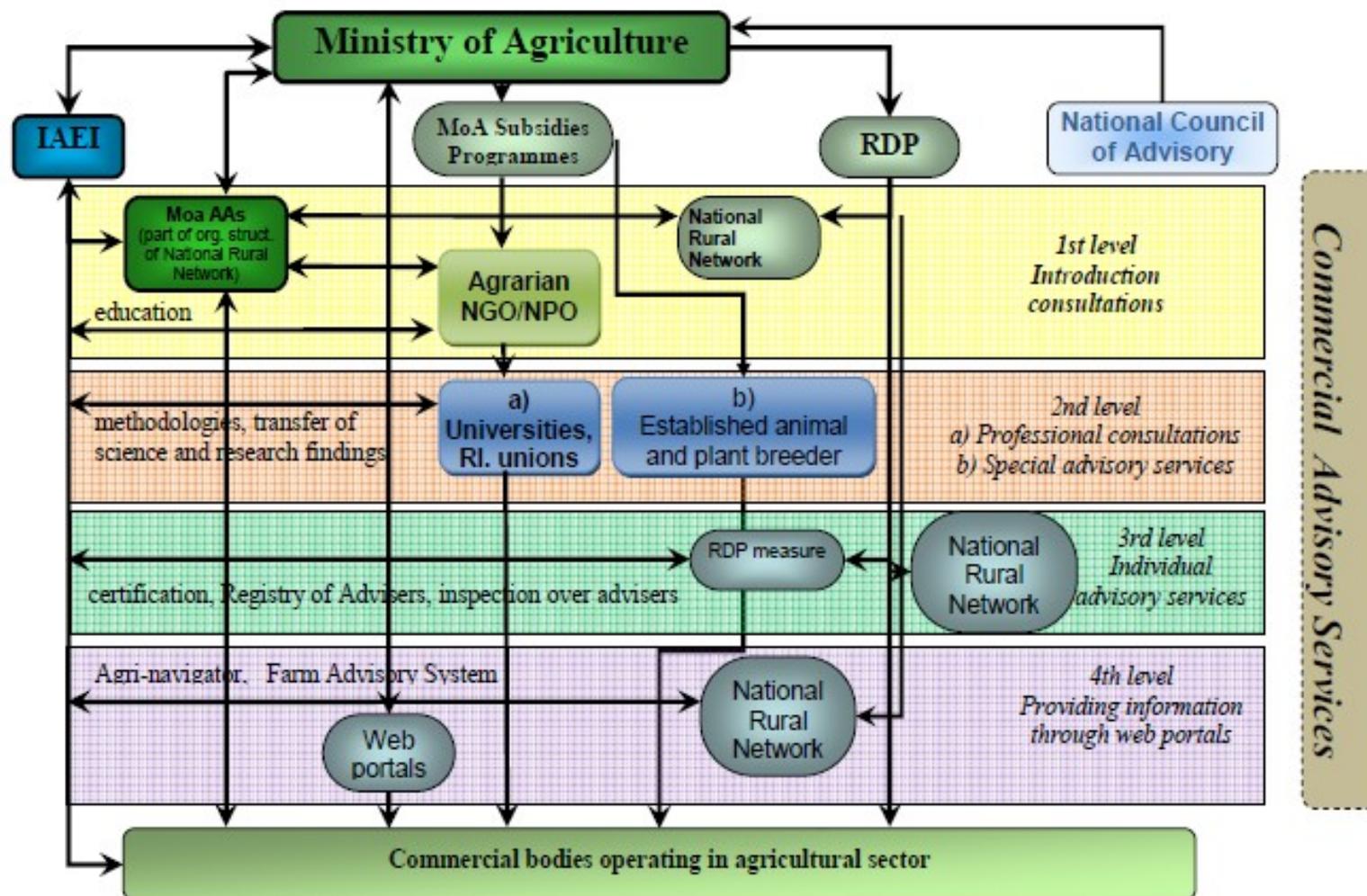


Figure 1. Advisory and Knowledge Information System in the Czech Republic (MZe, 2009)

