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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Societal Challenge 2 Infoday
Brussels, 4 July 2019

Sustainable farming and agricultural value chains

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European Commission – DG AGRI

Research and Innovation

Overview

1. Plant and animal health

2. Soil management and crop production

3. Biodiversity and agroecology

4. Policies and value chains

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Plant and animal health

Research and Innovation

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SFS-02-2020 Healthy terrestrial livestock microbial ecosystems for sustainable production

Valeria MARIANO– Unit B2

European Commission – DG AGRI

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SFS-02-2020 Healthy terrestrial livestock microbial ecosystems for sustainable production

Background

- ✓ **Interactions between animal host and microbiota → production efficiency, health and welfare of animals**
- ✓ **Interactions are highly dynamic and influenced by:**
  - genetics
  - environment
  - nutrition/feeding
  - management
- ✓ **Omics → understanding of biology, genetics, ecosystems (particularly important for non cultivable micro-organism)**
- ✓ **Research on the interplay between animals and their microbial ecosystems is needed to contribute to the improvement of sustainable livestock production**

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SFS-02-2020 Healthy terrestrial livestock microbial ecosystems for sustainable production

Requirements to keep in mind

Activities shall address:

- ✓ **relevant microbial ecosystems of terrestrial livestock & their effects on:**
  - production
  - health
  - welfare
- ✓ **characterisation of microbial ecosystems**
- ✓ **assessment of variability within and between breeds in relation to variability of production systems and diet**
- ✓ **microbial behaviour**
- ✓ **microbial functions and interactions with host, environment and management practices, including feeding where relevant**
- ✓ **possible ways in which those ecosystems can be managed, including socio-economic aspects**
- ✓ **incorporation of data on microbial ecosystems in the models used to analyse phenotypic variability and to perform genetic evaluations**

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SFS-02-2020 Healthy terrestrial livestock microbial ecosystems for sustainable production

Requirements to keep in mind

- ✓ **This topic is part of a microbiome cluster**
- ✓ **The activities shall address:**
  - ✓ either ruminants, or monogastrics
  - ✓ GUT microbiome of pigs or poultry can be addressed only if the activities are complementary to projects selected under LC-SFS-03-2018 (e.g. MASTER, CIRCLES, HoloFood)
- ✓ **Proposals may cover one or more: species & microbial ecosystems**
- ✓ **Single animal pathogens is not the focus of the topic**
- ✓ **Anti-microbial resistance can be included if it is not the main objective of the project (SFS-11-2018/2019)**
- ✓ **Encouraged to interact with:**
  - relevant collaborative projects in Europe
  - international initiatives e.g. the rumen microbial genomics network of the Global Research Alliance on Agricultural Greenhouse gases.

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Useful resources

- **Some policy background documents**

- ✓ Reg(EC) 1829/2003 on genetically modified food and feed
- ✓ Reg(EC) 1830/2003 concerning the traceability and labelling of GMOs and the traceability of food and feed products produced from GMO
- ✓ Reg(EC) 1831/2003 on additives for use in animal nutrition
- ✓ Reg(EC) 429/2008 on detailed rules for the implementation of Reg EC 1831/2003
- ✓ Food Hygiene & Animal Health legislation

- **Links**

- ✓ Microbiome EU result pack: http://ec.europa.eu/research/bioeconomy/pdf/cordis_rp_microbiome_EN_accessibility.pdf
- ✓ Global Research Alliance on agricultural greenhouse gases: https://globalresearchalliance.org/research/livestock/networks/rumen-microbial-genomics-network/

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SFS-04-2020: Integrated health approaches and alternatives to pesticide use

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European Commission – DG AGRI

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SFS-04-2020: Integrated health approaches and alternatives to pesticide use

Scope B – Alternatives to contentious pesticides (IA)

Topic €20M - Indicative EU contribution/ project €5M

Background

- Plant protection products and biocidal products (pesticides) used in agriculture and agricultural production/agri-food chain
- Member States and EU policies seek to reduce reliance on pesticides by designing and implementing more integrated approaches

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Requirements to keep in mind

- Development and testing of tools approaches, strategies and/or products
- Conventional and/or organic farming systems and/or agri-food chain
- More sustainable alternatives for integrated pest/disease or weed management

Cross-cutting

- Multi-actor approach (research, farmers, advisory services, SMEs..)
- Contributions of social and economic sciences to address acceptance and up-take of solutions

Relevant EU activities

- Relevant EU plant health policies and EFSA and/or ECHA activities

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SFS-05-2020 New and emerging risks to plant health

Patrizia Eleonora GANCI – Unit B2

European Commission – DG AGRI

SFS-05-2020 New and emerging risks to plant health

Topic €7M - Indicative EU contribution/ project €7M (RIA)

Background

- Introduction, spread and establishment of pest and diseases facilitated by
  - Trade and movement of goods and people
  - Climatic variations and changes in agricultural/forest management practices
- At the same time decreasing reliance on plant protection products
- Comprehensive knowledge on pest and diseases is needed for their control and management

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SFS-05-2020

Requirements to keep in mind

•Topic to tackle new/emerging plant pest(s)/disease(s) relevant to EU agriculture/forestry

- Proposals to tackle **one or more** plant pest(s) and/or disease(s)

(regulated or non-regulated, introduced or native)

- Pests include weeds

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SFS-05-2020

Cross-cutting issues

- Multi-actor approach
- International cooperation encouraged with countries affected/threatened by the same pest(s)/disease(s)

Useful resources

- Activities will contribute to support relevant EU plant health policies

https://ec.europa.eu/food/plant/plant_health_biosecurity/legislation_en

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-06-2020 European-wide demonstration farm network stepping up integrated pest management

Inge VAN OOST– Unit B2

European Commission – DG AGRI

SFS-6-2020 – European-wide demonstration farm network stepping up integrated pest management

- **IPM is part of EU legislation –** Sustainable Use of plant protection products (SUD)
- The **various IPM solutions being developed across Europe** all differ depending on the crops, the available climate monitoring systems, the underlying knowledge of pest populations, on pedo-climatic conditions and on the agro-ecological environment: DG SANTE's Thematic Group follows a number of existing demonetworks in MS (DE, DK, IE,…)
- **A unique open-source EU platform for decision making is being developed** based on epidemiological parameters of existing decision support systems and **should be made easily accessible to farmers and local advisers** (SFS 6-2018)
- Furthermore, **on-farm demonstration of novel IPM tools will boost peer-to-peer learning across Europe and help farmers with daily management practices.** The challenge is **incorporating IPM into the entire farming system,** and searching for synergies that result from **taking a holistic approach in shaping farming systems.**

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SFS-6-2020 – European-wide demonstration farm network stepping up integrated pest management

- Activities shall fuel a **European-wide network of IPM demonstration farms, facilitating IPM uptake and knowledge-sharing among advisors and farmers.** The network should consist of **normal farms where farmers can learn in a peer-to-peer mode from their colleagues.**
- **Practical information on the farm techniques should be made readily available to all, using open source and open data management to enable wide and long-term sharing,** possibly according to specific typologies and areas. Explore links with other open source databases (LPIS-IACS, …)
- Using a **holistic approach for on-farm solutions**, help promotion of the variety of IPM techniques
- Develop **training** modules, feeding into **national/regional AKIS systems** and liaise with the SCAR AKIS SWG, OGs on IPM and the EIP network: **collaboration is key**

