







PRO AKIS Policy Recommendations

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Preface

There is a wide consensus among scholars and policy makers that knowledge is a key resource to support European agriculture in meeting new challenges such as international competition, food safety, health or environmental issues. A number of European policies target organisations that deliver farm advice, such as the regulations on "Farm Advisory System" (FAS) and the "European Innovation Partnerships" (EIP). But precise and up-to-date knowledge on these services within the wider **Agricultural Knowledge**, **Information and Innovation system (AKIS)** in Europe were missing: little is known about current changes to their funding, organisation, advisory methods, performance for different types of farmers and the rural population more widely.

The EU funded project PRO AKIS aimed to fill this knowledge gap and to answer the question: How and from what sources can farmers get reliable and relevant knowledge, orientation and support to continuously evolve, to successfully solve problems and to respond to external expectations and development opportunities? The project responded to this through a comprehensive set of empirical studies. First, an inventory of AKIS and advisory services was compiled in 27 countries (see No.1 in box). Second, empirical research was conducted on the three topics: (i) small-scale farmers' access to relevant and reliable knowledge, (ii) services bridging scientific research topics and farmers' demands and (iii) offering appropriate support for diverse rural actors that form networks around innovations in agriculture and rural areas (see No.2).

The policy recommendations presented here were derived from these studies. Draft versions were discussed with the stakeholders and policy advisory boards, and then refined by the research consortium.

As a basis for the empirical work, we developed a common understanding of AKIS and farm advisory services (see No.3). We define an AKIS as a system concept that links people and institutions to promote mutual learning, to generate, share, and utilise agriculture related technology, knowledge, and information. The system integrates AKIS actors such as farmers, farm workers, agricultural educators, researchers, non-academic experts, public and independent private advisors, supply chain actors, and other actors in agriculture to harness knowledge and information from various sources for improved livelihoods. Farm advisory services are the entire set of organisations or activities that enable farmers to co-produce farm-level solutions by establishing service relationships with advisors so as to produce knowledge and enhance skills. This understanding distinguishes on the one hand, public and independent private advisory actors and organisations, with either profit or non-profit orientation, and on the other hand, private 'sales related' advisory services associated either with upstream or downstream industries of the agricultural sector.

PRO AKIS Outputs - please visit www.proakis.eu

- (1) National reports and posters presenting diagrams are available for 27 countries of the European Union (Croatia joined after the start of the project).
- (2) Four case studies were conducted for each topic, in different countries (France, Bulgaria, Germany, Italy, Poland, Portugal, UK). A report is available for each case study.
- (3) Concepts and definitions can be found in the conceptual framework report.









Policy design

- 1. To support innovation processes in agriculture, policy measures should take into account the diversity of AKIS and ensure that measures target the appropriate level (national, regional) and type of intervention (e.g. structural funding, incentives).
 - The AKIS concept encourages a systemic view on the complex structures and processes that make up a functioning knowledge exchange among various actors in society. From theory, fundamentally different understandings of AKIS, and herein farm advice provision, are available and can entail different policy instruments (e.g. process-based understanding leading to innovation support; infrastructure-based understanding leading to institutional funding). Policy makers should consider these different understandings as complementary, since the policy instruments derived from them could be combined effectively in practice.
 - PRO AKIS focused on national AKIS infrastructures in Europe, compiled systematic knowledge about them and made their institutional diversity visible in the form of diagrams (www.proakis.eu – the AKIS inventory). These differences between countries are expressions of historical legacies, country-specific socio-cultural conditions and an on-going trend towards more pluralistic systems. Hence, we recommend using the AKIS infrastructural concept for the monitoring of AKIS within the EU member states and to update the AKIS inventory at EU level regularly, as it thus reflects institutional changes in society and serves as a longitudinal database for the assessment of agricultural advisory and innovation support services.
- 2. Policies should encourage systematic evaluation to allow for comparative appraisal of knowledge systems and advisory services.

PRO AKIS compiled systematic knowledge about AKIS and farm advisory services infrastructures in Europe and demonstrated the institutional diversity of AKIS throughout the member states. However, this knowledge is of general character and does not allow for comparative appraisals and quantification of judgements across the EU. As we observe a general lack of meaningful data on the one side, and an emerging attention to agricultural advisory services and innovation support activities on the other, and Rural Development Policies (RDP) tailored around these concerns, we recommend that policies should encourage evaluation for comparative appraisals of these services.

