



Supporting the Adoption of Pesticide-Reduction Practices: Practical Tools for Advisors and AKIS

13 October 2026

10:00–11:45 CEST



ATTRACTISS
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AdvisoryNetPEST



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Workshop agenda

Time	Session
10:00–10:05	Welcome, introduction and workshop objectives
10:05-10:10	Icebreaker activity
10:10–10:25	Practical case: A pesticide-reduction innovation that is difficult to adopt
10:25–10:40	Interactive reflection: What are the main barriers to adoption?
10:40–10:55	AKIS in practice: Understanding actors, roles, relationships and gaps
10:55–11:05	Practical tools for advisory work: selected ModernAKIS and ATTRACTISS approaches
11:05–11:30	Interactive exercise: Identify key actors and apply network analysis / selected tools to the case
11:30–11:45	Plenary reflection: What can advisors do differently in practice? Key takeaways, next steps



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Systems' Innovation

A joint workshop by

Three EU projects working together to strengthen advisory services and innovation uptake



AdvisoryNetPEST

Reducing pesticide use and risks
through stronger advisory networks.



modern
AKIS

Together for Systems' Innovation

Strengthening knowledge and
innovation systems across Europe.



ATTRACTISS

Empowering Innovation
Support Services

Empowering innovation support
services and co-creation.

Shared goal: practical approaches that help advisors overcome barriers to adoption.



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Welcome, introduction and workshop objectives

Supporting agricultural advisors to address barriers to the adoption and scaling of pesticide-reduction practices.

1

Start from practice

Use a real advisory challenge as the entry point — concrete enough to relate to, without getting lost in technical detail.

2

Look at the system

Use an AKIS perspective to identify relevant actors, relationships, gaps and blind spots around adoption.

3

Apply practical tools

Explore selected approaches from ModernAKIS and ATTRACTISS and apply them to the challenge.

Participant outcome: leave with a practical way forward





Icebreaker

Where are you assisting from?



Add your **name** and **organisation** and place it in your current location

Open the link and let us know:

[https://miro.com/app/board/uXjVHiA4lpE=?share link id=857404195639](https://miro.com/app/board/uXjVHiA4lpE=?share_link_id=857404195639)



Practical case #1:

Variety and Decision Support

BYDV Novel Approach - UK

Dr Duncan Coston, RSK ADAS Ltd senior entomologist



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Today's focus: Barley Yellow Dwarf Virus (BYDV)

- Barley yellow dwarf virus (BYDV) affects yield and quality in Wheat and Barley.
- Transmitted in the autumn by grain aphid (*Sitobion avenae*) and bird cherry-oat aphid (*Rhopalosiphum padi*).
- Risk greater in mild winters.
- Crop more susceptible to BYDV spread up to growth stage 31/32

