

EU Research & Innovation activities



24-25 April 2018

**Workshop R&I in Plants
Proteins**

Gaëtan DUBOIS

European Commission

The EIP-AGRI in a nutshell

Innovation Union Flagship Initiative: 5 EIPs link existing policies and instruments to speed up innovation
Commission Communication 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:*

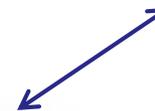
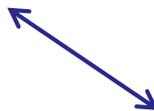
- **Using the interactive innovation model**
- **Linking actors through the EIP-AGRI Network**

European Innovation Partnership

Overarching concept – funding in:

Rural Development

- **Setting up "operational groups"** involving farmers, advisor, agribusiness, research, and NGOs to work on innovation projects
- **Project funding** for activities of operational groups, possibly combined with other measures (investment, knowledge transfer, advisory services)
- Supporting **innovation support services**



Horizon 2020

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



EIP-AGRI Service Point

SHARING KNOWLEDGE - CONNECTING PEOPLE - TACKLING CHALLENGES

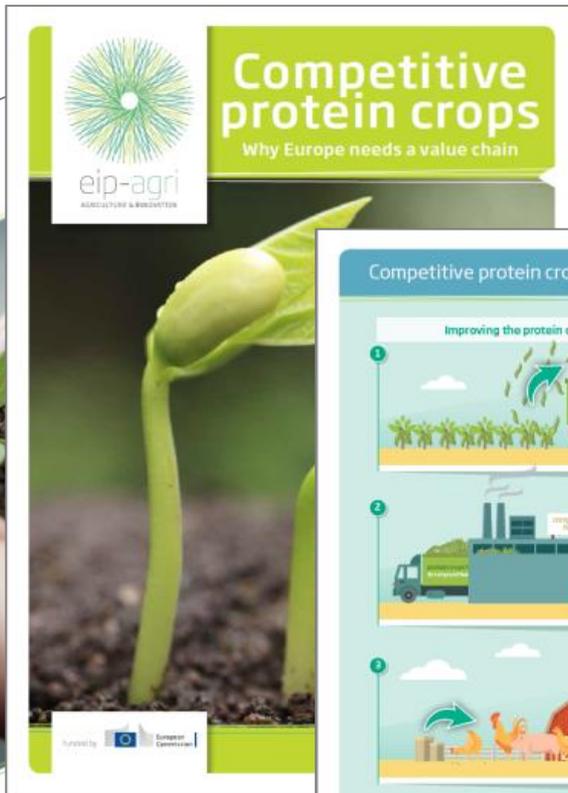
SERVICES



Help agricultural innovations spread across Europe fast



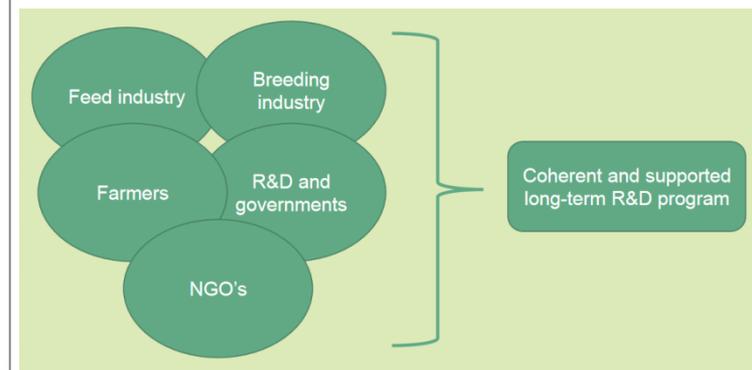
EIP-AGRI Focus Group & Workshop on protein crops



Constraints and opportunities:

- Breeding chain and genomics
- Yield improvement and stability
- Transition: developing or adapting a value chain
- Crop diversity/Mixed cropping
- Extension and farmer's unfamiliarity with protein crops
- Diversification of the livestock chain
- Sustainability and transparency demands.

