Nutrients Recycling under the EIP-AGRI and Horizon 2020

European nutrient event
19 October 2017

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The AGRI R&I team

Breaking the silos between the R&I and the Agricultural policies

EIP-AGRI

Horizon 2020

Co-management of the Societal Challenge 2 with DG Research & Innovation
Contents outline

- EIP-AGRI in a nutshell

- The EIP-AGRI Network
  - Focus Group on Nutrient recycling
    How to improve the agronomic use of recycled nutrients (N and P) from livestock manure and other organic sources?

- RDP support to Operational Groups

- Horizon 2020 R&I projects & Thematic Networks
The European Innovation Partnerships (EIPs)

- New approach under the **Europe 2020 Strategy** for smart, sustainable and inclusive growth

- Flagship Initiative "**Innovation Union**": EIPs as a new tool for fostering innovation through linking existing policies and instruments

- EIPs should provide favourable conditions for research and innovation partners to co-operate and achieve better and faster results compared to existing approaches
EIP-AGRI - in short

Launched by the Commission in February 2012 (COM (2012)79)

Aim: Fostering a competitive and sustainable agriculture and forestry sector that ‘achieves more from less’

Approach: **Closing the innovation gap** between research and practice and forming partnerships by:

- **Using the interactive innovation model**
- **Linking actors through the EIP-AGRI Network**
- **Shape existing knowledge into solutions**

Knowledge and partners

- Research needs
- Feedback

Research

- Results
- Ideas to test
Connecting policies

**CAP / EIP-AGRI / H2020**

- **Multi-actor projects**, involving the agricultural community
- **Thematic networks**, unlocking and exchanging knowledge across the EU

**Operational Group**

- **OG preparation**
- **OG project funding**
- **Innovation support services**

**EIP network**

- Unique EU knowledge repository
- Contacts and practice abstracts
- **Focus Groups - Workshops**

**CAP / Rural development (regional/national level)**

- Farmers
- NGOs
- Advisers
- Researchers
- Agribusiness

**HORIZON 2020**

(European projects)
The EIP-AGRI Network and its Service Point

servicepoint@eip-agri.eu
+32 2 543 73 48

EIP-AGRI Service Point
Avenue de la Toison d’Or 72
1060 Brussel
Belgium
EIP-AGRI Service Point

SHARING KNOWLEDGE - CONNECTING PEOPLE - TACKLING CHALLENGES

SERVICES

- Helpdesk
- Focus Groups
- Workshops & Seminars

Connect farmers, researchers, advisors, businesses, environmental groups, consumer interest groups and other NGOs

Online & Printed Publications

- Database
  - Funding opportunities
  - Research needs from practice
  - Experts
  - Case Studies
  - Finding partners

- Newsletter
- Press
- Social Media
- Website
- Events

Help agricultural innovations spread across Europe fast

Connecting Research & Practice

Connecting Scientists & Farmers

Connecting Within & Across European Countries
EIP-AGRI Focus Groups

tackling agricultural challenges

EIP-AGRI Focus Groups are

• temporary groups of selected experts
• focusing on a specific subject,
• sharing knowledge and experience.

• Open calls for interest of participation
• 20 participants, different types of actors
• Short duration, focused
• Inspiration to set up Operational Groups
• 28 Focus Groups (FG) to date

http://ec.europa.eu/eip/agriculture/en/content/focus-groups
Focus Group  Nutrient recycling

Erik MEERS  
Coordinating expert of the FG  
Ghent University
## Composition of the Focus Group

