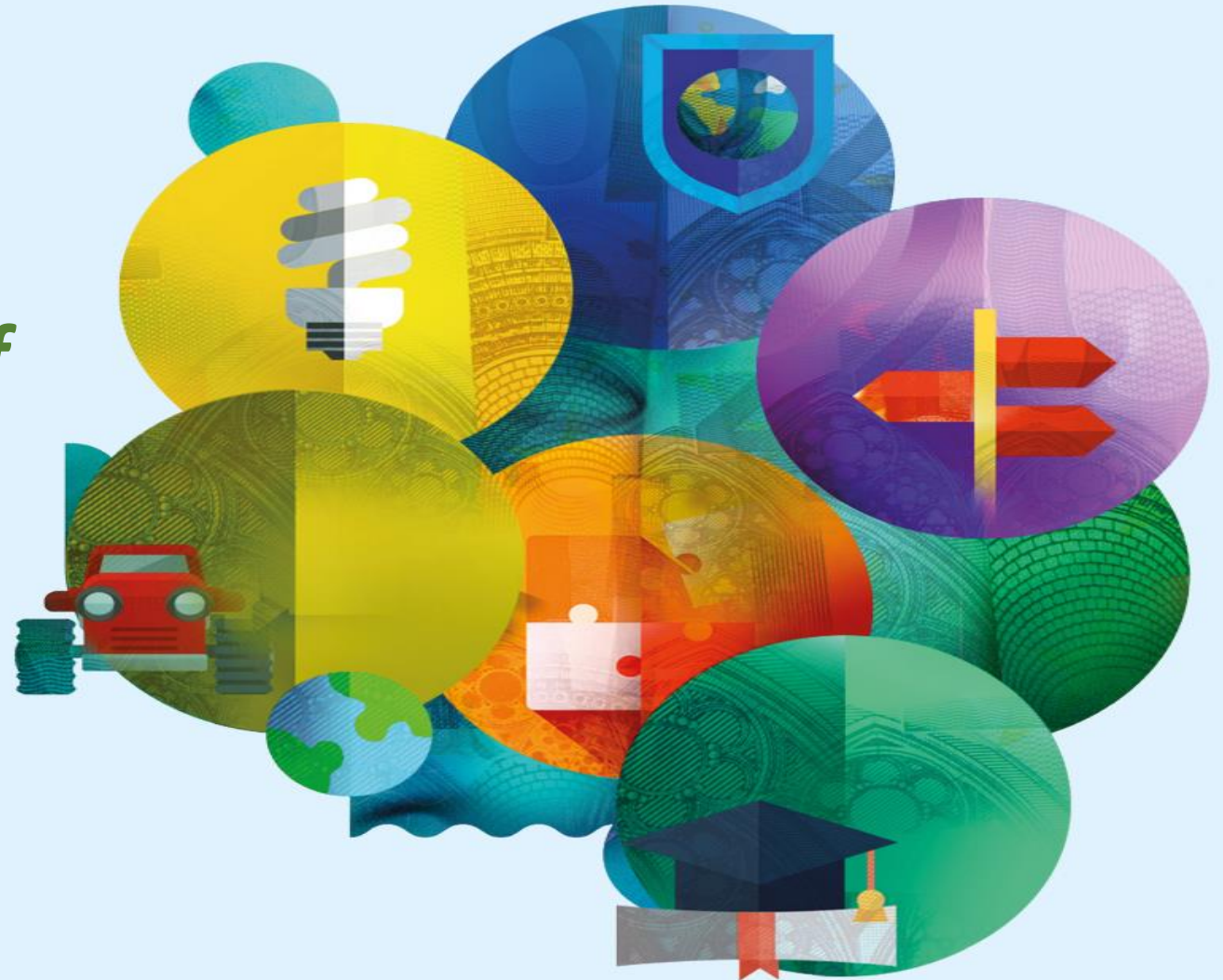
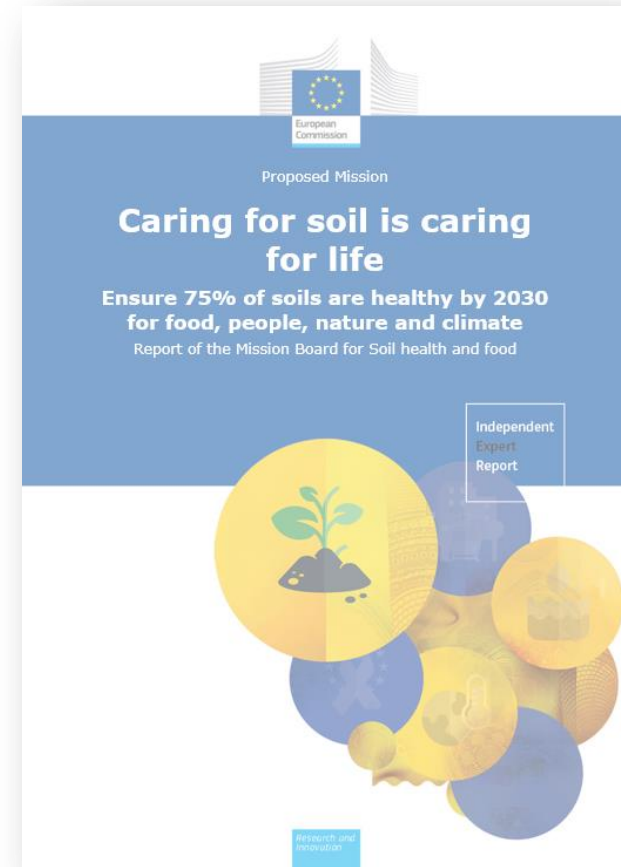