- Evaluation does not only support accountability, but also helps to better target policies. Different goals
 can be pursued with evaluation (to measure effectiveness, to understand mechanisms or to promote
 participatory learning with shared assessments) and a broad range of methods are available in that
 respect. Such evaluation could help to avoid duplication of investment and to identify what knowledge
 can be shared across countries because of its general nature (e.g. good practice for training advisors).
- In addition, indicators to be used in systematic monitoring and evaluation need to be discussed and agreed. Particular attention needs to be paid to clarify who is benefitting from services and knowledge provision, in a context of rapid and fundamental structural change in agriculture (increase in farm size and capital; existence of small farms and part-time farmers; changes in farm labour composition). For example, although different types of farm workers (regular salaried workers, casual workers, migrants) are increasingly important in EU agriculture they have not received public attention so far.









Governance of AKIS

- The AKIS concept should be promoted for national and regional-level use as a diagnostic tool for knowledge exchange by public actors and policy makers. Utilising the AKIS concept will allow to identify strengths and weaknesses of knowledge flows and interaction in national and regional AKIS.
 - The PRO AKIS inventory revealed that the AKIS concept is appropriate to systematically guide the characterisation of infrastructures and coordinating mechanisms, supporting the analysis of system integration and fragmentation. Such diagnoses should be undertaken as basis for targeted governmental interventions to support different types of cooperation between AKIS actors in solving problems.
 - In terms of decision making for rural development, policy makers would benefit from developing competencies in AKIS diagnosis so they can identify and describe the relevant actors (education, research, advisory services, public and private knowledge providers and users etc.) for a certain agricultural topic/sector. This would allow them to recognise strengths and weaknesses, and to identify gaps and missing interactions among actors as indicators for knowledge flow performance. Special attention should be paid to divergent knowledge needs of farm-level actors, according to e.g. farm size, gender, education level or professional orientations.
- 4. Policy should encourage research practice which values knowledge exchange with end users, especially farmers, and the orientation towards their needs.

In today's academic system, basic knowledge produced in universities and research institutes is not easily passed on to other AKIS stakeholders, so that 'translation' and 'adaptation' measures and services are necessary to provide practical knowledge. The PRO AKIS case studies showed that these services can be assumed by e.g. applied research bodies, experimental stations, demonstration farms and targeted advisory services. It is hence recommended that policy makers:

- support applied research in its various forms. The case studies showed that applied research is
 considered as very relevant among AKIS actors; it is used by advisory services and various types of
 farmers, and there should be public support for the production and utilisation of practical and localspecific knowledge;
- encourage dialogue between research and end-users of scientific knowledge in order to better integrate their needs in research orientation:
- promote different innovative ways of bridging research and practice: multi-actor research projects, joint science-practice evaluation on AKIS related issue, or EIP Agri related operational groups etc.

These approaches are complementary and all are worth being supported. While this support is primarily national, a reflection should be opened at the European level to identify areas where economies of scale and joint efforts are possible (e.g. through systematic reviews of academic literature).









Support for specific actors (advisors, farmers, networks)

