

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

Moving Innovation in Agriculture Ahead !



CAP, Horizon & EIP-AGRI update – AKIS Sicily – 17 June 2019
Inge Van Oost - DG Agriculture and Rural Development

EIP-AGRI

1. Workprogramme 2019

EIP Events in preparation

Workshop Innovative solutions for small holdings - farms and access of small farms to new technologies.

29 – 30 October 2019 in Romania - Bucharest

Ideas welcome

Seminar Skills development for the digital transformation.

4-5 February 2020 in Spain, capitalising on past digitalisation activities

Ideas welcome

Agri-Innovation Summit 25-26 June 2019 ***"EIP-AGRI leading the transition to agro-ecology"***

The AIS 2019 is co-organised by the French Ministry of agriculture and food, the association Régions de France, the Region of **Normandy**, the EIP-AGRI network and the European Commission. It will bring together representatives from EIP-AGRI projects throughout Europe as well as local actors and experts.

Participants will be discussing the following thematic issues:

- How to **reduce the use of inputs** as a way to increase the autonomy of farms ?
- What kind of **production systems** can enable the sustainable management of natural resources ?
- How can agroecology be better **integrated within the value chain**, with the consumers, the citizens and the local areas ?
- How **can knowledge sharing, co-creation and dissemination** of innovation be fostered at all levels ?

Link to event webpages:

<https://www.reseaurural.fr/Sommet-agri-innovation-2019>

2. Post 2020 CAP and Horizon Europe

CAP Plan Regulation post 2020: Provisions on knowledge and innovation

**From funding innovative projects.....
.....to a whole innovation ecosystem**

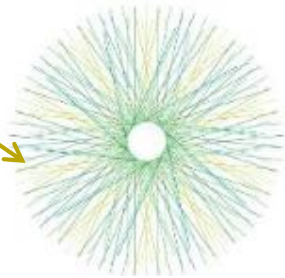
The bigger EIP picture: Funding for interactive innovation projects & connecting policies

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



eip-agri

AKIS Art 102

EIP networks

MS/regions

Unique EU repository of **contacts** and practice abstracts

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

CAP Strategic AKIS Plans (Art.102)

The CAP Strategic Plans shall contain:

1. Their contribution to the cross-cutting general objective related to fostering and sharing of knowledge, innovation and digitisation, notably by describing:

- **The organisational set-up** of the (*existing*) **AKIS** (\Rightarrow *SWOT*)
- How **advisors, researchers and CAP networks will work together** within the framework of the (*future*) **AKIS**, and
- How **advice and innovation support services** are provided

2. A description of the strategy for the **development of digital technologies** in agriculture and rural areas

CAP AKIS Plans: potential to strengthen AKIS by:

(SWG SCAR-AKIS Athens, Tallinn) <https://scar-europe.org/index.php/akis-documents>

- 1. Enhancing knowledge flows and strengthening links between research and practice:** incentivise researchers for their impact beyond academia, e.g. in their careers, by making practice ready outputs, meet practitioners frequently/thematic events, organise on-farm demonstrations where farmers and researchers meet and talk, education for researchers on interactive innovation approaches etc
- 2. Strengthening farm advisory services within MS' AKISs:** capturing and sharing farmers' needs, acting as innovation brokers/facilitators, participating in and sharing knowledge from OG innovative projects, advisors' training and thematic events to update knowledge, cross-visits (learning peer-to-peer), spend time with researchers,...
- 3. Incentivising interactive innovation projects (OGs, H2020 MA):** help connecting actors, facilitating cross-border and transnational calls/knowledge exchange, establish innovation support services to develop projects and capture farmers' foresters needs and innovative ideas, support intergenerational renewal by experts' collaboration...
- 4. Support digital transition in agriculture:** EIP OGs on digital innovation, build and use repositories with agricultural data for multi-purposes, digital skills development,...