Highlights from EU R&I projects and initiatives relevant for the activities of Rural Networks

**Unit B2 – Research & Innovation
4 December 2020
Rural Assembly**



1. Horizon Europe: Soil health mission



Proposed mission by
the Mission Board

Caring for soil is caring for life

*ensure 75% of soils are healthy by 2030
for food, people, nature and climate*



What does this mission want to achieve? Objectives:



1. **Reduce land degradation**, including desertification and salinization
2. **Conserve soil organic carbon stocks** (e.g. in forests, permanent pastures, wetlands)
3. **Stop soil sealing** and increase re-use of urban soils (the current rate of soil re-use is increased from current 13% to 50%)
4. **Reduce soil pollution and enhance restoration**
5. **Prevent erosion and stop erosion**
6. **Improve soil structure**
7. **Reduce by 20-40% the global footprint of EU's food and timber imports on land degradation**
8. **Significantly improve soil literacy** in all Members States



Each objective is backed by specific targets and indicators

How to meet the mission objectives? Through a combination of...



- strategic research and innovation priorities
- co-creation, testing and demonstration of solutions in living labs and lighthouses
- a set of 8 indicators and a consistent system for monitoring the status of soils
- strengthening independent advisory services for farmers and foresters
- engaging citizens and society at large
- encouraging changes to policies and day-to-day practices of land managers, industries and consumers

Soil health depends on the actions of all of us!

Cooperation across sectors and citizen engagement at the core of the mission



Co-implementation at the core of the mission:

researchers, land managers, businesses, policy makers and citizens working together in:

