





Due to demands, a lot of technical advising has gradually been replaced by support for farm subsidy application as well as for production certification schemes for which there is a rapidly increasing demand. This has led to a **reduction of competences of the remaining (public) advisors by lack of practical field experience**. The public or private-public farm advisory services are more focusing on non-profit and public services.

### 1.3. A new role for agricultural support : impartial and farm-tailored advice

The future advisory services need to be able to give **holistic advice to farmers while at the same time top-of-the-art advice for specific problems**. The advisor needs to be able to consider all aspects of farming, from the overall effect on the **farms' profitability** from changing parts of the production to **specific technical advice**. Advice related to markets and farm viability has always been required and will continue to be essential in the future.

Overall many private advisors, be it impartial ones or those linked to commercial companies (selling/buying agricultural products, suppliers of inputs etc...) have filled the **gap of the lacking technological advice from public services**. An effort to **increase advisors' technological competences is needed**.

**Advisors need to be able to integrate a broad spectrum of specific issues in order to give impartial and farm tailored advice**. Besides farming practices and technology, mitigation and adaptation to climate change, increasing the value added of farm products, diversification of sources of income, and many more issues are challenges to tackle through appropriate advice.

### 1.4. Reconnection of advisors within the AKIS is vital

Advisory systems in the recent past have become too static and oriented to pure one-way "knowledge transfer" to cope with **current challenges, widening the gap between small and big farms**.

Therefore, in general the role of advisors should be put more **central** in the AKIS system. **Improved connections with the rest of the AKIS are of vital importance for the future and to realize a reorientation of advisors to sufficient technological competences and a "knowledge exchange" attitude**. Therefore, advisors' role within the AKIS should be highlighted, in order for them to become more involved in the development of the sector.

This would support advisors to better **pick up farmers' needs**, contribute to **strengthening links between farmers and researchers, and increase their participation in research and innovation projects**. In some Member States, knowledge flows through the AKIS are still close to non-existing and the first priority remains to establish a linear model of knowledge transfer through advisory.

The regional/national advisory services might be too small to attain all knowledge and skills needed and therefore **more networking of advisory services is needed**. Additionally, as the advisors become more involved in the development of the sector, they need to **communicate farmers' needs back to the researchers to a higher degree and participate** in research and innovation projects. However, to ensure this, financing and incentives are mostly missing. Also, incentives for researchers to present the results of their work in a comprehensive way are needed.

Last but not least, advisors are **poorly involved in the definition of policies and programmes**. They usually become active in the implementation stage, when decisions are already taken. **Advisors should be part of the programming process in an early stage** and not only beneficiaries/targets of one or more measures. Such participation would surely help to better tailor programmes on farmers' as well as advisors' needs while enhancing advisors' ownership of programmes adopted. In fact, art. 4 of the European code of conduct on partnership in the framework of the European





**teamwork** and exchanging tips and tricks between colleague-advisors with more competence and experience in specific technologies or in strategic advice should be able to solve this.

### **1.7. Increasing possibilities for online and automated advice necessitate stepping up advisory competences and tools enabling the multiple use of data**

Farmers and advisors are more and more using IT tools and working with digital info and data (internet, smartphones, e-learning, twitter, apps, various kinds of digital tools etc...). **Many existing and new data flows could fulfil multiple uses and be brought to a higher level through improved ICT applications if supported by independent advisory services and made interoperable with harmonized standards for data exchange.** For instance, compulsory recorded animal data can help improve breeding and husbandry on farms. Recording the application of plant protection products under IPM schemes and data collected in the framework of CAP direct payments and Agri-environmental measures can help optimizing cost-efficient production. Nutrient application data and soil analysis linked to area based payment mapping systems could provide valuable input for regional farm nutrient recycling, waste management and to monitor environmental impact. **All those data can also serve research purposes.** Farmers will have to be informed on the potential, the cost and benefits of investments in digital technology, and need impartial help to understand their position in a digital environment (data ownership, interoperability etc...). They will need support from intermediaries such as farm advisors to take up the newest technologies and help with tailor made decisions on ICT use which are adapted to the specific farm context. The advisors of the future need dedicated support and efforts to be ready for such tasks.