Table 1. Overview of organisations creating the AKIS

| Provision of service | | | | Source of financing | | | | | | | | |
|----------------------------|--|-------------------------|--------------------|---------------------|----------------|----------------|-----------------|-----------------------|------------------|----------------------------------|------------|-----------------|
| Status of the organisation | Type of organisation | Number of organisations | Number of advisors | Public funds | | | Farmers | | | Private | NGO | Other (specify) |
| | | | | EU funds | National funds | Regional funds | Farmers' levies | Farmers' contribution | Billing services | Other products (inputs, outputs) | foundation | |
| Public sector | Advisory department of the Ministry of agriculture | 0 | | | | | | | | | | |
| | Local/regional agencies | 0 | | | | | | | | | | |
| | Other (specify) | 0 | | | | | | | | | | |
| Research and Education | University | 4 | 9 | x | x | | | | | | | |
| | Research Institute | 5 | 12 | x | x | | | | | | | |
| | Other education bodies (specify) | 2 | 4 | x | x | x | | | | | | |
| Private sector | Upstream industries | 14 | 14 | | | | | x | | | | |
| | Downstream industries | 9 | 12 | | | | | x | | | | |
| | Independent consultant | 27 | 37 | x | x | | | x | | | | |
| | Private agricultural advice company | 14 | 33 | x | x | | | x | | x | | |
| | Farmers' owned advice company | 0 | | | | | | | | | | |
| | Other (specify) | 0 | | | | | | | | | | |
| Farmer based organisations | Farmers' cooperative | 1 | 1 | x | x | | | x | | | | |
| | Chambers of agriculture | 2 | 2 | x | x | | | x | | | | x |
| | Farmers' circles/groups | 2 | 2 | x | x | | | x | | | | |
| | Other | 0 | 0 | | | | | | | | | |
| NGO | | 4 | 5 | x | x | | | | | | x | |

3. History of Advisory System

Before 1990, farm advisory services practically did not exist in the Czech Republic. Professional activities were carried out by state farm and agricultural co-operative specialists. Information transfer and space for the exchange of experience were provided through district and regional consultation meetings of agronomists, zootechnicians, etc.

Advisory services, as we understand them in their present state, were established in the years 1990-1992. In view of large changes in ownership of land and farm buildings legislative advisory and solving of transformation problems prevailed in advisory services. At the same time, the subsidies granted by the Ministry of Agriculture since 1992 to the advisory services sector fulfilled several purposes. Initially they supported the establishment and future development of the advisory sector which did not exist at that time and the initial activities of the first specialist advisors. They helped on a whole spectrum of professional topics, from old technical and technological equipment on farms, problems in plant production and animal husbandry to marketing and basic conversance of new agriculture businessmen in the frame of European agribusiness. The first advisors arose from managers of former agriculture holdings, from officers of government administration and from privatised research institutions in agriculture. The **next phase of advisory services** were specialized **Advisory Programmes DIGIT I and DIGIT II (1997-1998)** which were directly used towards the assessment of business plans of economically weak enterprises for their future development or termination of activities. This step was very important, mainly from methodological point of view and mostly for increasing advisors' experience.

In 1999 the Ministry of Agriculture prepared, from existing experience, the **Conception of farm advisory services**. It was created as an instrument for system-based consultative activities and for regulating provisions of means from public sources on the base of sector advisory programmes. At the same time the necessity to disseminate information and spread non-commercial advisory services formulated the so-called **advisory services in public interest** provided by employers from agriculture sector research institutions. Later these people worked as methodologists in advisory systems. An important stage in the advisory system development was the provision of **advisory assistance through advisory groups (1998-2002)**, widely accepted by the agricultural public and later highly appreciated in the following EU evaluations. The system led to the creation of a farmers association with the objective to solve similar production problems. Each advisory group had to present a common project and self-evaluation of how well they had achieved the advisory aim was a condition for payment (subsidy). After the Czech Republic joined the European Union advisory system was harmonized with EU law. The **Council Regulation (EC) No 1782/2003** established new priorities for granting aid in the framework of CAP and led to the creation of a new **Conception of Farm Advisory Services for the period of 2004-2010**. The aim of that conception was to prepare the Ministry of Agriculture and the whole agriculture sector on obligatory establishment a complex agriculture advisory system from 1st January 2007, minimally for the scope of legal requirements relating to farm management with regards to proper agro-environmental conditions. In harmony with the provision of the respective Council Regulation that a Member State itself or through an authority designated by the Member State shall be responsible for the approval of, and the

inspection over, the advisory bodies authorised, a part of the implementing powers was delegated to the **Institute of Agricultural and Food Information (IAFI**, after 2008 as **IAEI**), which was also charged, in addition to the function of an inspection authority (in cooperation with the **Forest Management Institute – FMI**) with the function of the operator of the Register of Consultants kept within the Ministry of Agriculture Registry of Advisers, and with performing administrative acts connected to the certification or accreditation. The requirements relating to the preparation of the advisers and the professional competence thereof were established by the Accreditation Directive of the Ministry of Agriculture in 2002.

