



The European Innovation Partnership (EIP) „Agricultural Productivity and Sustainability“ **Speeding up innovation**



Concept and importance of macro-regional & multi-actor cooperation

Budapest – 20 September 2017

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Knowledge and Innovation Systems: What?

- **AKIS: Agricultural Knowledge and Innovation System**
- The AKIS concept aims at describing **knowledge infrastructures**: institutions, organisations and interactions
- **Parts of the (A)KIS** are: farmers, advisors, research, education/training, input suppliers, retailers, media, services, ministries, etc...: they all produce and need knowledge
- The AKIS concept aims at better **understanding knowledge flows** within the system, focusing on the issue of knowledge access for a diversity of actors (*Hall et al. 2006*)
- AKISs mostly work at a **national and/or regional scale**

Knowledge and Innovation Systems

- The various parts of the AKIS **influence** more or less daily on-farm and business **decisions**, depending on how knowledge exchanges are organised
- A dedicated Strategic Working Group (SWG AKIS) of the Standing Committee of Agricultural Research (SCAR) has been **reflecting** and exploring AKIS systems since 2008
- The linear "knowledge transfer" system is not sufficiently adapted to and ready to **solve new and complex challenges: knowledge "exchange" is essential**

Background of the SCAR and the SWG AKIS

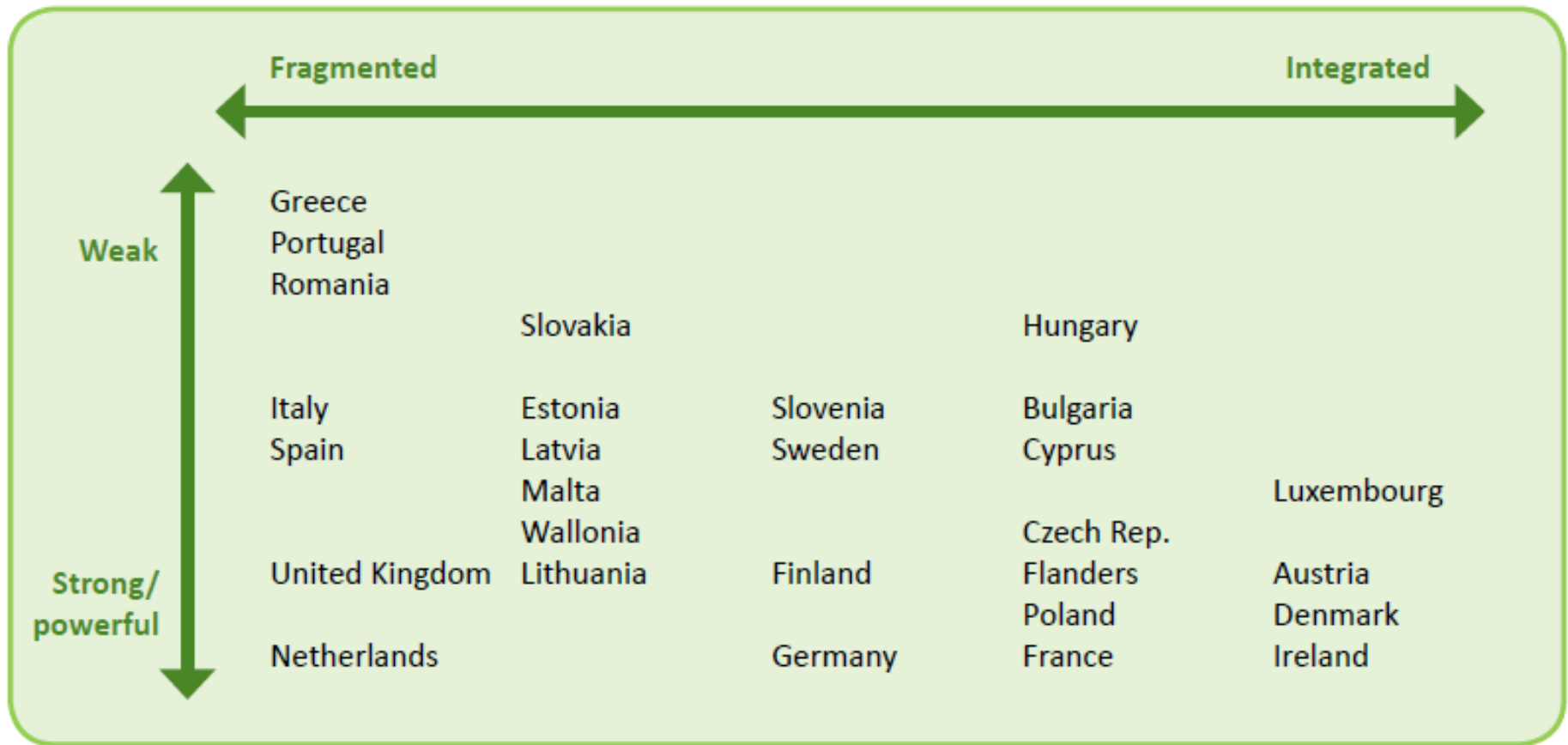
- 1974: **Standing Committee on Agricultural Research (SCAR)**: Representatives of Member States and associated Countries that advise the European Commission and Member States on **coordination of agricultural research**
- 2007 - 1st SCAR Foresight: *"The mounting challenges facing the agri-food and rural sectors in Europe **calls for a review of the links between knowledge production and its use to foster innovation**"*
- **2009** – The **2nd SCAR Foresight**: *"The remaining publicly funded **AKIS appear to be locked into old paradigms based on linear approaches ...**"*