### **1.8. The essence of future advising is face-to-face on-farm, tuning blended learning to the farm context**

Various types of information are coming to the farmer through a variety of means (internet, smartphones and apps, e-learning, group work, benchmarking, innovation projects and also input from the non-agricultural sector). Even with all this blended learning, it is stays beyond doubt that **face-to-face on-farm advisory activities stay key**, because they enable correct **tuning of the blended messages to the specific farm context** and ensure a **full understanding of the farm conditions** before advice and farm decisions are made. Face-to-face and on-farm work is also important for convincing/communication purposes and for giving the **farmer the opportunity to express his views** and give feedback on the received external information.

## **2. Many kinds of people are so-called “advisor”. What should be the criteria for being considered an advisor?**

### **2.1. Impartial, having the competence and means to enhance the ability to change**

Advice comes from an individual advisor, which may belong to an entity (private or public/small or big), with a conscious ambition to intervene so that the customer (broadly defined) improves his/her ability to change. The purpose is communication and an intervention in order to support change. This is only possible if the advisor has the competence and the means (f.i. financial resources) to do it. **The advisor should be impartial and not promoting a specific product or technology.**

One definition of extension/advisory services is that advisory services are 'conscious interventions in order to create better preconditions for change, carried through by an entity having the means and competence to do it'. Farmers may receive substantial and often valuable information from companies in the context of their commercial objectives. However, farmers need to be enabled to receive independent “advice” that is not part of a “product service” package.

## 2.2. Providing tailor-made knowledge tuned to the farm

It is important that the advisor provides **knowledge tuned to the specific farmer needs**. It is equally important that the advisor operates on a tailor-made basis, i.e. that he/she acts based on what the farm and the farmer would serve, which is perhaps is not necessarily what the farmer is expressing as his/her need, nor what the employer of the advisor may want.

An AKIS should be constructed with an open approach so as to benefit from new actors entering the system, coming from for instance the regional innovation systems, other sectors, etc... They will add their knowledge and experience to those of advisors, and this is hard to pre-define.

How the quality of the advice can be assured is an ongoing discussion among advisory organizations today, not least due to the implementation of new management concepts like Lean Production Philosophy (SE). It will be **hard to pre-define quality criteria for advisors as well as to delimit who are allowed to call themselves advisors**. A single unique EU certificate for advisors was rejected some years ago because there was a fear for lack of adaptation to local conditions and structures. **A code of conduct or guidance built among advisory services may be a useful initiative at EU level**. Also farmers' organizations may want to be consulted with a view to help ensuring that advice given is as relevant as possible to the realities faced by farmers.

## 3. How to shape an advisory system ready for the future?

### 3.1. Emerging new challenges

Beyond existing challenges for linear advising, following issues will have to be tackled for future advisory systems:

- 1) covering new needs (incl. innovation brokerage and market issues),
- 2) adapting to new farmers' profiles (new entrants, part-time or hard-to-reach farmers)
- 3) broadening access to information (incl. inter- and transdisciplinary cooperation/collaboration, use of ICT tools),
- 4) closing the gap between research and advisory services
- 5) promoting holistic approach to advice (connect technical advice to farm production profitability and market issues) and at the same time seek more specialized advice
- 6) linking to international networks to find knowledge and advisors with specialized competences where needed
- 7) need for receiving input from specialists from other countries on specific techniques

### 3.2. Key is to enable advisory services with hard and soft infrastructure for enhancing knowledge flows

The above mentioned pilot study on knowledge needs for young farmers shows that knowledge infrastructure and the educational systems are key, because **they enable the possibility to get 'real' impartial advice and sufficient quality of knowledge/advisory services**.

