

# Agricultural Knowledge and Innovation Systems (AKIS)

Boosting innovation and knowledge flows across Europe



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This brochure has been produced within the framework of the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI), which was launched by the European Commission to promote innovation in the agricultural and forestry sectors and to better connect research and practice.

This publication follows up on the work of the <u>EIP-AGRI seminar 'CAP strategic plans</u>: the key role of AKIS in Member States' and its <u>final report</u>. More information on this event and on AKIS can be found online via <u>www.eip-agri.eu</u> and on the <u>thematic webpage on AKIS</u>. For more details on the Operational Groups and other innovative projects featured in this brochure, please see the <u>EIP-AGRI project database on the EIP-AGRI website</u>.







# ► Boosting knowledge and innovation flows across Europe

Knowledge and innovation play a crucial role in helping farmers, foresters and rural communities meet current and future challenges. To ensure that knowledge is shared between everyone who uses and produces it, and that people are connected, effective Agricultural Knowledge and Innovation Systems (AKIS) are needed across Europe.

Stronger knowledge flows benefit agriculture, forestry and rural communities, but also food and non-food systems, biodiversity, the environment, climate and consumers. Efficient AKIS support generating innovation and exchanging knowledge between advisors, farmers and foresters, researchers, rural networks, national and regional authorities, media, all people involved in education and training, and consumers. When knowledge is

co-created, used efficiently, and shared widely, this will further support the development and scaling-up of innovative solutions that work in practice. This brochure highlights a number of key features, inspiring examples and projects that help build stronger Agricultural Knowledge and Innovation Systems across Europe.





- ▶ What is AKIS? <u>Watch the EIP-AGRI animated</u> <u>video</u> for an illustrated overview. Find <u>all EIP-AGRI</u> <u>activities related to AKIS on the 'spotlight' page</u>.
- ► Efficient Knowledge and Innovation systems will support the <u>sustainability goals of the new Common Agricultural Policy (CAP) (2023-2027)</u>. Find more information in the <u>AKIS policy brief</u> and the <u>report 'Preparing for future AKIS in Europe'</u>.
- The EIP-AGRI seminar 'CAP strategic plans: the key role of AKIS in Member States' showed a range of inspiring stories and approaches.





# ► Stimulating more competent advice and innovation support

In a well-functioning AKIS, advisors are essential. The role of advisors in the new CAP is much broader and all advisors must be integrated into the AKIS. They offer farmers, foresters and rural entrepreneurs up-to-date and tailored information to support their daily decisions. Advisors can also provide innovation support by connecting people and helping to prepare and develop EIP-AGRI Operational Groups or other interactive innovation projects. Specialist advisors can offer additional support with knowledge on specific, practical themes. Advisors regularly exchange with national and international researchers and with <u>CAP networks</u> that collect and share innovative project results. Their knowledge helps to create national or wider knowledge reservoirs that can benefit everyone in the AKIS ecosystem.



#### Integrating advisors in the Slovenian AKIS

In Slovenia, the public agricultural advisory service is integrated within the Chamber of Agriculture and Forestry. Field advisors work together with specialist advisors and coordinating advisors to build efficient knowledge flows.

Advisor Anton Jagodic explains: "Our trusted field advisors support farmers across the country. When the field advisors need more in-depth knowledge, they can call on a 'back-office' with specialist advisors who are well-connected to researchers, rural networks, experts from public services and others in the AKIS ecosystem. They organise training for the field advisors and prepare educational materials for producers. This cooperation between advisors helps them to cover a broader spectrum with targeted advice,

and strengthens their connections with farmers, rural communities and innovative projects, such as EIP-AGRI Operational Groups."

The Slovenian advisory approach stimulates knowledge flows and has proven its value. "We are now working to strengthen the ties with researchers and education programmes, and organise more and broader training and demonstration activities."

#### ► More information:

Watch the <u>presentation</u> and <u>video</u> from the EIP-AGRI AKIS seminar.









# Innovation Support Services as a "one-stop shop"

The Flemish farmers' organisation 'Boerenbond' offers a range of services for agriculture and rural areas, including a fully-fledged innovation support service. They help develop grassroots ideas into Operational Groups or other innovative projects, organise knowledge sharing activities and offer innovation advice and training. Manager Project Operations Wim Ceulemans: "Co-creation doesn't happen spontaneously. Innovation support services play a key role, leading initiatives that connect people and projects, and fostering knowledge flows that generate innovative ideas."

- More information on the Boerenbond website.
- Two examples: <u>Food innovation academy</u>
- <u>Distrikempen logistic innovation</u>
- For more info on Innovation Support Services, see the <u>EIP-AGRI brochure</u> and <u>animated video</u>.



It is important that all relevant knowledge from research and practice is easy to find, upto-date, openly accessible and taken up by farmers, foresters, advisors, researchers and all others who can use it. National and EU-wide digital knowledge platforms and databases with practical project results can help share knowledge across Europe.

