The European Innovation Partnership (EIP) „Agricultural Productivity and Sustainability“

Speeding up innovation

EIP Conference – Ljubljana – 13 November 2017
Inge Van Oost - DG Agriculture and Rural Development
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)
"I not only use all the brains that I have, but all that I can borrow"

Woodrow Wilson – President of the USA, 1913-1921
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
- Project funding for the Operational Group’s project
- Supporting innovation support services (advisory services with a focus on innovation)

**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
Funding for interactive innovation projects

Rural Development (regional/national level)

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Horizon 2020 (European projects)

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"all along the project"

Unique EU repository of contacts and practice abstracts

Involvement of OGs is strongly recommended
We need to network

Funding for interactive innovation projects

**Rural Development**

- 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). This cooperation could be combined with other RD measures (e.g. investment, knowledge transfer, advice)
- Supporting **innovation support services**

**Horizon 2020**

- **Research projects**, to provide the knowledge base for innovative actions
- **Interactive innovation formats** such as multi-actor projects and thematic networks genuinely involving farmers, advisors, entreprises, etc... *"all along the project"*

EIP networks MS/regions

**eip-agri**
An EU wide EIP network, supported under Rural development policy Linking with H2020

- Multi-actor project (MA)
- Thematic Network (TN)
- National Rural Network (NRN)
- Operational Group (OG)
What is an Operational Group (OG)?

- EIP operational groups funded under rural development programmes are multi-actor, project based and **tackle a certain practical problem or opportunity** which may lead to an innovation.

- The operational group is **tailored** to this problem/opportunity and **makes the best use of different types of knowledge** (practical, scientific, technical, organisational, etc) in an interactive way.

- The operational group is composed of **those key actors** (farmers, advisors, researchers, businesses, NGOs etc) which are in the best position to realize the project's goals and **to share experiences broadly**.
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
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** are 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
First Operational Group projects are being set up ...

Some examples:

- ValorInVitis – using indigenous varieties and increasing the resilience of production systems to climate change (IT-ER)
- Pig health – reducing the use of antibiotics (DE-NS)
- Robust lamb in Pyrénées (France)
- Winter harvest: seasonal, energy extensive and innovative vegetable production (Austria)
- Establishing a sustainable and environment friendly wheat value chain (Germany)
- FruitNet - control of Monilinia spp. in stone fruits (Spain)
- Aquaponics: nutrients from fish for plant growth (DE – MV)
- Organic dock control in grasslands (Austria)
- Zero herbicides in Mediterranean perennial crops (France)

http://ec.europa.eu/eip/agriculture/content/eip-agri-workshop-operational-groups-first-experiences

Examples of an Innovation Support Service: one to one brokering function

Project objective: develop a pig stable reducing ammonia emissions by 50% in a more cost-efficient way than existing stable systems (idea from a farmer, brokered by the Innovation Support Centre)
Innovation Support Service

- Innovation advice and promotion
- Coaching farmers towards innovation (Innovation Prize)
- Brainstorming events and animation
- **Brokering** function
- **Coordination and facilitation of projects** as an intermediate between partners
- Dissemination of innovative results
- Connect with SME and other innovation services and funding
EU research and innovation projects: 
H2020 Multi-actor approach - Key elements

The two most important principles are:

- 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"

- 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, who co-operate and co-innovate **in project activities from the beginning till the end**.

Detailed requirements in H2020 WP introduction p. 10-11

TREASURE, a Horizon 2020 multi-actor project on traditional resources for agricultural diversity and the food chain

Each partner (academia or non-academia) with a clear and visible role in the project i.e. various actors (e.g. farmers) involved from work planning to dissemination, demonstration

Field experiments conducted in „real life“ situations working directly with farmers e.g. linked TP => cross-fertilisation of knowledge/ideas

Marjeta Čandek-Potokar KIS (Agricultural Institute of Slovenia)

Agriculture R&I conference, Brussels, 26-28 January 2016
Multi-actor coordination action: Partners should **summarise, share and present existing scientific knowledge & best practices** that are not sufficiently known (and applied) by practitioners, in an easy understandable concise way ready for practice.

Themes to be chosen **bottom-up**, contributing to a more competitive sustainable agriculture and forestry.

Themes must **focus on the most urgent needs of agricultural or forestry production sectors**,.

Projects **involving the actors relevant for the chose theme** (e.g. researchers, farmers, advisors, enterprises, education, NGOs, administration, regulatory bodies, EIP project groups...)