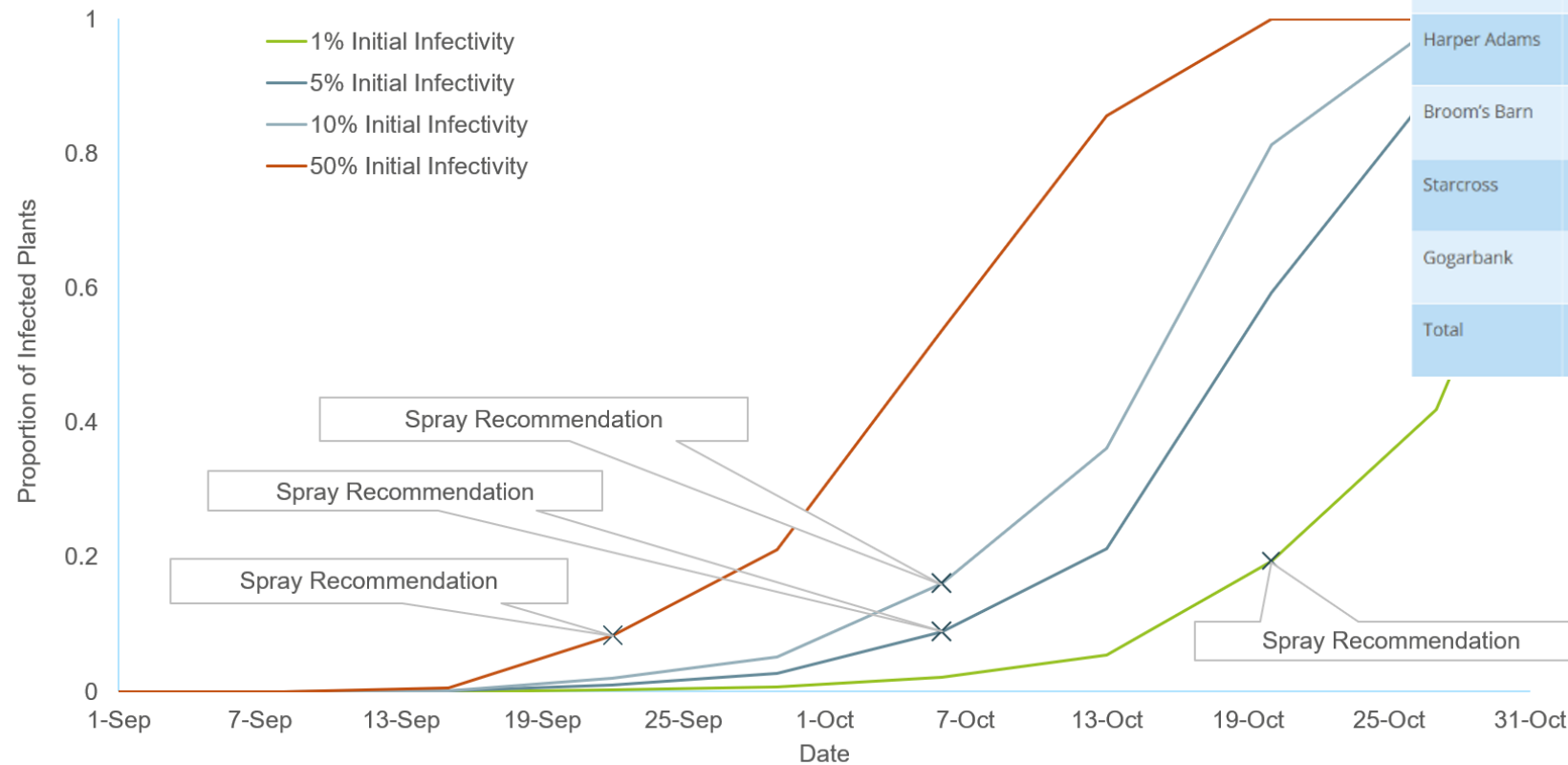




Historical and current control

- Neonicotinoid seed treatments. Banned from 2019
- Foliar insecticides where thresholds are breached, in the UK this is primarily insecticides in the pyrethroid group (IRAC Group 3A)
- Typical is prophylactic insecticide
- Basic Decision Support: T sum to target 2nd generation (available through AHDB and IPMDecisions)
- Resistance to pyrethroids has been demonstrated in *S. avenae* and reduced sensitivity has been detected in *R. padi*.

Novel Approach – Refined DSS



Suction trap	Total tested	BYDV (PAV + MAV)	CYDV (RPV)	Total with virus	Proportion with virus (%)
York	18	6	1	7	39
Harper Adams	11	2	2	4	36
Broom's Barn	0	0	0	0	N/A
Starcross	3	0	0	0	0
Gogarbank	20	8	3	11	55
Total	52	16	6	22	26.1



Novel Approach

- BYDV tolerant/ resistant varieties

AHDB BYDV Tool (AHDB projects: PR616 & 21120241)

Including data on aphid abundance and on virus prevalence

- Linking with AHDB Strategic Farm East activities
- Variety selection
- Decisions Support
- Aphid monitoring (Miranda Bracy Harper Adams PhD candidate)



Novel Approach – Expected outcomes

- Review benefits of pest management with decision support as opposed to prophylactic applications
- Assess yield between varieties and between treatments
- Demonstrate benefits of decisions based on data and reducing prophylactic sprays
- Compare the costs/ benefits of variety selection based on BYDV tolerance
- Work with growers and advisors to build better decisions



UK: DSS for BYDV management in cereals



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CRITERIUM	INDICATOR	INDICATOR SCORE	EVALUATION
Pesticide use reduction level	Reduction of the applied volume of pesticides	high reduction (>25%) moderate reduction (10-25%) low reduction (<10%) no reduction	😊
Effectiveness of controlling the target pest/diseases/weed	Percentage reduction of the target pest/weed infestation or of the damage caused by the target disease	high reduction (>60%) moderate reduction (30-60%) low reduction (<30%) no reduction	😊
Soil quality	Impact on soil compaction	--/-/0/+ / ++	😐
Biodiversity	Impact on aquatic organisms	--/-/0/+ / ++	😊
Water quality	Impact on pesticide losses to surface water (runoff)	--/-/0/+ / ++	😊
Air quality	Impact on pesticide emissions	--/-/0/+ / ++	😊
Energy use	Impact on total energy consumption	--/-/0/+ / ++	😊
Working conditions	Knowledge requirements	high training level moderate training level low training level no training	😐
	Impact on human health	high risk moderate risk low risk no risk	😊
	Risk mitigation on operator/employee exposure	high mitigation moderate mitigation low mitigation no mitigation	😐
Costs	Required level of investment	> EUR 100.000 EUR 50.000 - 100.000 EUR 10.000 - 50.000 < EUR 10.000	😊
Outputs	Impact on yields (produced volumes)	+ 20%	😊
	Impact on crop quality	--/-/0/+ / ++	😊

Impact Highlights

The common approach to managing barley yellow dwarf virus (BYDV) in cereals involves prophylactic applications of pyrethroid insecticides to control the aphid vectors (*Rhopalosiphum padi* and *Sitobion avenae*).

