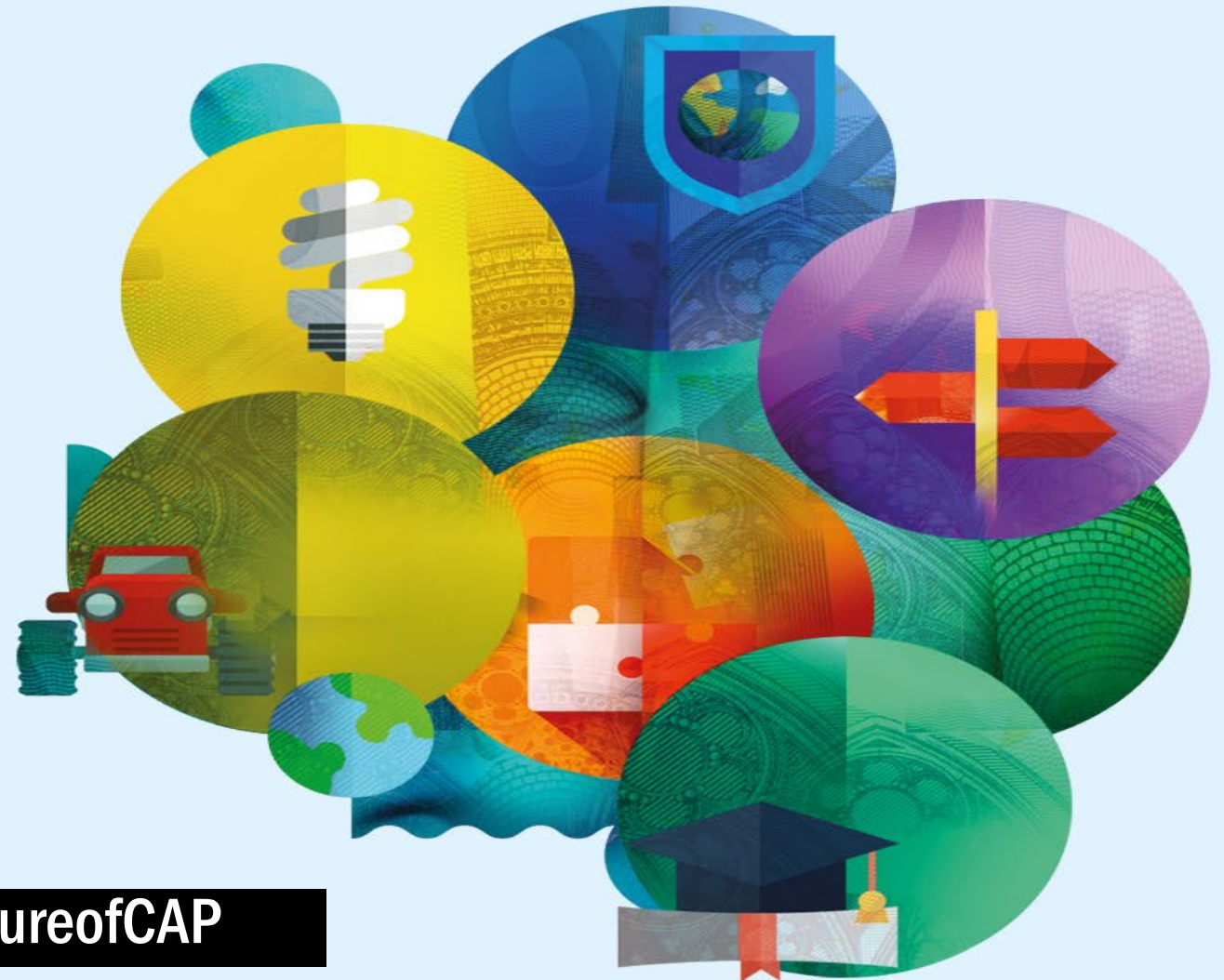




HORIZON EUROPE and the COMMON AGRICULTURAL POLICY Post-2020

The Multi-Actor Approach within AKIS

Inge Van Oost - DG AGRI
Unit B2 – Research & Innovation
Ghent, 23 September 2019



#FutureofCAP

Key elements of the Multi-actor approach

The most important **interactive innovation principles** are (as in EIP OGS):

1. To **focus on end-users' problems/opportunities** and develop innovative solutions which cover **real needs**. End-users like farmers, foresters or businesses will be more motivated to use the project results, because they were incorporated in generating them and therefore feel "**co-ownership**".
2. To bring together the **most relevant partners with the needed complementary type of knowledge** which helps solving problems and tackling opportunities e.g.: farmers, advisors, researchers, suppliers, processors, agencies and/or other actors.