The Ministry of Agriculture also established the broad **National Council of Advisory Services for Agriculture and Rural Development** as a consultative institution and used its keynotes, recommendations and remarks arising from regions and agri-business participants for the optimization of their decisions. On a regional level MoA supported the **Regional Information Centres**, mostly originated in the frame of NGO/NPO institutions for directing information flow to final users.

Conception put emphasis on the creation of advisory programmes and its realisation. From 2004, advisory programmes were directed to the support of legal requirements in the sectors of water protection, animal welfare, transitional farming and organic farming methods, optimization of farming. The interest in the advisory services oriented in this way was constantly growing. For example in 2004 the number of applicants was 529 and in 2006 the number had risen to 1304 applicants. In 2006 national subsidies for advisory finished and since 2007 advisory services have been included in the CR 2007-2013 Rural Development Program (RDP).The support complies fully with the objectives of the CAP, and respects all Council or Commission Regulations in the agricultural sector.

4. The Agricultural Advisory Service(s)

4.1 Overview of all service suppliers

The advisory system in the agricultural sector is directed towards farming, forestry, fisheries, water management and rural development, respecting National Rural Network Fiche (EC) and Council Regulation (EC) No 1782/2003. The whole system is based on **Conception of MoA 2009-2013 Farm Advisory System**.

The advisory services are provided in various forms representing various levels from general informative advisory services to professional advisory services, individual field advisory services, up to synthetic information provided through inter-connected websites. All these levels are inter-connected, complete, and support one another thereby making up an integrated system, which is financially secured through supporting programmes. Advisory services are provided by various bodies. The advisory system has 4 levels. For each level there are designated or registered providers, which supply free advisory services within the frame of main activities or in return for payment.

1. Level – Introduction Consultations

These consultations are free of charge, serve as a source of general information (time-limited) about questioned topics. Typically information that is requested is about subsidy programmes, about deadlines or about the possibilities of future direct advisory services.

This consultation form was procured through **Agricultural Agencies (MoA AAs)**, in the programming period 2007-2013 and will be an integral part of the everyday activities of responsible workers, but in other state institutions- **The State Agricultural Intervention Fund (SAIF)**. All institutions are part of the organisation structure of the **National Rural Network**.

The staff workers shall provide information on all kinds of programmes for aid granted by the Ministry of Agriculture, help with formalities such as filling in necessary forms of check-lists, and shall act as methodical workplaces for similar activities of agrarian non-governmental non-profit organisations, and fulfil other tasks set down by the Action Plan of National Rural Network. They shall provide advisory services to land users in the sectors of the Land Parcel Information System (LPIS), iLPIS and products of that Register, further on, keeping the other registers including farmer portal. They shall provide basic information in the field of legal regulations relating to agriculture. They organise seminars, schooling for farmers relating comprehensively to allocation policies of the Ministry of Agriculture and of the European Union, further for the spheres of the Nitrate Directive, vulnerable areas, registration of fertilizers, landscape-forming elements, etc. During their operation the AAs workplaces became significant centres of contact by farmers and agricultural bodies that were starting or already enterprising, asking for advice or help.

Agrarian non-governmental non-profit organizations are the next subjects on the 1. Level; some of these have statute of **Regional Information Centrum (RIC)**, one for each region (totally 13 in the Czech Rep.). Except for the aforementioned activities (general consultations) these institutions inform about obligations to observe the standards of good agricultural and environmental conditions (GAEC), and also give feedback to the Ministry on the

consultation needs of the target groups and on advisory services and products delivered.

The **National Rural Network** is a framework institution which associates state institutions, agrarian NGO/NPO, universities and enables better sharing of information and their exchange.

The workers of non-governmental non-profit organisations shall be offered systematic education in the sectors of their consultative operation. They will also have available, to support their activities, information (software and database) in the form professional assistance by the **Institute of Agricultural Economics and Information (IAEI)**. This Institute makes basic information accessible to users free of charge, and the information will be transmitted in an acceptable form. IAEI provides information about technological standards, methods and working instructions, norms and table data about sectors of agricultural production, information from the fields of veterinary and phytosanitary care, marketing information, estimated developments of domestic and foreign markets, and other information which is important for decision-making by entrepreneurs in the market environment.