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SFS-6-2020 – European-wide demonstration farm network stepping up integrated pest management

- **Multi-actor approach: choose the competences needed for social innovation in practice:** ensure participation of IPM experts and **in particular** farmers and advisors, creating co-ownership
- Covering the various bio-geographical regions and **covering as many EU regions and countries as possible**, **using the local material already available to broadly share on the long term**
- **Expected impact**: an **open EU wide network** helping more farmers incorporating IPM techniques, **taking into account cost/benefits** and the whole existing farm situation, make use of the newly created **open source platform** and learning peer-to-peer with the help of **training modules and holistic advisory tools** adaptable to the regional/national contexts , the various farm(er)s' profiles and advisory services
- 6 mio Euro, CSA, foresee time to take into account SFS 6 -2018 and other demo projects (SCAR AKIS SWG can help connections with countries)

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SFS-10-2020: Epidemiology of non-EU-regulated contagious animal diseases: from integrated data collection to prioritisation

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SFS-10-2020: Epidemiology of non-EU-regulated contagious animal diseases: from integrated data collection to prioritisation (RIA)

Background

- ✓ **Contagious livestock diseases impede the efficiency of animal production, lead to economic costs, poor animal welfare, and in case of certain diseases, have an impact on trade, consumer confidence and public health.**
- ✓ **Impact of non-regulated contagious diseases poorly known.**
- ✓ **Need to determine the prevalence, the burden of these diseases and to set up a framework to facilitate monitoring of the situation and enable improvements in risk assessments and prioritisation of disease control.**

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SFS-10-2020: Epidemiology of non-EU-regulated contagious animal diseases: from integrated data collection to prioritisation (RIA)

Requirements to keep in mind

Activities shall address:

- ✓ Harvesting of the knowledge carried in existing data streams on contagious, non-EU-regulated, animal diseases, including diseases with multiple pathogens and AMR.
- ✓ At least terrestrial livestock; aquaculture whenever relevant; investigate the feasibility of addressing relevant wildlife.
- ✓ Different production systems.
- ✓ Ways to validate, integrate and process data, including modelling, possibly generating additional useful information inferred from existing data and identifying new data that could be integrated in data streams.
- ✓ Identify and characterise data on diseases, context and consequences, the various components of data streams and assess opportunities and barriers to utilising or sharing information across countries and stakeholders throughout Europe.
- ✓ Relevant geospatial information and data on animal welfare and genetics, in so far as they can be connected to animal diseases, can be included in the planned activities.

SFS-10-2020: Epidemiology of non-EU-regulated contagious animal diseases: from integrated data collection to prioritisation (RIA)

- **Requirements to keep in mind**
  - ✓ Explore the potential of precision farming and "big" data, cloud-based integrated data collection
  - ✓ Test the feasibility and potential benefits of an integrated approach to knowledge extraction and decision support based on a specific risk scenario for a disease.
  - ✓ Explore possible integration with farm management and information systems and (automated) decision support systems.
  - ✓ Explore development or refinement of existing risk-based approaches and early warning systems.
  - ✓ Provide a blueprint and a framework for the necessary changes to allow improved data utilisation to protect animal health and welfare, human health and the food chain in Europe.

- **Cross cutting aspects**
  - ✓ MAA (producers, veterinarians and other professionals from animal production and the food chain, as appropriate, and decision makers)

Some useful resources

Digital:

- **IoF2020 (internet of dairy farming and of meat)** https://www.iof2020.eu/
- **4D4F (thematic network on Data Driven Dairy Decisions 4 Farmers)** https://cordis.europa.eu/project/rcn/200852/factsheet/en
- **SMART-AKIS : European AKIS towards innovation-driven research in Smart Farming Technology** https://cordis.europa.eu/project/rcn/200562/factsheet/en

Animal diseases:

- **SAPHIR project (a component on socio-economics of animal diseases)** https://cordis.europa.eu/project/rcn/193183/factsheet/en
- **SCAR collaborative Working Group on animal health and welfare**

European Animal Health & Welfare Research
COLLABORATIVE WORKING GROUP

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-35- C.[2020]: Vector-borne diseases in Africa (RIA)

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European Commission – DG AGRI

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SFS-35- C.[2020]: Vector-borne diseases in Africa (RIA)

- **Background**

✓ **EU-Africa Research and Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA)**

✓ **Climate change and globalisation are increasing the risk of infectious animal diseases emerging in new locations (e.g. vector borne disease)**

Vector borne diseases impact:

- livestock productions
- global food security and trade
- human health (Zoonoses)

- Africa suffers from a number of vector borne-diseases
- Risk of introduction and spread in Europe

✓ **Need further knowledge on diseases and vectors to improve control of vector borne diseases**

- **Cross-cutting issues**

✓ **International cooperation**

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Requirements to keep in mind

- ✓ **address one or more diseases of terrestrial livestock, whether zoonotic or not**
- ✓ **priority to diseases with either a serious impact in Africa, or a risk of spread to Europe with significant consequences, or both**
- ✓ **activities should cover:**
  - ecology of pathogens and vectors
  - epidemiological features: risk of short and long distance transmission, capacity for the disease to establish in and spread to new areas
  - burden of disease in animals (and humans if relevant), and the socio-economic impact
- ✓ **develop/strengthen systems and/or networks to improve epidemiological surveillance strategies in domestic and wild species**
- ✓ **include capacity-building and training activities**
- ✓ **build on results and experiences from related EU projects and existing networks in this field**
- ✓ **include a task to cluster with other projects financed under this scope and with the cooperation platform established under SFS-33-2018 (LEAP4FNSSA)**

- ✓ **address detection and control tools, including prevention, monitoring, diagnostics**
  - vector competence studies including exploration of vector-pathogen interactions simulating field conditions
  - map, explore and predict vector densities and spread and the role of the vector in spreading the disease
  - study the relationship between immunity and pathogen spread including the role of pre-existing immunity and the role of vaccinations
  - exploration of livestock species, both African and European breed, for susceptibility to the diseases
  - new diagnostic methods for pathogen or specific antibody detection

Useful resources

- **Policy background documents**

✓ **Roadmap towards a jointly funded EU-Africa Research & Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture: https://ec.europa.eu/research/iscp/pdf/policy/eu-africa_roadmap_2016.pdf**

✓ **Report by the Task Force Rural Africa "An Africa-Europe Agenda for Rural Transformation"(March 2019): https://africa-eu-partnership.org/sites/default/files/documents/report-tfra_mar2019_en.pdf**

✓ **Animal Health legislation**

- **Links**

✓ **LEAP4FNSSA: https://cordis.europa.eu/project/rcn/218779/factsheet/en**

✓ **STAR-IDAZ IRC: https://www.star-idaz.net/priority-topic/vector-borne-diseases/**

✓ **The African European partnership: https://africa-eu-partnership.org/en/partnership-and-joint-africa-eu-strategy**

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Questions?