Key elements of the Multi-actor approach

- Partners **co-operate** and co-innovate **in project activities from the beginning till the end (co-decision)**. **End-users (OF THE PROJECT RESULTS)** and practitioners are to be involved, not as a study-object, but in view of using their entrepreneurial skills and tacit knowledge for developing solutions. **Building blocks for innovation are expected to come from practice as well as from science** and intermediaries. **End-users' co-ownership** of results **speeds up the acceptance and dissemination of new ideas**
- The project should result in practical knowledge made easily understandable and accessible, which **feeds into the existing dissemination channels most consulted by end-users in countries**.

Key elements of the Multi-actor approach

5. For **EU wide communication**, this knowledge should also be assembled into a substantial number of '**practice abstracts**' in the **EIP common format**
6. **Connect with** regional and national innovative projects "**EIP Operational Groups**" working on similar topics. You can find them with the help of the EIP website: <https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-operational-groups-assessment-2018> (600 OGs in an Excel-file)

**Details on MAA in Horizon 2020 Work Programme p. 9-11,
and in Horizon Europe work programmes**

EIP-AGRI brochure on multi-actor projects:

<https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-brochure-horizon-2020-multi-actor>

How to build a successful Horizon 2020 multi-actor project?



Target **real-life needs, problems or opportunities**



Choose consortium partners with **complementary types of knowledge and skills** (for "cross-fertilisation")



including **farmers, foresters or other end-users** to benefit from their entrepreneurial skills



European
Commission

How to build a successful Horizon 2020 multi-actor project?



Bridge the gap between research and practice **by facilitating discussions**



Involve interactive innovation groups such as **EIP-AGRI Operational Groups**



All partners must **co-create and co-decide throughout the project**

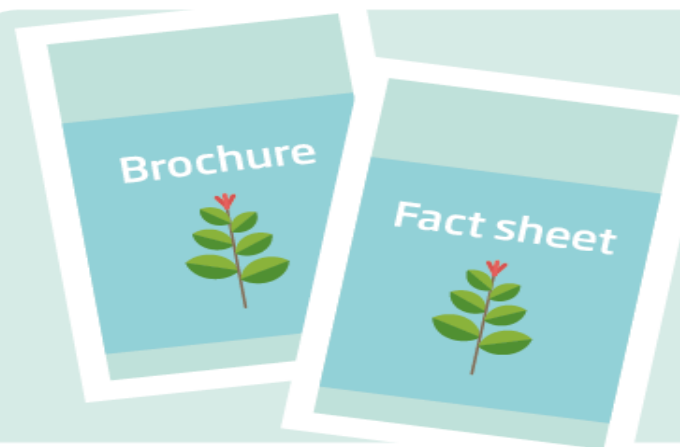


European
Commission

How to build a successful Horizon 2020 multi-actor project?



Illustrate how the project **complements existing research and best practices**



Produce practical information which feeds into the most common **existing dissemination channels** ...



... and write easily understandable **practice abstracts** in the common **EIP format**

EIP Common Format

- **Short and easily understandable title (native and English) (one key sentence, max 150 char.)**
- **Short practice info in easily understandable language (max 1500 char.)**
= 'practice abstracts' (PAs):
 - Objective of the project in English and native language
 - Short summary for practitioners in native language on the outcomes (1000-1500 characters) (in English optional but preferred)
 - Main results/outcomes of the activity (expected or final)
 - The main practical recommendation(s)
- **Contact data:** Project coordinator (+ contact details), text editor, project partners (+ address, e-mail, telephone), geographical location, project period, funding source & budget, link to project website and to a website where info stays long-term available

Practice Abstract – an example from Fertinnowa

Application of zeolite to reduce nitrates concentration in growing media and soil

Areas like the Albenga plain in Liguria Region (Italy) are classified as “areas vulnerable to nitrates” and are under specific legislation to limit nitrate contamination of superficial and deep water bodies.