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Professional background</th>
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<tbody>
<tr>
<td>Fabrizio Adani</td>
<td>Italy</td>
<td>Scientist</td>
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<tr>
<td>Jean-Philippe Bernard</td>
<td>France</td>
<td>Expert from agricultural organisation</td>
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<tr>
<td>August Bonmatí</td>
<td>Spain</td>
<td>Scientist</td>
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<tr>
<td>Jeanet Brandsma</td>
<td>Netherlands</td>
<td>Farmer</td>
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<tr>
<td>Susanna Klages</td>
<td>Germany</td>
<td>Expert from agricultural organisation</td>
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<tr>
<td>Vea Eory</td>
<td>United Kingdom</td>
<td>Scientist</td>
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<tr>
<td>David Fangueiro</td>
<td>Portugal</td>
<td>Scientist</td>
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<tr>
<td>Patrick Forrestal</td>
<td>Ireland</td>
<td>Scientist</td>
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<tr>
<td>Zoltan Hajdu</td>
<td>Hungary</td>
<td>Farm advisor</td>
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<tr>
<td>Dolores Hidalgo</td>
<td>Spain</td>
<td>Scientist</td>
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<tr>
<td>Lars Stoumann-Jensen</td>
<td>Denmark</td>
<td>Scientist</td>
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<tr>
<td>Christian Kabbe</td>
<td>Germany</td>
<td>Expert from industry</td>
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<tr>
<td>Airi Külvet</td>
<td>Estonia</td>
<td>Farmer</td>
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<tr>
<td>Erik Meers</td>
<td>Belgium</td>
<td>Scientist</td>
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<tr>
<td>Giorgio Provolo</td>
<td>Italy</td>
<td>Scientist</td>
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<tr>
<td>Filip Raymaekers</td>
<td>Belgium</td>
<td>Agricultural consultant</td>
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<tr>
<td>Kaisa Riiko</td>
<td>Finland</td>
<td>Expert from NGO</td>
</tr>
<tr>
<td>Emilie Snauwaert</td>
<td>Belgium</td>
<td>Other type of advisor</td>
</tr>
<tr>
<td>Edward Someus</td>
<td>Hungary</td>
<td>Expert from industry</td>
</tr>
<tr>
<td>Chris Thornton</td>
<td>France</td>
<td>Expert from European association</td>
</tr>
<tr>
<td>Adrie Veeken</td>
<td>Netherlands</td>
<td>Agricultural consultant</td>
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Central figure in the Starting Paper & End-report

Agro-processing of residues could serve to reconnect nutrient cycles between plant and animal production.
Papers drafted in frame of the Focus Group “Nutrient Recycling”

**Mini-paper 1**  
Available technologies for nutrients recovery from animal manure and digestates  
David Fangueiro et al.

**Mini-paper 2**  
On Farm Tools for accurate fertilisation  
Emilie Snauwaert et al.

**Mini-paper 3**  
On Farm Practices  
Kaisa Riiko et al.

**Mini-paper 4**  
Towards increasing the mineral fertiliser replacement value of biobased fertilisers  
Patrick J. Forrestal et al.

**Mini-paper 5**  
The value of recycling organic matter to soils: Classification as organic fertiliser or organic soil improver  
Adrie Veeken et al.

**Mini-paper 6**  
End-user requirements for recycled and biobased fertiliser products  
Lars Stoumann Jensen et al.

**Mini-paper 7**  
Regulatory environment effecting nutrient recycling  
Christian Kabbe et al.

**Mini-paper 8**  
Assessing the environmental effects of nutrient recycling from organic materials used as fertilisers  
Vera Eory et al.
Research Needs

- Organic contaminants
- Standardisation of LCA methodologies/risk assessment
- Assessment of the Nutrient Use Efficiency
- Acceptance of the use of organic fertilisers
- Development of tailor-made products
- Use of remote sensing
- Development of farm tools
Suggestions for Operational Groups

*Process demonstration (general)*

*Product demonstration (focusing on the products and the farmer)*

*Integration of nutrient management in certifying schemes*

*Cooperative business models*

*Through the eyes of the farmer*
What is an Operational Group (OG)?

- project-based in order to **tackle a certain practical problem or opportunity** which may lead to an innovation

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

- multi-actor, composed of **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**.
What is an Operational Group (OG)?

A group with a project becomes an OG if its project is selected in a call organised by the regional/national Rural Development managing authorities.

Common Agricultural Policy support to EIP Operational Groups

118 Rural Development Programmes 2014-2020

- The EIP implementation via RDPs aims at a flexible and open system for the creation of a multiplicity of operational groups (OGs) projects, contributing to all RDP priorities and focus areas.
- 98 regions/MS in 27 MS will be implementing the EIP in their 2014-2020 RDPs with regular calls for OG projects during this period.
- Over 3 200 planned OGs in 2014-2020 covering a broad range of activities.
Examples of starting OGs

- Soil structure and quality improvement using microorganisms. Reduction of nitrogen compounds emissions, while maintaining the productivity of plants. 615,125€ - Lithuania

- Innovation compost systems in optimizing soil fertility. 194,311€ - DE/Schleswig-Holstein

- Feasibility of a nitrogen balance on a dairy farm to reduce ammonia emission. 33,140€ - BE/Flanders

- Digestate_100% - Innovative integrated system for digestate use in fertigation. 139,244€ - IT/Emilia-Romagna

- PET TREATS production pilot project to obtain high added-value by-products of slaughter. 267,142€ – ES /Cataluna

- Conservative management of biomasses, nutrients and soil fertility in small family farms in Mayotte island and the transfer of information: Biofer–101,853€ FR / Mayotte island
For more information on OGs...