- ► The <u>EIP-AGRI database</u> includes details on all Operational Groups and other innovative EU projects.
- Some Horizon 2020 thematic networks such as <u>FERTINNOWA</u>, <u>INNOSETA</u>, <u>NUTRIMAN</u> or <u>BEST4SOIL</u> have built databases with good practices on soil management, water and fertiliser use and optimising spraying equipment to reduce pesticide use.
- Learn more about Horizon projects <u>EUREKA</u> and <u>EURAKNOS</u>, which <u>prepare the creation</u> of an <u>EU-wide digital knowledge reservoir for</u> practice.



### Did you know...

► The <u>Interreg Policy Platform</u> collects resources and offers advice to regional policymakers.









# ► Connecting through CAP networks

From 2023, the innovation strands of national "CAP networks" will broaden the scope of the current National Rural Networks to support knowledge exchange and foster innovation in the EU Member States. They can do this by organising networking events that bring people together, stimulating regional, national, cross-border or international Operational Group projects (OGs) to interact, and connecting them with European projects. National CAP networks are vital to make innovative knowledge more widely accessible by collecting, translating and sharing practical project results that are most useful for their country. This means that more investments into the innovation strands of national CAP networks will be essential. The EIP-AGRI Support Facility will connect these national innovation strands to foster peer-to-peer exchange and provide further support, including links to Horizon Europe.



#### Inspiring knowledge exchange across borders

In Germany, under the impulse of the National Rural Network (NRN), regional innovation support services meet twice a year to exchange best practices. The NRN also organises annual meetings and crossborder field visits. On these occasions, farmers, researchers, advisors and innovation brokers from Operational Groups share ideas with other national and international innovative projects working on similar themes.

"We wanted to improve our cross-border communication between regions and learn from each other's experiences", says Jan Swoboda of the NRN.

"We organise thematic workshops when at least four OGs from more than two regions express their need to exchange ideas. We also invite Horizon 2020 projects to maximise learning and knowledge exchange. These events were warmly welcomed by Operational Group members and by researchers who wanted to expand their activities. For us, the most interesting aspect is finding common ground, and forging lasting connections between everyone involved."

#### More information:

Visit the <u>website</u> and check the AKIS seminar <u>presentation</u> and <u>video</u>.





# Did you know...

The Portuguese National Support Unit organises brokering events for Operational Groups and other innovative projects, and issues a monthly newsletter dedicated to the EIP-AGRI.







# ▶ Building bridges between practice and research

To strengthen knowledge and innovation flows, it is essential to connect researchers, farmers and foresters, advisors, students at agricultural schools and others. By getting involved in Operational Groups or other innovative, practical projects, researchers can help develop solutions for real needs from the field. These projects allow farmers or foresters to test new ideas, innovative technologies or methods, co-create solutions to the challenges they face or benefit from peer-to-peer learning. Networking events, project collaboration, discussion groups, social media exchanges and on-farm demonstrations can all bring people together and boost knowledge exchange, sparking innovative solutions that are created together, widely shared, and ready to be taken up in the field.



### Pioneer and demonstration farms to foster knowledge and innovation

In the dryland cereal areas in Spain's interior, climate change is creating challenges for rainfed cereal farming. To help farms become more resilient, Operational Group ECOPIONET has set up a knowledge exchange network to foster collaboration and build a viable organic farming sector.

"We wanted to show farmers that organic practices offer tools to increase their profitability", coordinator Raquel Arroyo explains. "We engaged experienced organic farmers, technical consultants and applied researchers who shared their knowledge with local advisors and 'pioneer' farmers, to support their conversion to organic production. This created an efficient and dynamic flow of information where advisors and researchers even learnt from the experienced farmers. Project partners also used a digital platform to share knowledge."

The Operational Group organised training and technical workshops and created demonstration fields, shaping a mini-AKIS around their group. "Seeing the positive outcomes convinced some of the farmers and advisors who had initially been sceptical to

adopt organic practices", Raquel says. "Our advisory services improved, research centres better understood farmers' needs, and the project gave farmers insight into best practices, empowering them and improving their profit."

- ► More information in the <u>EIP-AGRI database</u> and the EIP-AGRI AKIS seminar video
- ► This OG was nominated for the <u>Rural Inspiration</u> <u>Awards 2020</u>.
  - ► The Spanish Institute of Agrifood Research and Technology (IRTA) rewards its researchers for being involved in knowledge exchange activities. Learn more in the <u>video from the EIP-AGRI AKIS seminar</u>.
  - More out-of-the-box ideas to stimulate peer-to-peer knowledge exchange in the EIP-AGRI brochure 'Agricultural Knowledge and Innovation Systems (AKIS) (2018)'

# AKIS: Boosting knowledge and innovation flows across Europe