The addition of zeolite to the source of nitrogen can improve the nitrogen use efficiency and reduce the environmental impact caused by nitrates leaching. Thanks to the specific atomic structure of clinoptilolite (a kind of zeolite) nitrifying bacteria are stopped from entering the tiny pores of the clinoptilolite. The ammonium is held internally on the cation-exchange sites and is not likely to be leached out easily as water passes through. As a consequence, nitrification and thus nitrate leaching is reduced. Secondly, zeolites improve nitrogen use efficiency because they act as a medium that slowly releases fertilisers.

Trials in the Albenga area have demonstrated that the addition of zeolite to the soil substrate both in open field (vegetables) and in greenhouse (ornamentals) lead to a reduction of nitrates concentration in the substrate.

For the best result, add clinoptilolite at a rate of 3% weight/weight when preparing the substrate for crop cultivation:

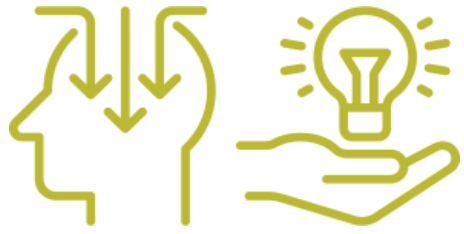
- for potted plants: mixed in the peat based substrate (normally added with slow release fertiliser);
- for open field cultivation: mixed in the first 20-30 cm of soil through tillage.



How? Learn from experience in calls 2014-2018

A short film explaining how a multi-actor project can work (Hennovation):

<https://youtu.be/mVsW4--ex0M>



The AKIS at the heart of the agricultural innovation ecosystem

What is an Agricultural Knowledge and Innovation System (AKIS)?

What: *AKIS is the organisation and interaction of persons, organisations and institutions who **use** and **produce knowledge and innovation** for agriculture **and interrelated fields.** (def)*

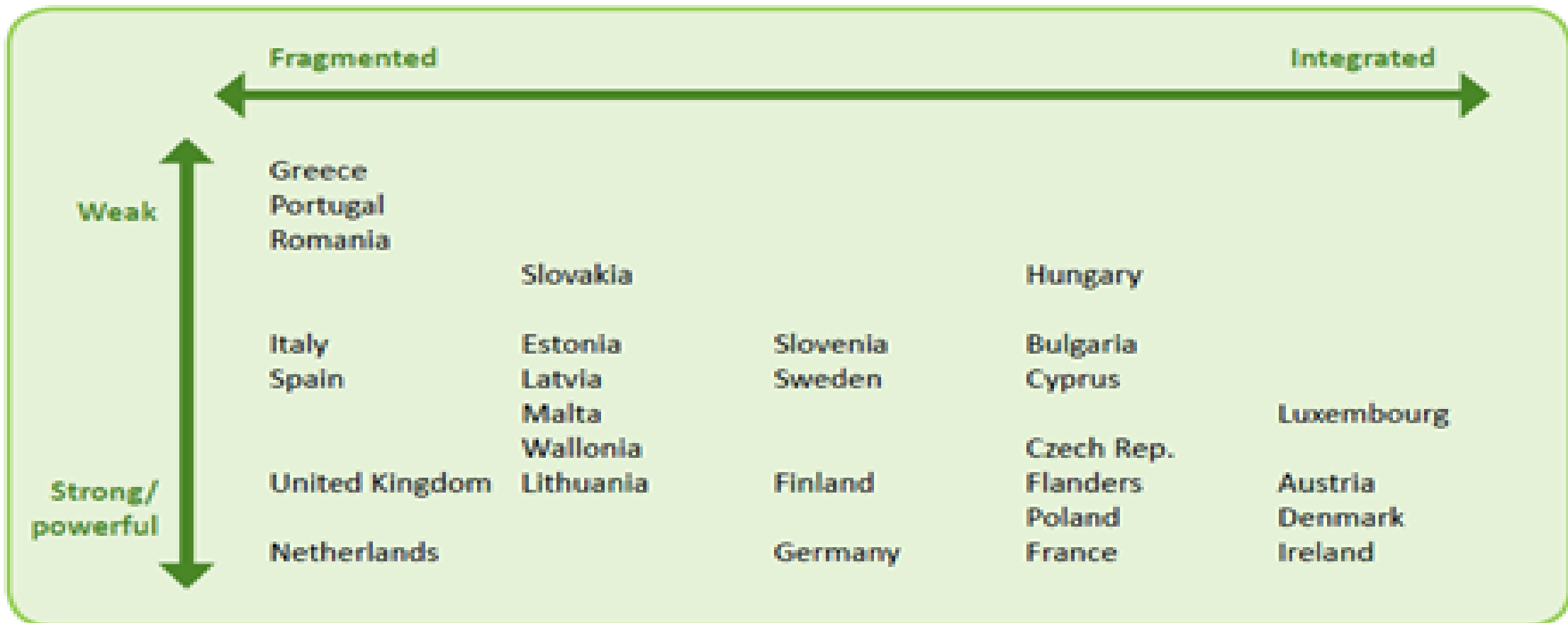
Who: *The main players of the AKIS are: farmers/foresters, advisors, researchers, (farmer) organisations, NGOs, networks, retailers, media, services, various ministries...: they all produce and need knowledge!*

