



EIP-Agri WorkShop

Profitability of protein crops

26-27 November 2014

Introduction and Objectives

Gaëtan Dubois

European Commission

DG AGRI, H.5

EIP-Agri WS: Profitability of protein crops

Content:

- **Background**
 - Protein crops
 - EIP-Agri
 - European Research under FP7 & Horizon 2020
- **The workshop**
 - Programme
 - Objectives
- **Considerations**

EIP-Agri WS: Profitability of protein crops

Content:

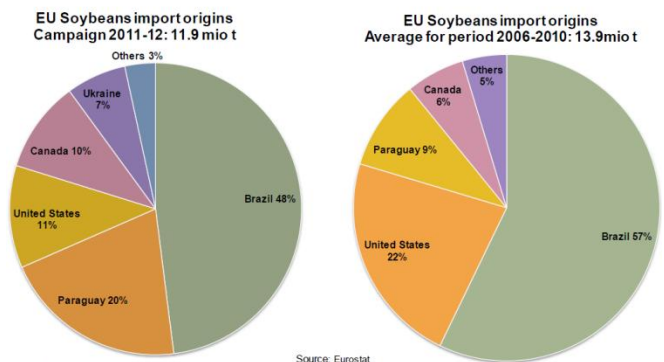
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Protein crops

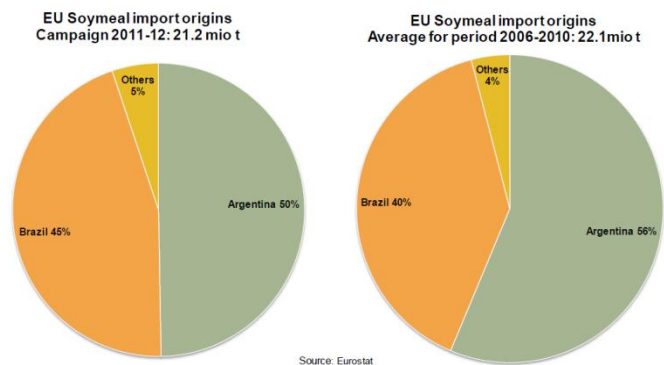
The **large family of legumes** includes plants such as alfalfa, clover, peas, beans, lentils, lupins and soy, which are consumed as both food and animal feed. EU legislation classifies three specific crops as "protein crops: peas, field beans and sweet lupins harvested after the stage of lactic ripeness.

The European deficit:

EU soybeans imports origins

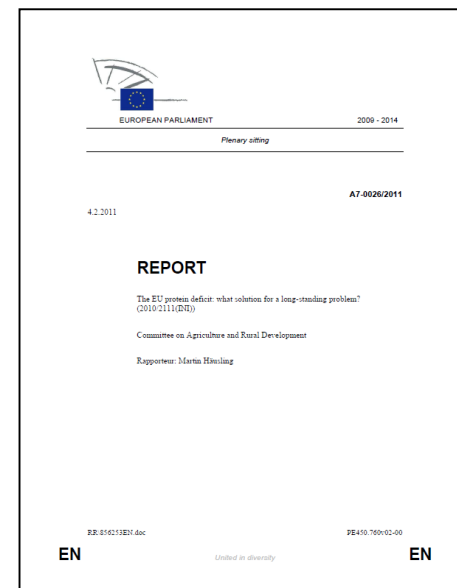


EU soyameal imports origins

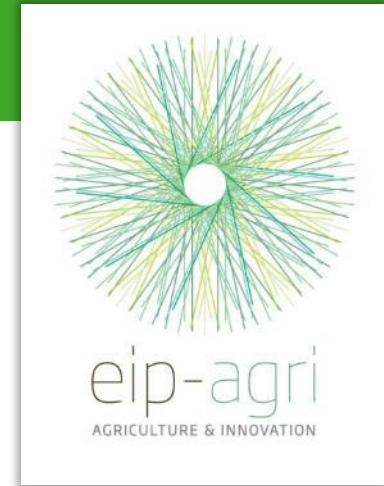


what solution for a long-standing problem?