This method does not consider pest pressure or crop tolerance and is linked to negative effects on invertebrate biodiversity, including natural enemies and aquatic organisms.

Increased pesticide use also contributes to soil compaction and impacts earthworms due to greater farm traffic and higher use of fuel and water.

IPM Decision Support Systems offer a more rational, evidence-based alternative, balancing effective disease control with environmental stewardship, reduced input use, and long-term sustainability.

STWG Evaluation:



Not
Satisfying



Not
Satisfying



Moderately
Satisfying



Satisfying



Very Satisfying



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Practical case #2:

Sustainable berries production

Novel Approach - Poland

Paweł Krawiec, Horti Team



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**Berry Farm
Horti Team**
Karczmiska, Poland



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Who And Where We Are?



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Sustainable berries production



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***Our
Production...***



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Annual Two-Day Field Workshops for Berry Growers



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**Raspberry
FACTORY**

**Blueberry
FACTORY**



Raspberry Factory & Blueberry Factory A Practical Model for Implementing Innovations in Integrated Pest Management (IPM)

- **Research** – Testing and evaluating innovative solutions under real growing conditions.
- **Advisory services** – Translating research results into practical recommendations.
- **Growers** – Sharing experience and implementing new technologies.
- **Industry partners** – Providing innovative products, technologies and monitoring tools.

Our approach: Connecting science, advisory services, growers and industry to develop and promote effective, sustainable plant protection solutions.



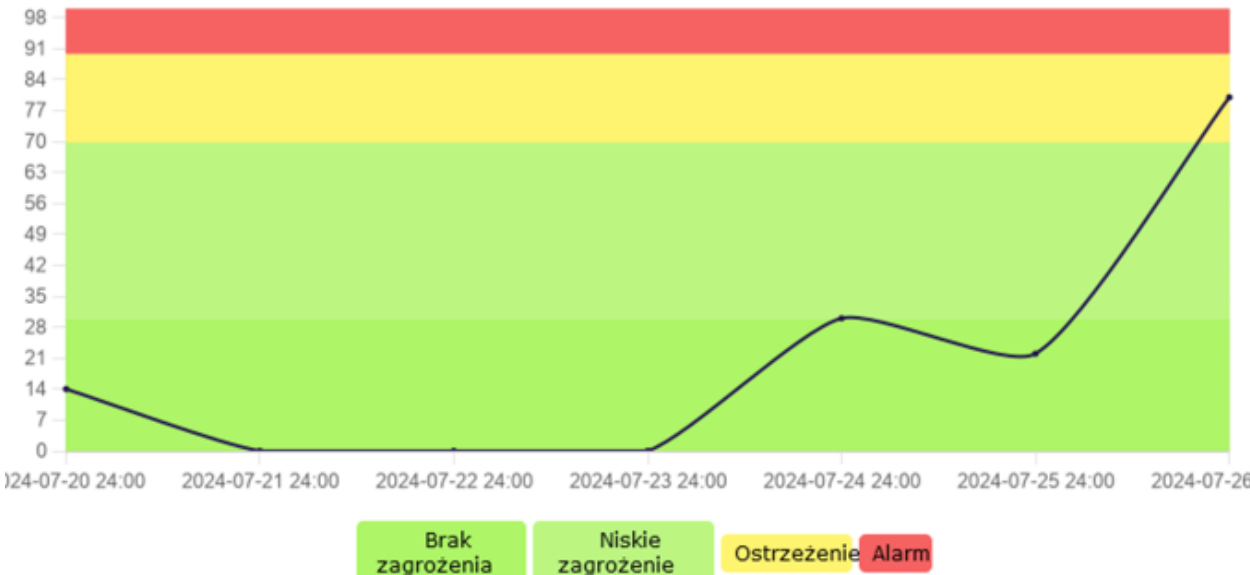
Sustainable berries production

Tool 1 – Disease prediction models

Grey Mould (Botrytis) – Infection Risk (%)

