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AKIS in action:

Cultivating innovation - AKIS as a Catalyst for Educational Excellence
Networking event on July 2, 2025 - Online

Geek4food Learning and engaging the system: GEEK4Food's skills- and visibility-driven approach to agrifood transitions

Cecilia Tonelli, European Institute of Innovation & Technology (EIT) Food

Life Long Learning of advisors and farmers as a tool for innovation in the entire agri-food sector - The AGRIFOOD4FUTURE pathway

Irene Diti, Universita Cattolica del Sacro Cuore, Italy

The role of the Rural Development Centers of the state of Rhineland-Palatinate as regional knowledge hubs for agriculture

Volker Wenghoefer, Ministry of Agriculture of the German Federal State of Rhineland Palatinate, Germany

Moderation: Elena-Teodora Miron, Austrian Chamber of Agriculture

Q&A Session

Q: How do you approach the soft skills offer in the advisory services? Do you also look at what is already available in the education market for advisors regarding soft skills?

A: Daniel Klee (participant): Regarding the skills Dr. Wenghofer just described, using Germany as an example, our training systems in Austria and Switzerland are similar. In apprenticeship and vocational education and training, people are trained on the farm for about 80% of the three-year apprenticeship.

There are two different pathways for those who guide the trainees, which is sometimes not well understood. We have teachers at vocational schools, who have a different background and profile. Then we have the master trainers or on-farm trainers, who work with the young people most of the time.

This is all about capacity building. Soft skills are part of that.

The scientific rationale is that people are embedded in the work and business process.

If they are only in school, there are no clients, no customers, no real-world conditions like working in the rain or snow. Being exposed to and participating in the work and business process over time is crucial. It's also important to have redundancies, so they can observe the same crop growing more than once — comparing last year to this year, for example.

That's what makes this system so strong. It's something unique that AKIS could promote, especially since we have 27 member states with 27 different approaches. In many countries, vocational education and training is seen as a third choice. In Germany, Austria, and Switzerland, it is the first building block. Only after that can someone become an engineer. In fact, when I was younger, you couldn't become an engineer without first completing an apprenticeship.

Q to Cecilia: Cecilia, maybe you could share what the thinking was behind your platform. It is very much focused on self-driven online learning. How do you see your ability to bridge the need for integrating on farm practice? Or do you intentionally stick to online and hope people find you?

A Cecilia: Thank you for the question. The platform is, first of all, a pilot. It is still in the very early stages of development. We want to see whether it works and whether it is useful for people in different sectors and industries, especially in helping them understand their own skills profile.

I tested the platform myself. I uploaded my CV to see if the skills recognition was accurate and whether it could help me realize, "Oh, I do have this skill, but I usually don't recognize it."

This is just a pilot. It is not meant to imply that everything should be done online. We have also conducted train-the-trainer activities on-site — in Denmark, Dublin, and Cluj-Napoca. The courses you can upload to the platform — syllabi, course materials, etc. — are not limited to online formats.
We will take this feedback and see how we can bridge the gap between online and practical training. This is an online tool designed to help people, especially decision-makers, make better and more informed choices.

A Volker: Online platforms are a very important tool in the overall ecosystem. But as Mr. Klee already said, I also prefer a more cautious approach. It has to start with vocational training, combining school-based and on-farm learning. That is the beginning of lifelong learning for farmers.

AKIS institutions must build on what happens during vocational training — both in schools and on farms. This connection must run through the entire system. Research should also take place on farms, so young farmers can see what is happening. They experience it in school, then on the farm, and later through advisory services.

When online platforms are used to link knowledge and provide guidance to farmers, the system becomes complete.

Q to Irene: Irene, you have conceptualized your trainings, if I understood correctly, as a mix of online and on-farm or demonstration practice. Can you please explain a bit more about the thinking behind this? And is it potentially in line with what we were just discussing?

A Irene:

For the advisors, we are designing a blended format. We provide general theoretical modules online in English, and in the future, subtitles will be available in local languages. These are complemented by practical experiences. Each country is responsible for implementing certain modules, which will take place between October and November. We are currently recording these sessions.

In some countries, we will have in-person lessons that will be recorded and made available for additional advisors who want to follow the content later. Each advisor must complete the full set of modules to receive a micro-certification.

The in-person sessions and field visits are meant to enhance the skills acquired. These may include visits to innovative farms and interactions with research institutions — similar to a demo day.