EP report 2011



EIP - AGRI



EIP-AGRI in a nutshell

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

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)
- Promoting **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

Network Function of the EIP

- **Collect** information (research and innovation projects etc.) and best innovation practices
- Effective **flow of information** (website, databases)
- **Give advice** on opportunities within policies (helpdesk function)
- Sharing knowledge on concrete practical work and **connect actors**
- Systematic **feedback** to the scientific community about practice needs (Art.12 H2020)

=> Work Shops & Focus Groups (new requests!) part of the networking function

Protein crops – focus group

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- Animal husbandry
- Ecological Focus Areas
- Fertiliser efficiency
- Genetic resources
- High Nature Value
- IPM for Brassica
- Organic farming
- Permanent grassland
- Precision farming
- Protein crops**
- Short food supply chains
- Soil organic matter
- Soil-borne diseases

Protein crops

What does the feed sector need in terms of protein? Why is EU farming not able to deliver? Why is EU farming in protein crops not competitive? How can this be remedied?

This Focus Group published its *recommendations report* in May 2014.

Tasks:

- **Analysing** the demand for protein crops in Europe:
 - What are the requirements for the feed sector (quality, price)?
 - What are the key findings (e.g. comparative analysis of cost/benefit of protein crops in Europe)?
 - What strategies can be developed to increase competitiveness of protein cultivation in Europe?
- **Assessing** the potential of relevant crops and forage which are rich in protein.
- **Looking** into the value of protein crops in the crop rotation (e.g. effects on soil fertility, reduced nutrient use, reduced weed infestation, micronutrients, reduced compaction, etc.).
- **Suggesting** how to increase productivity and protein content of soybean in the EU, pulses (vicia, beans and peas), alfalfa and clover, oil seeds (rapeseed, sunflower).

Report available:
<http://ec.europa.eu/eip/agriculture/en/content/protein-crops>

FP7 and Horizon 2020

FP7 finished and running projects

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



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



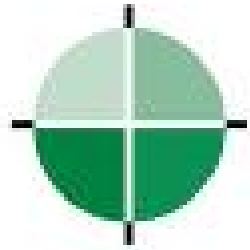
...

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: Multifunctional grasslands for sustainable and competitive ruminant production systems and the delivery of ecosystem services





Legume Futures

Objectives:

- design and validate new cropping systems for Europe's pedo-climatic zones.
- quantify the resource use, along with the socio-economic and environmental effects of contrasting cropping and agricultural system scenarios at a range of scales.
- identify the wider environmental effects of legume use within farming systems.
- assess elite germplasm of a wide range of legume species.
- provide assessed scenarios to support the development of supply chains, including livestock feeding systems.
- provide a comprehensive and full assessment of the potential of legumes in the non-food sector.
- facilitate access to the wider knowledge base on legumes and establish a European Legume Crop Biological Resources Centre.

Project partners:



Coordinator contact:

*Dr. Bob Rees
SRUC, King's Buildings
West Main Road
Edinburgh, UK
bob.rees@sac.ac.uk*

<http://www.legumefutures.de/>



Objectives:

- Develop crops that have increased resistance to drought (abiotic) and *Fusarium* (biotic) stress and still produce a good yield.
- Significantly reduce the time taken to breed new crop varieties that are more able to withstand the challenges commonly associated with climate change, such as extreme weather and changing incidence of pests and diseases.
- Improve the accessibility of modern breeding techniques within the European Union and in association with partners across the world.