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Soil management and crop production

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-21-2020: Emerging challenges for soil management

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European Commission – DG AGRI

Research and Innovation

Topic introduction

- Soils are providing many important functions; soil protection is currently embeded in number of policies (CAP, Nitrates Directive)
- 2 scopes are published under this topic:
  - Soil biodiversity assessment : international cooperation possible, support to global soil biodiversity assessment: though the topic should look at European contribution towards the global assessment
  - use of plastic in agriculture
- 7ME per project

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Useful resources

- Soil website of DG Env
- Global Soil Partnership

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

LC-SFS-22-2020: Forest soils
Research & Innovation Action

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European Commission – DG RTD

Topic introduction

Background

- Improving forest management could decrease emissions and increase soil carbon stocks
- Soil-related climate change mitigation options are still to be fully understood and put into practice
- **Requirements to keep in mind**

Address the **variety of European forest ecosystems** and production systems and Improve knowledge base of forest soil typology and (micro)biological properties;
Assess **soil functions in relation to climate change mitigation** capacity and limits; Effects of drainage, rewetting and other management practices in forest-like wetlands;
Effects of natural disturbance and forest management on **C and N fluxes** and soil properties and Trade-offs and synergies between **microbial activity and other ecosystem services**, including functional biodiversity

National research institutes and other entities looking into forest soils research and mapping, as well as LULUCF sector of greenhouse gas inventories, are specifically encouraged to take part in the Consortia

Useful resources

- **Policy background documents**
- SDG 3, 13 and 15; EU's Bioeconomy Strategy (2018 update); EU's Forest Strategy 2013; Paris Agreement 2015; LULUCF Regulation 2018
- **Expected Impacts**

- Improved & harmonised methodologies for estimation of GHG emissions and removals in the LULUCF sector in Europe
- Strengthened knowledge base and capacity for forest managers to adopt sylvicultural techniques and forest management practices contributing to climate change mitigation
- More sustainable forest-based sector responsive to increasing societal demands for diversified forest-based products and services

Type of action: Research and Innovation Action
EU contribution: €10 million

Deadlines:
22 Jan 2020 (First Stage)
8 Sep 2020 (Second Stage)

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SFS-28-2020: Genetic resources and pre-breeding communities

Annette SCHNEEGANS – Unit B2

European Commission – DG AGRI

SFS-28-2020: Genetic resources and pre-breeding communities

Scope C – The GenRes-user interface and pre-breeding activities (IA)

Topic €14M - Indicative EU contribution/ project €7M

Background

- Increasing concern over **biodiversity loss** and **genetic erosion**
- **Genetic resources play a crucial role** in agricultural activities and sustainable forest management
- They are key to the **adaptation of plants** to a changing and more variable climate
- Yet their diversity **remains largely underused** in breeding and farming
- Speed up the **introduction of useful characteristics** from GenRes into breeding **(pre-breeding)**
- **Access to resources** is often limited by the information provided

Requirements to keep in mind

- **Mobilization of GenRes from in-situ and/or ex-situ** collections for plant breeding
- Tackle the **GenRes-user interface**, i.e. improvements to the information available and visualisation
- Major resources shall be devoted to **pre-breeding activities** implemented in close cooperation between public, private and non for profit sectors **across Europe covering different pedo-climatic regions**
- Involvement of **SMEs is crucial** and will be fostered through **targeted calls and financial support to third parties**.
- While the focus of activities is on Europe, **international resources and activities** shall be taken into account.

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SFS-30-2020: Agri-Aqua Labs

Annette SCHNEEGANS – Unit B2

European Commission – DG AGRI

Research and Innovation

SFS-30-2020: Agri-Aqua Labs

Scope C – Plant energy biology (RIA)

Topic €5M - Indicative EU contribution/ project €5M

Background

- Food and other plant-based products are the **result of plants' capacity to harvest light** and convert it into chemical energy to build energy rich organic compounds and ultimately biomass.
- **Energy efficiency is central to plant yield and robustness.**
- The various components of the **complex plant energy system** as well as their **interactions** (in spatial and temporal terms) **need to be better understood** as a basis for crop improvement, crop management and adaptability of crops to changing environments.

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Requirements to keep in mind

- Advance understanding of the **plant energy system** looking behind **specific mechanisms**, the **complex processes** and **interactions** that determine overall energy efficiency in plants.
- Better understand (some of) the various components, processes and interactions of plants' energy system and their regulation – from energy capture to its conversion, transport, photoassimilate partitioning and use
- A framework for action is provided from which **proposals can choose a particular scope** and approach in line with the broader objectives of the call.
- While capitalising on knowledge resulting from work in model species, proposals should also work in crop species taking into account **relevant agronomic conditions**.

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-40-2020: Healthy soils for healthy food production

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European Commission – DG AGRI

Research and Innovation

Topic introduction

- Soils are providing many important functions; soil protection is currently embeded in number of policies (CAP, Nitrates Directive)
- Topic is drafted under the FAB cooperation with China
- Primary focus on remediation and contamination
- 5ME

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Useful resources

- Soil website of DG Env
- Information on FAB cooperation

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

FNR-04-2020: Towards a European research and innovation roadmap on soils and land management

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European Commission – DG AGRI

Research and Innovation

Topic introduction

- This topic is developed in view of support towards the Soil health and food mission
- All currently running and recently finished project related to soil should be considered
- The details of coordination activities will be defined during the grant preparation phase with the Commission.

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Questions?

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Biodiversity and agroecology

Research and Innovation

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-01-2020: Biodiversity in action: across farmland and the value chain

Annette SCHNEEGANS – Unit B2

European Commission – DG AGRI

SFS-01-2020: Biodiversity in action: across farmland and the value chain

Scope C – From agrobiodiversiy to dynamic value chains (RIA)

Topic €18M - Indicative EU contribution/ project €6M

Background

- The various dimensions of **agricultural biodiversity** play a significant role in conferring **stability, resilience and adaptability** to farming systems
- **Diversification in agriculture** along **new openings for regional, high quality products** for economic development
- Creating specific **avenues for products, farm income** and **value chains** from underutilized crops
- Strengthening **producer-consumer links** amongst others through new marketing modes

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Requirements to keep in mind

- Activities shall release the value of **so far underutilised** and often **genetically diverse crops** (including landraces and varieties)
- Promote the **broader use of landraces and underutilised crops** in breeding, farming and food/non-food value chains
- Develop strategies for an increased and more effective use of genetic diversity in breeding and farming, in particular to **introduce adaptive as well as quality and health related traits**
- Contribute to the **development of value chains**, which provide opportunities for **diversify farm activities and income** and **meet consumer demands**
- Multi-actor approach (research, farmers, breeders,...)
- Consortia shall reflect a range of geographic and socio-economic conditions

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SFS-13-2020: Genome and epigenome enabled breeding in terrestrial livestock

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European Commission – DG AGRI

SFS-13-2020: Genome and epigenome enabled breeding in terrestrial livestock (RIA)