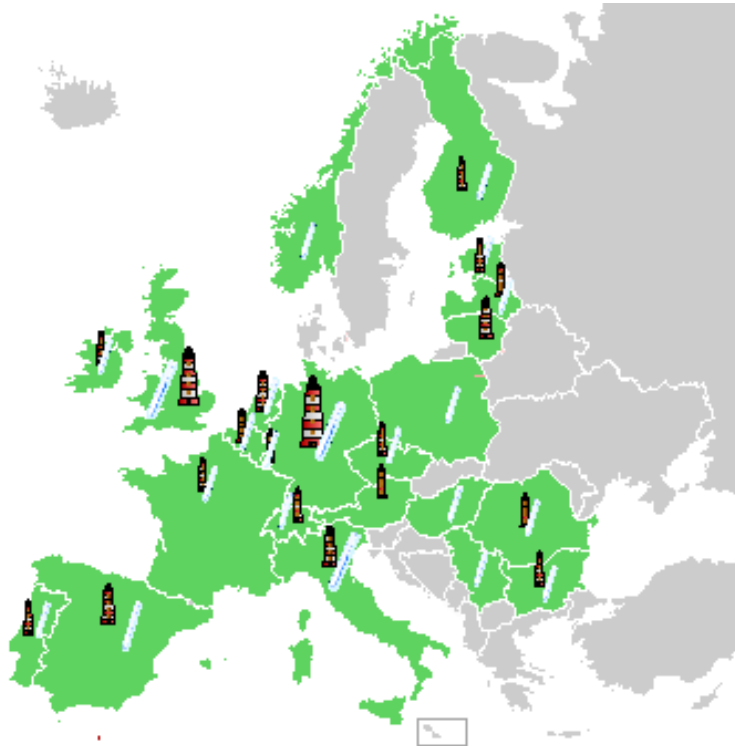
Living laboratories \Longrightarrow create knowledge and design, test and disseminate innovative solutions

Lighthouses \Longrightarrow test and demonstrate good practices

R&I priorities

1. Improve uptake/use of existing knowledge
2. Develop needed innovation in technologies and practices
3. Adapt global food chains and move towards a resilient society
4. Set up an efficient monitoring system

Soil health mission: Involvement of Rural Networks



- Sharing information
- Examples of Living laboratories and Lighthouses
- Discussions future CSPs

Contact:

AGRI-SOIL-MISSION-BOARD@ec.europa.eu

<http://ec.europa.eu/mission-soil>

#MissionSoil

#EUmissions # HorizonEU

2. EU research projects and initiatives relevant for the activities of Rural Networks

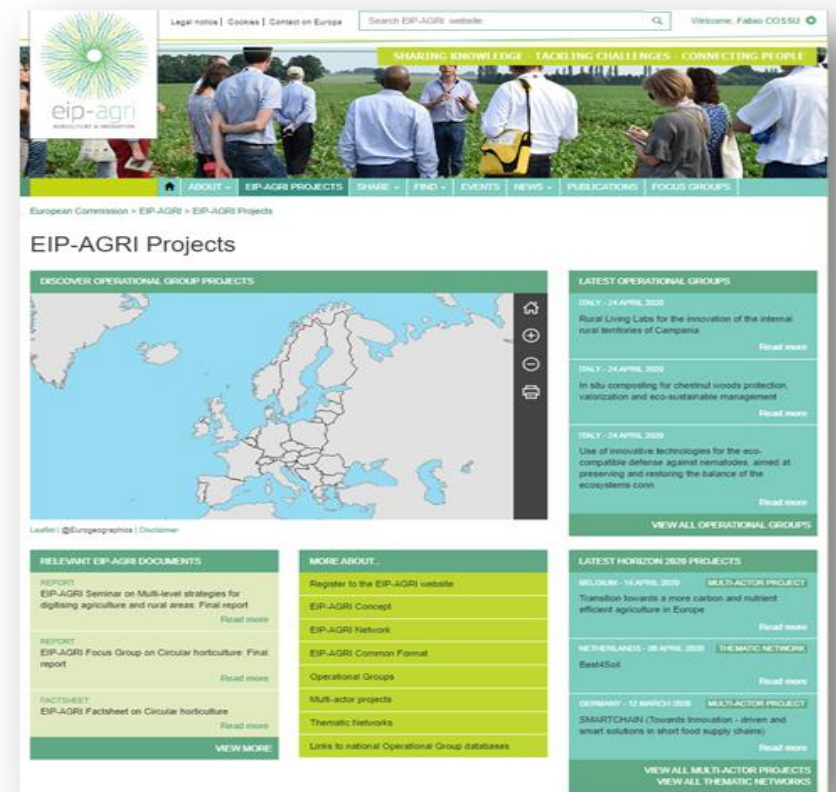
Agriculture will be more and more knowledge-intensive



EIP-AGRI – What did we achieve?