SWG SCAR-AKIS since 2010

- **Changing policy contexts:** the financial crises, global food security, EIP concept, CAP 2013 & post 2020
- 3 SCAR-AKIS mandates since 2010: development of Multi-Actor approach, Thematic Networks, practice abstracts etc
- **SWG SCAR-AKIS 4th mandate 2016-2018 focuses on improvement of the functioning of knowledge and innovation systems in the Bioeconomy.** The objectives of the SWG pursue the outcomes of all 4 Foresight studies indicating that interaction is crucial for innovation and for addressing the right challenges in order to stimulate appropriate research and innovation activities, knowledge generation and knowledge exchange. This **covers all Agri-food and biomass chains, from producer to consumer in a systems approach.**

PROAKIS study: Characterising MS' AKIS

- An overview of European AKIS (as of 2014)



The EIP-AGRI supports the building of an EU AKIS since 2012

The EIP-AGRI in short

- 2010: European Innovation Partnerships want to speed up innovation through collaboration and **linking policies and instruments**
- The EIP-AGRI was launched by DG AGRI in 2012: COM (2012)79
- The EIP-AGRI applies an overarching "*Open innovation*" concept based on the **interactive innovation model** (applied in **CAP Operational Groups and H2020 Multi-Actor projects**):

Tackle real practice needs/opportunities through collaboration between specific 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 AKIS actors: communication, partnering, dissemination, knowledge flows and collecting practice needs (*Open science*)

*Interactive innovation: **Cross-fertilisation** is key for tackling complex challenges and developing opportunities for innovation*

Du choc des idées jaillit la lumière

Nicolas Boileau, french philosopher, 17th century

- > Enlightenment comes when views collide
- > From the clash of opposing minds, new ideas arise

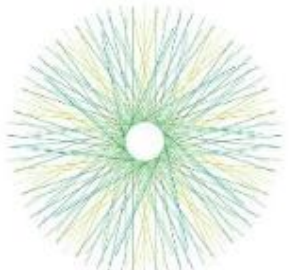


Funding for interactive innovation projects

Rural Development

(regional/national level)

- Funding for setting up of an **“Operational Group” (OG)** : farmers, advisors, agribusiness, researchers, NGOs, etc) planning an innovation project (Art 35)
- **Project funding** for the **Operational Group’s project** (Art 35).
- Supporting innovation support services



eip-agri
AGRICULTURE INNOVATION

EIP networks
MS/regions

Unique EU repository of contacts and practice abstracts

Health and Consumers

Horizon 2020

(European projects)

- **Research projects**, to provide the knowledge base for innovative actions
- **Interactive innovation formats: multi-actor projects and thematic networks** genuinely involving farmers, advisors, enterprises, etc.... **“all along the project”**

Involvement of OGs is strongly recommended

Having potential innovative knowledge is one thing, turning it into reality is another.

***Speed up creativity
and practice
application***

***Better connectivity and
quicker circulation of
information***

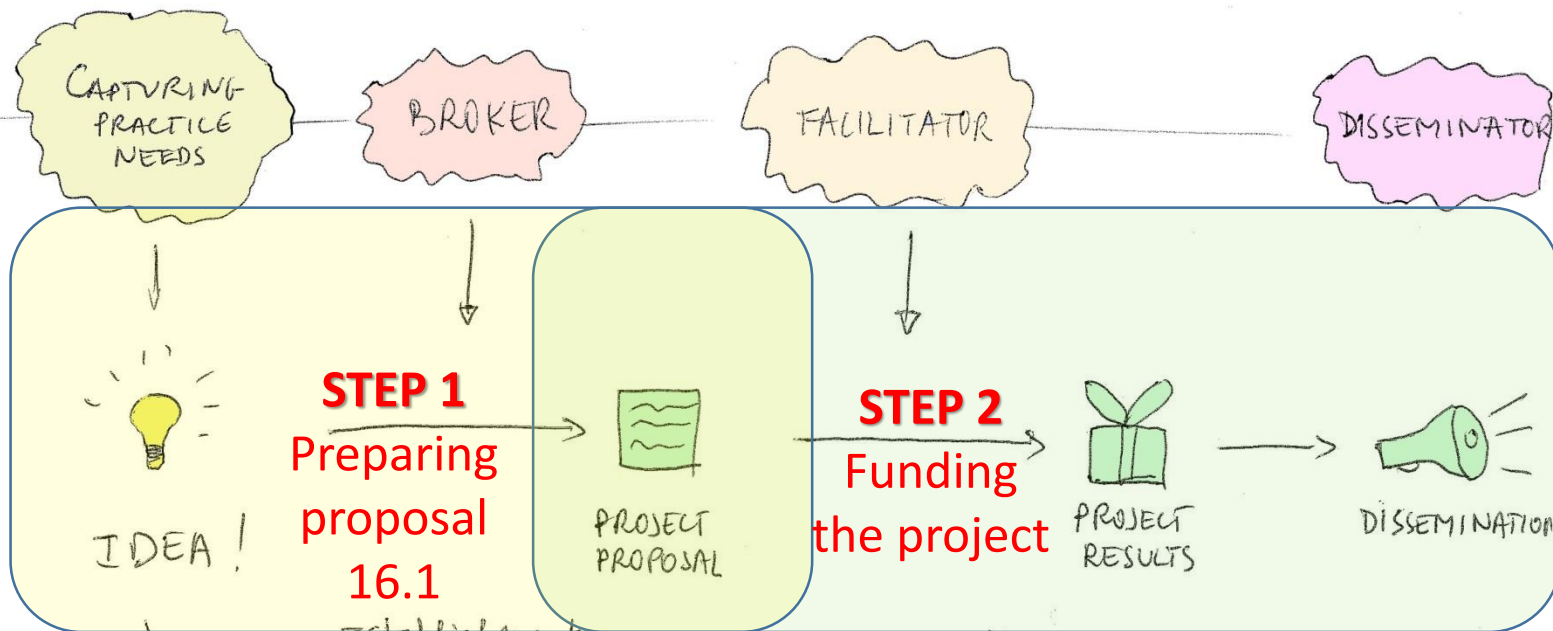
Where are we so far with the EIP-AGRI ?