CAP post 2020 – AKIS, advice and innovation – state of play negotiations(1)

Council Working Party: discussions ongoing under RO presidency:

MS are overall happy AKIS in the Commission proposal, including:

- Continuation of support for preparing and implementing OG innovative projects, as well as for EIP networking
- Broad support for types of knowledge exchange and advice (Art 72)
- Principles of interactive innovation (focus on farmers' needs, co-creation and co-decision, complementary knowledge, Art 114)
- Higher than normal EU co-funding for OG projects (up to 80%)
- Possibility of advance payments for OG projects (up to 50%)
- Obligation to integrate and update advisors within the AKIS (Art 13)
- Obligation and funding to provide innovation support (Art 13)

Discussions on the new delivery model (confusion between competent services in MS, target setting and reporting through indicators)

CAP post 2020 – AKIS, advice and innovation – state of play negotiations (2)

**A number of further improvements since June 2018
after discussions with MS since June 2019:**

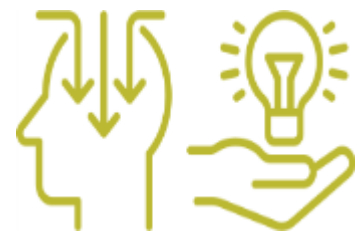
Art 3: definition of AKIS

Art 72: linking the support for advice with coherent AKIS plans

Art 113: introduction of the possibility for existing OGs to
cooperate, funded by Technical Assistance or Art 72

Art 114: introduction of funding for cross-border OG projects

European Parliament: voted compromise amendments on 2 April:
no substantial changes on EIP or AKIS



TOOLBOX FOR A KNOWLEDGE- BASED AGRICULTURE

- ▶ **Cross-cutting objective** on knowledge, innovation and digitalisation (CAP Art. 5)

- ▶ Each **CAP strategic plan** will include a section on how to stimulate the exchange of knowledge and innovation & digital technologies in agriculture (CAP Art. 102)

- ▶ **Strengthening of MSs'/regions'** Agricultural Knowledge and Innovation Systems (**AKIS**)

- ▶ **Support** for advice, training, innovation and knowledge exchange in Rural Development (CAP Art. 71,72,13,...)

Specific budget of EUR 10 billion in **Horizon Europe** for food, agriculture, rural development and the bio-economy.

- ▶ Continuation of the agricultural **European Innovation Partnership** (CAP Art 113, 114)



Horizon Europe – state of play Specific Programme

**Agreement insofar budget will be voted
Multi-actor for whole cluster 6**

Strategic Programming started in “co-creation” mode

9 Partnerships proposed in Cluster 6 (soil, food, agro-ecology, animal,...) > to be further discussed (rationalisation of the partnership landscape, “grouping exercise”, around 15 to be selected): can be co-funded or co-programmed or both, content funded by part of WP or national funding

Horizon Europe – state of play co-design of missions (concept)

R&I Missions

Connecting to citizens: Missions will relate EU's research and innovation to society and citizens' needs, with strong visibility and impact

A mission will consist of a portfolio of actions intended to achieve a bold and inspirational as well as measurable goal within a set timeframe, with impact for science and technology, society and citizens that goes beyond individual actions.

Horizon Europe proposal defines mission areas, mission characteristics and criteria

Specific missions will be **co-designed with Member States, stakeholders and citizens** and programmed within the Global Challenges and Industrial Competitiveness pillar (drawing on inputs from other pillars)

Horizon Europe – state of play

R&I Missions: mission areas

Missions Area 1: Adaptation to Climate Change, including Societal Transformation

Mission Area 2: Cancer

Mission Area 3: Healthy Oceans, Seas, Coastal and Inland Waters

Mission Area 4: Climate-Neutral and Smart Cities

Mission Area 5: Soil Health and Food

3. Horizon 2020 & Multi-Actor projects

Call 2020 to be prepublished in the next days (off. 3/7/19)

⇒ AKIS related: TNs, IPM demo, 3 consumer-producer projects

Total period 2014-2020:

190 Multi-actor projects - 1 bio Euro

2014-2018: 124 grants for 626 mio Euro

2019-2020: still 67 grants to be signed for 401 mio Euro

NB not included in the data: EJP soil projects must be multi-actor (LC-SFS-20-2019: European Joint Programme on agricultural soil management), 40 mio Euro of 50% co-funded programme)

3. Horizon 2020 & Multi-Actor projects

Call 2019 evaluation finalised for one stage projects:

RUR-16: EU wide network - fuelling the potential of advisors for innovation:

- including **inventory of all public and private advisors**
- Collecting and sharing best practices from practical cases of advisory services across the EU
- => supporting advisors on **how to capture grass-roots innovative ideas** from farmers/foresters and develop them into innovation projects. (**"I2Connect"**)

3. Horizon 2020 & Multi-Actor projects

- **RUR-17-2019:** Since 2014, a large number of AKIS related projects, OG innovative projects, H2020 RIAs and CSAs were funded, which delivered much end-user material beyond the EIP-AGRI practice abstracts only:
 - ⇒ Explore **feasibility and added-value of** developing joint tools, joint platforms and/or (e-)**infrastructure integrating existing outputs into an EU wide open source and data system connecting with countries and regions' AKIS systems,**
 - ⇒ Recommending on greater interoperability and integration of EU and MSs' knowledge bases (**EUREKA** selected)

EURAKNOS started Jan 2018: framework of thematic networks to favour the **longer-term and wider use of practical knowledge** (knowledge databases, videos, etc) in as many geographical regions and agricultural sectors as possible. To enable updating and consolidating of that knowledge and help connecting to regional and national AKISs.