For soft skills and the combination of in-person and online formats, we are developing different approaches. In vocational education and training (VET) schools, there are already many activities with companies and a strong focus on practical learning. We are integrating our modules into these existing classroom structures.

Additionally, we have a training-of-trainers program for VET school instructors, focused on soft skills. As I mentioned in my presentation, we need to shift the mindset of both farmers and future technicians. Our goal is to introduce a more entrepreneurial perspective in how we present the agricultural sector.

Farmers should not only be seen as producers but also as entrepreneurs. As an agronomist and advisor myself, I understand the importance of including soft skills in professional development. In our courses, we focus on entrepreneurial soft skills. We also cover topics like funding and how to integrate innovation — for example, how to apply for funding to support start-ups or how to become part of a network of innovative farms where new technologies can be tested.

This mindset is important not only for farmers and VET students but also for those at EQF levels 6 to 8 — meaning university students. There is a lack of practical training at the university level, so we are introducing mandatory internships as part of semester exchanges.

Students must engage in hands-on activities. After COVID, online training and webinars have proven useful, but we are still missing something essential: the connection to farms, to farmers, and to the real-world challenges they face.

Q to Volker and Irene: In the CAP Strategic Plans, under the AKIS section, member states are mandated to support innovation support services. These services act as facilitators for various types of innovation, including entrepreneurship and helping farmers innovate in both production and business models.

Volker, could you elaborate on whether the knowledge hubs you mentioned are in contact with innovation support services, or how you see the interaction between them — if there is any, or if there are plans for it?

And Irene, could you share how you potentially see your collaboration with these innovation support services, who are supposed to be on the ground, bringing knowledge to farmers and providing practical support?

A Volker: I will start with the first question. In Rheinland-Palatinate, we have an innovation support service. It is a company — a service provider — that we work with. They are connected to our rural development centres in two ways.

First, the rural development centres are partners in EIP projects. So, at the project level, there is already a connection between the innovation support service and our rural development centres.

Second, the AKIS study we conducted was carried out by the innovation support service. There was significant exchange between both parties during the development of the study. Many of the conclusions and recommendations were addressed to the rural development centres.

So, it is a very connected system between these two bodies.

A Irene: At the moment, in our project, we do not have any direct link with innovation support services. This is something we probably need to explore further. I will take the opportunity to look into this more deeply.

We do have a program to support innovation at the local level, but it is not yet integrated into the European or transnational system.

I can provide additional feedback later, but yes, we need to explore synergies with other projects that are already active in this field and have experience working with these services.

Q to all speakers: Another question that came up during your talks is about the micro-context and the recognition of learning achievements, which are very important. Could you explain or share any thoughts from your projects, how you see micro-credentials — particularly in terms of linking them with farming organizations or institutions that provide education or recognize qualifications?

Volker, do you already have some micro-credentials in the environment which you have on a state level, or is this a completely new context for application in practice?

A Irene: I will explain a bit about the context of micro-credentials in the future. We are developing two different micro-credentials in collaboration with our centre provider. The concept of micro-credentials is still not very clearly defined, so we currently have a lot of freedom in developing the content.

The course providers define the key skills, and we can classify our micro-credentials using ESCO profiles or other skill frameworks. The main idea is to collect all the skills,

competencies, and knowledge gained in our courses and package them into something practical — for example, a project work.

In our first micro-credential on capacity building, we focus on how to innovate, how to create a resilient farm, how to improve soil quality, and how to implement innovations in digitalization and decarbonisation. To obtain the micro-credential, participants must present a project that applies the skills and knowledge they acquired during the course.

The goal is for these micro-credentials to be recognized at the European level, but we know there is still a lot of work to be done. There are several providers already, and there is a European recommendation on micro-credentials, but we are still in the early stages.

There is also a new flagship initiative — I don't recall the exact name — that includes something specific on micro-credentials. We are piloting this approach, and it could help farmers and advisors complete full courses. Often, with online courses, people start but don't finish. If they know they can earn a recognized certificate that can be added to their CV, it adds value and encourages full participation.

A Cecilia: In the Geek for Food project, we don't really work with micro-credentials. We organized a few workshops and some trainings that provided certificates, but these were certificates of completion.

A Volker Micro-credentials are very important in the AKIS system in Germany. In many fields, such as pharmaceuticals, micro-credentials are legally required.

For example, in animal production, there are mandatory courses and certifications needed to handle animals. Another key area is plant protection. Every three years, you must attend training to be certified for pesticide application.