2. Level – Professional Consultations

These consultations are free of charge for users and solve individual professionally oriented questions of an operational character.

The professional activities of scientific and research institutions may be directed **also to the transfer of research findings** as they may be useful for improving the activities of advisers, lecturers and consultants within the MoA Advisory System, of teachers at secondary vocational schools and possibly of public administration workers. This level also includes special advisory services for animal and plant production.

Providers on this consultation level are agriculture-oriented public universities, research institutes and designated professional associations of non-governmental organisations (in case where corresponding research institute does not exist). These institutions, as research organisations, are source of innovations for AKIS and for agriculture praxis.

The guarantor of special advisory for animal and plant production is the **Commodities Section of MoA**, which realises advisory services through existing breeders and growers' associations or through authorised persons.

On that level **IAEI** provides consultations too, through the **Infopult Service**.

3. Level – Individual Advisory Services from RDP, Measure I.3.4.

Individual advisory services are used in cases where the client (usually an agriculture holding, or private, farmer) needs to solve a professional problem, mainly within the areas of the Common Agricultural Policy principles, cross-compliance and GAEC; much deeper and/or larger problems than offered by professional consultations. These services are financed through the participation of clients.

The State guarantees the selection of advisory service providers and of the inspection over the observance of the standard and volume of such services.

The advisory services may only be provided by private natural or corporate bodies who have advisory services included in the subject of their activities and who are kept in the **MoA Registry of Advisers**, or who have registered advisers at their disposal. The registration of the advisers is conditioned by the accreditation thereof, at which they have to prove their professional knowledge and material assets. **The rules of the accreditation and registration of advisers are regulated by the MoA Directive** (214610/2012-MZE-17013 from 12.2.2013) on the accreditation of advisers and keeping thereof in the MoA Registry of Advisers.

Also, the State is obligated to guarantee that the authorities and bodies selected for providing advisory services to farmers **possess effective resources** of skilled staff, administrative and technical equipments, and advisory experience and reliability as for the observance of the requirements, conditions and norms contained in Art. 24 (1) (a) (b) of Council Regulation (EC) No 1698/2005.

The Ministry of Agriculture delegated a part of its implementing powers in the field of AKIS to its contributory organisation, the **Institute of Agricultural Economics and Information**, which it charged – *inter alia* - with the **performance of the activities of inspection authority**. The duties of IAEI are accredited of private advisory bodies that will operate in the **Farm Advisory System (FAS)**, including the verification of the data presented in their applications for authorisation, providing methodical and information support to accredited subjects and controlling of the content, volume and quality of advice provided. IAEI cooperates with **Forest Management Institute (FMI)** on the field of forest management.

IAEI is the administrator of the public database- the Ministry of Agriculture **Registry of Advisers** (<http://www.agroporadenstvi.cz/registr/>).

4. Level – Providing of Information through Specialized Web Portals

Web portals are another (additional) type of advisory services that are used in the areas of agriculture, water management and rural development. Currently a lot of web sites bringing specialised information, methodical instructions, form sheets and recommendations exist (<http://www.agroporadenstvi.cz>; <http://www.agronormativy.cz>; <http://www.infovenkov.cz>; <http://www.agronavigator.cz>; etc.). The impact that the information on these portals has on the user depends on their computer literacy, on the ease at which the user gets the information, or even on the necessity for paying for the access to certain items of information.

Web information is provided on all levels of AKIS, for different degrees of professional knowledge. The support of web advisory services aims to simplify access to advisory information, thanks to the networking of web portals. Important roles are played by the Farmer Portal, the application of MoA (<http://eagri.cz/public/web/mze/farmar/>), the web pages of Regional Information Centrum. RIC plays an important role for direct contact with farmers and other users of information. The criterion for selection between bodies to ensure activities of RIC was knowledge of agricultural problems, connections with MoA, SAIF and regional governments and contacts with agriculture holdings. RIC information pages have many visitors from agriculture praxis.

4.2 Public policy, funding schemes, financing mechanisms

Advisory services are financed from different sources depending on the AKIS level.

The financing of the 1st and 2nd levels are designed in the form of programmes included in **national subsidies**. The need of financial sources necessary for the realisation of newly conceived allocation programmes for introduction and professional consultations is expressed by a **minimum amount of CZK 26.5 mill. per year**.