Project partners:



Coordinator contact:

Dr. Adrian Charlton
FERA, Sand Hutton, York, North
Yorkshire, YO41 1LZ, UK
adrian.charlton@fera.gsi.gov.uk

<http://www.abstress.eu/>

FP7 projects



European
Commission



Coordinator contact:

Dr. Richard Thompson
INRA – UMR1347 Agroécologie
BP 86510, Dijon, France
Richard.thompson@dijon.inra.fr

Project partners:



Objectives:

- Work on major European GL: pea, faba bean with specific objectives on white lupins, lentils and grass pea.
- Identification and testing of novel breeding lines possessing valuable characters such as disease and pest resistance, tolerance to abiotic stresses, quality for human consumption.
- Optimizing the selection for low-input agriculture and in innovative legume-centred cropping systems, intercropping and multivarietal mixtures, and testing the benefit of inoculation with rhizobium.
- Enabling a quantum leap in the use of marker-assisted selection in legume plant breeding, through the exploitation of comprehensive genomic resources
- Communicating and exploiting the breadth of knowledge obtained to the gamut of stakeholders.



Coordinator contact:

Prof. Dr. Eduardo Rosa

UTAD - CITAB

*Quinta de Prados - Pavilhão 2
5000-801 Vila Real, Portugal*

E-mail: citab@utad.pt

Project partners:

- 1 UTAD - Portugal
- 2 LLU - Latvia
- 3 PHRC - Latvia
- 4 SPPBI - Latvia
- 5 BIOEFFECTS - Latvia
- 6 ECRI - Estonia
- 7 AUT - Albania
- 8 JTI - Sweden
- 9 FRESCURA SUBLIME - Portugal
- 10 UPCT - Spain
- 11 INIAV - Portugal
- 12 BOKU - Austria
- 13 AUA - Greece
- 14 BIOFORSK - Norway
- 15 UMB - Norway
- 16 SYMBIOM - Czech Republic
- 17 KPRA - Spain
- 18 ESTIRPE - Portugal

Objectives:

- Development of new faba bean, pea and cowpea genotypes of high nutritional value and productivity from local, European genetic resources;
- Development of new food products for consumers taking into account changing eating habits – fast food, ready to eat and of short processing time;
- Development of feed ensuring valuable protein source from locally grown legumes instead of imported soya;
- Expanding of legume insertion in plant rotations in order to increase soil fertility with sustainable tools diminishing load on environment;
- Increased use of microbiological tools in agriculture for intensification of biological nitrogen fixation in order to increase plant productivity and improve soil properties.

H2020 – first call – topic SFS-15-2014

Proteins of the future

Specific challenge: Growing demand for meat and other protein-rich food sources (...); Questions related to optimal production and processing methods, location (EU or other), health effects, environmental impact, and legal issues remain unanswered. Consumer acceptance of new and/or improved sustainable protein sources, as well as other factors related to market uptake, require further clarification (...).

Scope: A multidisciplinary approach, covering the whole food supply chain (..) of new and/or existing protein sources should be taken. The market potential for the producer and added value for the consumer should be considered, together with food safety and quality parameters, regulatory issues, health and diet-related risks and benefits (including gendered safety tests), and gender issues. (...) Proposals should be focused on how new and/or adapted protein sources can provide innovative, cost-effective and resource-efficient alternatives to traditional sources, with no or positive impacts on health, the environment and biodiversity.

Expected impact:

- A significant increase in the quality of proteins and of the sustainability of their production and processing.
- A support to EU policies on agriculture, nutrition, health, environment, development and sustainable food security by increased market uptake of existing and/or new proteins that contribute to a healthy diet.
- A strengthening of international research, industrial cooperation and the EU economy, with a specific focus on SMEs and small-scale food processing.
- An increase in new market opportunities, in the short and medium term, as measured in terms of market share, turnover, employment and intellectual property.
- A clear contribution to social innovation due to Fair Trade/fairer trade, as well as an increase in socio-economic and environmental sustainability.

EIP-Agri Workshop:

Profitability of protein crops

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Objectives of the Workshop:

"How to make protein crops profitable in the EU?"