Why: *The aim is to create a **regional/national innovation ecosystem** by enhancing **knowledge flows** between the AKIS players as well as strengthening links between research and practice.*

Brief "What is AKIS": https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/building-stronger-akis_en.pdf

PROAKIS study: Characterising MS' AKIS

An overview (as of 2014)



Provisions on modernisation in the CAP Plan Regulation

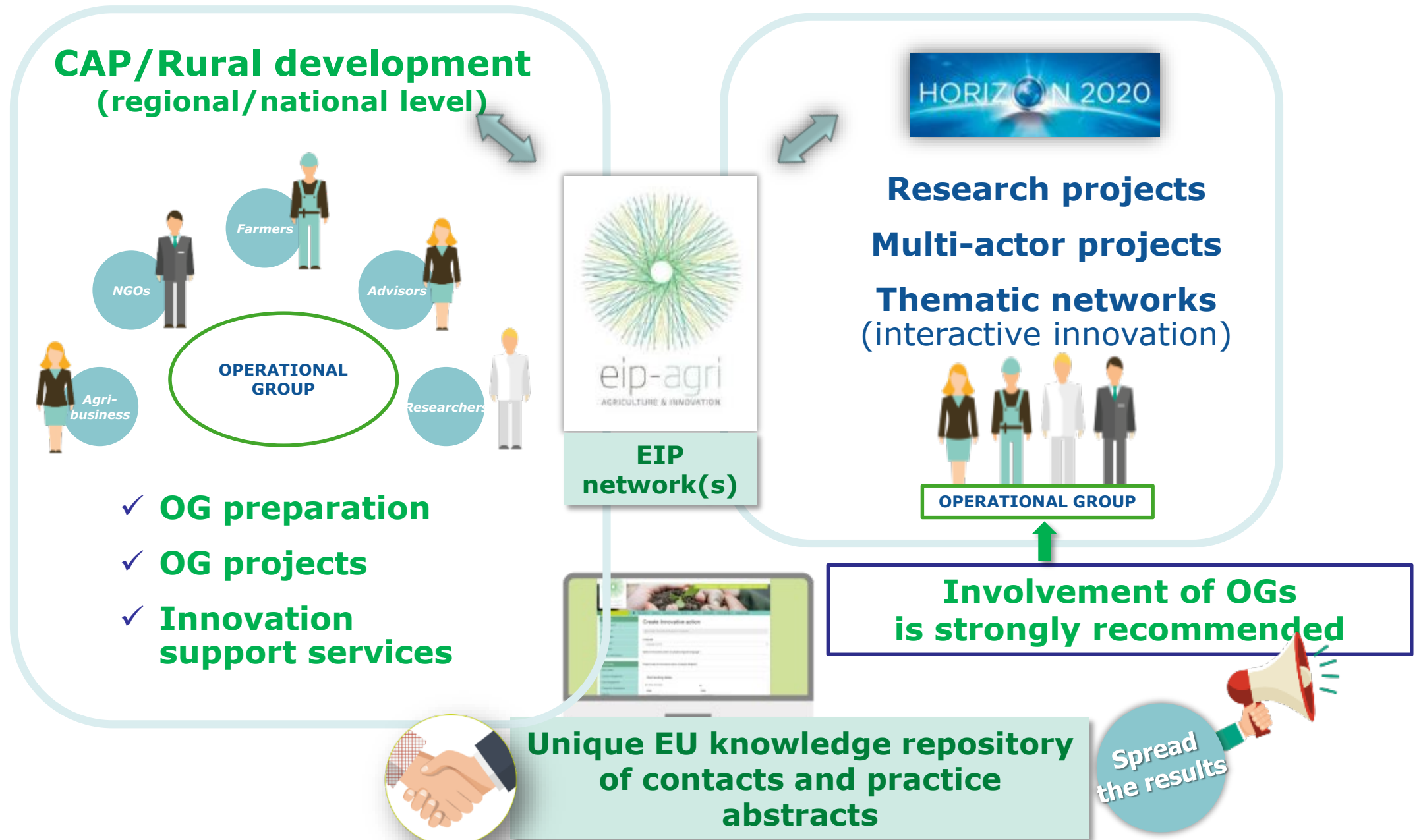
**From funding innovative projects.....
.....to a whole innovation ecosystem**