EIP Operational Groups 2014-2020

- The EIP implementation aims at a **flexible and open system** for the creation of a multiplicity of operational groups (OGs)
- **27 MS and 98 RDPs** will be implementing the EIP in their 2014-2020 Rural Development programmes with **regular calls for Operational Group projects during this period**
- **3200 OGs** planned in 2014-2020, with cooperation in innovative activities such as the development of **new products or practices**, pilot projects, **supply chain** cooperation, **environmental** projects or climate change actions, cooperation in **biomass** provision or renewable **energy**, forest management and much more
- EIP provides unique opportunity for better cooperation projects thanks to attention for **supporting environment** and through the (possible) **funding of the preparation** process of a project

Funding preparing the OG's project ("setting up") complements the funding for the OG's project ("operation")

Roles of FARM ADVISORS
Art. 15



Establishment
operation of SETTING UP the OG
↑
submeasure 16.1

Operation
OG PROJECT OPERATION
↑
submeasure 16.1

Funding

AND 16.2
or 16.4
or 16.5
or 16.6
or other depending on the activities chosen from the list under Art 35(2)(a) to (k)

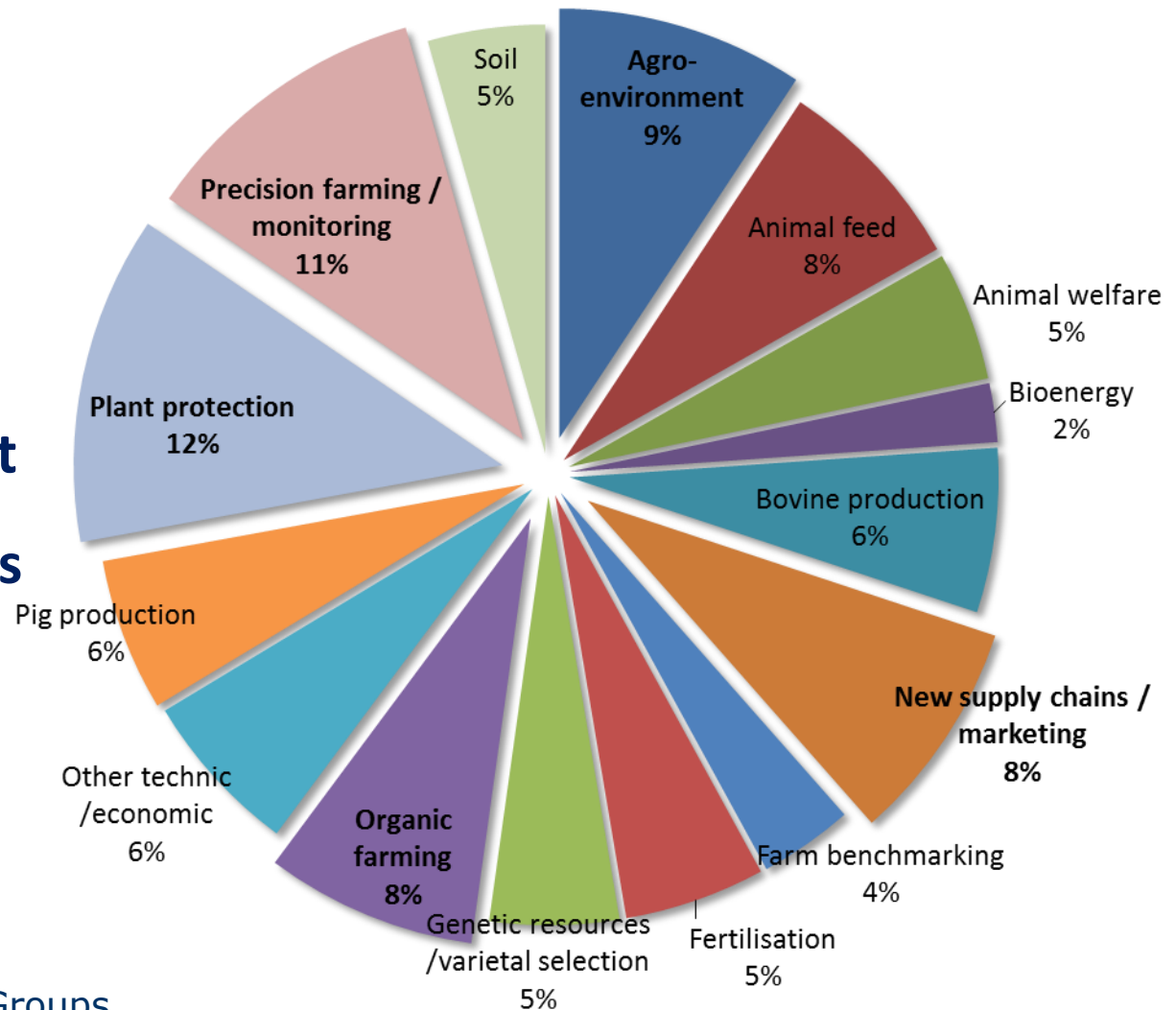
**Double sub-heading
16.1 + 16.x**

⇒ Funding of OG can be done via

Initial OGs focus on:

Top 5

- **Plant protection**
- **Precision farming**
- **Agro-environment**
- **New supply chains**
- **Organic farming**



* Initial clustering analysis covering 231 Operational Groups, data from **Oct 2016** in 7 MS (AT, BE, DE, ES, FR, UK)

More info on H2020?