Therefore, the advisory services of the future should be enabled with **hard and soft infrastructure enhancing knowledge flows in the agricultural knowledge and innovation system** (the latter to be understood in the broadest way, including the whole bioeconomy and in particular connecting to other sectors and the regional and national innovation systems). It is important to build **cross-cutting** solutions because of ever changing challenges and the overall need for more interactivity. Not only farming knowledge counts, a lot can be learnt also from areas outside farming.







processes themselves to a higher degree. There must be a continuous monitoring and evaluation of how publicly funded knowledge is utilized and policies should be adapted according to the findings. Often so-called “leverage” (partly private financing of research), even in low percentages, leads to reduction in the sharing of the research results.

## **5.2. Improve connections for knowledge to be shared and developed further**

Additionally, it is important to improve opportunities to connect actors creating and using knowledge better with each other so that they are able to find each other in order to share and develop the knowledge further. For instance, an open source approach for ICT tools incentivizes further innovation processes. New publicly funded knowledge should be shared, for instance online, and turned in a format that is comprehensible to all actors within the AKIS. Using additional channels beyond scientific journals which are often only shared within the research community, for instance EIP-AGRI practice abstracts, farmers’ journals or broadcasting, websites of advisory services, ministries or farmers’ organizations, etc... will improve impact. Researchers will need incentives to share the results of their work in an understandable, comprehensive and interactive way with advisors and farmers. Furthermore, various EU funds could be engaged to support introduction of ICT tools supporting advisors and in consequence also farmers.

## **6. How should interactive advisory services be structured, funded, trained and networked to move to a more interactive innovation model? How can continuity be guaranteed?**

### **6.1. Advisory services are in crisis and need to be put high on the political agenda.**

We need to **rethink the role of advisors, make them more central in AKIS, refinance them, support their training and reconnect them** to tackle current challenges. The role the government should take in this process needs to be re-considered. Government funding should be used in case of market failure.

### **6.2. The funding and organization of future advisory bodies should be made resilient through a mix of public and private funding.**

**Ensuring resilience of advisory bodies and improvement of the structuring of national/regional/local advisory services is urgently needed. The funding and organization of future advisory bodies should be made resilient through a mix of public and private funding while keeping their governance independent.**

Coherent public governance of the interactions – in particular avoiding a complete governmental top-down “control” of advisory services - and incentivizing the whole AKIS system to this effect is necessary, while not crushing the private initiatives. Various Ministries need to be connected (linking Ministries of Agriculture, of Education, of Research, of Innovation, etc...). This could be done via transversal programmes, a jointly governed body or other approaches. It needs to be considered what should be the responsibility of the government and the private actors and how they should interact.

**Providing continuity of staff in advisory bodies is key to safeguard (practical) competences** of being lost or taken over by private companies for their own commercial purposes. It is considered not possible to build an advisory service on temporary projects, even if these projects may be very supportive to upkeep or build connections with researchers and other innovation actors, and provide some sort of training/awareness raising on arising issues or challenges for advisors.



### 6.3. Key elements for resilient advisory services are support and continuity for a publicly funded back-office which enhances knowledge flows.

The following elements are key for the organization of farm advisory services (including innovation support services with a focus on agriculture):