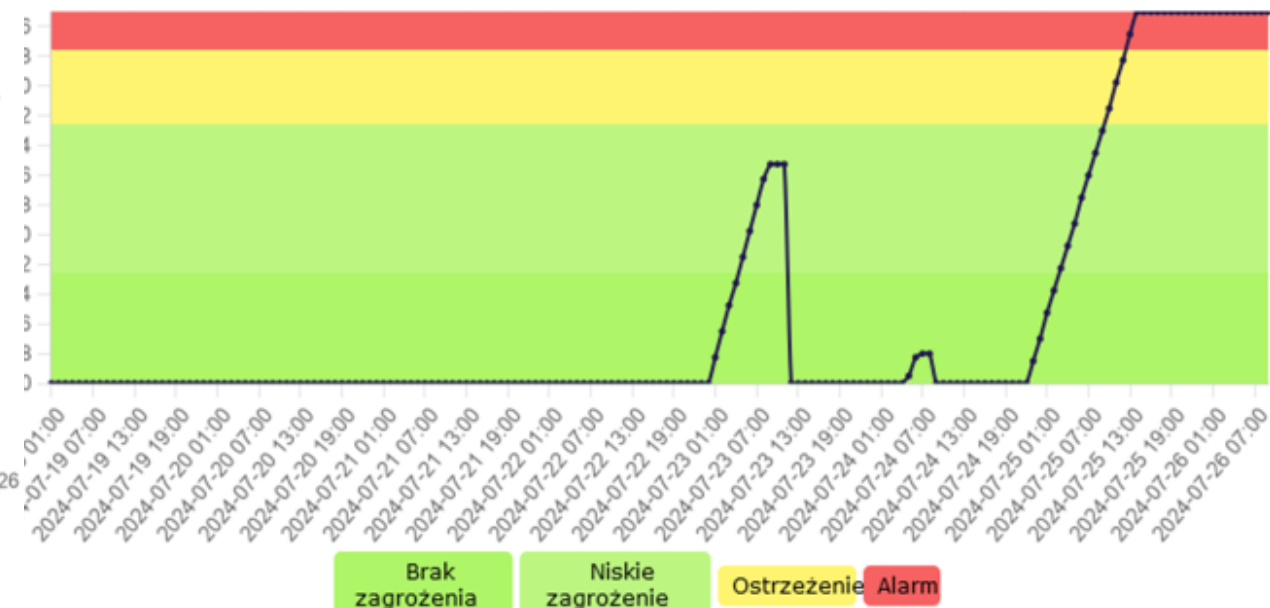
nia i zbiorów - Malina
(PK)

Ryzyko infekcji choroby w [%]



Anthracoze (Colletotrichum spp.) – Infection Risk (%)

Ryzyko infekcji choroby w [%]



Sustainable berries production

Tool 2 – Pest monitoring

Pest Monitoring – Blueberry Gall Midge (*Dasineura oxycoccana*)