- A long-term perspective is required to maintain advisory services that provide public goods where
 there is no other funding mechanism for their provision. Advisory service infrastructure or public
 support of independent private advisory services should be maintained.
 - Publicly funded advisory services are required to ensure knowledge flows between public research and farms, especially small-scale and/or resource-poor farms. Support should be targeted towards the most important gaps or weaknesses within a specific AKIS at national or regional level (e.g. priority setting following an AKIS diagnosis).
 - This public support concerns both the front-office dimension of services (access to services for different categories of agricultural populations), and their back-office dimension (scientific monitoring, research & development investments and production of knowledge on public good issues for farmers and AKIS actors).
 - Publicly funded advisory services are required in regions dominated by independent private advisory services, in order to ensure that advice on public goods is provided.
 - Publicly funded advisory services are also required in regions without independent private advisory services, to ensure basic service provision on a range of topics.
 - There is a variety of organisational options for publicly funding knowledge flows, ranging from traditional
 advisory service provision to policy induced rural networks, maintenance or implementation of
 experimental stations, demonstration and monitor farms, to providing financial support for farmers to use
 independent private advisory services. Possible conflicts of interest should be considered when funding
 non independent private advisors (e.g. pesticide companies getting funding for training farmers to use
 pesticides, nurseries selling particular plant varieties)
 - Public infrastructure can include platforms for knowledge exchange, coordinating multiple suppliers of advisory services, research/education institutions and other AKIS actors. Such basic public support should encourage innovative models for holistic provision of advice, i.e. seeing the farming enterprise as a whole, integrating public good and economic advice, as well as addressing social and psychological dimensions of farming practices.
- 6. Support training and education for AKIS actors and the development of certification schemes to create transparency about the quality of advisory services.
 - The diversity of public and private advisory service providers as well as the funding opportunities for advisory services in rural development measures make it necessary to introduce and further develop certification and/or accreditation schemes. An EU-wide discussion is required to establish the profession of 'agricultural advisor' with a corresponding curriculum.
 - Lifelong learning and training for AKIS actors (including farmers and advisors) need to be developed, for example on new skills and competences, knowledge recycling, understanding of new social contexts, crisis counselling, and networking.
 - Training on innovative technical, social and organisational topics, market trends and opportunities arising
 from societal demands, as well as on new policies and regulations should be provided to multiple AKIS
 actors: public and independent private advisors, input suppliers, farmers, farm workers, and lay experts.









7. Specific medium-term approaches are required to enhance the potential of small-scale farms.

- The small-scale farmer study found that public advisory services for small-scale farmers are primarily mobilised to complete subsidy application forms. Simplification of these forms, along with training and support for small-scale farmers, should enable advisory services refocus on providing advice on production, business development issues and diversification of production.
- The small-scale farmer study also found high levels of dependence on tacit local knowledge. Combining tacit and formal knowledge, increasing and diversifying training courses for small-scale farmers and other actors in the AKIS would be beneficial, to increase local level expertise. These courses should include technical production skills, farm management, and network development, to enable knowledge networks to be established and maintained without long-term advisor support. Consequently, this would require the education and training of advisors to include the development of competences to enable them to facilitate this type of knowledge (e.g. through practice analyses).
- Policy should support small farmers to follow multiple trajectories of development (e.g. diversification, specialisation, part-time) which differ from pathways of larger scale farms. Strengthening the involvement of small-scale farmers in the governance of publicly funded advisory entities (e.g. advisory boards) would ensure that services meet small-farmer needs.

8. Rural multi-actor innovation networks are complementary to professional advisory services and should be supported accordingly

Rural multi-actor networks are effective to enhance knowledge exchange, thus contributing to innovation processes in farming and rural areas. The comparison of case studies highlighted that multi-actor networks are able to deliver advisory services with innovative formats that overcome some of the limitations of conventional advisory systems. They enable multi-topical advice, enhance farmers' role in knowledge co-creation, and bring researchers, specialists and farmers together.

- Multi-actor networksthat are experienced in knowledge exchange and co-innovation processes have the
 potential to fill gaps within AKIS, especially in 'weak' AKIS with low levels of interaction and in cases of
 weak public AKIS infrastructures. We recommend that such networks are monitored with regard to their
 ability to address knowledge exchange needs.
- Public support of networks should acknowledge the different phases in the life of networks. It may be
 necessary to resort to project-based or flexible funding mechanism. National entities should have
 responsibility for monitoring and assessing the success of publicly supported networks.
- Policy makers should ensure that networks remain open to diverse knowledge providers, and avoid
 funding being channelled to larger established players and supporting 'closed shops'. Support to these
 networks should address multiple networks configurations (e.g., agricultural, rural, sectoral) at different
 institutional levels, and enhance the inclusion of less established players such as small-scale farmers,
 farm workers, as well as progressive and pioneer farmers.
- Within networks, both public and independent private advisory service providers can take up the following functions that merit recognition: clarify knowledge needs of farmers; brokering information; facilitating connections amongst actors; promote learning and dissemination; translating data, information or knowledge into lay terms; and monitoring network success.