1. **Public support for a back-office strengthening links with research is needed.** This investment in knowledge infrastructure should be made available to all advisory services taking up front-office tasks because these influence farmers' decisions. The back-office support should be built with a view to support public policy goals such as improving research impact, dissemination and keeping agricultural education knowledge updated (basic education and vocational training), tackling issues related to public goods (water and waste management, climate change, biodiversity etc...), common management of ICT tools to avoid digital divides, etc..... This back-office approach should support continuity of staff in order to keep agro-food knowledge public, manage it and make it easily available. The back-office can enable thematic orientation where needed and get in intelligence from multiple sources. For instance, at certain instances, input from international specialists (not included in the national advisory services) may be needed for specific purposes, and could be catered for by the back-office which should have broader international connections.
2. **Input from researchers' work into this back-office needs to be organized.** An important part of the back-office is developing a "translation" from purely scientific language with limited practical application potential towards information which meets the receivers' capacities and is adjusted to the needs and requirements of farmers and advisors. The back-office at the same time could also be used to collect research needs from practice and give input for research and innovation programmes and policies.
3. In short, this publicly funded back-office should ensure **a high degree of connectivity in the AKIS system, in particular with researchers, advisors at other geographical levels, H2020 multi-actor projects and EIP Operational Groups** bringing in innovative knowledge, but also with suppliers of inputs, other parts of the chain, with policy makers and with the broader society. The examples of Agridea, SEGES, and Teagasc may already partially illustrate this, as well as the idea of creating a "Baltic Advisory Service". **A strong back-office is the basis.** Besides managing the necessary knowledge for front-office use, also networking activities for various purposes can be actively built by these back-offices, e.g. rural development networking, dedicated innovation platforms (groups with specified membership) as a meeting place, organizing various "agro-food communities" (no fixed membership groups but series of events where everybody is welcome) where farmers and other stakeholders can meet and where start-ups or innovative projects can be given a start, etc.
4. The back office should support the **front-office**, which is delivering general or specialized on-farm advice directly to farmers. The front-office is taking in questions and where needed guiding them to the specialists in the back-office. Public funding for the front-office activities may be appropriate in particular when geared to dedicated areas or specific policy goals, for instance advice on public good issues, climate change, waste and water management etc.
5. Support the **peer to peer learning between advisors** will be building trust among advisors in a world of changes and uncertainty







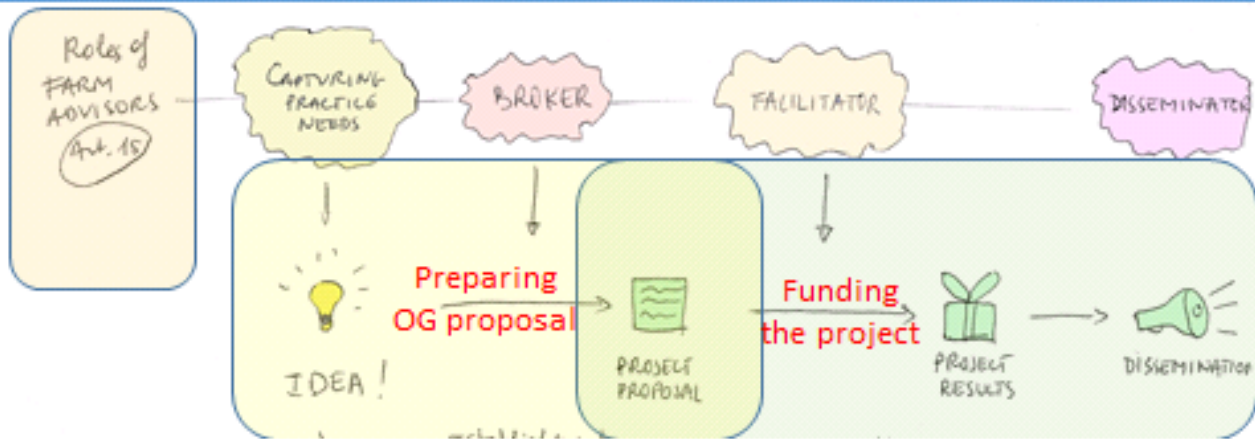






**Annex. Overview of advisors' new roles in interactive innovation processes**

**New roles for farm advisors in interactive innovation projects**



**Farm advisors' "coaching" role in interactive innovation processes:**

- Capture practice needs
- Broker to set up interactive innovation projects
- Facilitate interactive innovation projects
- Dissiminate newly generated knowledge
- + .....?