Sustainable berries production

Tool 3 – Prediction of Pesticide Active Substance Degradation



ResiYou:
*Intelligent tool for
managing pesticide
residues in plant
protection*

 We have been using it since 2023



ResiYou
by Bayer



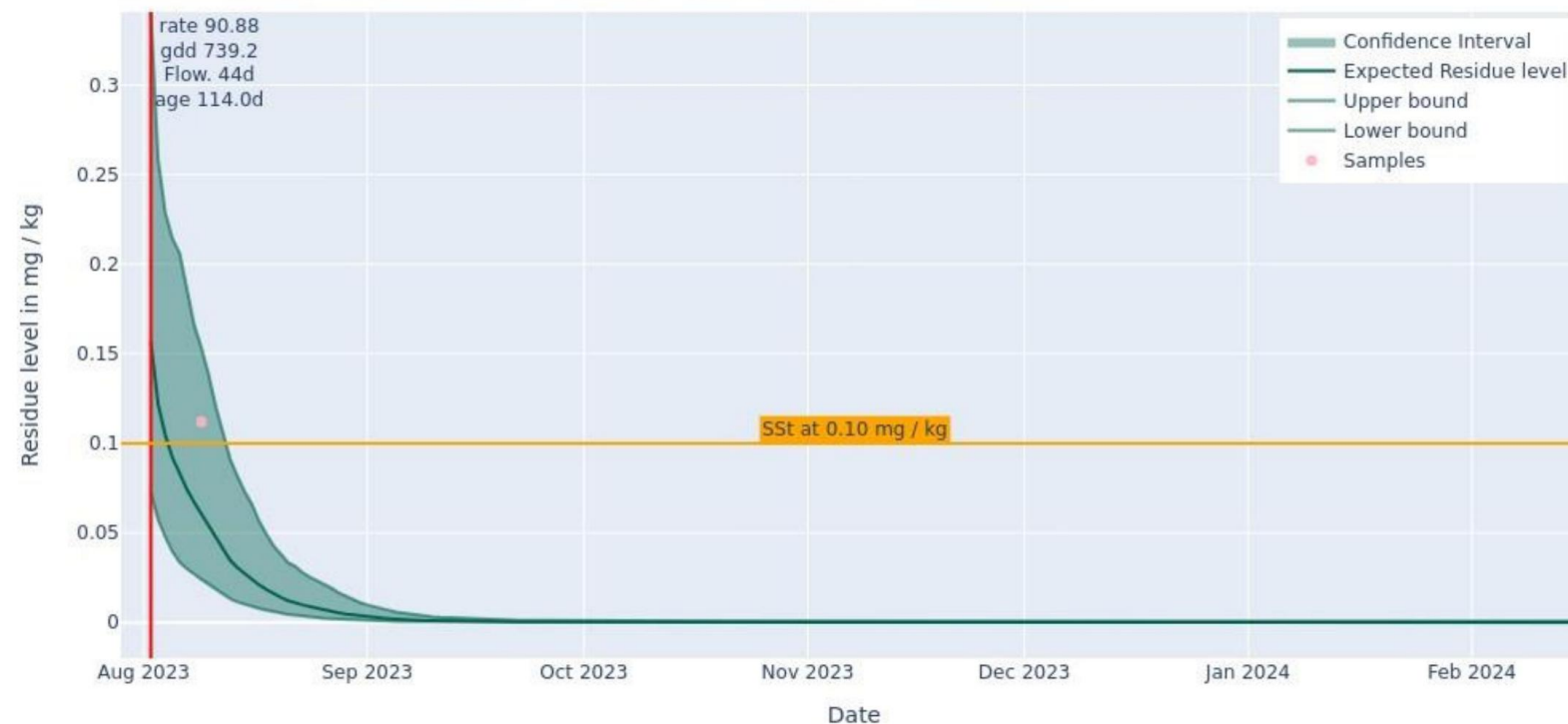
ResiYou Model Testing

Strawberries in Poland (Beta Tests 2023)



Latest Sampling Date(s): 2023/07/17 2023/08/09 2023/08/31 2023/09/27 2023/10/10

Plot: GRPA52, AI: spinosad, Var: san andreas, Avg. dose: 120.0





Sustainable berries production

Tool 4 – Biological Plant Protection

Use of Biological and Natural-Origin Plant Protection Products in Raspberry and Blueberry Production

Grey Mould Control (*Botrytis cinerea*)

Product	Active ingredient
Serenade ASO	Bacillus amyloliquefaciens
Botector	Aureobasidium pullulans
Polyversum WP	Pythium oligandrum M1

Spider Mite Control (*Tetranychus urticae*)

Product / Biological agent	Active ingredient / Type
PREV-AM	Orange oil
Naturalis	Beauveria bassiana
Phytoseiulus persimilis	Predatory mite
Neoseiulus californicus	Predatory mite

Interactive reflection: What are the main barriers to adoption?

People & behaviour

Resistance, trust, perceived risk, willingness to try.

Advisory challenges

Knowledge, communication, facilitation, confidence to support change.

System support

Funding, institutional support, policies, organisational constraints.

Missing connections

Actors that are absent, weak links, poor coordination or blind spots.

Key transition question: Who can influence these barriers — and who are we currently missing?

AKIS in practice: Understanding actors, roles, relationships and gaps

ModernAKIS contribution



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The modernAKIS Project

Modernise agriculture by strengthening **the capacities of AKIS actors** to build more coherent, effective, and efficient AKIS systems.

AKIS Network,
CoPs & ccCoPs

AKIS Practices

Toolkit

Training

AKIS in Play!





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AKIS in Practice: Understanding actors, roles, relationships, and gaps

akisconnect.eu

EN ▾

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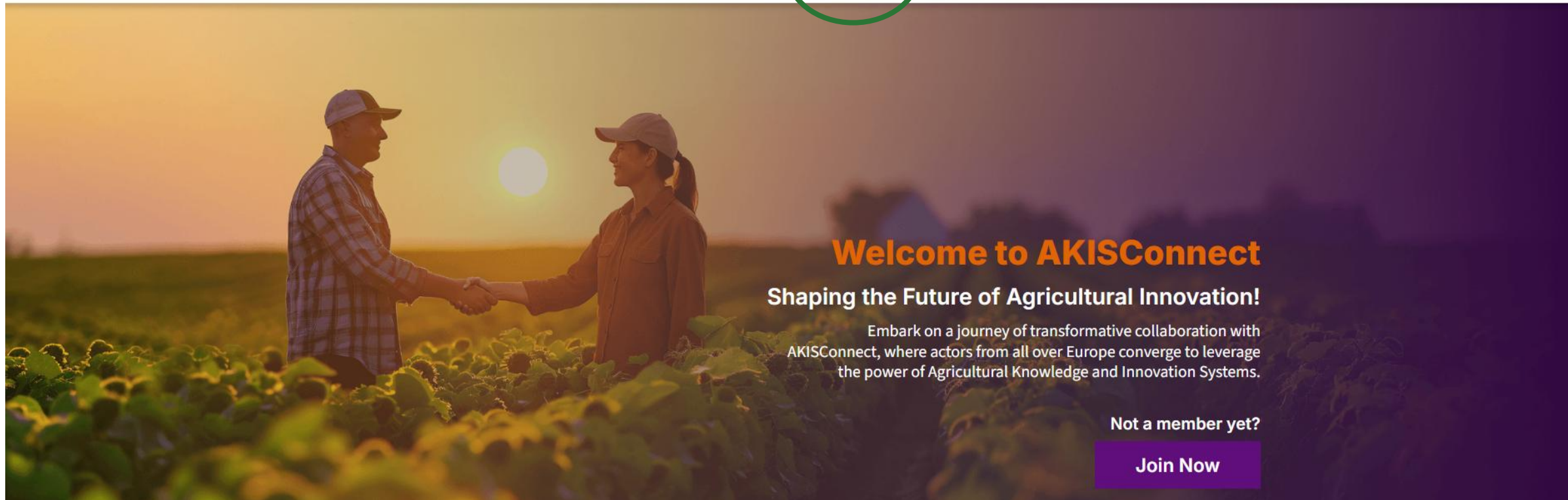
Home