Videostreamed presentation on Multi-actor approach and Thematic Networks in call 2016: (from 0:53:00 till 01:47:00)
<https://scic.ec.europa.eu/streaming/workshop-on-multi-actor-approach-and-thematic-networks-under-horizon-2020>

Basic info + questions & answers

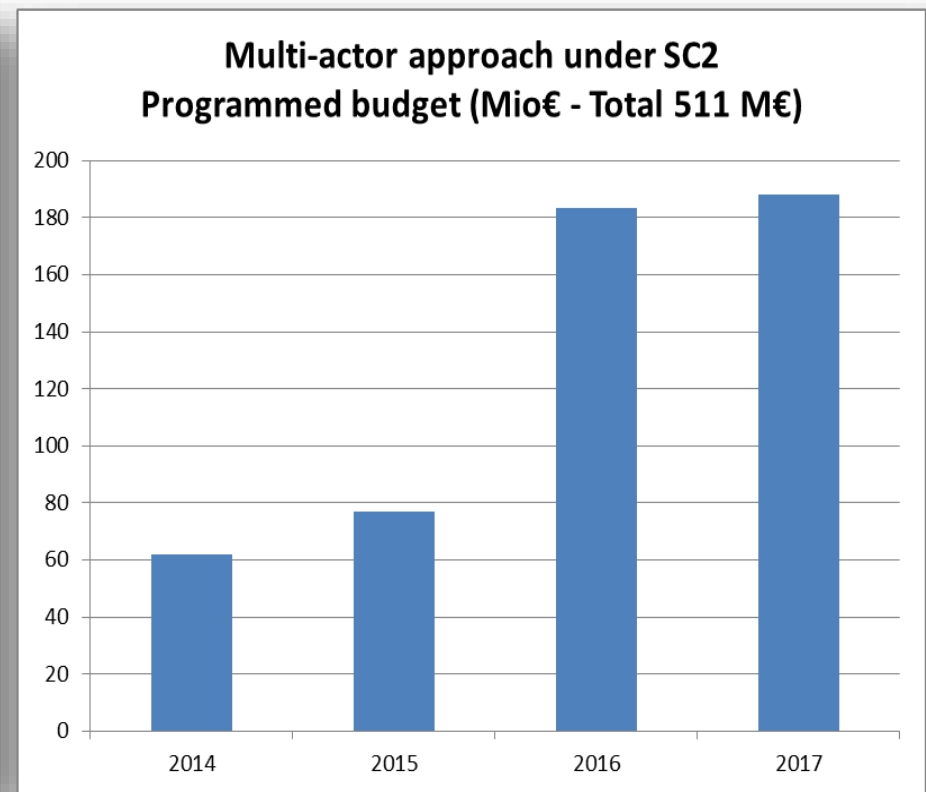
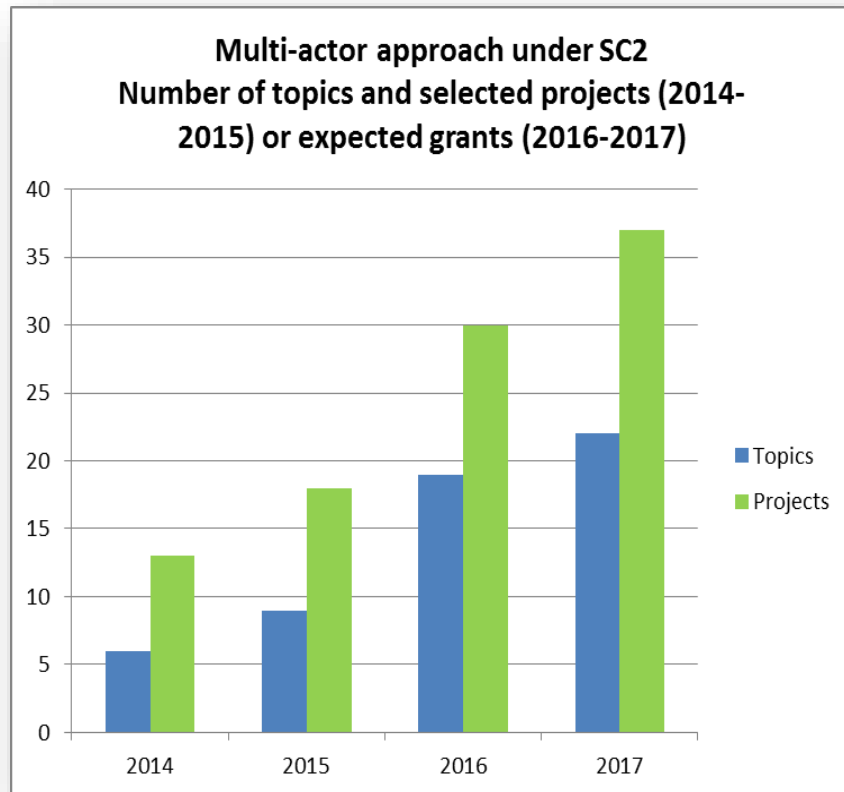
Workshop "Interactive innovation in motion: multi-actor projects and thematic networks under Horizon 2020" 24/11/2015:

Event page:

<https://ec.europa.eu/programmes/horizon2020/en/news/interactive-innovation-motion-multi-actor-projects-and-thematic-networks-under-horizon-2020>



MAA in Horizon 2020 in the period 2014-2017: 520 mio € for 100 Multi-actor projects