Conclusion: integral approach

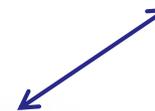
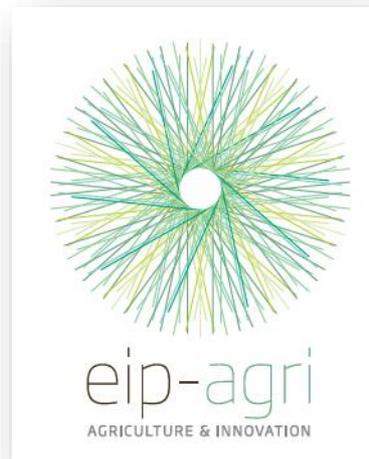
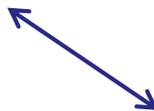


European Innovation Partnership

Overarching concept – funding in:

Rural Development

- **Setting up "operational groups"** involving farmers, advisor, agribusiness, research, and NGOs to work on innovation projects
- **Project funding** for activities of operational groups, possibly combined with other measures (investment, knowledge transfer, advisory services)
- Supporting **innovation support services**



Horizon 2020

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

Key Acting Entities Within the EIP

- Operational Groups -



"Operational Groups" are no stakeholder networks, no stakeholder boards, no thematic coordination groups, nor discussion groups
An OG = actors working together in a project targeted at innovation and producing concrete results

First mapping of OGs dealing with Legumes

Many OGs are dealing with nutrient management in the fields and protein-feed management for livestock in order to reduce the impacts on the environment. Some OGs specifically mention Legumes:

Ecosystem services

4+ projects – 1M€

*Cover crop
Companion
crop*

N-fertiliser

*Weed & pest
management*

Crop production

~10 projects – 6,8M€

*legumes in short cereal-
based rotations*

*Yields
increase &
stability*

*Nutrients
management and
N transfer*

Soil organic matter

*Associations:
cereals-legumes
and grass-legumes*

*Organic and
conventional*

Feed (Food)

10-15 projects - 4M€

*Feed
management*

*Local
Native
sources*

*Clover
pellets*

Feed autonomy

Protein self-sufficiency

GMO-free

Dairy cows

Pigs

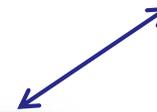
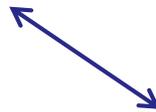
Laying hens

European Innovation Partnership

Overarching concept – funding in:

Rural Development

- **Setting up "operational groups"** involving farmers, advisor, agribusiness, research, and NGOs to work on innovation projects
- **Project funding** for activities of operational groups, possibly combined with other measures (investment, knowledge transfer, advisory services)
- Supporting **innovation support services**



Horizon 2020

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

3 Pillars

7 Societal challenges

Challenge based

• **Industrial leadership**

• *LET, Risk Finance, SME*

• **Societal challenges**

• **Excellent science**

• *ERC, Marie Curie, FET, Infrastructures,*

1. **Health, demographic change and wellbeing**

2. **Food security, sustainable agriculture, marine and maritime research and the bioeconomy**

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**

Bottom up

Looking back to FP7

KBBE.2009.1.2-01: Legumes – key multifunctional legume crops for an energy-efficient and environmently friendly future European agriculture



KBBE.2011.1.1-02: Integrated approach to studying effect of combined biotic and abiotic stress in plants



KBBE.2013.1.2-02: Legume breeding and management for sustainable agriculture as well as protein supply for food and feed



KBBE.2009.1.2-01: Multifonctional grasslands for sustainable and competitive ruminant production systems and the delivery of ecosystem services



...

Horizon 2020 – Societal Challenge 2

SFS-15-2014 Proteins of the future

**PROTEIN
2FOOD**

SFS-26-2016 Legumes - transition paths to sustainable legume-based farming systems and agri-feed and food chains



SFS-44-2016 A joint plant breeding programme to decrease the EU's and China's dependency on protein imports



Other topics/projects where Legumes contribute:

SFS-02-2016 Teaming up for good: Exploiting benefits of species diversity in crop systems

RUR-06-2016 Crop diversification systems for the delivery of food, feed, industrial products and ecosystems services - from farm benefits to value-chain organisation

...