Public means in the case of the 2nd level are aimed towards the support of transfers of research results to praxis; providing consultations on highly scientific and professional levels at universities, research institutions and designated professional associations as holders of professional knowledge. 10 organisations were granted from these programmes. Institutions recorded 11,941 consultations from professionally technical areas via telephonic, electronic, written and oral contact.

FAS, as it was set in the first CAP pillar, can be financed in the frame of the second pillar CAP by two measures. The first measure is used for co-financing of advisory services for farmers. This measure should help farmers to pay costs arising from their use of advisory services for improving the total performance of their agriculture holding. Mandatory advice is that on CAP, GAEC, agro-envi or on work safety. This support is capped at 80 % of the eligible cost of an advisory service, to a maximum amount of 1,500 Euro.

In the Czech Republic these financial means are gained through the 3rd level of AKIS, from RDP, measure I.3.4. For advisory purposes there are about 2.8 mill. Euros allocated per year for the European Agriculture Fund for Rural Development (EAFRD). The applicants share is on average 0.7 mill. Euros per year. The maximum amount of subsidies and administrative ideas come from EU law. Subsidies are given from **The State Agricultural Intervention Fund (SAIF)** as a grant to purchase advisory and consultation services up to a maximum value of 315 thousands CZK per applicant for the whole period of 2007-2013.

Advisory services on the 3rd level for RDP measure I.3.4. were supported through 46,073 thousands CZK.

For the purposes of financing the delivery of information through specialised web portals (**4th level**), the MoA's finance department recommended how the **MoA** information system shall be used. The activities established through the National Rural Network shall be covered in **RDP measure V.2**.

4.3 Methods and Human resources

Accredited advisors are an important part of AKIS. Their professional quality is recorded through accreditation. The aim of accreditation is to make a qualification background for the functional agriculture advisory system and guarantee the professional competence of agricultural advisors registered in the public database- the **Registry of Advisers MoA**. Generally efforts are aimed toward maintaining the wide reach of FAS, but with rules regarding a basic minimal frame. Advisors in FAS are educated as universal, broadly oriented and professionally qualified to help farmers with their problems.

Accredited advisors are mostly private natural bodies; the percentage of female advisers from the Registry of Advisers was on average 30%. More females work at corporate bodies in administrative positions.

There were 260 active accredited advisors in the Registry in total (figure 2). The majority of advisors in the Registry are advisors for Plant production rather than animal production. Some advisory bodies are accredited in two or three advisory subareas. Advisors mostly use an individual model of advisory work on farms, but sometimes, in case of similar problems, they use group (two or three) consultation.

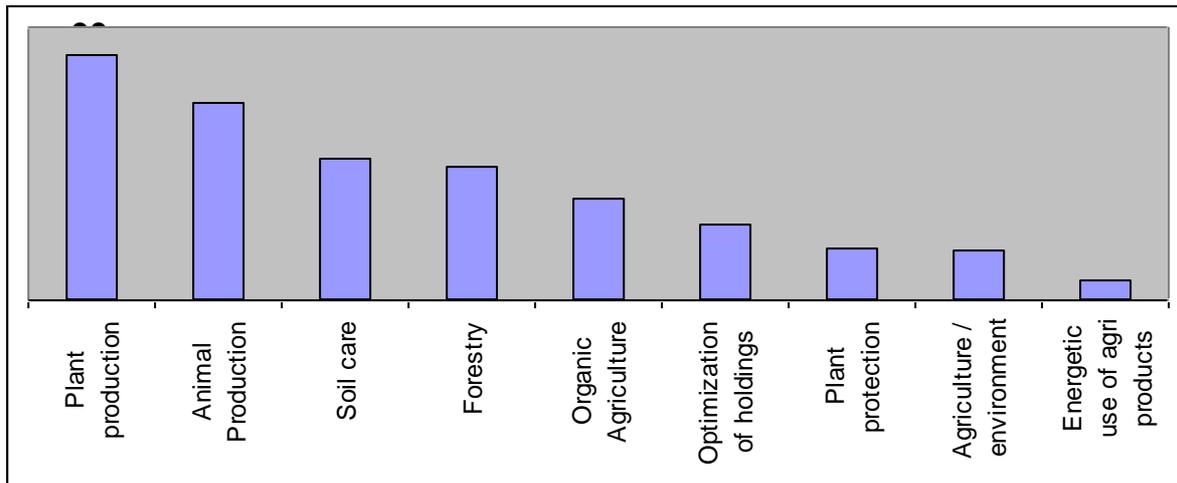


Figure 2. Numbers of accredited advisors from the Registry of Advisers (till 15.6.2013)

The means from RDP measure took 130 accredited advisors in 2011.

