



European  
Commission

# AGRI RESEARCH FACTSHEET ENHANCING HUMAN CAPITAL AND BOOSTING INNOVATION SYSTEMS

## Why do R&I on human capital and innovation systems matter?

The need to speed-up innovation has been repeatedly emphasized in recent years and is now a core element of the European Commission's communication on the future of food and farming. Agricultural activity has never taken place in a static context. Yet, in the last decades, this context has become more complex with more stringent environmental requirements, more open economic conditions and associated opportunities and risks. Beyond the primary sector, innovation in rural ar-

reas can play an important role in stimulating green and socially inclusive economic growth, mitigating geographic isolation and avoiding economic and social marginalisation. Human and social capital, including skills that enable actors to perform or initiate activities and links, incentives, shared values and norms that underpin the capacity of actors to trust each other and cooperate are essential to successful rural innovation.

## Human capital and innovation systems under Horizon 2020 Societal challenge 2



**53**

Projects or expected grants



**151 M€**

EU contribution  
2014-2020



**539**

Participations in  
selected projects

### Key themes

Agricultural knowledge and innovation systems (AKIS) – Education and training  
– Advice – On-farm Demonstration –  
Networks – Knowledge exchange

## Human capital and innovation systems under EIP-AGRI activities

<b>Focus group:</b> Benchmarking farm performance	<a href="https://bit.ly/2G8wRAL">bit.ly/2G8wRAL</a>
<b>Workshop:</b> Enabling farmers for the digital age: the role of AKIS	<a href="https://bit.ly/2pKddzl">bit.ly/2pKddzl</a>
<b>Workshop:</b> EIP-AGRI Networking and Communication	<a href="https://bit.ly/2GpnqvY">bit.ly/2GpnqvY</a>
<b>Seminar:</b> Promoting creativity and learning through AKIS (...)	<a href="https://bit.ly/2pCDjFW">bit.ly/2pCDjFW</a>
<b>Seminar:</b> Programming Innovation in RD - Linking Innovation and Science	<a href="https://bit.ly/2l71tX">bit.ly/2l71tX</a>

## SC2 collaborative projects – Thematic networks bridging research & practice

### Networks on horizontal themes

<b>AGRI-SPIN</b> - Innovation processes <a href="http://agrispin.eu">agrispin.eu</a> EC contribution: 1,9 M€ - Mar. 2015 to Aug. 2017	<b>SMART-AKIS</b> - Smart farming technologies <a href="http://www.smart-akis.com">www.smart-akis.com</a> EC contribution: 2 M€ - Mar. 2016 to Aug. 2018
<b>AGRIFORVALOR</b> - Adding value to agriculture and forest-based sectors <a href="http://www.agriforvalor.eu">www.agriforvalor.eu</a> EC contribution: 2 M€ - Mar. 2016 to Aug. 2018	<b>HNV-link</b> - High-Nature value farming <a href="http://www.hnvlink.eu">www.hnvlink.eu</a> EC contribution: 2,2 M€ - Apr. 2016 to Mar. 2019
<b>SKIN</b> - Short supply chains <a href="http://www.shortfoodchain.eu">www.shortfoodchain.eu</a> EC contribution: 2 M€ - Nov. 2016 to Oct. 2019	<b>Inno4Grass</b> - Grasslands <a href="http://www.inno4grass.eu">www.inno4grass.eu</a> EC contribution: 2 M€ - Jan. 2017 to Dec. 2019
<b>AFINET</b> - Agroforestry <a href="http://www.agroforestry.eu/afinet">www.agroforestry.eu/afinet</a> EC contribution: 2 M€ - Jan. 2017 to Dec. 2019	<b>ENABLING</b> - Bio-based local innovation <a href="https://bit.ly/2pRlf9Y">bit.ly/2pRlf9Y</a> EC contribution: 2 M€ - Dec. 2017 to Nov. 2020
<b>NEWBIE</b> - New entrants into farming <a href="http://www.newbie-academy.eu">www.newbie-academy.eu</a> EC contribution: 2 M€ - Jan. 2018 to Dec. 2021	