The EIP-AGRI in short



- 2010: European Innovation Partnerships want to speed up innovation through **cooperation and linking** existing policies and instruments
- EIP "Agricultural productivity and sustainability" launched in 2012: "more and better from less", "ideas put into practice with success", impact by end-users becoming "actors" and motivated
- The EIP-AGRI applies an overarching "*Open innovation*" concept based on the **interactive innovation model** (applied in RD Operational Groups and H2020 Multi-Actor projects):
 - Collaboration between various actors to make **best use of complementary types of knowledge** (scientific, practical, organisational, etc) in view of **co-creation** and diffusion of solutions/opportunities **ready to implement in practice.**
- **EU wide EIP network** linking actors: communication, partnering, dissemination, knowledge flows and collecting practice needs (*Open science*)

Connecting policies: the bigger EIP picture



EIP-AGRI – Where are we?

- ✓ *27 Member States, 98 rural development programmes implementing the EIP*
- ✓ *Around 3 200 OGs planned in 2014-2020; around 1000 OGs already running*
- ✓ *Around 180 H2020 multi-actor projects, including 34 thematic networks*
- ✓ *A growing and thriving network*

An increasing volume of practice-oriented knowledge !



www.eip-agri.eu



CAP post 2020/ THE 9 SPECIFIC OBJECTIVES

**Cross-cutting objective
KNOWLEDGE & INNOVATION**



Integrated approach for modernisation, innovation and knowledge flows: Overview of relevant AKIS provisions

Art 5
Cross-cutting objective of modernisation, knowledge sharing, innovation and digitalisation



Strategic approach to plan CAP interventions

Art 102 Modernisation in CAP Strategic Plans:
Well-functioning AKIS:
research + advisors + CAP networks +... working togetherand digitalisation

Tools = targeted CAP interventions to support the strategy:

Art 72
Funding for knowledge exchange, advice and information

Art 71
Cooperation:
Funding for preparing and implementing EIP OG projects

Art 13
Details on Advice and Innovation support to be given

Art 114
Details on EIP and OGs,
Interactive innovation model

Art 113
CAP networks:
Fostering innovation and knowledge exchange

CAP Strategic AKIS Plans (Art.102 on modernisation)

The CAP Strategic Plans shall contain:

- 1.Their contribution to the cross-cutting general objective related to fostering and sharing of knowledge, innovation and digitisation, notably by describing:
 - **The organisational set-up** of the (*existing*) **AKIS** (=> *SWOT*)
 - How advisors, researchers and **CAP networks** will work together **within the framework of the** (*future*) **AKIS**, and
 - **How advice and innovation support services are provided**
- 2.A description of the strategy for the **development of digital technologies** in agriculture and rural areas

Art 13 and 72: Farm advice organised within the AKIS structures in CAP Strategic plans

- ✓ *Advising farmers and other beneficiaries of CAP support to be included in the CAP plans*
- ✓ **All advisors shall be integrated in the AKIS in an inclusive way, to be able to cover economic, environmental and social dimensions and to deliver up-to-date technological and scientific information developed by R&I**
- ✓ *Advisors must be impartial and be able to provide Innovation support, in particular for preparing and implementing Operational Group projects of the EIP AGRI*

CAP AKIS Plans: potential to strengthen AKIS by:

(SWG SCAR-AKIS Athens, Tallinn) <https://scar-europe.org/index.php/akis-documents>

1. **Enhancing knowledge flows and strengthening links between research and practice:** incentivise researchers for their impact beyond academia, e.g. in their careers, by making practice ready outputs, meet practitioners frequently/thematic events, organise on-farm demonstrations where farmers and researchers meet and talk, education for researchers on interactive innovation approaches etc
2. **Strengthening farm advisory services within MS' AKISs:** capturing and sharing farmers' needs, acting as innovation brokers/facilitators, participating in and sharing knowledge from OG innovative projects, advisors' training and thematic events to update knowledge, cross-visits (learning peer-to-peer), spend time with researchers,...
3. **Incentivising interactive innovation projects (OGs, H2020 MA):** help connecting actors, facilitating cross-border and transnational calls/knowledge exchange, establish innovation support services to develop projects and capture farmers' foresters needs and innovative ideas, support intergenerational renewal by experts' collaboration...
4. **Support digital transition in agriculture:** EIP OGs on digital innovation, build and use repositories with agricultural data for multi-purposes, digital skills development,...