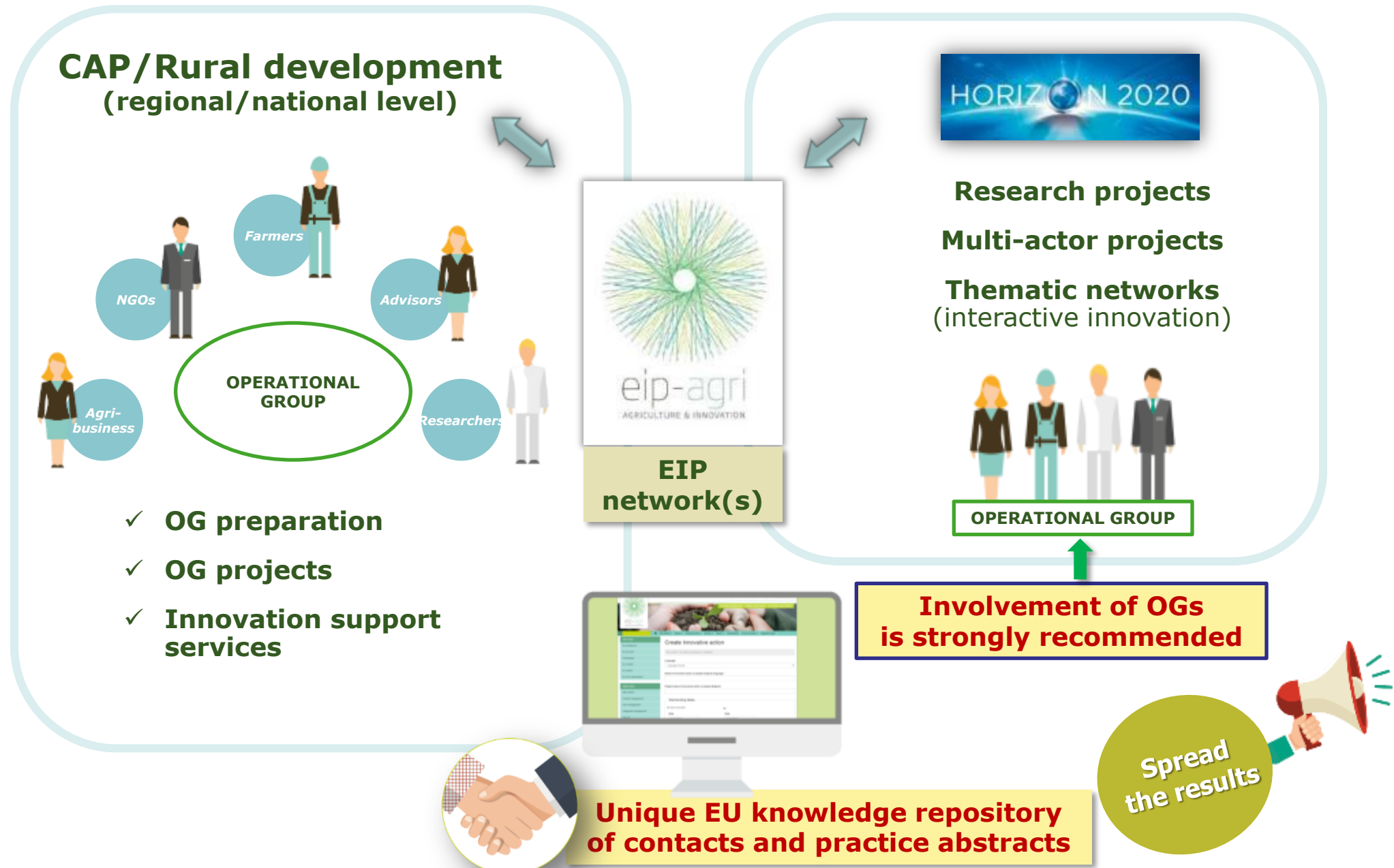
- ✓ 26 Member States, 98 rural development programmes implementing EIP Operational Group “innovative projects”
- ✓ Around 3 200 OGs planned in 2014-2020; more than 1600 OGs already running or finished (still 5 years to go)
- ✓ **190 multi-actor projects under Horizon 2020 (two thirds of total projects) for 1 bio Euro**
- ✓ A growing and thriving network

An increasing volume of practice-oriented knowledge !



www.eip-agri.eu

The bigger EIP picture 2014-2020: Connecting policies



From EIP-AGRI 2014-2020 to AKIS Strategic Plans post 2020 What is changing?