3. Horizon 2020 & Multi-Actor projects

- **RUR-18-2010:** Support to the BIOEAST initiative: boosting knowledge and innovation based bioeconomies
 - ❖ Action intended to contribute to further **alignment and convergence of national research, knowledge and innovation activities**, in primis between the EU countries from the CEE macro-region and the whole EU
 - ❖ Therefore **improve the Agricultural Knowledge and Innovation Systems (AKIS)** in the CEE macro-region: make them more interconnected, structured and embedded in the European Research Area and the EIP-AGRI
 - ❖ Contribute to **BIOEAST initiative** vision paper and **action plan**, tackling specific environmental and climatic challenges and boosting knowledge and innovation
 - ❖ Develop **strategies** and evidence-based policies, identifying common challenges and research areas, improving **skills and synergies** between European and national funds

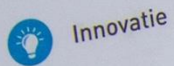
3. Horizon 2020 & Multi-Actor projects

- **RUR-18-2010:** Support to the BIOEAST initiative: boosting knowledge and innovation based bioeconomies
 - ❖ Activity should strengthen rural communities: looking at **local small-scale (new) value chains with strong rural development features** => sustainable biomass production
 - ❖ Proposals shall include one **task to cluster with RUR 9–2018 projects** (a CSA focusing on the potential of **regional and local bio-based economies**)
 - ❖ Ensure appropriate flexibility to **respond in real time to potentially fast-changing policy scenarios** (e.g. new CAP post 2020 with AKIS strategic plans, bio-economy strategy, circular economy, etc)
 - ❖ **Promote co-creation of innovation and the multi-actor approach**, improve knowledge flows and connection between actors in AKISs, incentivising bottom-up innovative ideas

Farmdemo conference 21 May 2018: Findings from the Pilot project on knowledge flows of young farmers (Ecorys)

- **What kind of knowledge do they need most?**
first of all **technological knowledge**, then farm strategy
- **Where do they search for knowledge?**
Internet, **field days** and individual advice are most popular
- **Who provides them the knowledge?**
First: other farmers
Then: farmers' organisations, advisors and commercial actors, etc
- **Demonstration on-farm can support all this**

Why Farm demo ? Because demonstration leads to innovation



Innovatie

Boeren leren van boeren

Van demonstratie naar innovatie

Demonstraties op de boerderij – boeren die elkaar technieken tonen, die ervaring uitwisselen – zijn al eeuwen een standaardpraktijk. Het is de manier waarop landbouwers ideeën delen en innovaties doorgeven van generatie op generatie, tussen burens en naar collega's in nabijgelegen landbouwregio's. Tot nu toe was hierover nog slechts weinig in kaart gebracht. Waar bevinden zich demobedrijven? Welke demo-activiteiten werken het best om innovatie en kennisuitwisseling tussen landbouwers te bevorderen?

Lies Debruyne (ILVO) en Marleen Gysen (Innovatiesteunpunt)