Specific objectives:

- ✓ **To explore the opportunities to progress towards achieving competitive protein production in the EU, and**
- ✓ **To facilitate the creation of networks on protein crops**

Two key issues identified:

- ✓ **The yield gap to overcome: from seeds to farm gross margins,**
- ✓ **Building a market: from farm to end-users.**

Programme of the Workshop

Today

13:30-14:00 **Welcome and introduction**

14:00-15:00 **EIP-AGRI Focus Group Protein Crops**

Presentation of the results and report

Round table with representatives from different sectors

Questions and answers session

15:00-16:15 **Regional initiatives**

Danube Soja – AU / Danube area

Sustainable soya – NL

SOS Protein – FR

Faba bean – UK

16:15-16:35 *Coffee break*

16:35-18:15 **Interactive group sessions based on a regional and sector point of view.**

Status of production/consumption of protein crops, what are the reasons for the current situation?

How to reverse trends?

Which crops/products do you consider to have biggest potential i.e. competitive advantage in a regional context?

18:15-19:00 **Outcome of the interactive group sessions**

19:30-22:00 *Dinner*

Programme of the Work-Shop:

Tomorrow

08:45-9:00 **Looking back at day 1**
Introduction to the break-out sessions

9:00-11:30

Break-out session topic 1

**The yield gap to overcome:
from seeds to farm gross margins**

- Agro-economics and cropping systems
- Breeding priorities
- Advisory/extension services

Break-out session topic 2

**Building a market:
from farm to end-users**

- Feed strategies
- Food opportunities
- Logistics/labelling perspectives

11:30-12:15 **Outcome of the break-out sessions:
rebuilding the whole chain**

12:15-12:30 **Conclusions and closing**

12:30-13:00 *Lunch*

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 - Participation in forthcoming H2020 calls?
 - Working with the EIP-Agri Service Point
 - Using the EIP web-site

H2020 2015 call topics

Horizon 2020: SFS 2015 topics

H2020-SFS-2015-2:

"multi-actor approach"

- SFS-01c-2015: Assessing sustainability of terrestrial livestock production
- SFS-02b-2015: Assessing soil-improving cropping systems
- SFS-05-2015: Strategies for crop productivity, stability and quality
- SFS-07b-2015: Management and sustainable use of genetic resources
- SFS-10b-2015: Scientific basis and tools for preventing and mitigating farmed mollusc diseases
- SFS-11b-2015: Consolidating the environmental sustainability of European aquaculture
- SFS-13-2015: Biological contamination of crops and the food chain
- SFS-16-2015: Tackling malnutrition in the elderly
- SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security
- SFS-20-2015: Sustainable food chains through public policies: the cases of the EU quality policy and of public sector food procurement

Deadline Date: 03-02-2015 17:00 (Brussels local time)

Horizon 2020: SFS and ISIB 2015 topics

H2020-SFS-2015-1

- SFS-14b-2015: Authentication of food products

H2020-ISIB-2015-1

"multi-actor approach"

- **ISIB-02-2015: Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange**
- ISIB-12c-2015: Monitoring and mitigation of agricultural and forestry GHG
- ISIB-12e-2015: Sustainable livestock production
- ISIB-12f-2015: Biomarkers for nutrition and health
- ISIB-13-2015: Coordination action in support of the implementation by participating States of a Joint Programming Initiative on 'A Healthy Diet for a Healthy Life'

Deadline Date: 11-06-2015 17:00 (Brussels local time)

Multi-actor projects in Horizon 2020 Work Programme 2014-2015

- *"multi-actor" is more than a strong dissemination requirement or what a broad stakeholders' board can deliver*
- *"all along the project" *: **a clear role for the different actors** in the work plan, from the participation in the planning of work and experiments, their execution up until the dissemination of results and the possible demonstration phase.*
- *Project proposals should illustrate sufficient quantity and quality of **knowledge exchange activities***

*This should generate **innovative solutions that are more likely to be applied** thanks to the cross-fertilisation* of ideas between actors, the co-creation and the generation of co-ownership for eventual results.*