Advisors can be members of the Chamber of Agriculture Advisors, corporate bodies associating private advisors with the aim of exchanging experiences and promoting Advisors' interests. Membership in the Chamber is optional.

4.4 Clients and topics / contents

At the end of 2011 CSI registered more than 47,000 agricultural subjects in the agriculture register. Most of them (36%) are small growers or breeders without agriculture not registered in LPIS. These small growers do not often use advisory systems, sometimes they will only use public advisory services from the 1st and 4st AKIS levels.

Generally, advisory services use mostly holdings in LPIS, which contains about 26,000 clients. Results from the questionnaires specify that professional advisory services (3rd level) are mostly used by large farms (above 100 ha), smaller farms (5-50 ha) use advisors less frequently.

The most frequently asked questions concern how to gain subsidies and other means, cross-compliance rules and GAEC. From professional themes farmers need advice on plant production and plant protection areas.

Next to agriculture enterprises there are other users of the 1st, 2nd and 4st AKIS levels, mostly from the education system, government and non-governmental organisations.

4.5 Linkages with other AKIS actors / knowledge flows

The agricultural knowledge and information system was formed more than 10 years. The current system is 4 levels which cover the whole system with many vertical and horizontal linkages, as is evident from fig. 1 (AKIS diagram).

The **National Council of Advisory for agriculture and rural development** is the top organisation connecting and coordinating activities in the AKIS and it is consultative institution of the Deputy Minister of MoA CR. The participants of the National Council are responsible for sections of MoA, specifying requirements of the advisory system, supervising and accreditation body IAEI, agrarian NGOs defending farmer's interests and research institutes and universities as training and education bodies creating and transferring new knowledge into system. Activities of National Council are directed mostly at the 1st and 2nd AKIS levels. They evaluate feedback and recommend changes for improving the advisory system.

The second important part of the AKIS is IAEI. The accreditation system forms and maintains the quality of professional advisors in the 3rd level by the **Rules of the accreditation and registration of advisers** (MoA Directive 214610/2012-MZE-17013). IAEI workers verify 60-70 advisors every year. In the case of violation advisers can be excluded, for example 10 advisors were excluded in the year 2011. On the other hand new advisors are also accredited.

An innovation component in AKIS are universities, vocational schools and research institutes. They help to transfer new knowledge to agriculture praxis.

RIC centres together with agrarian NGO comprise the back office part of AKIS. Thanks to the good knowledge of regional conditions they are able to transfer targeted information about CAP, cross-compliance and GAEC to farmers.

More professional direct information is transferred in the 3rd level by accredited advisors.

4.6 Programming and Planning of advisory work

All participants of AKIS have their own function and tasks, which are evaluated on payment of costs and, as a whole, in the evaluation report of the National Council for advisory MoA ČR. Each accredited advisor has an obligation to prepare a precise plan of advisory work for an agricultural body. Advisors use pre-prepared checklists to evaluate the state of agricultural holdings and the actual level of accomplishment of obligatory requirements arising from CAP, cross-compliance and GAEC rules.

The planning of an advisor's direct advisory work is an individual matter of each advisor or advisory body. Advisors which were questioned (natural bodies) do not create any strategic or annual working plan. Only in the case of a questioned large body, when coordination of advisory work is necessary, do the members and management of organisation prepare a strategic plan.

5. Characteristics of Farm Advisory System

5.1 Current FAS in the Czech Republic

The current FAS in the Czech Republic represents complex 4 level system. Outer information (EU and national law) is processed at the MoA and IAEI and transferred as obligatory methodologies into the advisory system (1st and 3rd level). Professional knowledge is obtained and processed by universities, research institutes and professional interest groups (2nd level). Both types of information and knowledge are mediated by accredited advisors to agriculture praxis. Information websites are created on all levels (1-3) as information assistance with general information content. Each institution has their own role; under the coordination of **National Council of Advisory** leaded **MoA**. Connections are non-formal and there are strong linkages are between the **MoA** and **IAEI**.