About Us

Network

Learn & Apply

Community forum



Welcome to AKISConnect

Shaping the Future of Agricultural Innovation!

Embark on a journey of transformative collaboration with AKISConnect, where actors from all over Europe converge to leverage the power of Agricultural Knowledge and Innovation Systems.

Not a member yet?

Join Now



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Training



Module 1: The need for systems approaches in agriculture and interrelated fields

Module 1, "The Need for Systems Approaches in Agriculture and Interrelated Fields," introduces the importance of using systems thinking to address modern agricultural challenges. In 25 minutes, you'll learn about the components of a system, the concept of systems thinking, and how this approach can help tackle complex problems in agriculture and related fields.

[Access Module](#)

[Get Certification](#)

“A system consists of **elements** and **actors**, which have interconnected **relationships**. It includes subsystems and a boundary, which are all influenced by the environment”.



When elements are aware of the state or behaviour of other elements, they can react.





AKIS in Play!

AKIS in Play

Our training modules on Agricultural Knowledge and Innovation Systems (AKIS) offer a comprehensive understanding of the complexities inherent in agricultural systems. We invite you to explore the challenges facing modern agriculture, delve into the dynamics of AKIS ecosystem, and learn the importance and process of diagnosing AKIS for effective problem-solving.



modernAKIS Role-Play Game

The modernAKIS Role-Play Game was designed to promote understanding of knowledge flows and knowledge-transfer among different AKIS actors and to generate innovative proposals in the context of specific (fictitious but data-based) countries...

Duration: Adaptable, but worth to dedicate at least one hour and a half

Format: In-person / Online

No. Players: 8 Minimum (7 Players + 1 Moderator)

[Access game](#)

Knowledge Paths

Welcome to the Knowledge Flow Challenge! This exciting, team-based game places you in the heart of the Agricultural Knowledge and Innovation System (AKIS), where collaboration and strategy are essential...

Duration: Adaptable, but worth to dedicate at least one hour and a half

Format: In-person / Online

No. Players: 8 (7 Players + 1 Moderator)

[Access game](#)

Sticking Barriers

An engaging and collaborative game designed to help participants identify, analyze, and address barriers within the Agricultural Knowledge and Innovation System (AKIS). Strengthen connections, foster innovation, and improve agricultural systems through teamwork and shared insights...

Duration: Adaptable, but worth to dedicate at least one hour

Format: In-person

No. Players: Adaptable

[Access game](#)

mAKIS Strategy Builder

The AKIS Strategy Game is a collaborative, experiential learning activity where participants work together to design a complete Agricultural Knowledge and Innovation Systems (AKIS) strategy. Over the course of play, each team must navigate a series of interconnected scenarios...

Duration: Adaptable, but worth to dedicate at least one hour and a half

Format: In-person

No. Players: 7 participants (6 Players + 1 Moderator)