Background

- ✓ **Genetics is one of the important levers for efficient livestock production.**
- ✓ **Understanding of the biological mechanisms underpinning traits, including epigenetic responses to the environment and non-genetic inheritance, remains relatively limited and underexploited.**
- ✓ **Improving livestock breeding programmes in both cosmopolitan and local breeds requires an optimal level of genetic diversity that needs to be measured and exploited.**

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SFS-13-2020: Genome and epigenome enabled breeding in terrestrial livestock (RIA)

Requirements to keep in mind

Activities shall address:

- ✓ The exploitation of existing knowledge on the genome sequence and its regulation and expression by providing
  - ✓ (i) analysis of the genome and the epigenome in relation to combinations of traits (including intermediate and/or indicators) important for efficient terrestrial livestock production and
  - ✓ (ii) tools to improve breeding schemes, both for cosmopolitan and local breeds of terrestrial livestock, striving to ensure optimal genetic and epigenetic diversity, at least within breeds.
- ✓ Development of methods, tools and models to assist both industry and policy makers as well as to respond to social challenges.

SFS-13-2020: Genome and epigenome enabled breeding in terrestrial livestock (RIA)

Requirements to keep in mind

Activities may address:

- ✓ The genetic relationship between animal performance traits to tackle some potential trade-offs between different phenotypes of interest that may alter long-term selection strategies to improve lifetime efficiency.
- ✓ Assessment of the relevance of (i) epigenetic mechanisms as a potential source of phenotypic variance unaccounted by genomic selection, and (ii) improving genomic prediction models with better integration of environmental and non-genetic inheritance factors.
- ✓ Development of (i) appropriate deep phenotype indicators and their genomic and epigenomic determination (ii) multitrait genomic and epigenomic prediction models that can efficiently utilize these indicators.
- ✓ Assessment of the potential of both (i) genome editing for cross-species and/or inter-breed transmission of specific traits without affecting other selected characteristics or specificities and (ii) epigenome editing for improved animal welfare and/or product quality.
- ✓ Study of the opportunity and feasibility of integration of genome editing in genomic selection (specifics and comparison with introgression: theoretical and practical applications).
- ✓ Development of refined genomic and epigenomic strategies for management of biodiversity.

SFS-13-2020: Genome and epigenome enabled breeding in terrestrial livestock (RIA)

- **Cross cutting aspects**

  ✓ **MAA** (breeders, biodiversity conservation and other relevant professionals from animal production, the food chain and decision-makers, as appropriate).

- **Policy**

  ✓ **GM/New Techniques in Agricultural Biotechnology** :

  Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms

  EUCJ ruling: https://curia.europa.eu/jcms/upload/docs/application/pdf/2018-07/cp180111en.pdf

  Scientific Advice Mechanism (SAM):
  https://ec.europa.eu/research/sam/pdf/topics/explanatory_note_new_techniques_agricultural_biotechnology.pdf

  SAM statement:
  https://ec.europa.eu/info/sites/info/files/2018_11_gcsa_statement_gene_editing_2.pdf

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Some useful resources

GENTORE

www.gentore.eu/

Smarter

SMAll RuminanTs breeding for Efficiency and Resilience

https://www.smarterproject.eu/

G PLUS E Genotype plus Environment

Integration for a more sustainable dairy production system

www.gpluse.eu/

Feed-a-Gene

www.feed-a-gene.eu/

FAANG-Europe

The "Functional Annotation of Animal Genomes" (FAANG) initiative aims to

faang-europe.org/

FAANG

Functional Annotation of Animal Genomes

https://www.faang.org/

GenRes Bridge

http://www.genresbridge.eu

European Regional Focal Point for Animal Genetic Resources

RFP EUROPE

www.animalgeneticresources.net

BovReg:

https://cordis.europa.eu/project/rcn/223200/factsheet/en

Gene-Switch

https://cordis.europa.eu/project/rcn/223221/factsheet/en

FABRE ETP

http://www.fabretp.eu

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

FNR-01-2020: Strengthening the European agroecological research and innovation ecosystem

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European Commission – DG AGRI

Research and Innovation

Challenges

- agriculture must address the environmental and climate change issues relating to primary production
- **agroecology** -> site-specificity, complexity, long time frames, landscape component, human/social factors -> can strengthen the sustainability and resilience of farming systems
- need to strengthen research infrastructures, open innovation initiatives for large-scale change, site-specific knowledge, solutions in the long term and at relevant landscape level -→ **living labs**

Regular collaborative research can contribute to set up facilities or networks but not well suited to:

- sustain activities in the long run
- integrate in grassroots initiatives in specific territories

Long-term action at European level involving EU, national, regional funders

Coordination and Support Action

European Commission

Requirements

Develop the framework for a European network of agro-ecological living labs (LL) and research infrastructures (RI)

Proposals shall:

- **map** European RI, LL or other open innovation activities on agro-ecological production processes
- **build on the work** of past and ongoing RI and LL initiatives, in and outside of the agricultural domain; **analyse how to develop relevant approaches** for agro-ecology
- **take into account the results of other projects**, networks or LL under Horizon 2020 related to agro-ecosystems, **describe functioning** of these initiatives and existing **capacities**

European Commission

Requirements (ctd.)

Develop the framework for a European network of agro-ecological living labs (LL) and research infrastructures (RI)

Proposals shall:

- **synergies & trade-offs** between RI / LL; potential to create **new initiatives**
- **stakeholders' engagement**; **recommendations** for involvement in future initiatives
- **how existing funding sources** (incl. Horizon 2020, rural and regional development funds) support agro-ecological R&I
- **explore interest** of **funders**; **recommendations** on **funding sources**
- identify **needs for training** on LL/RI methods; prepare a **training package**

Expected impacts

Short term:

- **framework for the development of synergies** at European level
- **increase connections** in the agro-ecological community; prepare it for the implementation of the initiative
- prepare the **funders**, raise their capacity to mobilise funding sources
- **improve the human and social capital & skills** / **methods** for the development of LL and RI in agroecology
- improve **capacity to tailor policy interventions**

Medium/long term: R&I projects and initiatives to benefit from the work of the network

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Useful resources

Key definitions

- **Agroecology** is the study of ecological processes applied to agricultural production systems

- **Living Labs (LLs)** are defined as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings (https://enoll.org/about-us/)

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

FNR-05-2020: Husbandry for quality and sustainability

Valeria MARIANO– Unit B2

European Commission – DG AGRI

Research and Innovation

FNR-05-2020: Husbandry for quality and sustainability

- **Background**

✓ **livestock farming systems generate valuable products for human consumption**

✓ **Climate change ⬇ sustainability(e.g. productivity, health) of livestock systems**

✓ **⬆ demand at global level for animal derived food ➡ further intensification and expansion of animal production is expected.**

European Commission

FNR-05-2020: Husbandry for quality and sustainability

- important source of good quality, digestible proteins, minerals and vitamins
- utilise resources not suitable for food (e.g. grass-based systems)
- support the development of rural communities
- extensive livestock systems contribute to the maintenance of ecosystems and may increase biodiversity.