CAP post 2020 – AKIS, advice and innovation – state of play negotiations (1)

Council Working Party: discussions ongoing under FI presidency:

MS are overall happy with Commission proposal, including:

- Continuation of support for preparing and implementing OG innovative projects, as well as for EIP networking

Principles of interactive innovation (same as in EIP guidelines): detailed in Art 114

1) focus on practical farmers' needs

2) co-creation and co-decision all along the project

3) complementary knowledge in the OG necessary: farmers' involvement is key

⇒ Do not underestimate the entrepreneurial creativity of end-users in innovation projects

(Idem Horizon 2020 WP page 9-11, and Horizon Europe)

- Higher than normal EU co-funding for OG projects (**up to 80%**), OGs in average 150-200.000 euro
- Possibility of **advance payments** for OG projects (**up to 50%**)

CAP post 2020 – AKIS, advice and innovation – state of play negotiations (2)

- **Obligation to integrate and update advisors within the AKIS (Art 13)**
- **Obligation and funding to provide innovation support (Art 13)**
- Broad support for types of knowledge exchange and advice (Art 72)

A number of further improvements since June 1018:

Art 3: definition of AKIS

Art 72: linking the **support for advice with coherent AKIS plans**

Art 113: introduction of the **possibility for existing OGs to cooperate**,
funded by Technical Assistance or Art 72 => CROSS-FERTILISATION

Art 114: introduction of **funding for cross-border OG projects**

European Parliament: voted compromise amendments on 2/4/2019: no substantial changes

How can CAP networks help strengthening innovation and knowledge exchange on all 9 CAP objectives?

1. Collecting and sharing outcomes of 3200+ EIP OGs from current CAP
2. Collecting and sharing outcomes of 180 H2020 multi-actor projects + Horizon Europe
3. EIP website + knowledge reservoirs being prepared under H2020
4. **Connecting OGs with Horizon** projects = great added value
5. All this **material provides great input for local AKIS actors** (farmers, advisors, businesses, researchers,..): training for advisors and farmers, peer-to-peer events, website, e-learning, ISS etc
6. Organising **events to link and network AKIS actors** for future cooperation
7. **Start now**, already testing future interventions and **brainstorm in AKIS coordination platforms**

Improved AKISs will form an integrated approach supporting modernisation, innovation and knowledge flows



Researchers

AKIS

Advisers



Education

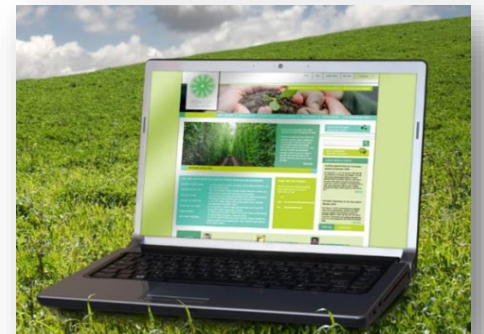
Farmer

Businesses

at the centre of the integrated Agricultural Knowledge and Innovation System (AKIS) to support modernisation, innovation and knowledge flows