Provisions on modernisation in the CAP Strategic Plan Regulation post 2020

From funding innovative projects.....

.....to support for a whole innovation
ecosystem systematically interlinking people
and projects (AKIS)

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 + future CAP
2. Collecting and sharing outcomes of 190 **H2020 multi-actor projects** + Horizon Europe
3. Make use of **EIP website** info + 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**, education, trainers, media, businesses, researchers,..): training for farmers and for advisors, peer-to-peer events, demonstrations, website, e-learning, **innovation support services (ISS)** etc
6. Organising **events to link and network AKIS actors** for future cooperation
7. **Start now**, already testing future interventions under current period and **brainstorm in AKIS coordination platforms**

Challenges for CAP networks to help strengthening knowledge flows and innovation co-creation

1. Advisors, researchers and **CAP networks** will work together within the framework of the (future) AKIS (Art 102). This means among others:
2. **All advisors shall be integrated within the AKIS** in an inclusive way
3. Advisors shall be able to cover economic, environmental and social dimensions and to deliver up-to-date technological and scientific information developed by R&I
4. **Advisors** must be impartial and be able to provide innovation support in particular for preparing and implementing Operational Group projects of the EIP AGRI

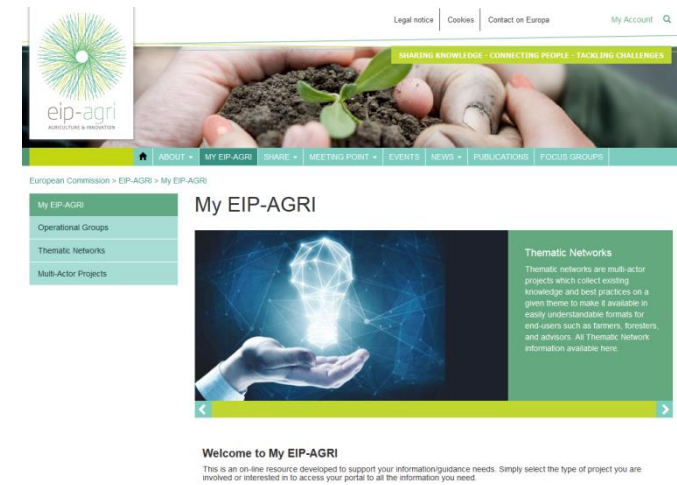
The Horizon 2020/Horizon Europe (HE) dimension of the EIP-AGRI: what can rural networks do to connect?

1. The synergies organized between Horizon projects and EIP Operational Groups (“**Involvement of OGs in multi-actor Horizon projects is strongly recommended**“) induces the need for **intensifying innovation networking with Horizon Europe National Contact Points**: a monthly encounter could be useful
2. **Promote and make OGs visible**: promote events & databases with all OGs in MS + their contacts + ensure thematic categorization to ease the search for OGs
3. **Follow the yearly Horizon Europe calls and be pro-active**: present the next call topics to your OGs, make a brokering event with your OGs and potential MA consortia, advisors and researchers, think about cross-border events around specific topics in the call where OGs could join. Until now, Horizon consortia mostly do not find the OGs they would like to have in their project: this should change!
4. **Also when Horizon projects are running**, OGs or their partners may still be invited to events of their interest: give them support to do so

AKIS & EIP-AGRI – preparing for EU knowledge reservoir(s) for practice

serving advisors' back-offices for advice and innovation support

- ✓ MS are already creating knowledge dbases (EIP-AGRI in DE, FR, back-office and ISS in LT etc)
- ✓ EURAKNOS project (EU Thematic Network of Thematic Networks, Jan 2019 - March 2021)
- ✓ EUREKA project (EU feasibility study on an EU knowledge reservoir for practice, Jan 2020-Dec 2021)



Making **at EU level** an increasing volume of practice-oriented knowledge easy accessible, interactive and attractive!