Discover the dedicated OG area on the EIP website


OG leaflets

OG brochure

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


https://youtu.be/7WhhGIocMO8
Horizon 2020
Support to multi-actor projects under Horizon 2020
Horizon 2020

Overall Structure

1. Excellent science
2. Industrial leadership
3. Societal challenges

1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy
   EU 3.851 billion (including JTI BBI)
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, resource efficiency and raw materials
6. Inclusive, innovative and reflective societies
7. Secure societies
RUR-04-2016  Water farms – improving farming and its impact on the supply of drinking water

Just starting – common launch event the 6th December in Brussels

4 year project: 2017 - 2021       Budget: 4,999,865 EURO

3 year project: 2017 - 2020     Budget: 4,997,006 EURO

Participants: 23 partners from Netherlands, France, Norway, Slovenia, Italy, Germany, Portugal, England, Ireland, Romania, Greece and Denmark.

Participants: 27 partners from Belgium, Ireland, Italy, Poland, Spain, Romania, the United Kingdom and Denmark.

http://www.fairway-project.eu
Contact (coordinator): Gerard Velthof, Wageningen Research gerard.velthof@wur.nl

http://water-protect.eu
Contact (coordinator): Piet Seuntjens, VITO piet.seuntjens@vito.be
SFS-30-2017  **Closing loops at farm and regional levels to mitigate GHG emissions and environmental contamination - focus on carbon, nitrogen and phosphorus cycling in agro-ecosystems**

*Under evaluation – two projects to be funded soon...*
Pre-publication of the Work Programme 2018-2020

Coming soon in the SC2 calls:
• **SFS** – Sustainable Food Security
• **RUR** – Rural Renaissance

- **CE-SFS-25-2018**: Integrated system innovation in valorising urban biowaste
- **CE-SFS-39-2019**: High-quality organic fertilisers from biogas digestate
- **CE-RUR-08-2018-2019-2020**: Closing nutrient cycles
  - A.[2018] Understanding properties and impacts of bio-based fertilisers
  - B.[2019] Bio-based fertilisers from animal manure
  - C.[2020] Bio-based fertilisers from other by-products of the agro-food, fisheries, aquaculture or forestry sectors
- **RUR-09-2018**: Realising the potential of regional and local bio-based economies
- **CE-RUR-10-2019**: Circular bio-based business models for rural communities

[Links to the programme]
Multi-actor projects aim to produce impact:

A multi-actor project needs to demonstrate:

- how the project proposal's objectives and planning are targeted to needs / problems and opportunities of end-users
- complementarity with existing research and best practices
- sufficient involvement of key actors with complementary types of knowledge (scientific and practical) should be reflected in the composition of the project consortium to reach the project objectives and make its results broadly implemented.
Thematic networks compiling knowledge ready for practice

- foster cross-border knowledge exchange
- establish links with and between the OGs
- involve a wide range of concerned actors covering both science and practice on specific themes: no pure research networks
- synthesise, discuss and present *existing scientific knowledge & best practices*: what do we have/what do we miss to be used

Develop **end-user material**:  
- info sheets in a common format  
- audio-visual material  
- Available in the long-term and easily understandable,  
- **shared through the EIP** (input for education and a research web-database for end-users)
An EU wide EIP network, supported under Rural development policy. Linking with H2020.
More information…

**Pre-publication** of Horizon 2020 Work Programme 2018/2019

**SC2 Infoweek** of Horizon 2020 register here by 20 October

**Brochure** on Thematic Networks under H2020:

**Brochure** on "Multi-Actor Approach" under H2020:

**Projects** on AGRI R&I webpage
http://ec.europa.eu/agriculture/research-innovation/projects/index_en.htm

**Focus Group** on Nutrient recycling:
https://ec.europa.eu/eip/agriculture/en/focus-groups/nutrient-recycling
Thank you for your attention!

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Questions?