Organisations

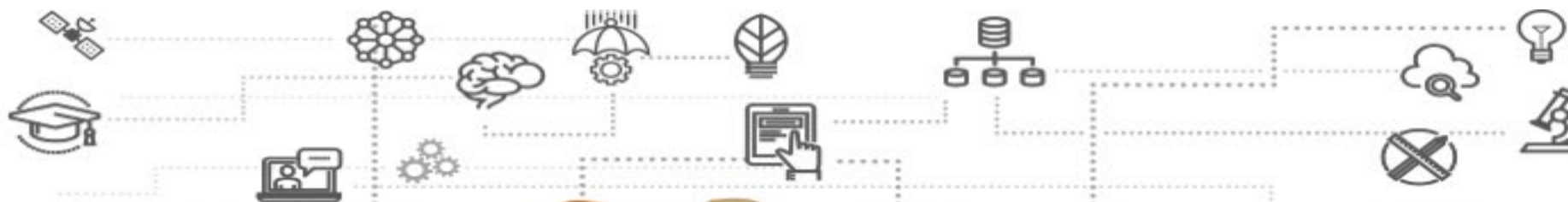
Media





TOOLBOX FOR A KNOWLEDGE- BASED AGRICULTURE

- **Cross-cutting objective** on knowledge, innovation and digitalisation (CAP Art. 5)
- Each **CAP strategic plan** will include a section on how to stimulate the exchange of knowledge and innovation & digital technologies in agriculture (CAP Art. 102)
- **Strengthening of MSs'/regions'** Agricultural Knowledge and Innovation Systems (**AKIS**)
- **Support** for advice, training, innovation and knowledge exchange in Rural Development (CAP Art. 71,72,13,...)
- Specific budget of EUR 10 billion in **Horizon Europe** for food, agriculture, rural development and the bio-economy.



➤ Continuation of the agricultural **European Innovation Partnership** (CAP Art 113, 114)



Future post 2020 - Further info and context

Brief "What is AKIS": https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/building-stronger-akis_en.pdf

- **EIP seminar on AKIS:**

<https://ec.europa.eu/eip/agriculture/event/eip-agri-seminar-promoting-creativity-and-learning>

- **EIP brochure on AKIS:**

<https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-brochure-agricultural-knowledge-and>

- **SWG SCAR-AKIS Policy Brief on the Future of Advisory Services:**

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/policy_brief_on_the_future_of_advisory_services_scar_akis_06102017.pdf

Handover AKIS4 report to Commissioner Hogan on 26 Sep 2019

inge van oost @ingevanoost1 · 26 sep.

A big thanks to the SCAR AKIS Strategic Working Group ❤️. The report summarises best AKIS practices from all over Europe thanks to your readiness to share your country's experiences and views. What a collective intelligence and enthusiasm you all have!

Phil Hogan @PhilHoganEU · 26 sep.

How can we get farmers & rural communities the information & advice they need to build a modern, innovative & sustainable future? The 4th Agriculture Knowledge & Innovation Systems report is a great place to start! An important moment for the #FutureofCAP europa.eu/!my44Tp



EU Agriculture AGRI @EUAgri

Follow

Today, @PhilHoganEU welcomed the 4th report on agricultural knowledge and innovation systems (AKIS)!

We should involve all actors, from farmers to researchers, in developing knowledge and innovation. This is the only way we can meet today and tomorrow's challenges!

#FutureofCAP





34 H2020 bottom-up Thematic Networks so far(1)

calls 2014-2016 – **a complementary set of themes (sectors)**

RUR 10 - 2016	CERERE	Cereals: organic/low input cereal food systems for biodiversity and quality (production, processing, marketing)
RUR 10 - 2016	Eu PiG	Pig husbandry: health management, precision production, welfare and meat quality
RUR 10 - 2016	Inno4Grass	Productive grasslands: profitability and environmental services
RUR 10 - 2016	SheepNet	Improving sheep productivity
ISIB 2 - 2014	Winetwork	Wine diseases: Grapevine Trunk Disease and Flavescence dorée
ISIB 2 - 2014	OKNetArable	Organic agriculture - arable crops
ISIB 2 - 2014	Hennovation	Animal welfare hens
ISIB 2 - 2015	4D4F	Data and sensor driven decision making on dairy farms
ISIB 2 - 2015	EuroDairy	Practice-based innovations in dairy farming: resource efficiency, Biodiversity, Animal care, and Socio-economic resilience
ISIB 2 - 2015	EUFRUIT	Fruit: cultivar development, minimize residues, storage and fruit quality, sustainability of production systems



34 H2020 bottom-up Thematic Networks so far(2)

a complementary set of themes (cross-cutting themes)

calls 2014-2016

RUR 10 - 2016	SKIN	Stimulating innovation and good practices in short supply chains
RUR 10 - 2016	AFINET	Agroforestry: sylvoarable and sylvopastural systems' design, management and profitability
ISIB 2 - 2014	Agri-Spin	Innovation brokering methods
ISIB 2 - 2015	AGRIFORVALOR	Valorization of biomass side-streams from agriculture and forest
ISIB 2 - 2015	Smart-AKIS	Smart Farming Technology: Management Information Systems, Precision Agriculture and Agriculture automation and robotics
ISIB 2 - 2015	HNV-Link	Support HNV farmlands through knowledge and innovation
WATER 4B - 2015	FERTINNOWA	Optimize water and nutrient use efficiency: dbase on innovative technologies and practices for fertigation of horticultural crops