*(*legal base in Specific Programme)*

Multi-actor projects in Horizon 2020 Work Programme 2014-2015

A multi-actor project needs to take into account:

- *how the project proposal's objectives and planning are **targeted to needs / problems and opportunities of end-users***
- *the **composition of the project consortium** must get sufficient involvement of **key actors with complementary types of knowledge** (scientific and practical) to reach the project objectives and make its results broadly implemented.*

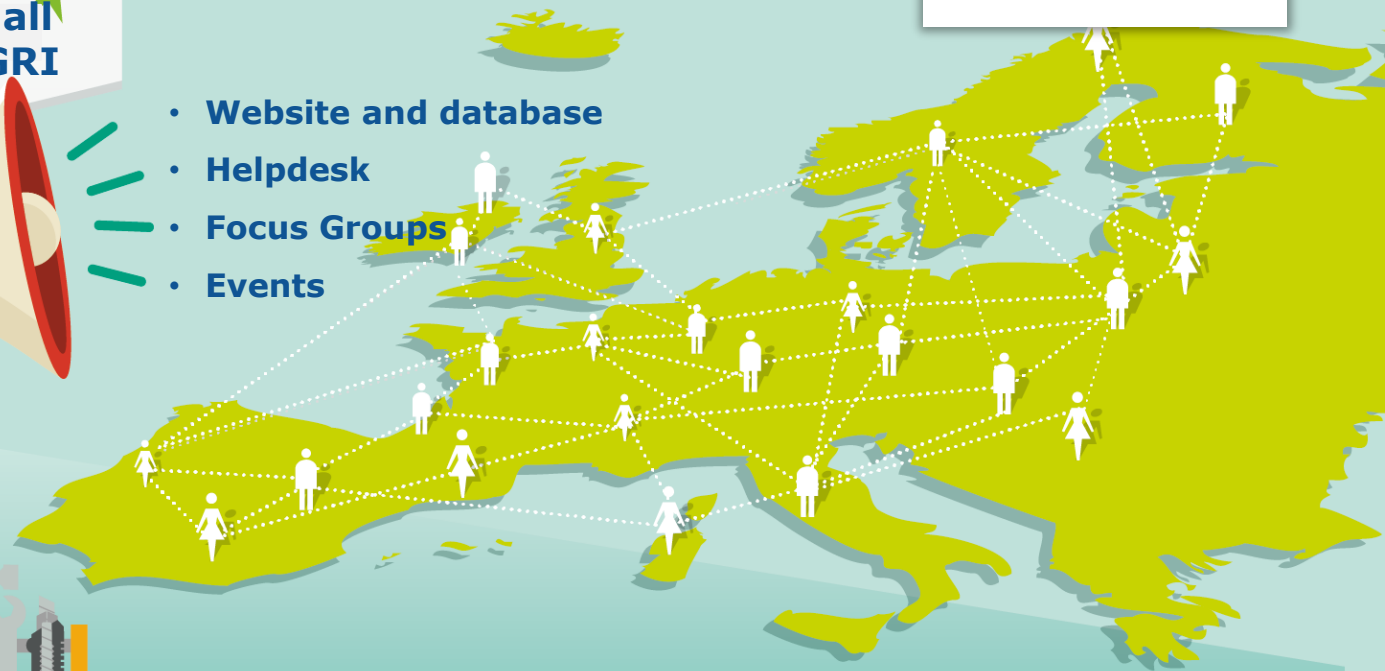
Facilitation between actors and openness to involve additional actors/group of actors in the project, for instance relevant groups operating in EIP context, are strongly recommended.

EIP - Agri

How can the Service Point help you?