Horizon 2020 WP 2018-2020: 80 more Multi-actor projects = 500 mio € more (WP to be published in Oct 2017)

H2020 Thematic networks : MA projects dedicated to Compile knowledge ready for practice

- Themes must **focus on the most urgent needs of agricultural or forestry production sectors**
- Themes to be chosen **bottom-up**, contributing to a more competitive sustainable agriculture and forestry, and should be multi-actor
- Partners should summarise, share and **present existing scientific knowledge & best practices** that are not sufficiently known (and applied) by practitioners
- Projects must **involve actors relevant for the chose theme** (e.g. researchers, farmers, advisors, enterprises, education, NGOs, administration, regulatory bodies, **EIP OGs...**)



**Involvement of OGs is
strongly recommended**



17 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



17 H2020 bottom-up Thematic Networks (2)

a complementary set of themes (cross-cutting themes)

TNs will be continued in 2017-2020

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

An EU wide EIP network, supported under Rural development policy

Linking with H2020

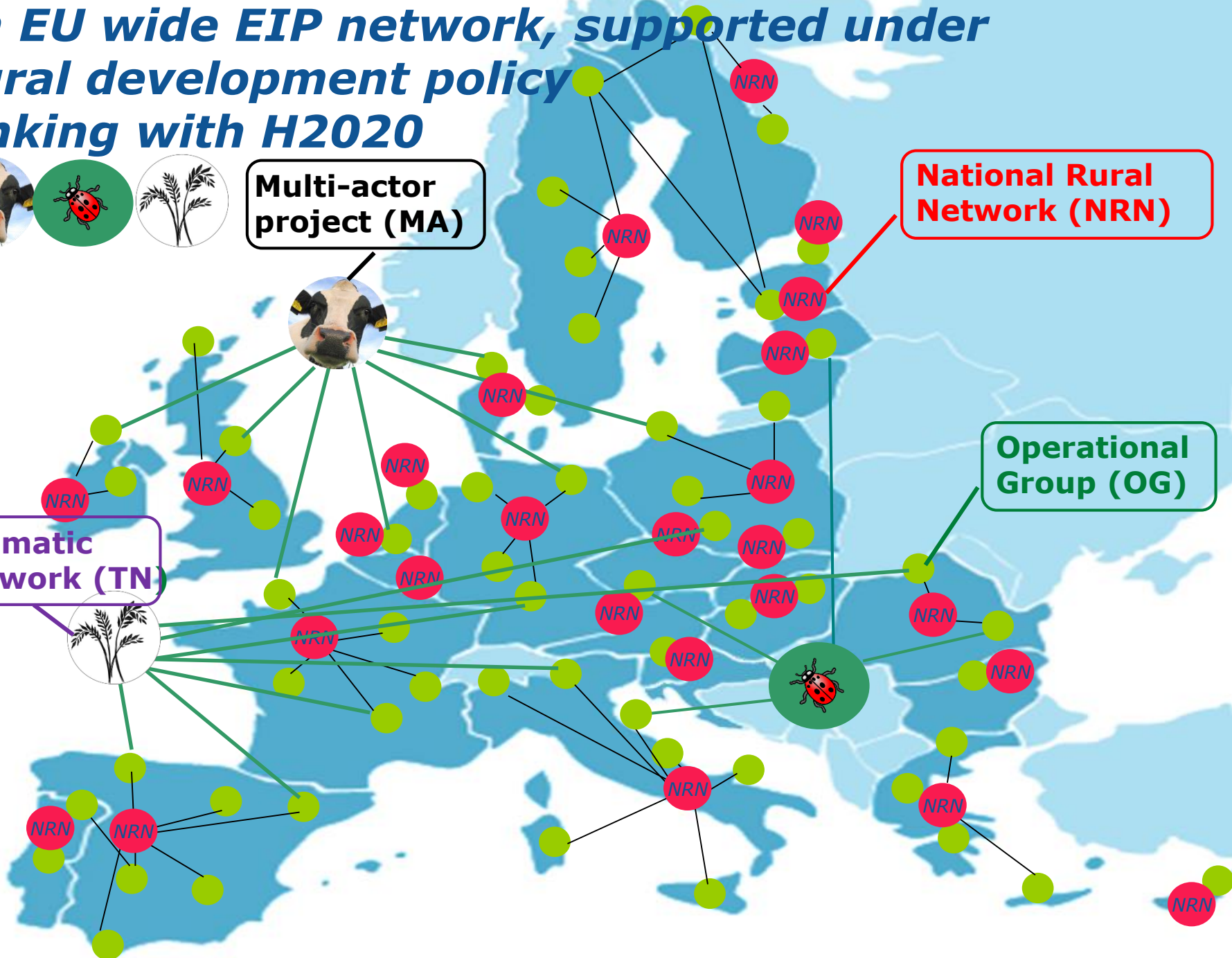


Multi-actor project (MA)

National Rural Network (NRN)

Operational Group (OG)

Thematic Network (TN)



“The next big thing
will be a lot of small
things”

21 September 2016
(Thomas Lomme)

*How do you
tackle a
new
measure?*

**FAILING
FORWARD**

*Now we can
share
experiences!*



An **supporting environment for innovation is key:** **Role of innovation support services** *a good example*