### Crop networks

<b>OK-Net-Arable</b> - Organic arable crops <a href="http://www.ok-net-arable.eu">www.ok-net-arable.eu</a> EC contribution: 1,9 M€ - Mar. 2015 to Feb. 2018	<b>WINETWORK</b> - Vine diseases <a href="http://www.winetwork.eu">www.winetwork.eu</a> EC contribution: 2 M€ - Apr. 2015 to Sep. 2017
<b>FERTINNOWA</b> - Water in fertigated crops <a href="http://www.fertinnowa.com">www.fertinnowa.com</a> EC contribution: 3 M€ - Jan. 2016 to Nov. 2018	<b>EU-FRUIT</b> - Fruit production <a href="http://eufirin.org/index.php?id=55">http://eufirin.org/index.php?id=55</a> EC contribution: 1,7M€ - Mar. 2016 to Feb. 2019
<b>FERTINNOWA</b> - Water in fertigated crops <a href="http://www.fertinnowa.com">www.fertinnowa.com</a> EC contribution: 3 M€ - Jan. 2016 to Nov. 2018	<b>INCREDIBLE</b> - Mediterranean cork, resins and edibles <a href="http://www.incredibleforest.net">www.incredibleforest.net</a> EC contribution: 2 M€ - Nov. 2017 to Oct. 2020
<b>PANACEA</b> - Non-food crops penetration <a href="http://www.panacea-h2020.eu">www.panacea-h2020.eu</a> EC contribution: 2 M€ - Nov. 2017 to Oct. 2020	<i>In the pipeline:</i> One network on spraying practices (2M€) (2017 call)

### Livestock networks

<b>HENNOVATION</b> - Laying hens & welfare <a href="http://www.hennovation.eu">www.hennovation.eu</a> EC contribution: 2.1 M€ - Jan. 2015 to Aug. 2017	<b>EuroDairy</b> - Sustainable dairy production <a href="http://eurodairy.eu">eurodairy.eu</a> EC contribution: 2 M€ - Feb. 2016 to Jan. 2019
<b>4D4F</b> - Precision-dairy farming <a href="http://4d4f.eu">4d4f.eu</a> EC contribution: 2 M€ - Mar. 2016 to Aug. 2018	<b>EU PiG</b> - Pig production <a href="http://www.eupig.eu">www.eupig.eu</a> EC contribution: 2 M€ - Nov. 2016 to Oct. 2020
<b>SheepNet</b> - Sheep productivity <a href="http://www.sheepnet.network">www.sheepnet.network</a> EC contribution: 2 M€ - Nov. 2016 to Oct. 2019	<b>OK-Net EcoFeed</b> - Monogastric animal feed <a href="http://ok-net-ecofeed.eu/">ok-net-ecofeed.eu/</a> EC contribution: 2 M€ - Jan. 2018 to Dec. 2020

## SC2 Collaborative Projects – Agricultural knowledge and innovation systems

### *Skills & social capital: education, training, advice and connectivity*

#### **AGRILINK**

[www.agrilink2020.eu](http://www.agrilink2020.eu)

Total cost: 5 M€

EC contribution: 5 M€

Coordinator: INRA

Jun. 2017 – May 2021

AGRILINK will stimulate transition towards more sustainable farming by better understanding the role of farm advice in farmers' decision-making. It will analyse the provision of advice in 26 regions, assessing the efficacy of the current system. It will then develop scenarios for introduction of new advisory methods and new forms of research-practice interaction to be developed, tested and validated in living laboratories bringing farmers, advisers and researchers together.

#### **BOND**

[bit.ly/2DUW2Rn](http://bit.ly/2DUW2Rn)

Total cost: 2,9 M€

EC contribution: 2,9 M€

Coordinator: Coventry

University

Nov. 2017 – Oct 2020

BOND seeks to unleash the potential for collective action and networking of individuals, groups and entities of farmers and land managers, focusing on countries where collective organisation is less developed. It will investigate the constraints and disincentives to collective action and draw-up solutions to help individuals and organisations to create long-lasting bonds which will help them build a stronger position in decision-making.

### *Demonstration activities and peer-to-peer learning*

#### **AgriDemo-F2F**

[agridemo-h2020.eu](http://agridemo-h2020.eu)

Total cost: 2 M€

EC contribution: 2 M€

Coordinator: ILVO

Nov. 2017 – Jun. 2019

AgriDemo-F2F will deepen the understanding of effective on farm demonstration activities, detailing the sectors, themes and topics on which they provide expertise. It will perform a comparative analysis of their network structure, mechanisms and tools used for recruitment, interaction and learning, assessing the effectiveness of the different approaches. The project will deliver a set of best practices and recommendations on how to best support on farm demonstration.