**EIP-AGRI connects all
actors in the EIP-AGRI
Network**

- Website and database
- Helpdesk
- Focus Groups
- Events

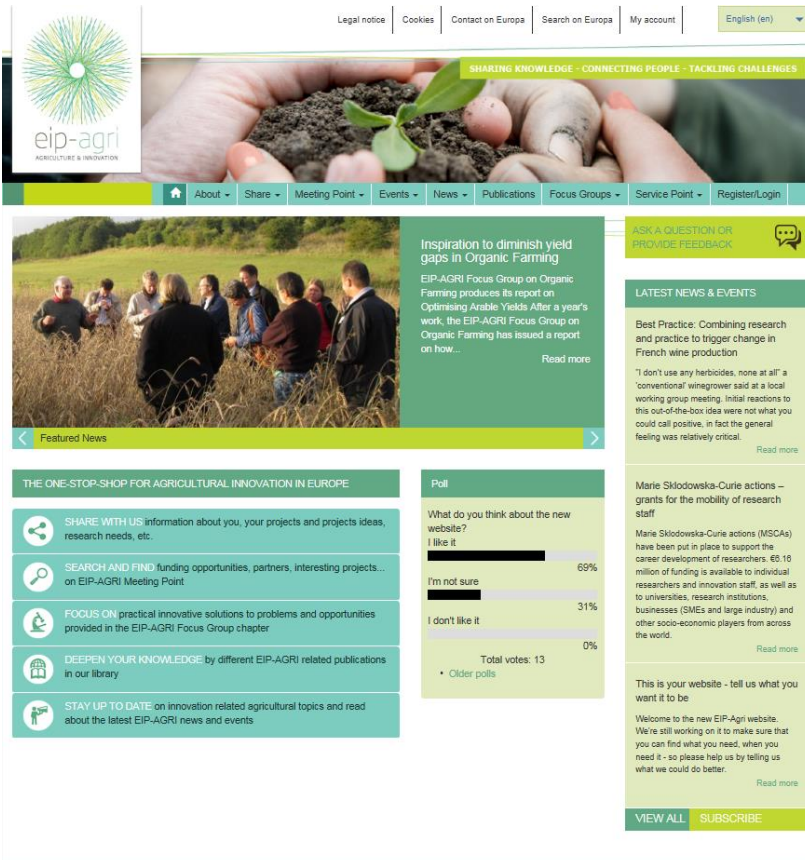


EIP-AGRI Service Point

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

Avenue de la Toison d'Or 72
1060 Brussel - Belgium

The EIP website is live!



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SHARING KNOWLEDGE - CONNECTING PEOPLE - TACKLING CHALLENGES

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Inspiration to diminish yield gaps in Organic Farming
EIP-AGRI Focus Group on Organic Farming produces its report on Optimising Arable Yields After a year's work, the EIP-AGRI Focus Group on Organic Farming has issued a report on how... [Read more](#)

ASK A QUESTION OR PROVIDE FEEDBACK

LATEST NEWS & EVENTS

Best Practice: Combining research and practice to trigger change in French wine production
"I don't use any herbicides, none at all" a 'conventional' winegrower said at a local working group meeting. Initial reactions to this out-of-the-box idea were not what you could call positive, in fact the general feeling was relatively critical. [Read more](#)

Marie Skłodowska-Curie actions – grants for the mobility of research staff
Marie Skłodowska-Curie actions (MSCAs) have been put in place to support the career development of researchers. €6.16 million of funding is available to individual researchers and innovation staff, as well as to universities, research institutions, businesses (SMEs and large industry) and other socio-economic players from across the world. [Read more](#)

This is our website - tell us what you want it to be
Welcome to the new EIP-Agri website. We're still working on it to make sure that you can find what you need, when you need it - so please help us by telling us what we could do better. [Read more](#)

Poll
What do you think about the new website?
I like it: 69%
I'm not sure: 31%
I don't like it: 0%
Total votes: 13
• Older polls