- contributes significantly to greenhouse gas emissions
- Increase pressure on the environment and natural resources
- risks to the health and welfare of animals within the systems and to human health

Livestock farming systems & agri-food chain need to be (re)designed in a holistic manner
to best reconcile the various demands
concerning productivity, sustainability, quality and other societal values

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FNR-05-2020: Husbandry for quality and sustainability

Requirements to keep in mind

Scope: A. (2020) Husbandry for sustainability (RIA)

- ✓ **Undertake a comprehensive holistic assessment of the sustainability and potential delivery of ecosystem services, social services, resilience, competitiveness and possible trade-offs of diverse EU livestock production systems**
  - Cover all the EU's major types of production systems and most important species
  - Consider environmental impacts; economics and supply chain dynamics; territorial dynamics; animal welfare; food and nutrition security
- ✓ **Build on existing Life Cycle Assessment data and perform new measurements where necessary**
- ✓ **Include work on emission factors and development of new comprehensive models**
- ✓ **Develop a wide range of alternative development scenarios to identify the strategies and propose policy options**
- ✓ **Include analyses of (indirect) effects on related production systems**

Cross-cutting issues

- ✓ **MAA (range of public and private interests and actors)**

European Commission

FNR-05-2020: Husbandry for quality and sustainability

Requirements to keep in mind

Scope: B. (2020) Husbandry for quality (RIA)

- ✓ undertake an assessment of the intrinsic quality of livestock products stemming from different production systems
- ✓ study the relation between intrinsic quality and husbandry, taking into account the processing methods and means to ensure authenticity along the food chain
- ✓ where appropriate, assessment of claims on the relation between intrinsic quality of products and extrinsic factors (e.g. sustainable production systems, traditional production systems)
- ✓ work on one or more species but shall, within the same species, assess at least differences between extensive and intensive production systems
- ✓ the intrinsic qualities covered will at least encompass: (i) food safety (ii) nutritional value, (iii) organoleptic quality and sensorial features of animal products

• Cross-cutting issues

- ✓ MAA (in particular farmers, food industry and consumers)

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Useful resources

- **Policy background documents**
- **AW legislation**
- **Food & Feed legislation**
- **Hygiene & Animal Health legislation**
- **CAP**

- **Links**

✓ **CWG AHW https://www.scar-cwg-ahw.org/**

✓ **CWG SAP https://scar-europe.org/index.php/spa-mission-and-aims**

✓ **SusAn ERANET https://era-susan.eu/**

✓ **ATF http://animaltaskforce.eu/**

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Questions?

European Commission

European Commission

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Policies and value chains

Research and Innovation

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

RUR-05-2020 – Connecting consumers and producers in innovative agri-food suppy chains

Inge VAN OOST– Unit B2

European Commission – DG AGRI

Research and Innovation

RUR-5-2020 – Connecting consumers and producers in innovative agri-food suppy chains

- **Specific post 2020 CAP objective**: rebalance the farmers' position in the food chain (seek win-wins and decent farmers' income for efforts done)
- Strengthen **organisational innovation**, following evolving consumer demand and tackle other challenges such as public procurement fit for small-scale producers
- Unfair trading and **imbalances between small and large operators**: intermediaries including IT operators may take until 50%=> **more focus on costs and margins needed**
- See presentations, discussions and conclusions of the EIP-AGRI Workshop "Cities and Food – Connecting Consumers and Producers"
  https://ec.europa.eu/eip/agriculture/event/eip-agri-workshop-cities-and-food---connecting

European Commission

RUR-5-2020 – Connecting consumers and producers in innovative agri-food suppy chains

- Look into concrete ways for **producers to collaborate on opportunities** which are **both consumer driven and conducive to improving farmers' incomes**
- Collect and develop **good practices for mutually beneficial cooperation,** integrating the needs of primary producers and consumers in a hands-on approach
- Many ideas and examples are listed in the topic, should all lead to efficient access to consumers for producers and a reduction of costs for intermediaries.
- Particular attention shall be paid to the **calculation of costs and margins for each link in the supply chain**
- Sharing experiences of public contracting authorities on local and seasonal food procurement

European Commission

RUR-5-2020 – Connecting consumers and producers in innovative agri-food suppy chains

- **Multi-actor approach: choose the competences needed for social innovation in practice**
- Coordinate strategy together with SCAR-AKIS Strategic Working Group in order to cross-fertilise between various projects and topics and to interact with policy makers
- **Expected impact**: develop tailormade and practical support to set up innovative supply chains creating win-wins; collect good examples; solutions for minimising margins for intermediaries; sharing experience between public procurement officers on tendering fresh and healthy food
- 3 mio Euro, CSA

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

RUR-06-2020:
Innovative agri-food value chains: boosting sustainability-oriented competitiveness

Natalia BRZEZINA– Unit B2

European Commission – DG AGRI

Research and Innovation

Topic introduction

- **Background**
  - Food systems face many interlinked challenges, which jeopardise their sustainability
  - Call for: innovative systemic approaches to redesign agri-food value chains, with a view to unlock their full potential to deliver **economic, environmental and social benefits** while also addressing **power imbalances** between **farmers** and **other operators**
  - Such co-created innovative designs of agri-food value chains are emerging, but not all are equally sustainable.

Identify such innovative **integrated approaches**

Assess them against **sustainability criteria**

Need to understand the structure and behavioural incentives inherent in agri-food value chains, how these affect sustainability and innovation in practice, and what kind of adjustments would be desirable to facilitate good practice at a systemic level, in order to contextualise and understand the replicability of the best practices identified.

Topic introduction

- **Requirements to keep in mind**

— Build on the **state of the art**, map and assess existing innovations, and (re)design and pilot **innovative systemic approaches** to agri-food value chains that unlock their full potential to achieve **economic, social and environmental sustainability** and **foster cooperation**, notably involving **farmers**

— Combine **diverse forms of innovation**

— Assess and validate the benefits (sustainability performance) of the innovative agri-food value chains: **comprehensive methods** (quantitative and qualitative), with attention to

✓ **the trade-offs** and synergies between sustainability dimensions

✓ **the fair distribution** of costs, benefits and risks among all actors involved in the agri-food value chains

— Scrutinize **factors** enabling and hindering innovative approaches

— Develop and disseminate **recommendations**, **best practice guidelines** and **toolkits**

European Commission

Useful resources

- **Cross-cutting issues**
  - **Multi-actor approach**
  - Cooperation: projects under topic **RUR-06-2020** (obligatory) and **RUR-07-2020** (encouraged)

Innovation Action (≈ €7M/proposal); 3 projects

- **Expectations:**

➢ Long-term, **win-win economic relationships** between actors from agri-food chains which effectively **collaborate towards common sustainability objectives**;

➢ Better understanding and **fairer distribution of costs, benefits and risks** amongst the actors involved in the innovative agri-food chains which are piloted, tested and demonstrated;

➢ A portfolio of **innovative sustainable business models** well-functioning in operational environment;

➢ **Strengthened farmers' position** in agri-food value chains through innovative approaches that enhance transparency, information flow and management capacity;

➢ Enhanced **positive socio-economic and environmental impacts** of agri-food value chains.