Potential support in project life cycle *The example of Hungary*

- practice abstract upload (start, milestones, end)



communication of results

Dissemination

inspiration

Idea

problem identification

planning

Setting up

partner search

formalisation of cooperation

Implementation

Proposal

facilitation

proposal writing



- events
- workshops
- newsletter

- focus group results
- good practices
- project idea upload

- setting up trainings
- Erasmus+ project

- partner search tool
- database of advisors

- agreement template



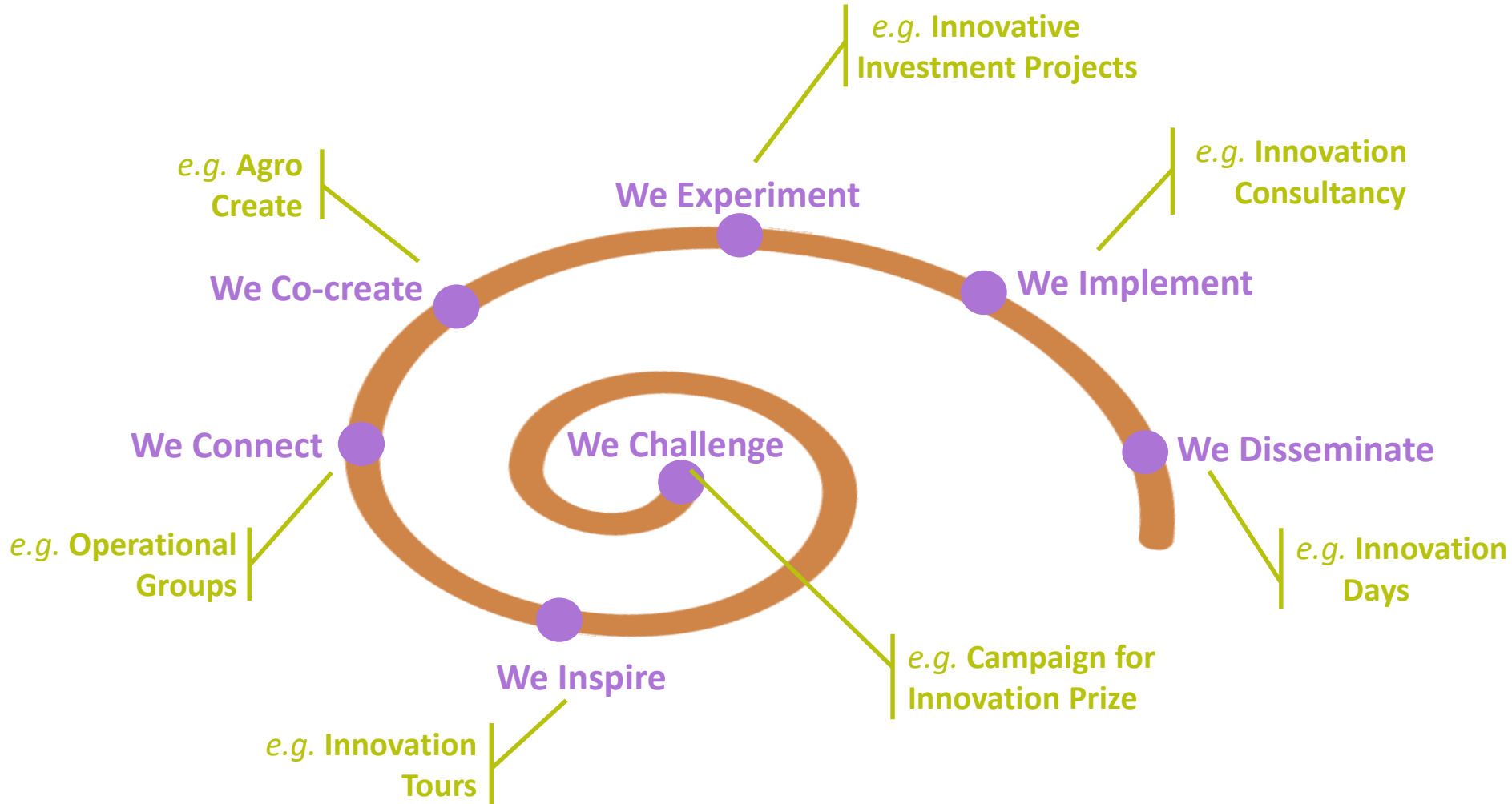
- facilitator trainings



- brochure, events, FAQ
- personal advice:
 - basic: operator network
 - detailed: expert in center
- network of proposal writers



Cross-visits AGRISPIN BE Innovation Support Service:



Context for reporting/informing on Multi-actor projects, Thematic Networks and OGs:

- Key in exchanging knowledge **within the framework of the EIP network**: raising awareness and encourage contacts (e.g. link with EIP SP events and EIP Focus Groups).
- As of H2020 call 2016, all **multi-actor projects and thematic networks** are obliged to produce practice abstracts and use the EIP "Common format"
- All other projects from whatever funding source are also welcomed to use the same format.
- **All this will form a unique practice-oriented interoperable repository at EU level**, also rewarding researchers for impact.
- **Partner search**: the common format enables MAs, TNs and OGs to be quickly **visible** for other partners and innovation actors, including various internat./national/regional projects

How & where can you get involved in the EIP?

EIP-AGRI networking activities at EU level:

- Workshops (1 meeting, 80 p)
- Seminars (1 meeting, 150 p)
- Focus groups collecting information and ideas (2 meetings – 20 actors)

Horizon 2020 – EU research and innovation projects:

- European multi-actor "research" projects (2- 30 mio € projects)
- Thematic networks: "coordination" actions (2 mio € projects)

Rural Development Programmes:

- Operational groups (setting-up and projects from 30K till 1 mio €)

EIP evaluation study

By external contractor, published February 2017

- **Conclusions:** EIP = **unique funding for innovative opportunities** for farmers/foresters because of
 - bottom-up
 - coverage of real needs/opportunities
- Strong point = EIP's **flexibility** to adapt to local context
- **Recommendations** on multiplication and linkages, RD administrative structures (eg application issues, facilitation), on EU added value & networking, on **EU AKIS connecting and widening**

https://ec.europa.eu/agriculture/sites/agriculture/files/external-studies/2016/eip-2016/eval_en.pdf

Where can you find more info?