**H2020 Thematic networks:**

*Compiling knowledge ready for practice*
<table>
<thead>
<tr>
<th>RUR 10 - 2016</th>
<th>CERERE</th>
<th>Cereals: organic/low input cereal food systems for biodiversity and quality (production, processing, marketing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUR 10 - 2016</td>
<td>Eu PiG</td>
<td>Pig husbandry: health management, precision production, welfare and meat quality</td>
</tr>
<tr>
<td>RUR 10 - 2016</td>
<td>Inno4Grass</td>
<td>Productive grasslands: profitability and environmental services</td>
</tr>
<tr>
<td>RUR 10 - 2016</td>
<td>SheepNet</td>
<td>Improving sheep productivity</td>
</tr>
<tr>
<td>ISIB 2 - 2014</td>
<td>Winetwork</td>
<td>Wine diseases: Grapevine Trunk Disease and Flavescence dorée</td>
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<tr>
<td>ISIB 2 - 2014</td>
<td>OKNetArable</td>
<td>Organic agriculture - arable crops</td>
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<tr>
<td>ISIB 2 - 2014</td>
<td>Hennovation</td>
<td>Animal welfare hens</td>
</tr>
<tr>
<td>ISIB 2 - 2015</td>
<td>4D4F</td>
<td>Data and sensor driven decision making on dairy farms</td>
</tr>
<tr>
<td>ISIB 2 - 2015</td>
<td>EUFRUIT</td>
<td>Fruit: cultivar development, minimize residues, storage and fruit quality, sustainability of production systems</td>
</tr>
</tbody>
</table>
### 17 H2020 bottom-up Thematic Networks so far (2)

**A complementary set of themes (cross-cutting themes)**

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

**A short film explaining how a thematic network works:**

[https://youtu.be/mVsW4-ex0M](https://youtu.be/mVsW4-ex0M)

Videostreamed presentation on Multi-actor approach and Thematic Networks in call 2016: (from 0:53:00 till 01:47:00)

Basic info + questions & answers

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

Event page:
What info is to be shared through the EIP common format for practitioners?

- Short and easily understandable title (one key sentence, max 150 char.)
- Short innovative info in easily understandable language (max 1500 char.) = 'practice abstracts':
  - What problem will the knowledge generated solve for the end-user? What will be the main benefits to the practitioner?
  - Main outcome/recommendation (2-3 main results)
- Contact data: Project coordinator (+ address, e-mail, telephone), 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
An example of a practice abstract 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.
Mise au point et adaptation d’itinéraires techniques innovants en filières végétales: Innoveg.


Objective of the project (in English): The project is addressed to the reorganisation of the first phase of BTA (2015-2015). It aims at structuring and developing a sustainable basin model for vegetable sectors by intervening at the different stages of the production process up to harvesting and the transformation of products. Research-development-education activities were defined after a long process of reflection and dialogue with all partners in the vegetable sectors in 2014, and respond to the needs expressed by farmers and agro-ecology issues.


Description of activities (in English): The project activities are grouped around 5 themes (or WP): 1. Information System on agronomic and environmental performance of mixed crops, 2. Plant health in Mayotte basin: agro-ecological management of bio-aggressors, 3. Improvement of technological itineraries in market gardening, fruit production and subsistence crop and varietal diversification, 4. Creation of new transformation processes bringing added value to typical Mayotte products, 5. Transfer and dissemination results in farming areas.

Total budget: 265538

Project coordinator
Name: MANDRET GILLES
Address: 43, Rue de l’hôpital, BP 1304, Kavéni, 97600 Mamoudzou
Email: secretaire@agri.mayotte@cirad.fr
Telephone: 0269612121

- Project partners
- Short summary for practitioners
- Practice abstract 1

Unique EU repository of contacts and practice abstracts
Having potential innovative knowledge is one thing, turning it into reality is another.

"The value of an idea lies in the using of it."

Thomas Alva Edison – inventor of the light bulb
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Speed up creativity and practice application

Better connectivity and quicker circulation of information
Where can you find more info?

- **EIP brochure on multi-actor projects:** NEW

- **EIP brochure on thematic networks & practice abstracts**

- **EIP common format for practice abstracts**
  - [https://ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format](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](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
Innovation is: an idea put into practice with success!

Engage in a better connected European AKIS:

To an „Agriculture of Knowledge“ .....

Thank you for your attention!

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