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

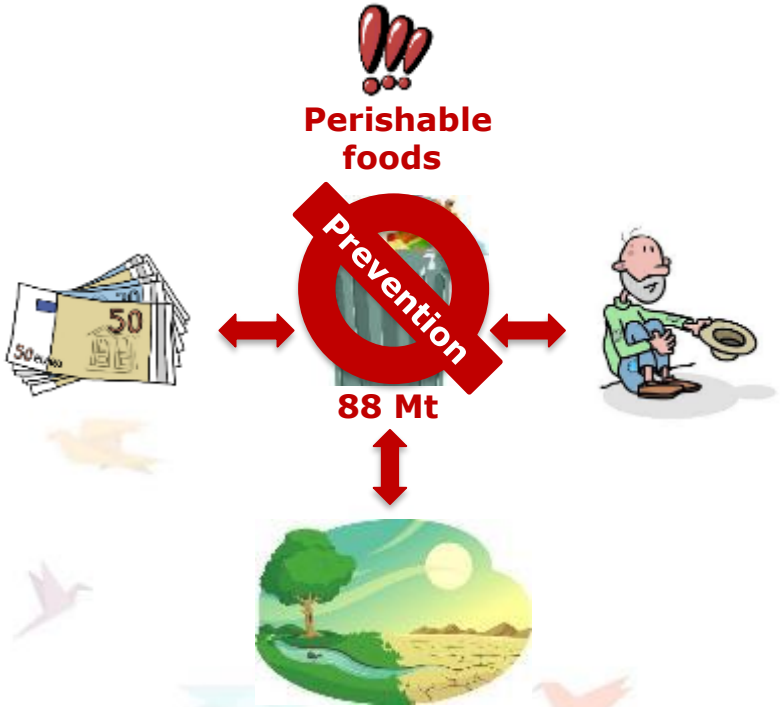
RUR-07-2020:
Reducing food losses and waste along the agri-food value chains

Natalia BRZEZINA– Unit B2

European Commission – DG AGRI

Research and Innovation

Topic introduction



- **Background**

— Reducing food losses and waste all along the agri-food value chain is not straightforward, as the problem is a result of **manifold and highly interlinked causes**

— Much is known about the causes and many innovative solutions are already available

— Need for **demonstration** and **market replication** of innovative solutions

— To **avoid shifting the burden** of food losses and waste from one stage of the agri-food value chain to another, it is important to **coordinate the innovative actions** to tackle food losses and waste along all stages of the agri-food value chain

European Commission

Topic introduction

- **Requirements to keep in mind**

— Building on the **state of the art**, identify, validate and demonstrate innovative, effective ways to reduce food losses and waste, with a focus on **preventing avoidable losses and waste of perishable products**, **all along the agri-food value chain**

— Consider diverse forms of innovation that allow actors:

✓ to better organize and coordinate their activities,

✓ to monitor conditions, to eliminate the many intricate direct and indirect causes of inefficiency,

✓ and, hence, to discard as little food as possible all along the agri-food value chains

✓ without compromising on food quality, including safety, and sustainability.

— Measure and monitor food losses and waste (and associated economic and environmental costs**) along the agri-food value chains** → should be compatible with the EU legislation, but may be complemented with measurement of materials not covered by the legislation (e.g., **farm losses**)

— Scrutinize factors enabling and hindering innovative approaches

— Develop and disseminate **recommendations**, **best practice guidelines** and **toolkits**

Useful resources

- **Cross-cutting issues**

Innovation Action (≈ €6M/proposal); 2 projects

- **Multi-actor approach**
- Activities to inform diverse actors along the agri-food chain, including consumers and policymakers, about the innovative solutions to food losses and waste, **influencing their behaviour in relation to this issue**, and **supporting policy development and implementation**
- Complementarities with selected projects under topic **RUR-07-2020** and **other** relevant **EU projects**, as well as contribute to **relevant initiatives at EU level**
- Cooperation: projects under topic **RUR-07-2020** (obligatory) and **RUR-06-2020** (encouraged)
- At least **TRL 6-7**

- **Links**

Food waste measurement

Waste Framework Directive

European Commission

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

LC-RUR-11-2019-2020: Sustainable wood value chains Resilient forest systems (RIA)

Cindy SCHOUMACHER– Unit C2

European Commission – DG RTD

Topic introduction

- **Background - Challenge**
  - Forests: more 40% of the EU's landmass, 70% of Europe's freshwater repository, remove about 9% of GHG emitted by other parts of the economy, provide income for 16 million forest owners and 3-4 million workers in rural areas, represent some 8% of the EU's total manufacturing value.
  - 2nd consumer-driven factor of GHG emissions: construction sector (ca. 15%) → significant role for forest-based products.
  - Forest-based sector can contribute to climate change mitigation through increasing sinks in and reducing emissions from living biomass, soils and wood products, and the substitution of non-renewable resources through the sustainable use of material and energy use of wood-based materials.
  - **Key challenge**: further develop and deploy the technological advancements of environmental and micro/macroclimate-friendly wood-based value chains.

Topic introduction

- **Background - Objective**
  - **Enhance adaptation of primary/secondary forest ecosystems and forest production systems** to the growing societal demands for forest products and ecosystem services, considering trade-offs, climate change and vulnerability to natural disturbances.
  - **Restore degraded ecosystems and natural expansion of forests**, considering the long-term rural development, climate change mitigation objectives and biodiversity enhancement.
  - **Include a varied range of forest and site types and tailored forest management systems** representative of Europe's biogeographic regions.
  - Cover **multiple parts of the production cycle and related operations**, from regeneration/planting to harvesting, consider **jointly supply** (i.e. primary production) **and demand** (i.e. socio-economic) factors, and be **interdisciplinary** in nature.

Topic introduction

- **Background – Expected impacts**
  - Increased **long-term resilience** of forest production systems and associated value chains to climate/environmental change and societal demand.
  - Protection and restoration of **biodiversity** of primary and secondary forest.
  - Enhanced contribution of the forest-based sector to **long-term climate change mitigation, adaptation and rural development objectives**.
  - In the long-term, prompt a sizeable **positive change to European landscapes and economies**, by keeping the countryside green and serving to make cities greener, and increasing the share of both decent and green jobs.
  - Advance available solutions from TRL 3-4 to TRL 5.

Topic introduction

- **Requirements to keep in mind**
  - Proposals requesting a contribution from the EU of the order of 5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.
  - Up to 2 RIA projects can be funded.
  - DL: 22 Jan 2020 (First Stage) & 08 Sep 2020 (Second Stage).

- **Cross-cutting issues**
  - Suitable for INCO and SMEs participation, and the topic is expected to integrate technology with SSH and RRI aspects.