- **EIP brochure on thematic networks & practice abstracts**
 - http://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_thematic_networks_2016_en_web.pdf
- **EIP common format for practice abstracts**
 - <https://ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format>
- **Videostreamed seminar on drafting practice abstracts:**
 - <http://www.ncp-biohorizon.net/events?cmd=showDetail&id=33>
- **Links to NRNs:** National Rural Networks can help in **partner search between** H2020 consortia and EIP Operational Groups
 - http://enrd.ec.europa.eu/enrd-static/networks-and-networking/nrn-information/en/nrn-information_en.html
- **EIP brochure on multi-actor projects**
 - **NEW:** available before next H2020 call in October 2017

***Innovation is: an idea put into
practice with success !***



***Engage in a better connected
European AKIS:
To an
„Bioeconomy of Knowledge“***

Thank you for your attention!

Inge.Van-Oost@ec.europa.eu

www.eip-agri.eu

2017 EIP-AGRI network activities

NETWORKING OF OPERATIONAL GROUPS at EU level

EIP Workshops involving OGs working on similar topics, e.g.

- **Connecting OGs in Organic Farming (14-15 June 2017)**
- **Connecting OGs on Supply Chain issues (Jan-Feb 2018 tbc)**
 - **Involvement of Horizon 2020 Thematic Networks (OK-Arable, SKIN, etc)**

EIP-AGRI IMPLEMENTATION

- Seminar "**Experiences and challenges in implementing EIP-AGRI: where we are and what can we learn?**" (10-11 May 2017, Athens) - involving MAs, PAs, NRNs and OGs
- Continue activities with **NRNs/NSUs** (e.g. intensify contacts with newly set-up NRNs, take into account special features of NRNs in regionalised countries)
- Further develop OG toolkit (<http://ec.europa.eu/eip/agriculture/en/my-eip-agri/operational-groups>), OG database, "e-learning" tools

EIP-AGRI network

Thematic Activities 2017

5 NEW FOCUS GROUPS

Start 1st half 2017

- New practices and tools for climate adaptation and mitigation in the forest sector
- New grazing methods (decarbonised economy)

Start 2nd half 2017

- Climate change mitigation practices in arable farming
- Horticulture and the circular economy
- New ways of producing and using energy at farm level

DIGITISATION

- EIP Workshop on **data sharing models** (Apr 2017)
- EIP Seminar on **digital innovation hubs** for agriculture (June 2017)
- Event "**Digitising rural economies**" in cooperation with the Portuguese authorities during the Agri-Innovation Summit (Lisbon, 11-13 Oct 2017) including SWG SCAR AKIS meeting



EIP-AGRI Focus Group		State of play
1	Organic farming – Optimising arable yields	Final report Factsheet Brochure
2	Protein crops	Final report Brochure
3	Animal husbandry - Reducing antibiotic use in pig farming	Final report Brochure
4	Genetic resources – Cooperation models	Final report Factsheet Brochure
5	Soil organic matter content in Mediterranean regions	Final report Factsheet Brochure*
6	IPM for <i>Brassica</i>	Final report Brochure
7	High Nature Value – Farming profitability	Final report Factsheet
8	Mainstreaming precision farming	Final report Factsheet
9	Profitability of permanent grassland	Final report Factsheet
10	Fertiliser efficiency – Focus on horticulture in open field	Final report Factsheet
11	Optimising profitability of crop production through Ecological Focus Areas	Final report Factsheet
12	Innovative short food supply chain management	Final report Factsheet



EIP-AGRI Focus Group		State of play
13	IPM practices for soil-borne diseases	Final report Factsheet Brochure*
14	New entrants into farming	Final report Factsheets
15	Water & agriculture	Final report Factsheet
16	Mixed farming systems: Livestock/cash crops	Final report Factsheet
17	Benchmarking farm productivity and sustainability performance	Final report Factsheet
18	Livestock emissions – Reducing emissions from cattle farming	Ongoing 2 nd meeting held
19	Nutrient recycling	Ongoing 2 nd meeting held
20	Sustainable mobilisation of forest biomass	Ongoing 2 nd meeting held
21	Robust and resilient dairy production systems	Ongoing 2 nd meeting held
22	Agroforestry: introducing woody vegetation into specialised crop and livestock systems	Ongoing
23	Diseases and Pests in Viticulture	Ongoing 2 nd meeting held
24	New forest practices and tools for adaptation and mitigation of climate change	First meeting June 2017
25	Grazing for carbon	First meeting June 2017

* The brochure 'Soil organic matter matters' covers topics from the 'Soil organic matter' and the 'Soil-borne diseases' Focus Groups.

8 OGs presented in the May 2017 EIP seminar: * OGs on digitisation

1. DE – Mecklenburg-Vorpommern – **Aquaponics, combining plant and fish production**
2. SE – Sweden – **Innovative planning in reindeer herding ***
3. FR - Midi-Pyrénées – **Triple performance for pig farming**
4. IT – Emilia Romagna – **Competitive and sustainable viticulture**
5. BE – Flanders – **Testing the potential of sensors for GPS technology on pilot farms ***
6. DE – Sachsen – **Innovative fertilisation and weed control in organic rapeseed**
7. ES – Catalunya – **Minimising pesticide use in stone fruit**
8. DE – Niedersachsen und Bremen – **A learning factory to reduce antibiotic use in pig production**

A booklet illustrating the 8 OGs is available at:

<https://ec.europa.eu/eip/agriculture/content/eip-agri-seminar-moving-eip-agri-implementation-forward>