#### **Joint Farm demonstration hub**

<https://farmdemo.eu/>

PLAID and AgriDEMO-F2F are jointly developing a georeferenced inventory of demonstration activities in Europe covering 30 countries.

#### **PLAID**

[www.plaid-h2020.eu](http://www.plaid-h2020.eu)

Total cost: 2 M€

EC contribution: 2 M€

Coordinator: James Hutton  
Institute

Nov. 2017 – Jun. 2019

PLAID will identify, compile and communicate the topics, locations, best practices and innovative approaches to demonstration on commercial farms in the EU, Switzerland and Norway. It will analyse the impact of various governance, financing and demonstration approaches on learning processes and access to knowledge. PLAID will also pilot test 'virtual demonstration', to identify good practice in enabling farmers to demonstrate their innovations on-line.

#### **NEFERTITI**

[www.nefertiti-h2020.eu](http://www.nefertiti-h2020.eu)

Total cost: 7 M€

EC Contribution: 7 M€

Coordinator: ACTA

Jan. 2018 – Dec - 2021

Building on the inventory of demonstration activities undertaken by PLAID and AGRIDEMO-F2F and on the work of running thematic networks, NEFERTITI will establish ten thematic networks of demonstration farms bringing together 45 regional clusters of demonstration farmers and other related actors in 17 countries. It will seek to boost innovation uptake and to improve peer-to-peer learning and connectivity across Europe.

## Interesting activities under other Horizon 2020 sections

**Marie- Skłodowska Curie Actions** contribute to the development of AKIS by supporting scholarships in critically needed academic fields, Innovative training networks (ITN) and research and innovation staff exchange (RISE). An interesting example is "BIG4", an ITN which will train 15 young entomologists in a cross-disciplinary way: [big4-project.eu](http://big4-project.eu) (1,3 M€ - Jan 2018 to Dec 2021).

**Cooperation in science and technology (COST) actions** are very important to build the European research area by building links and cooperation between research teams across Europe.

## In the pipeline – 10 projects to start under 2017 and 2018 SC2 calls (38 M€)

Building a future science and education system fit for practice	(1 project, 7 M€)
Optimising interactive innovation project approaches	(1 projects, 5 M€)
Thematic networks	(6 projects, 12 M€)
Monitoring food research and innovation investments and impacts	(1 projects, 7M€)
Enabling the farm advisor community to prepare farmers for the digital age	(1 project, 7 M€)

## Funding opportunities - Open SC2 calls for 2019 (25 M€) - 2020

<b>RUR-15-2019 - Thematic networks</b>	(5 projects, 10 M€)
<b>RUR-16-2019 – Fuelling the potential of advisors for innovation</b>	(1 project, 5 M€)
<b>DT-SFS-26-2019 – Food cloud demonstrators</b>	(1 project, 10 M€)
<b>RUR-15-2020 - Thematic networks</b>	
<b>SFS-06-2018-2020 – Stepping-up integrated pest management</b> B [2020] EU-wide demonstration farm network	

## The key role of AKIS in the future of food and farming

The concept of “Agricultural Knowledge and Innovation System” (AKIS) is used to describe how people and organisations join together to generate, share and use knowledge and innovation for agriculture and rural areas and to promote mutual learning. The great diversity of people involved includes farmers, advisors, trainers, researchers, media and other agricultural experts operating at EU, national, regional and local levels. Knowledge exchange and innovation covers issues related to agriculture and wider rural concerns, including environment, climate change, energy, value chains and rural businesses opportunities. The European Commission’s Communication on the future of food and farming (Nov. 2017) recognises the role of farm advisors as particularly important to enhance innovation. It also states that “a mod-

ern Common agricultural policy should support the strengthening of farm advisory services within the AKIS systems” and that “this should be facilitated by strengthening the support for peer-to-peer exchange, networking and cooperation amongst farmers.” R&I activities funded under Horizon 2020 and EIP-AGRI pave the way to successful achievements in this field.



[bit.ly/2HbDr5N](https://bit.ly/2HbDr5N)