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

RUR-15-2020 – Thematic networks compiling knowledge ready for practice

Inge VAN OOST– Unit B2

European Commission – DG AGRI

Research and Innovation

RUR-15-2020 – Thematic networks compiling knowledge **ready for practice**

- Much of the existing research findings and best practices stays unused
- **=> Summarise, share and present -** in a language that is **easy to understand and is targeted to farmers and foresters** - **existing best practices and research findings** that are near to being put into practice, but **not sufficiently known or used by practitioners.**
- **Themes must focus on most urgent needs of farmers and foresters** (which is not necessarily the same as policy needs) – to be chosen bottom-up
- Should **pay attention to cost-benefit aspects** of each practice presented
- Show **added value** of the subject by a comprehensive description of what has been done already (state of play) – avoid duplication

European Commission

RUR-15-2019 – Thematic networks compiling knowledge **ready for practice**

- End product should be **substantial "appealing" end-user** knowledge (e.g. some 100 EIP PAs, + photos, videos, demos etc) - multi-actor project
- **Synergies sought with EIP Operational Groups** and- if useful- other ESIF project, and with EURAKNOS-EUREKA collecting all info from Thematic Networks
- Webpage including the **list of 600 OG projects** (Excel file with data from Feb 2018 study): **https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-operational-groups-assessment-2018 -** meanwhile over 1000 OGs (contact NRNs)
- Use **main trusted dissemination channels**, and also feed into education/training
- Preferably 3 years; minor testing allowed, max 20% of the budget

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29 H2020 bottom-up Thematic Networks (1)

calls 2014-2016 – a complementary set of themes (sectors)

RUR 10 - 2016	CERERE	Cereals: organic/low input cereal food systems for biodiversity and quality (production, processing, marketing)
RUR 10 - 2016	Eu PiG	Pig husbandry: health management, precision production, welfare and meat quality
RUR 10 - 2016	Inno4Grass	Productive grasslands: profitability and environmental services
RUR 10 - 2016	SheepNet	Improving sheep productivity
ISIB 2 - 2014	Winetwork	Wine diseases: Grapevine Trunk Disease and Flavescence dorée
ISIB 2 - 2014	OKNetArable	Organic agriculture - arable crops
ISIB 2 - 2014	Hennovation	Animal welfare hens
ISIB 2 - 2015	4D4F	Data and sensor driven decision making on dairy farms
ISIB 2 - 2015	EuroDairy	Practice-based innovations in dairy farming: resource efficiency, Biodiversity, Animal care, and Socio-economic resilience
ISIB 2 - 2015	EUFRUIT	Fruit: cultivar development, minimize residues, storage and fruit quality, sustainability of production systems

29 H2020 bottom-up Thematic Networks (2)

a complementary set of themes (cross-cutting themes)

calls 2014-2016

RUR 10 - 2016	SKIN	Stimulating innovation and good practices in short supply chains
RUR 10 - 2016	AFINET	Agroforestry: sylvoarable and sylvopastural systems' design, management and profitability
ISIB 2 - 2014	Agri-Spin	Innovation brokering methods
ISIB 2 - 2015	AGRIFORVALOR	Valorization of biomass side-streams from agriculture and forest
ISIB 2 - 2015	Smart-AKIS	Smart Farming Technology: Management Information Systems, Precision Agriculture and Agriculture automation and robotics
ISIB 2 - 2015	HNV-Link	Support HNV farmlands through knowledge and innovation
WATER 4B - 2015	FERTINNOWA	Optimize water and nutrient use efficiency: dbase on innovative technologies and practices for fertigation of horticultural crops

Call 2017 H2020 bottom-up Thematic Networks (3)
another complementary set of cross-cutting themes

ENABLING	**Upscaling biomass production and pre-processing** for bio-based value chains
INCREdible	**Non Wood Forest Products:** Cork, Resins and Edibles in the Mediterranean basin
NEWBIE	**New Entrant** netWork: Business models for Innovation, entrepreneurship and resilience
OK-Net EcoFeed	**Organic** Knowledge Network on **Monogastric Animal Feed (pigs, broilers, hens)**
PANACEA	**Non-food Crops'** penetration path
INNOSETA	**Spraying Equipment** best management practices

Call 2018 H2020 bottom-up Thematic Networks (4)
another complementary set of cross-cutting themes

DISARM	**Reduction of antibiotic resistance** in livestock farming
NUTRIMAN	Best practices for **N/P nutrient management/recovery** from un-exploited resources of raw materials (CE)
SuWaNu Europe	**Re-use of treated wastewater** in agriculture
BEST4SOIL	Best practices for the **control of soilborne diseases**
EURAKNOS	**Widening existing thematic network outputs**
Legumes Translated	Innovation in **grain legume-supported cropping systems**

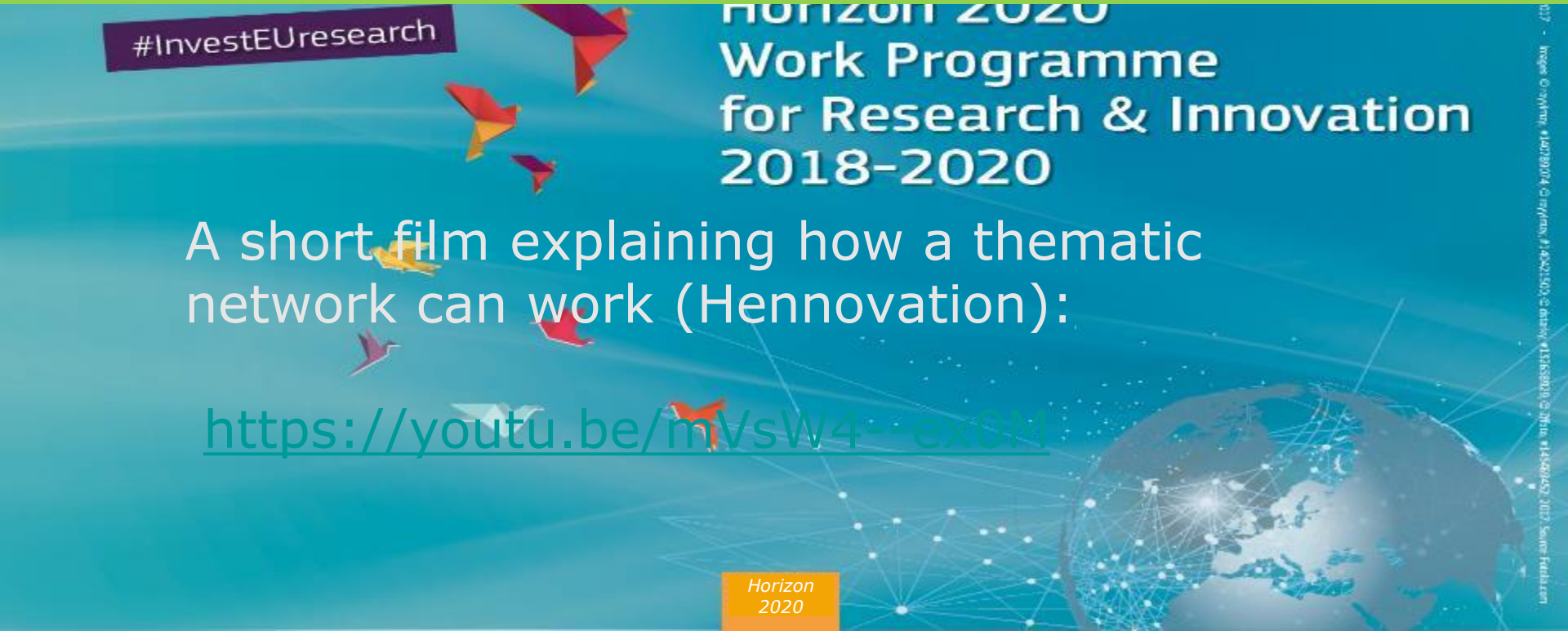
Call 2019 - H2020 bottom-up Thematic Networks