Call 2017 34 H2020 bottom-up Thematic Networks so far(3)
another complementary set of cross-cutting themes

ENABLING	Upscaling biomass production and pre-processing for bio-based value chains
INCREDible	Non Wood Forest Products: Cork, Resins and Edibles in the Mediterranean basin
NEWBIE	New Entrant netWork: Business models for Innovation, entrepreneurship and resilience
OK-Net EcoFeed	Organic Knowledge Network on Monogastric Animal Feed (pigs, broilers, hens)
PANACEA	Non-food Crops' penetration path
INNOSETA	Spraying Equipment best management practices



Call 2018 34 H2020 bottom-up Thematic Networks so far(4)
another complementary set of cross-cutting themes

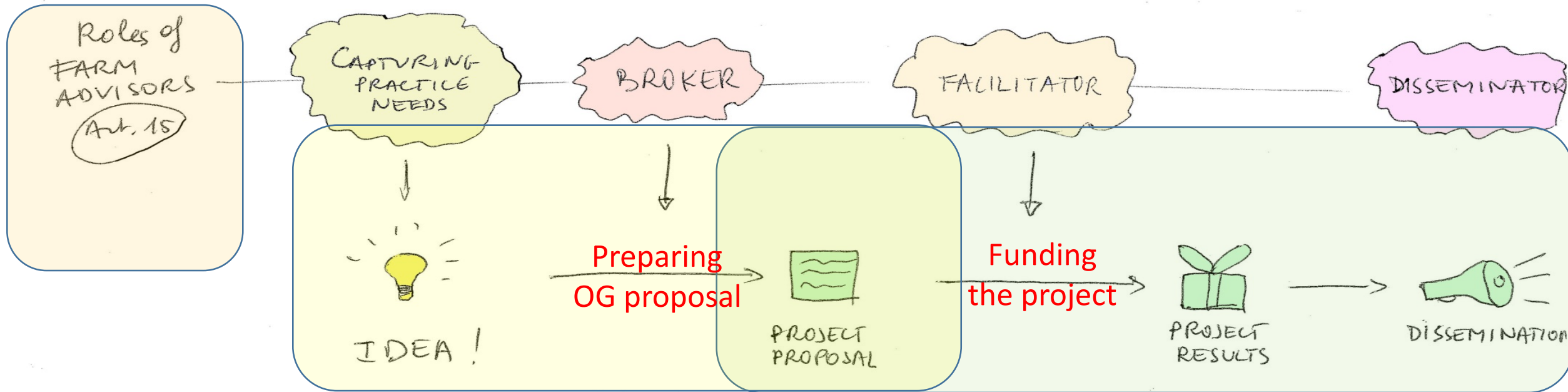
DISARM	Reduction of antibiotic resistance in livestock farming
NUTRIMAN	Best practices for N/P nutrient management/recovery from un-exploited resources of raw materials (CE)
SuWaNu Europe	Re-use of treated wastewater in agriculture
BEST4SOIL	Best practices for the control of soilborne diseases
EURAKNOS	Widening existing thematic network outputs – building EU Knowledge Reservoir
Legumes Translated	Innovation in grain legume-supported cropping systems



Call 2019 - H2020 bottom-up Thematic Networks (just selected, will be starting end of 2019 - beginning 2020)

BIOFRUITNET	Organic Fruit production
BovINE	Beef Innovation Network: socio-economic resilience, animal health and welfare, production efficiency & quality, environmental sustainability
EuroSheep	Sheep profitability: through animal health and nutrition management
ROSEWOOD4.0	Reinforcing the sustainability of wood mobilisation in forest value chains
SMARTPROTECT	Integrated Pest Management (IPM) in vegetable production, integrating precision farming technologies and data analytics

New roles for farm advisors in interactive projects



Farm advisors/innovation support services' role in interactive innovation processes:

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

Building an "EU AKIS"

*Speed up creativity and
practice application*

*Better connectivity and
quicker circulation of
information*

Thank you!

Questions?

https://ec.europa.eu/info/news/knowledge-and-innovation-unlocking-potential-food-and-farming-2019-sep-26_en