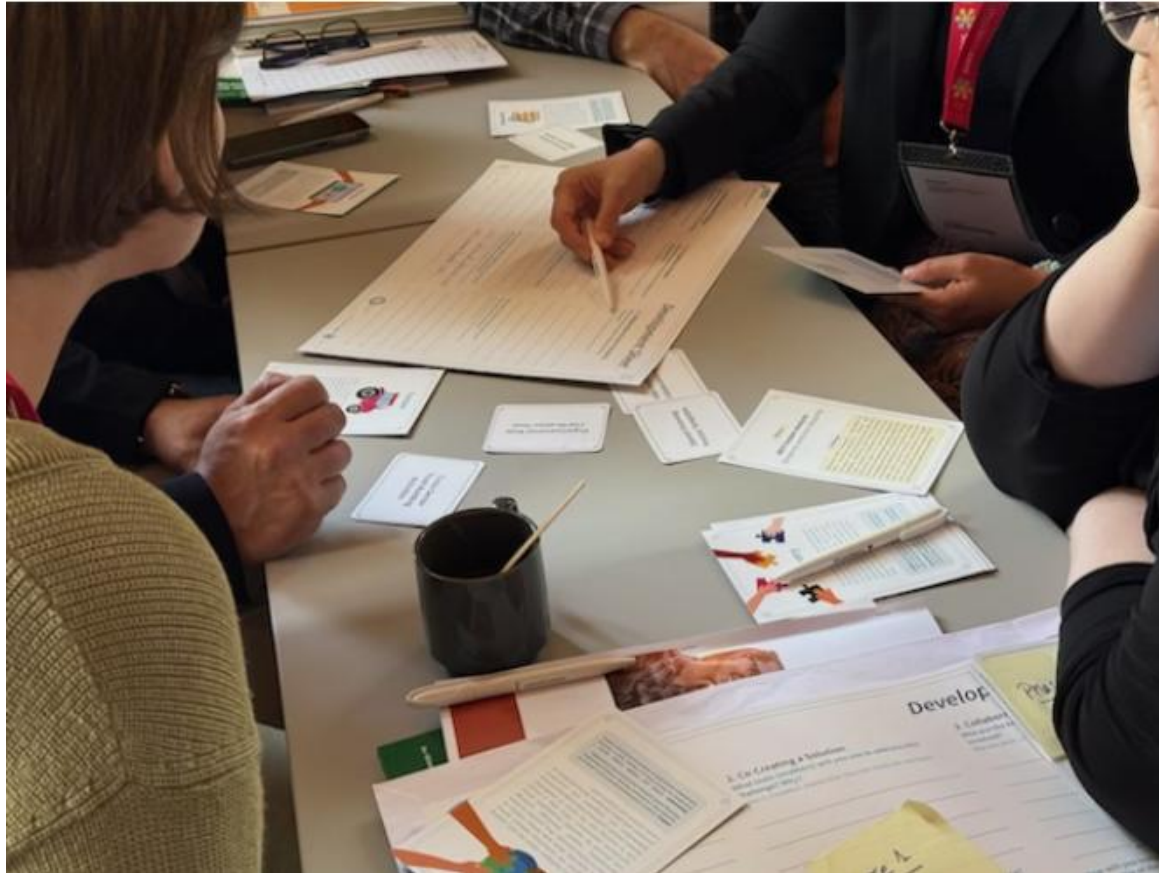
[Access game](#)

Translations
available
upon request



AKIS in Practice: Understanding actors, roles, relationships, and gaps

AKIS Strategy Builder Game



Collaborative game to build an AKIS strategy through its four phases:

1. System diagnosis and actor mapping
2. Strategy design
3. Implementation
4. Monitoring & Evaluation

Players represent key roles in an AKIS: Farmers, Advisors, Researchers, Policymakers, Private Sector, and NGOs.

Teams navigate complex (fictional but realistic) challenges.

Practical tools for advisory work: selected ModernAKIS and ATTRACTISS approaches

ModernAKIS + ATTRACTISS contribution



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ATTRACTISS, what is this project?

To improve and embed
**competencies, approaches,
instruments and governance
models** for Innovation Support
Services (ISS) and Member States
AKIS



to enable **individual grassroots
innovative ideas to come to fruition
and generate solutions** for the
transition process towards more
sustainable agriculture and forestry.

EU wide
network
in **27**
Member
States

600
network
members

+100
workshops,
webinars
and other
events

6
exchange
visits

430
ISS
providers
trained

200
Practice
Abstracts

50
tools for
knowledg
e
exchange

Toolbox
100
support
methods &
tools

ISS Tools & Methods

In this dedicated section, we present an array of tools and methods specifically tailored for and designed to empower ISS providers in delivering services to farmers, agricultural extension workers, and other stakeholders within the agricultural domain. These resources are designed to empower ISS providers in delivering services to farmers, agricultural extension workers, and other stakeholders within the agricultural domain. These resources are designed to empower ISS providers in delivering services to farmers, agricultural extension workers, and other stakeholders within the agricultural domain. These resources are designed to empower ISS providers in delivering services to farmers, agricultural extension workers, and other stakeholders within the agricultural domain. These resources are designed to empower ISS providers in delivering services to farmers, agricultural extension workers, and other stakeholders within the agricultural domain.

Filters

[Clear filters](#)

Phases

[Support to Farmers](#)[Preparation Time](#)[Execution Time](#)

Advisory Board Method



The Advisory Board Method brings together gatekeepers and non-gatekeepers to create a balanced farm management strategy and to gain new insights into managing the farm and how to develop these into a concrete plan.. Gatekeepers provide strategic guidance, while non-gatekeepers offer practical insight...