Important actions for Rural Networks:

1. Know **all your OGs + those in other countries** which have useful info for your country: past, current as well as those to come in 2020-2027. This includes filtering the most useful ones for your country and (google) translating. Advisors may help.
2. Know all H2020 and Horizon Europe **multi-actor projects**: idem
3. Know all 34 Horizon **Thematic Networks** (+ possibly future national/regional TNs): idem
4. Know all your **national/regional applied research projects**, EFRD, LIFE, Interreg, etc: idem
5. **Connect to Horizon National Contact Points on a regular (monthly basis):**
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp>
6. Organise **brokering events** between OGs and current/future Horizon projects, in particular consortia preparing their project
7. Brainstorm on how research and advisors could better interact with you as rural network on a regular basis (Art 102): how can you **improve collaboration to collect knowledge and innovation to share?**



In total 34 H2020 bottom-up Thematic Networks (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



H2020 bottom-up Thematic Networks (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 sylvopastoral 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 H2020 bottom-up Thematic Networks (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 H2020 bottom-up Thematic Networks (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
Legumes Translated	Innovation in grain legume-supported cropping systems



Call 2020 - H2020 bottom-up Thematic Networks (5)

FARMWELL	Social innovation practices that can help improving the social wellbeing of farmers and farming families
NETPOULSAFE	Enhance biosecurity measures for a sustainable production in poultry
SmaRT	Innovate small ruminant systems , incl. precision livestock farming and digital technologies for sheep and goat
R4D	Reinforcing the sustainability of wood mobilisation in forest value chains
BRANCHES	Innovative technologies and best-practice cases for bioeconomy solutions in integrated forest and agricultural biomass supply chains



H2020 bottom-up Thematic Networks

How? Learn from experience

A short film explaining how a thematic network can work (Hennovation):

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

Overview with links to all Thematic Networks until now:

<https://ec.europa.eu/eip/agriculture/en/about/thematic-networks-%E2%80%93-closing-research-and>

The EURAKNOS and EUREKA projects are collecting material and info from all Thematic networks, to keep it for the longer term

H2020 EU Advisory networks

1) Fairshare: Farm Advisory digital Innovation tools
(nov 2018- oct 2023) – making an inventory of digital knowledge tools
<https://www.h2020fairshare.eu/>

2) I2Connect: Empowering advisors to engage and support farmers and foresters in interactive innovation processes”. (nov 2019 – oct 2024) –
making an inventory of advisors
<https://i2connect-h2020.eu/>

3) More to come under Horizon Europe

Strengthening and linking AKISs across the EU

*Speed up creativity and
practice application*

*Better connectivity and
quicker circulation of
information*

Questions?



Thank you for your attention

Tereza Budnakova & Inge Van Oost
DG AGRI Unit B.2 – Research and Innovation

Background material

Useful links – HE Soil health mission

- **EU mission Caring for soil is caring for life (mission report)**

<https://op.europa.eu/en/publication-detail/-/publication/4ebd2586-fc85-11ea-b44f-01aa75ed71a1/language-en/format-PDF/source-159637857>

- **Video on the Mission on Soil health and food** https://www.youtube.com/watch?v=53bbzE2IpKc&feature=emb_logo

- **Mission report handover to the European Commission (EU R&I Days)**

<https://youtu.be/oAG5-CQIOoc>

- **Soil mission session (EU R&I Days)**

<https://research-innovation-days-conference.online/hubs/mission>

- **On a mission to save our soils - the EU's plan to rebuild the land (Futuris episode, euronews)**

<https://www.euronews.com/2020/09/21/on-a-mission-to-save-our-soils-the-eu-s-plan-to-rebuild-the-land>