The whole FAS is based on the principle that an advisor must evaluate specific the situation of the farmer (or agriculture holding) and after analysis provide clear, direct and usable information. The current system solves necessary requirements from CAP, cross-compliance and GAEC rules very well. Newly climatic change has started to come to the forefront of agriculture sectors along with permanent searches for the possibilities of competitiveness for agriculture holdings.

Accredited advisors are the most important part of the Czech FAS, with guaranteed quality preserved by the accreditation systems of IAEI and MoA. The advisors are professionally trained each year and informed about news and changes in agriculture sector.

5.2 Evaluation of implementation of FAS

The current FAS, within the conditions of the Czech agriculture sector, is a functional system. This tool has preconditions to be an important aid to fulfil the objectives of EU CAP. Current experiences show an interest of agriculture holdings to use offered advisory services, which give the possibility to implement demanding rules as a condition to gain agriculture subsidies. Four advisory levels offer enough possibilities for all potential users, from general information service to a detailed personal approach thanks to accredited advisors. Even the 4th level in the form of connected web portals is a good solution for users preferring to retrieve their own information. The accreditation system guaranteed by IAEI is very effective for maintaining the quality of transferred information.

Multisource financing is the next advantage of the Czech Farm Advisory System. Important means are taken from RDP; other means are from national sources and the state budget. The farmer payments (20% from service costs) contribute to feedback for advisors. Good advisors are utilised by farmers and vice versa shoddy advisors are excluded from the system.

On the basis of our research among farmers (Typtová, 2012; Joachimsthalerová, 2012; Zimcik, 2013, Pfefferová, 2013) we can confirm the quality of FAS in the Czech Republic. Users of FAS were satisfied.

From our research in the last two years, and the structured interviews and questionnaires analysed for this report we suggest:

Ministry of Agriculture must point their efforts towards activities of Regional Information Centruns.

- Results confirm that users are mostly satisfied with the professional advisors and less with advisory institutions on the regional level. The personal face to face way is more effective and friendly.
- Advisors need better and quicker information from MoA about presumptive changes of CAP, mostly in the transitive time between EU planning periods.
- Create conditions for high competition between advisors and for support of advisory teams.
- Permit to use more advisory services per year for one agriculture subject.
- Permanently optimize administration.

6. Summary and conclusions

The Czech mixed advisory model is suitable for all sizes of agricultural holdings. Large holdings prefer more personal face to face advice whilst small farms use information from websites more. The position of advisory services and the role of professional advisors has increased thanks to new demands for food quality and safety.

The current objectives of advisory services in the Czech Republic are shown in fig. 3.

For the future planning period Farming Advisory System need to point its activity towards higher member states' self-sufficiency within conditions of climate change and possible modifications of agriculture systems on national and European levels.

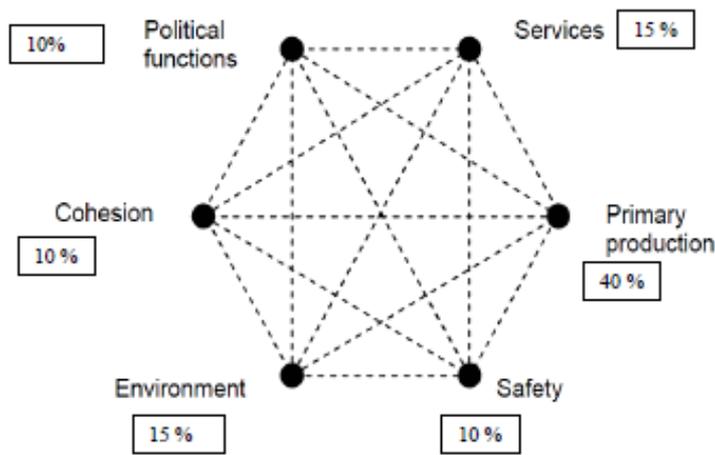


Figure 3. Objectives of advisory services in the Czech Republic (result from interviews)

SWOT analysis reflects benefits and disadvantages of the AKIS in the Czech Republic

SWOT analysis

Strengths

- Multi-level advisory system
- Diversity of advisory services (accredited and other advisors)
- Selection of advisors (accreditation system)
- Obligatory education system
- Subsidies providing advisory
- Payment via farmer needs
- Research and education sector joined with agricultural praxis

Opportunities

- New CAP
- Changes in food security and healthy
- Changes in food chains (shortening, state food security, climatic change)
- Environment friendly agriculture
- Employment in agriculture and subsequent food services for rural development
- Landscape protection, Cultural heritage

Weaknesses

- Costs for holdings
- Long time from application to subsidy payment
- High time spending administration for advisors
- Slow response to new law rules (EC and national bureaucracy)
- Slow tempo to transfer new knowledge to praxis

Threats

- Economy crisis
- Low flexibility of farmers
- Production falling off (national, regional - EU)
- No interest about advisory services

7. Acknowledgement of partners, information sources, reflection on methodology

Authors thank to ing. Dvořák from the Ministry of Agriculture and ing. Kořínek from IAEI for their interviews, advisors for filling out the questionnaires and to the students of Crop Production Department for their help.