VIEW ALL **SUBSCRIBE**

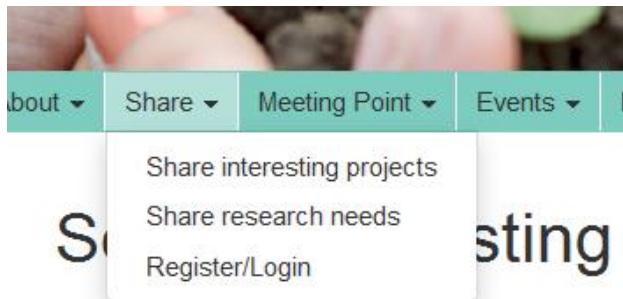
THE ONE-STOP-SHOP FOR AGRICULTURAL INNOVATION IN EUROPE

- SHARE WITH US** information about you, your projects and projects ideas, research needs, etc.
- SEARCH AND FIND** funding opportunities, partners, interesting projects... on EIP-AGRI Meeting Point
- FOCUS ON** practical innovative solutions to problems and opportunities provided in the EIP-AGRI Focus Group chapter
- DEEPEN YOUR KNOWLEDGE** by different EIP-AGRI related publications in our library
- STAY UP TO DATE** on innovation related agricultural topics and read about the latest EIP-AGRI news and events

Still work in progress...
www.eip-agri.eu

EIP website - Interactive functions

Share



Share your research needs to make them visible to other potential partners through the meeting point.