Innovation Phases: Inspiration → Planning

Analysis Wheel

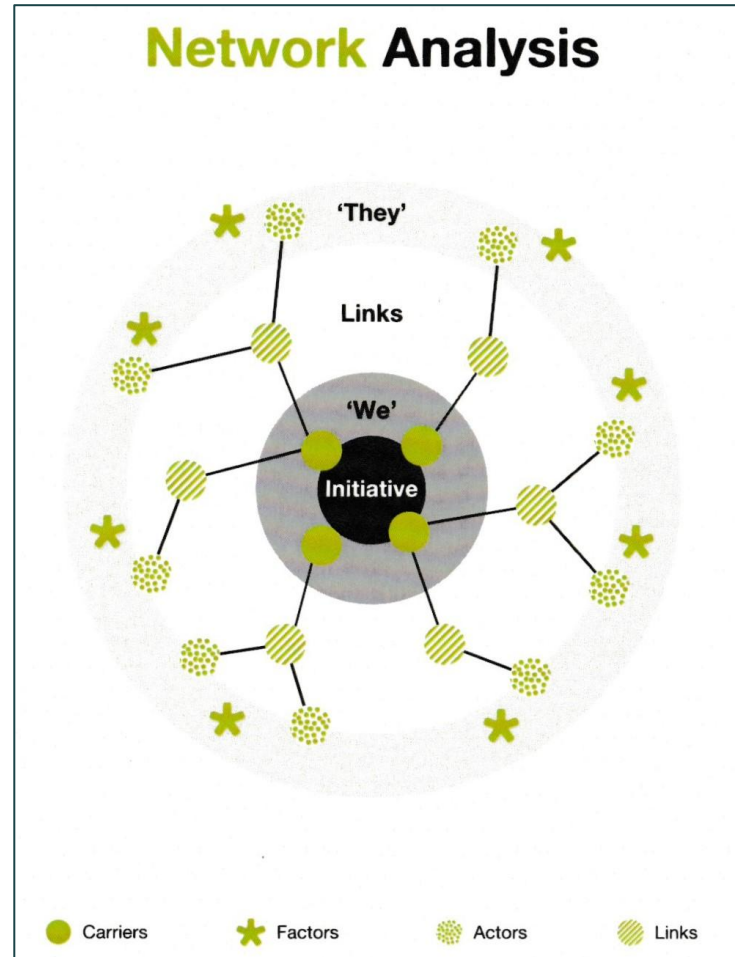


To analyse and reflect on your own situation.

The Analysis Wheel is a practical tool to evaluate complex situations and guide strategic decisions. Start by visualising the seven key elements—Initial Situation, Personal Wishes, Opportunities and Resources, Strengths, Obstacles and Dangers, Future Trends, and Environmental Factors—in a circular way...

Innovation Phases: Inspiration → Planning,
Planning → Development

The Network Analysis tool



● Carriers

★ Factors

● Actors

● Links

Project
core group

Needs
Actions

People that
can help
address the
needs

People who
can connect
you with
“actors”

<https://akisconnect.eu/en/iss-tools-and-methods/tool-details?id=12&name=Network+Analysis>



Interactive exercise: Identify key actors and apply network analysis / selected tools

1 Map key actors

Who matters to the problem?

2 Map relationships

Who interacts with whom — and how?

3 Find gaps & leverage points

Where are the blind spots or missing connections?

4 Choose one practical action

What could an advisor do differently next?

Group output

1 simple actor/network map • 1 leverage point • 1 practical advisory action

Plenary reflection: What can advisors do differently in practice?

1

What changed?

What did the network / AKIS perspective reveal that was not obvious at first?

2

Who would you involve?

Which actor would you approach, connect, or bring into the conversation?

3

What would you try next?

What is one realistic advisory action that could move the situation forward?

One sentence per group: “The next thing an advisor could do is...”



What we want participants to leave with

1 Look beyond the immediate advisory relationship

Adoption barriers often involve a wider set of actors.

2 Diagnose the wider AKIS

Make actors, relationships, gaps and blind spots visible.

3 Use practical tools

Choose a method that helps move from diagnosis to action.

4 Define one practical next step

Turn the discussion into something an advisor can try.

5 Resources

Relevant AdvisoryNetPEST / ModernAKIS / ATTRACTISS resources and tools.

6 Follow-up

Participants can test, reflect and share experience after the workshop.





Resources & further reading

PROJECT WEBSITES

AdvisoryNetPEST

Novel approaches and resources to reduce pesticide use and risks.

<https://advisorynetpest.eu>

modernAKIS

Resources for understanding and strengthening AKIS.

<https://modernakis.eu/>

ATTRACTISS

Methods and tools for innovation support services.

<https://attractiss.eu/>

PLATFORMS & WIDER RESOURCES

AKISConnect

Explore AKIS resources, tools, methods and the European community.

<https://akisconnect.eu/>

AdvisoryAgriHub

A shared knowledge hub for agricultural and forestry advisors.

<https://www.advisoryagrihub.eu/>

Thank you!



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