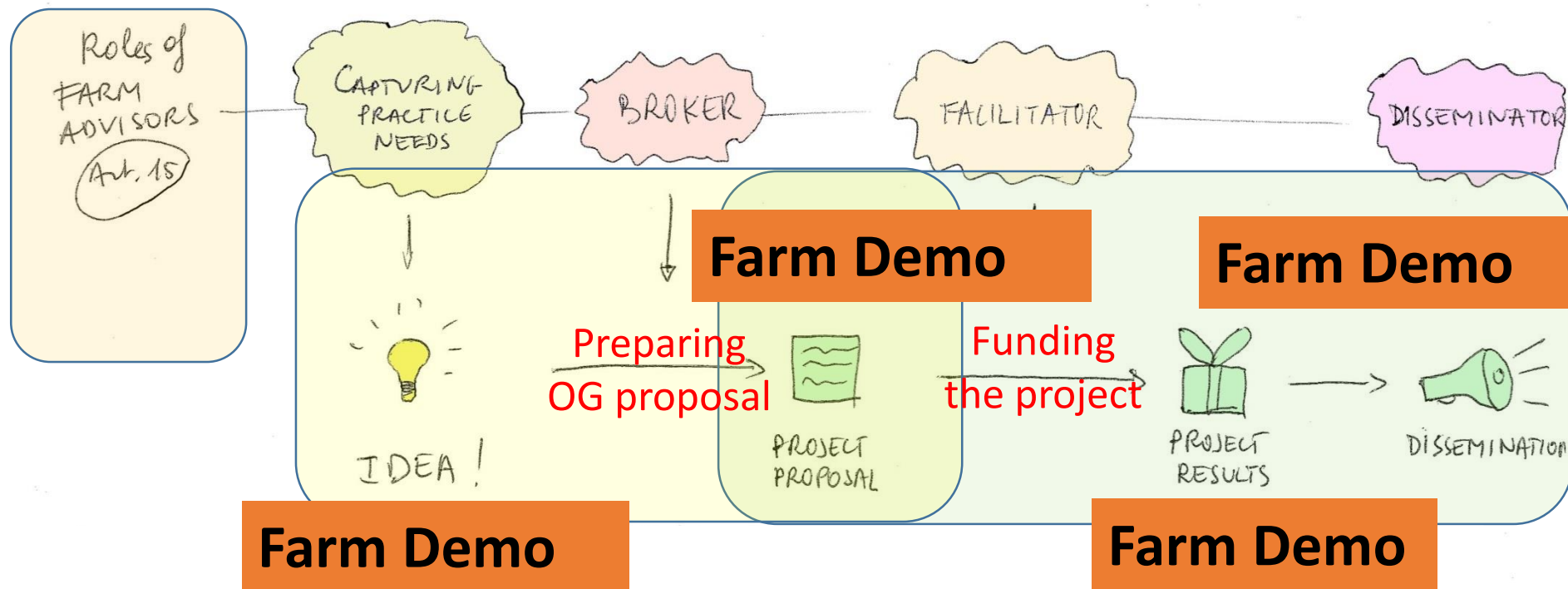
Europa zet volop in op demonstraties op landbouwbedrijven als een manier om innovatie te stimuleren. Zo werden twee projecten met een gelijkaardige inhoud en doelstellingen goedgekeurd in het programma Horizon 2020. AgriDemo-F2F (Farmer to Farmer), dat getrokken wordt door ILVO, en Plaid (Peer-to-peer learning: accessing innovation through demonstration), met het Innovatiesteunpunt als partner, vormen FarmDemo, samen met het vervolgpunt Nefertiti, dat over heel Europa netwerken zal opzetten. FarmDemo wil ervaring uitwisselen over demonstraties op landbouwbedrijven als een instrument om landbouwers onderling

niet alleen veel gegevens verzameld voor een online-inventaris van demonstratieboerderijen in heel Europa, maar hebben we ook 56 demonstratie-activiteiten gevolgd en grondig bestudeerd. In Vlaanderen waren dat de Open Energiedag van het Enerpedia-consortium, een demonstratie voor Groene Kring op de ForwardFarm van Bayer bij Hof ten Bosch in Huldenberg. Op de Natlandhoeve werd agroforestry gedemonstreerd, op Hof ten Thorre werd mechanische onkruidbestrijding gedemonstreerd in samenwerking met Inagro. Op de Korenblokhoeve werd een beslissingstool voor management van een melkveebedrijf gedemonstreerd, in samenwerking met Inagro, Hooibeekhoeve, Boe- en ILVO.



Farmers learn from farmers

Roles for **on-farm demo** & advisors in interactive innovation projects



Demonstration on-farm can support innovation in every step of the interactive innovation processes:

- Capture practice needs **(during a demo event)**
- Broker to set up interactive innovation projects **(plan demonstrations all along the project)**
- Facilitate interactive innovation projects **(showcase plans & results during a farm demo event)**
- Disseminate newly generated knowledge **(broadly further share results during farm demo events)**



The Importance of Thematic Networks for EU agricultural and forestry sectors

11th June 2019

HOW THEMATIC NETWORKS COULD HELP THE AGRICULTURAL SECTOR

- * Establishment of Thematic Networks **foster the implementation of the “multi-actor approach”** within the R&I actions
- * **Thematic Networks are good tools to create links among different stakeholders and the academia.** They also produce tangible knowledge that help to uptake innovative solutions for farmers and forest owners.
- * **The EU agricultural sector needs a continuous and profitable connection with the academia** in order to enhance its **sustainability** towards the environment and biodiversity, and to foster **profitability** of the farming activity while enhance competitiveness on the international markets. **Thematic Networks should aim to deliver these objectives.**
- * **Fostering the uptake of innovative solutions by local actors:** Regional and Local Authorities have a vital role on this task. To this end, well-functioning national AKIS are key