Overview on digitisation activities EIP-AGRI

#DigitalSingleMarket

Creating a
#DigitalSingleMarket

DIGITISING EU INDUSTRY

**Delivering on the
Digital Single Market**

Building the European
Data Economy



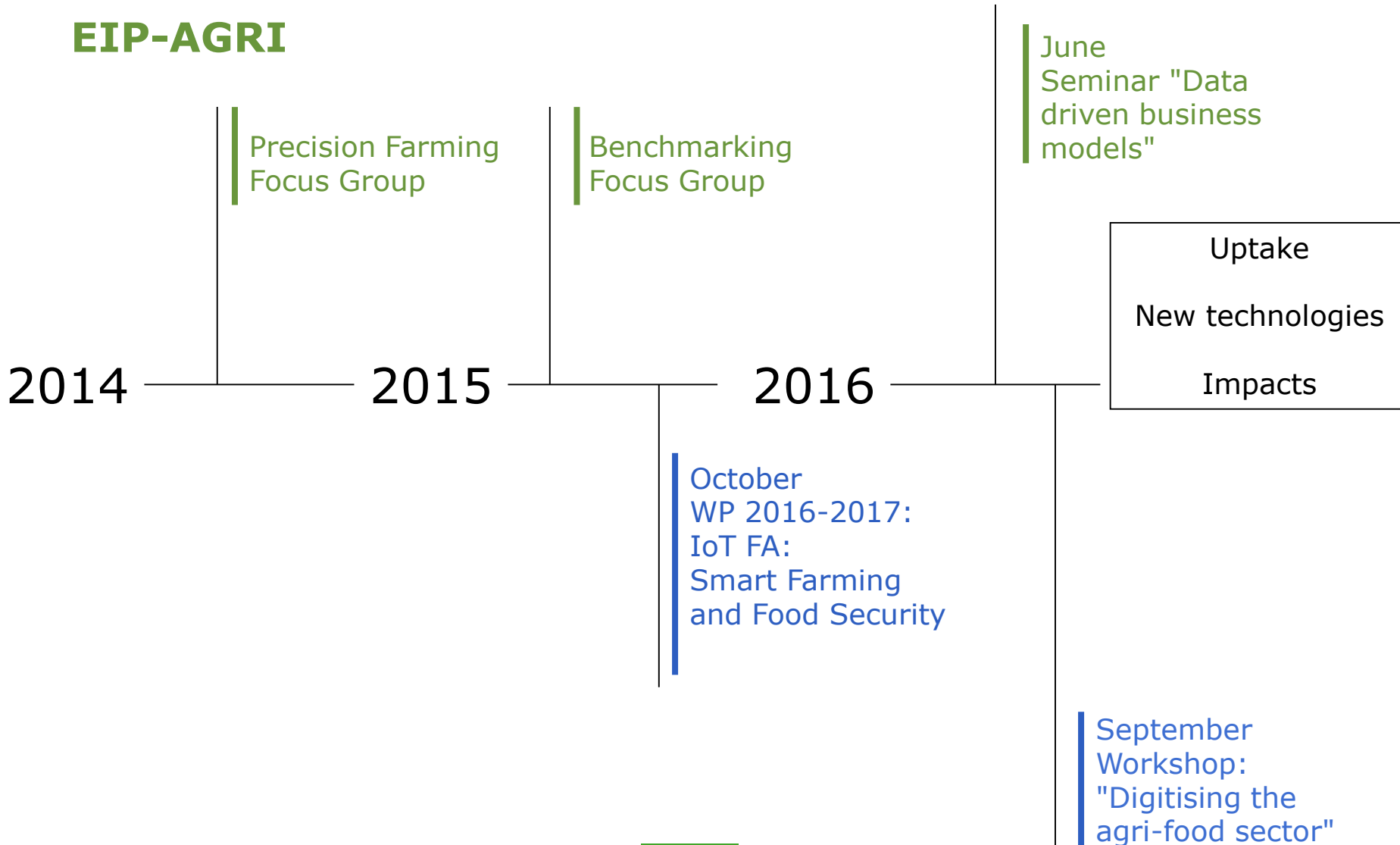
**Policy
Framework**

<https://ec.europa.eu/digital-single-market/digital-single-market>



<https://ec.europa.eu/programmes/horizon2020/en/news/final-paper-strategic-approach-eu-agricultural-research-and-innovation>

EIP-AGRI



EIP-AGRI

Uptake
New technologies
Impacts

2017

April
Workshop "Data
Sharing"

June
Seminar "Digital
Innovation Hubs:
mainstreaming
digital
agriculture"

October
Lisbon innovation
Summit

2018

[IoF2020 –
Internet of Food
2020 project](#)

[November
"H2020
Digitisation Day"](#)

Publication WP
2018-2020

A few tips on how to link OGs to H2020:

- **Multi-actor project consortia are looking for OGs: be visible** as from the start of your OG project (use practice abstracts, use H2020 info events and partnering events at EU and national level, use the partner search tool on the EIP website, use EIP events and FGs)
- **Thematic networks could be built from OGs** in various MS/regions (minimum 3), see clusters of OG themes, also **cross-border OGs**
- The EIP network is organising **dedicated events to bring together OGs**, but don't wait to take initiative yourselves (eg OGs may present themselves in conferences and events)
- **Practice abstracts** are there to help you connect on similar themes: find contact data from potential partners (both for informing OG projects and for forming potential consortia for MA projects)
- **Organise collection of needs from farmers & foresters'** practice: can feed into the H2020 WP programming phase and in the yearly bottom-up topics in the H2020 WP (without predefined themes)
- The **EIP website** lists MA projects, TNs, OGs,....