Search

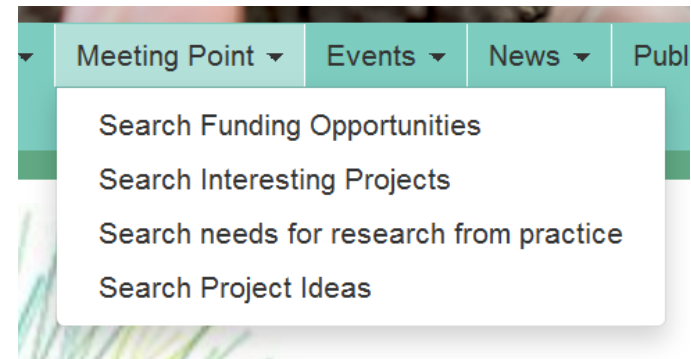
Find projects

Find funding sources

Find partners

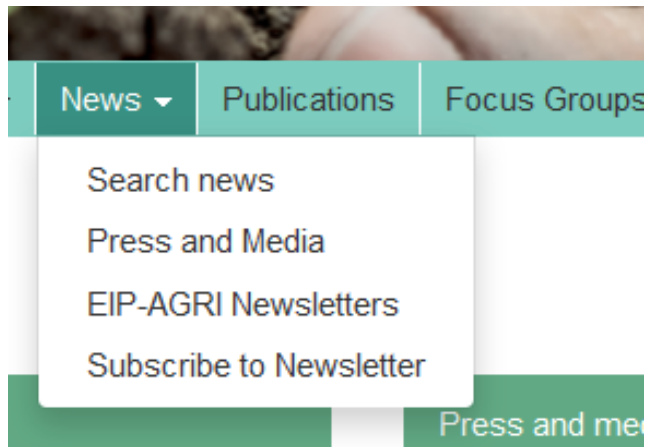
Find project ideas from other users

Check the needs for research from practice



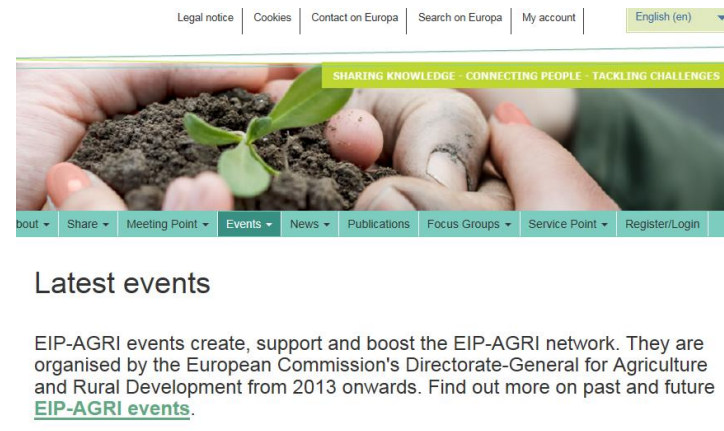
EIP website - Information on-line

News



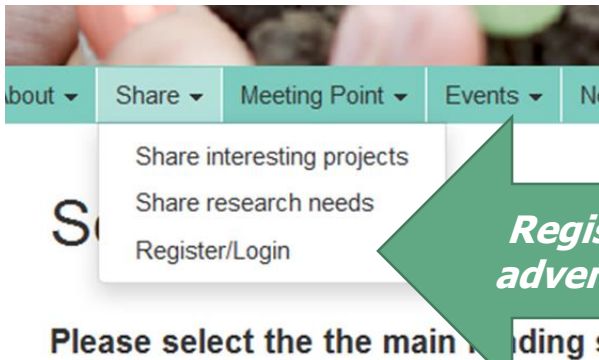
- ***Subscribe to our monthly newsletter***
- ***Read past newsletters***
- ***Search press articles and press releases***

Events



- ***Information on workshops, focus groups and other events organised by EIP-Agri***
- ***European calendar – upcoming events related to the EIP network***

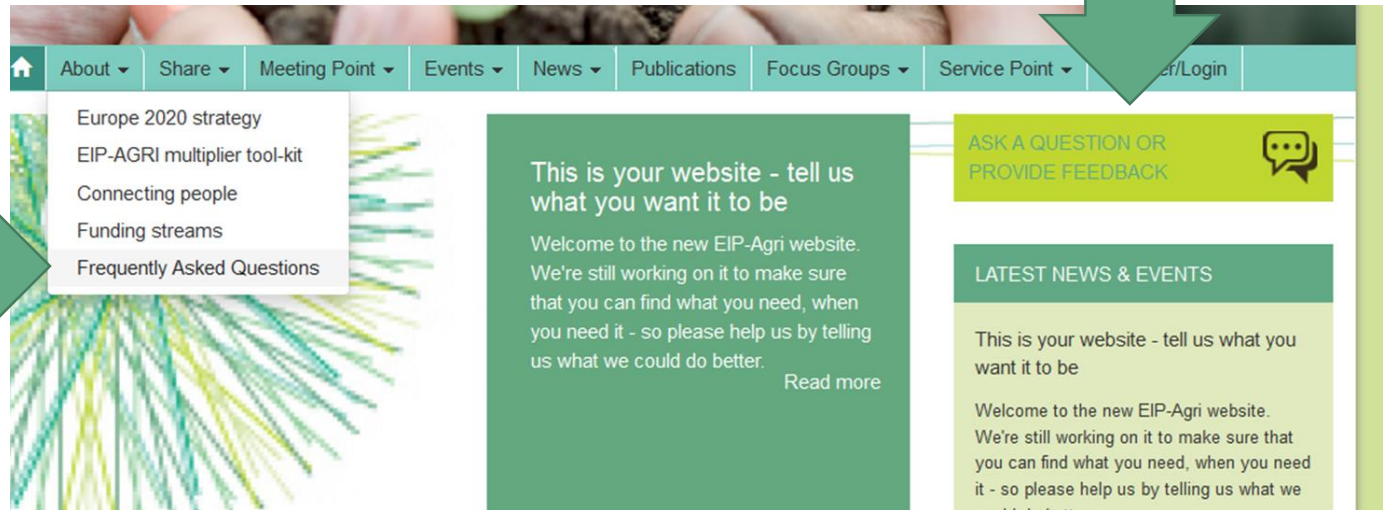
EIP website - Get involved



Register on the website and advertise your project results

Ask a question or provide feedback

Frequently Asked Questions





Starting this introduction from the roots, it's time to begin the workshop.

We wish flowering exchanges in order to produce some seeds!

Thank you for your attention.