How to explore **synergies** within, enhance engagement and share work amongst an **(inter)active** **Thematic Network Community?**



These projects has received funding from the European Union's Horizon 2020 research and innovation programme under various grant agreements, resp. No 817863, No 773418, No 818488, No 727577

Project 'Dating' Profiles: *What is the project about?*

LIAISON aims to optimize and speed up the implementation of EIP-AGRI and other innovation projects and networks



Susanne von Münchhausen

FAIRshare aims to improve agricultural advisors' use of digital tools and services to enable better uptake of digital technologies



John Hyland **by European farmers**

AGRILINK aims to understand the role played by different suppliers of agricultural advice in strengthening knowledge flows, enhancing learning and boosting innovation



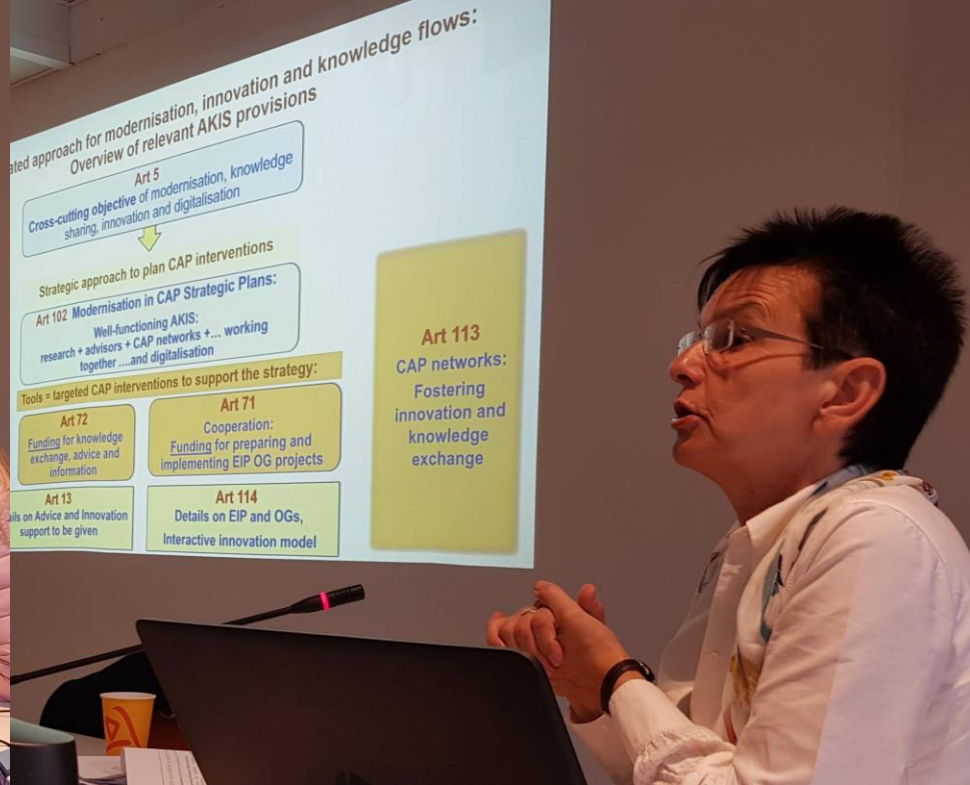
Pierre Labarthe

EURAKNOS aims to be the network to connect all thematic networks by serving them and co-creating a platform to make their outputs better accessible to more end users



EURAKNOS

Nathan De Geyter



- **RUR-15 - 2019: 5 more thematic networks (total 34)**

Call 2019 - H2020 bottom-up Thematic Networks

(just selected, will be starting end of 2019 - beginning 2020)

BIOFRUITNET	Organic Fruit production
BovINE	Beef Innovation Network: socio-economic resilience, animal health and welfare, production efficiency & quality, environmental sustainability
EuroSheep	Sheep profitability: through animal health and nutrition management
ROSEWOOD4.0	Reinforcing the sustainability of wood mobilisation in forest value chains
SMARTPROTECT	Integrated Pest Management (IPM) in vegetable production, integrating precision farming technologies and data analytics

SCAR Role in speeding up R&I impact at national & EU level and accelerating the transition to sustainable Europe