8. References

MZe (2012) Výzkum, vzdělávání a poradenství v resortu zemědělství. On-line: http://eagri.cz/public/web/file/166418/Vyzkum_vzdel_web.pdf

MZe (2008). Koncepce poradenského systému Ministerstva zemědělství na léta 2009-2013. On-line: http://eagri.cz/public/web/file/189416/Koncepceporad2008_vlastmateril26_XI_08schvalena.pdf

ÚZEI (2012) Zpráva o stavu zemědělství ČR za rok 2011 “Zelená zpráva”. On-line: http://eagri.cz/public/web/file/191660/Zprava_o_stavu_zemedelstvi_CR_za_rok_2011.pdf

MZe (2013). Akreditační směrnice 2013. On-line: <http://eagri.cz/public/web/mze/poradenstvi-a-vyzkum/poradenstvi/koncepce-a-strategie/>

Register of Advisors on-line: <http://www.agroporadenstvi.cz/registr/>

Pfefferová Z. (2013): Analýza zemědělského poradenství v karlovarském regionu (Analysis of agriculture advisory in region Karlovy Vary). Diploma thesis CULS Prague, 51 p.

Zimčík P. (2013): Analýza odborného poradenství v rostlinné výrobě (Analysis of professional advisory in plant production). Bachelor theses CULS Prague. 41 p.

Joachimsthalerová M. (2012): Analýza zemědělského poradenství v ekologickém zemědělství ČR (Analysis of agriculture advisory in organic agriculture in the CR). Diploma thesis CULS Prague. 84 p.

Typtová L.: (2012) Analýza poradenského systému v ČR. Analysis of advisory system in the CR Diploma thesis CULS Prague, 83 p.

9. Appendices

9.1 List and contact of organisations forming AKIS

| Name of organisation (in English) | Address | Website | Status (public/R&E/private/FBO/NGO)* |
|--|----------------------------------|---|--------------------------------------|
| Ministry of Agriculture | Tesnov 17, Prague | http://eagri.cz/public/web/en/mze/ | public |
| Institute of Agricultural Economics and Information (IAEI) | Manesova 75, Prague | http://www.iaei.cz/ | public |
| Czech Agrarian Chamber | Stepanska 63, Prague | http://www.agrocr.cz/ | public/NGO/FBO |
| Association of Private Agriculture CR | Delnicka 30, Prague | http://www.asz.cz/ | public/NGO/FBO |
| The Agricultural Association of the CR | Hybernska 38, Prague | http://www.zscr.cz/english-version/ | public/NGO/FBO |
| Czech University of Life Sciences | Kamycka 129, Prague | http://www.czu.cz/en/ | public/R&E |
| Mendel University in Brno | Zemedelska 1 | http://www.mendelu.cz/en/?lang=en | public/R&E |
| Crop Research Institute | Drnovska 507, Prague | http://www.vurv.cz/?p=index&site=default_en | public/R&E |
| Bioinstitut, o.p.s. | Krizkovskeho 8, Olomouc | http://www.bioinstitut.cz/english/index.html | public/R&E/NGO |
| Research Institute for Fodder Crops, Ltd. Troubsko | Zahradni 1, Troubsko | http://www.vupt.cz/en/english/basic-information/ | privat/R&E |
| Agriculture Research Institute, Ltd. Kroměříž | Havlickova 2787, Kromeriz | http://www.vukrom.cz/Institute?set_language=en | privat/R&E |
| Potato Research Institute, Ltd. | Dobrovskeho 2366, Havlickuv Brod | http://www.vubhb.cz/ | privat/R&E |
| AGRITEC, Research, Breeding & Services, Ltd | Zemedelska 2520, Sumperk | http://www.agritec.cz/new/index.php?lang=en | privat/R&E |