THE 9 COMMON OBJECTIVES

INCREASE COMPETITIVENESS



REBALANCE
POWER IN FOOD CHAIN



ENSURE
VIABLE INCOME



CLIMATE CHANGE
ACTION



**Cross-cutting objective
KNOWLEDGE & INNOVATION**

THE 9
CAP
OBJECTIVES

ENVIRONMENTAL
CARE



RESPOND TO CITIZENS'
CONCERNS in terms of
FOOD & HEALTH
QUALITY



PRESERVE
LANDSCAPES
& BIODIVERSITY



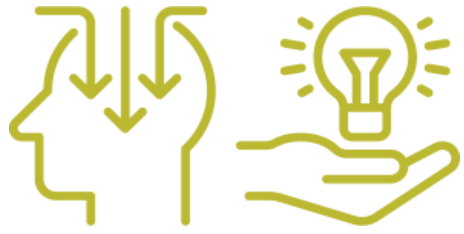
VIBRANT
RURAL AREAS



SUPPORT
GENERATIONAL RENEWAL



European
Commission



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, education, 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

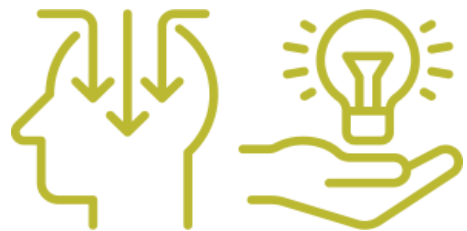
AKIS at the heart of the agricultural innovation ecosystem =>

Cross-cutting CAP support to Systematically share

Knowledge and Innovation in Agriculture and rural areas

including **in whatever farming and rural activities**

automatically relate to (= landscape, environment, climate, biodiversity, consumers and citizens, food and non-food systems including transformation and distribution chains, etc)



Where does the AKIS policy come from?

In their 2008 declaration, the researchers of the Standing Committee of Agricultural Research (SCAR) stated that the classical linear research model does not function anymore to have real impact in the field. The current CAP AKIS policy and potential interventions can make use of the current formats and experiences from MS. Experts from about 24 MS from the SCAR Strategic Working Group collected this in the AKIS4 report, and based it on their discussions and own practical experiences. In the report much about AKIS in all its aspects is explained and a long series of possible types of interventions and concrete examples given. The report is available on the Europa "Future CAP" website and is called "Report: preparing for future AKIS in Europe". You can download it here: <https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap#innovation> or ask to you a paper copy

Intervention logic of relevant provisions for modernisation, innovation and digitalisation

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

AKIS in CAP Strategic Plans (Art.102 - 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 digitalisation, notably by describing:

- **The organisational set-up** of the (*existing*) **AKIS** (\Rightarrow *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*

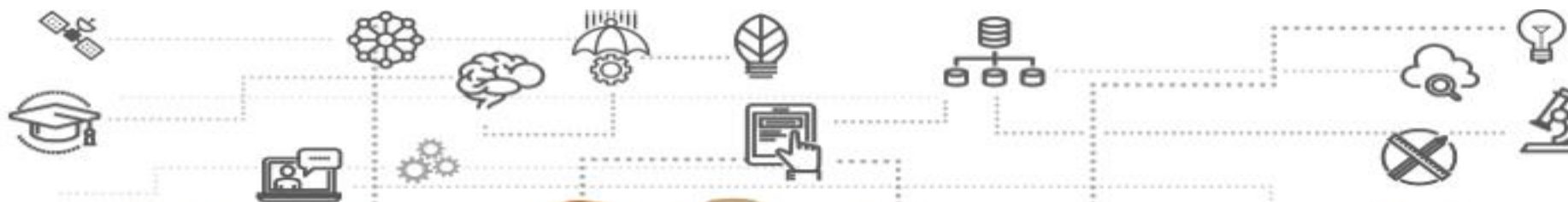
✓ ***All advisors shall be integrated within the AKIS in an inclusive way, to be able to cover economic, environmental and social dimensions and to deliver up-to-date technological and scientific information developed by R&I***

✓ *Advisors must be **impartial** and be able to provide Innovation support, in particular for preparing and implementing Operational Group projects of the EIP AGRI*



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 9 billion in **Horizon Europe** for food, agriculture, rural development and the bio-economy.



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