SCAR CONFERENCE, 12 JUNE 2019, BRUSSELS

REPORT ON TOPIC 2

MODERATOR INGE VAN OOST – DG AGRI - UNIT R&I

Elements on education:

- *ERASMUS+ project eTOMATO dealing with Multifunctional farms and Educational knowledge*
- *DT-ICT-09-2020 "Digital service platforms for rural economies" (under LEIT)*

The Bioeconomy Strategy & Action Plan

Action 2.4. Promoting education, training and skills across bioeconomy



EU BIOECONOMY

European Commission's Knowledge Centre for Bioeconomy

EMPLOYMENT
(MILLION JOBS)
18

TURNOVER
(TRILLION EUR)
2.3

VALUE ADDED
(BILLION EUR)
621

EMPLOYMENT (MILLION JOBS) TURNOVER (BILLION EUR) VALUE ADDED (BILLION EUR)

	AGRICULTURE	9.2	380	174
	FORESTRY	0.5	50	24
	FISHING AND AQUACULTURE	0.2	12	7

	FOOD, BEVERAGES AND OTHER AGRO-MANUFACTURING	4.5	1 153	233
	BIO-BASED TEXTILES	1.0	103	28
	WOOD PRODUCTS AND FURNITURE	1.4	174	47
	PAPER	0.6	187	46

	BIO-BASED CHEMICALS AND PHARMACEUTICALS, PLASTICS AND RUBBER	0.4	177	56
	LIQUID BIOFUELS	0.03	12	3
	BIOELECTRICITY	0.01	11	3

DATA 2015

Joint Research Centre

Source: based on Ronzon & M'Barek, 2018
<https://doi.org/10.3390/su10061745>



HUMAN CAPITAL IN EU BIOECONOMY

- 8.2% of the EU's workforce
- High job creation potential, particularly in coastal and rural areas (through the growing participation of primary producers in their local bioeconomies)
- In the bio-based industries one million new jobs could be created by 2030
- Education and training plays a key role in realizing this potential by providing necessary skills and improving human capacity for bioeconomy

Agriculture and Rural Development

Action 2.4. Promoting education, training and skills across bioeconomy – goals and objectives

- 1) Map personnel structures and existing skill sets, as well as those foreseen to be needed for 2030 and 2050 in relevant bioeconomy sectors
- 2) Deliver up-to-date skills intelligence on the occupations in bioeconomy and specific occupational core profiles, based on which bioeconomy **vocational core curricula and teaching and training** methods will be updated and new vocational core curricula in bioeconomy established.
- 3) Support collaborative networks, involving academic educational institutes (**Higher Education** Institutions) that have or are preparing bioeconomy Bachelors' degrees, Masters' degrees and / or doctoral programmes, as well as the private sector.
- 4) Collect and share best practice and to organise information for the development of bioeconomy curricula in higher education.
- 5) Promote an **entrepreneurial mind-set and culture** for the bioeconomy



Action 2.4. Promoting education, training and skills across bioeconomy – implementation

- 1) EC workshop on education for bioeconomy – September 2019
- 2) Study *Bioeconomy Skill Gap Analysis* - 2020
- 3) Study *Bioeconomy University Curricula* - 2020
- 4) Blueprint for Sectoral Cooperation in **Bioeconomy, new technologies and innovation in agriculture** in the framework of the EU Erasmus+ programme

Call 2020 - Bioeconomy Skills Gap analysis (Pub. procurement, 0,5 mio Euro) –

- *Building on, complementing and consolidating existing knowledge, the objective is to map personnel structures and existing skill sets, as well as those foreseen to be needed for 2030 and 2050 in relevant bioeconomy sectors, with a view to identify gaps and unmet needs. The importance of identifying skills gaps has been emphasised in the European Commission updated Bioeconomy Strategy. The required services are in the area of policy analysis and their implementation will be delivered in the form of studies.*
- **Terms of Reference to be made: which knowledge is available? Can we help? Connection with AKIS SWG?**

Combining FAO experience with SCAR AKIS works

*Develop recommendations for the AKIS SWOT analysis –
in the framework of CAP post 2020 Strategic plans?*

*During FAO side event workshop in ESEE
18 June 2018 14:30-16:00 in room Plenary 1*

***Innovation is: an idea put into
practice with success !***

***To an
„Agriculture of Knowledge“***



More information and events:

www.eip-agri.eu

[https://ec.europa.eu/eip/agriculture/
en/news-events/events](https://ec.europa.eu/eip/agriculture/en/news-events/events)

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Thank you for your attention!