These are examples of how we have relied on micro-credentials for many years.

Chat and Q&A Box

Q to Cecilia:

Paul Daniels: AI, digitalization (and robotization) are embraced massively, but I see that this is often said to be a systemic solution to increase innovation and accelerates the availability of knowledge, but..

Question 1: How is the accuracy of this knowledge screened / checked on systemic approach within all these initiatives? I can imagine that we do not want the same shocking amount of fake news and nonsense as can be found on social media now-a-days (a real danger on common knowledge of the masses).

Question 2: How is the ever increasing amounts of energy consumption of these digital systems and AI provided for? Already now, a substantial amount of energy is going to data-centres that are running overtime. Of course, the big (American) tech giants are happy with that development, but energy is one of the main issues towards the future as well as security on the data.

A Cecilia:

This spring, I visited a high school in central Illinois, the kind of place where the cornfields begin at the edge of the parking lot. I asked a classroom full of students a question that often lives in headlines and boardrooms: "What do you think an AI powered future will look like?"

The silence stretched uncomfortably before answers emerged. "Robots will do everything better than we do," said one student, resignation in his voice. Another asked, with her shoulders hunched anxiously, "Will there be jobs for people like me?" Then, from a student in the back row who hadn't spoken until now: "It depends on us." https://www.bostonglobe.com/2025/05/14/opinion/ai-governance-regulation-innovation/

You're right to question the accuracy and even validity of such tools. I would suggest keeping on questioning! As for SkyHive, I've seen them working and I can only say that they continuously check for biases and strive to improve accuracy of e.g., skills extraction. I find this MIT Technology Review article very informative: https://www.technologyreview.com/2025/06/11/1118233/amsterdam-fair-welfare-ai discriminatory-algorithms-failure/

Q: For the training, have you got a link with CECRA? Where can we find the list of potential training modules we need to align with our title?

A Cecilia: No, we haven't (yet). I'll pass this on to the coordinator. Thank you. You can find the list here: https://geek4food.com/training-modules/

Q: How will you tackle the language obstacle in your future work? Just English might not work for all target groups.

A Cecilia: If you're referring to the platform, it already supports a few EU languages and Arabic, and we're expanding that.

Q: You mentioned that 40% of agri-food workers are under- or overqualified. Is that high or low? (In the Netherlands, it would seem quite low, but most deliberately choose to overachieve or underachieve in a job in agri.) How was this calculated? Are there national results known?

A Cecilia: That figure comes from Labour and Skills Shortages in the Agro-Food Sector, OECD, 2023. The OECD average for all sectors, if I'm not wrong, is around 35%. The data come from OECD surveys, where they calculate mismatch based on the most common qualification level in each occupation.
The metric, of course, doesn't account for why people take a job or how much relevant skill they've picked up outside the classroom.

Q: To what extent are the G4F skills platform and/or training activities targeting or involving farmers? I understand they may not be the main audience — am I right?

A Cecilia: Thanks, Fabio - DG AGRI. You're right, farmers aren't the main target of the G4F trainings, which focus more on the food industry. But in areas like waste

valorisation, farmers are very much part of the picture, since the process often starts right at the farm.

The G4F Skills Platform is open to farmers, and they're very welcome to join. It's built on AI technology that can compare skills and roles across sectors, including farming. I believe the real barrier is that many farmers may not actively use digital tools like a skills passport.

Q to Irene: Do your training modules link with CECRA? Are you considering making some link or interoperability with them?

A Irene: Not yet, thank you for the suggestion. We can have an additional meeting to explore this possibility.

Q: How can I find out which courses or training experiences are part of the A4F project, and how can I register? Are they on the site? Are they open to everyone or specific to a category?

A Irene: You can find them on the website: www.agrifood4future.com. We can also stay in touch for an in-depth presentation of the programs. At the moment, the advisors' course is not online, as it will be launched in fall 2025. They are open to all.

Q to Volker: Where do the Chambers of Agriculture get their funding for conducting training activities? Have they been assigned specific responsibilities to carry out training by the Ministry of Agriculture?

A (indirectly from Daniel Klee): Chambers in Germany are tasked with sovereign responsibilities. Training (dual system, 80%) is carried out by agricultural producers.

Further information – Concha Ávila (FIAB):
We want to share two related projects:

I-RESTART: https://www.erasmus-i-restart.eu/
AGRIFOODSKILLS: https://www.agrifoodskills.eu/
We will send you via email all the information related to our Observatory and Forum 2050.