(just selected, will be starting end of 2019 - beginning 2020 – total 34 TNs)

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

H2020 bottom-up Thematic Networks

How? Learn from experience calls 2014-2018



A short film explaining how a thematic network can work (Hennovation):

https://youtu.be/mVsW4--ex0M

Multi-actor approach (MAA)= demand driven innovation

- **Clear list of requirements, forming fully part of the topic requirements** labelled by "*Proposals should fall under the concept of the 'multi-actor approach'* in the topic + footnote.

- **Requirements** for the 'multi-actor approach' are on **page 9-11** of the introduction of the Work Programme and are generic/similar for all MAA projects (footnote)

- **Systemic approach:** MAA is not a "cross-cutting issue" (as RRI, SSH, gender), it is not equal to multi/pluri-disciplinarity, nor to Living Labs, nor to a strong dissemination requirement nor to a broad stakeholders' board. Strong impact is key!

- **Demonstrate selection criterion Excellence=>** Clarity and pertinence of the objectives & soundness of the concept! Clear requirements for MAA (6 bullets)

  a) **How the project proposal's objectives and planning are targeting needs/problems and opportunities of end-users** (=demand-driven**)**

b) **The composition of the consortium and the description of the project must reflect a balanced choice of key actors with complementary types of knowledge: building blocks for innovation are expected to come from science as well as from practice** and intermediaries

- "**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.

- **End-users (OF THE PROJECT RESULTS) and practitioners are to be involved,** not as a study-object, but in view of **using their entrepreneurial skills and tacit knowledge** for developing solutions and creating **"co-ownership**" of results,

- This **speeds up the acceptance and dissemination of new ideas/solutions** thanks to cross-fertilisation of ideas and views and to including also **multipliers, facilitators and EIP Operational Groups** from countries and regions working on similar topics.

- Webpage including the **list of 600 OG projects** (Excel file with data from Feb 2018 study): **https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-operational-groups-assessment-2018 -** meanwhile over 1000 OGs (contact NRNs)

c) **Project proposals should illustrate sufficient quantity and quality of knowledge exchange activities**

=>**'Actor'**: a partner taking part **in project activities**, contributing to project outcomes (co-decision, co-ownership)

=>**'Stakeholder'**: person expressing a **view/stake** at a certain moment(s) during the project: stakeholders' board, regional or national meetings

d) **Project's added value: demonstrate complementarity with existing research and best practice**

e) The project should result in **practical knowledge,** made easily understandable and accessible, which **must feed into the existing dissemination channels most consulted by end-users in countries**

f) **For EU wide communication, this practical knowledge should also be assembled into a substantial number of 'practice abstracts' in the common EIP format** to share within the EIP network

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Connecting policies: the bigger EIP picture

CAP/Rural development
(regional/national level)

- ✓ OG preparation
- ✓ OG projects
- ✓ Innovation support services

eip-agri
AGRICULTURE & INNOVATION

EIP network(s)

HORIZON 2020

Research projects

Multi-actor projects

Thematic networks
(interactive innovation)

OPERATIONAL GROUP

Involvement of OGs is strongly recommended

Unique EU knowledge repository of contacts and practice abstracts

How to build a successful Horizon 2020 multi-actor project?

Target **real-life needs, problems or opportunities**

Choose consortium partners with **complementary types of knowledge and skills** (for "cross-fertilisation")

including **farmers, foresters or other end-users** to benefit from their entrepreneurial skills

European Commission

How to build a successful Horizon 2020 multi-actor project?

Involve "multipliers" - people who can bring in practical knowledge and help disseminate the results in the long term

Set up a plan with a **clear role for each of the different partners**

Organise **knowledge exchange activities** between the partners

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How to build a successful Horizon 2020 multi-actor project?

Bridge the gap between research and practice **by facilitating discussions**

Involve interactive innovation groups such as **EIP-AGRI Operational Groups**

All partners must **co-create and co-decide throughout the project**

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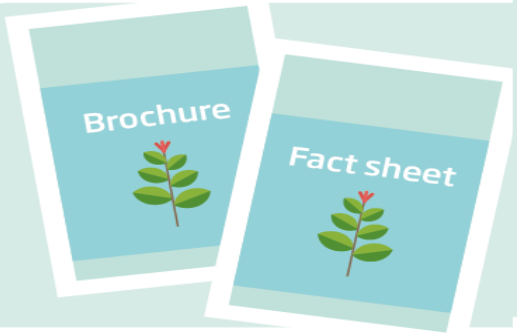
How to build a successful Horizon 2020 multi-actor project?

Illustrate how the project **complements existing research and best practices**



Produce practical information which feeds into the most common **existing dissemination channels** ...

... and write easily understandable **practice abstracts in the common EIP format**

European Commission

- **EIP brochure on multi-actor projects:**
  - https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_multi-actor_projects_2017_en_web.pdf
- **EIP brochure on thematic networks & practice abstracts**
  - http://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_thematic_networks_2016_en_web.pdf
- **Videostreamed seminar on drafting practice abstracts:**
  - http://www.ncp-biohorizon.net/events?cmd=showDetail&id=33
- **'Collaborate to innovate – OGs networking across the EU'**
  - https://ec.europa.eu/eip/agriculture/en/publications/
  - eip-agri-brochure-operational-groups-collaborate
- **Links to NRNs:** National Rural Networks can help in OG **partner search**
  - http://enrd.ec.europa.eu/enrd-static/networks-and-networking/nrn-information/en/nrn-information_en.html

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

RUR-21-2020: Agricultural markets and international trade in the context of sustainability objectives

Iuri AGANETTO – Unit B2

European Commission – DG AGRI

Research and Innovation

RUR-21-2020: Agricultural markets and international trade in the context of sustainability objectives

Topic € 4M (RIA)

Link with FNR-18-2020: Sustainability of bio-based products – international governance aspects and market update

Background

- Need to assess the impacts of agricultural international trade on the environment and society.
- Achieving the SDGs and implementing climate and biodiversity agreements while advancing EU objectives regarding a fair standard of living for farmers and poverty eradication.

European Commission

Requirements to keep in mind

- Develop methods and indicators to assess the impacts **(positive and negative)** of agricultural international trade on the environment and society.
- EU relevant supply chains **(import and/or export)** in relation to major trading partners
- Contrasting analysis from the **African** continent perspective could be proposed
- Projects will design transition paths to develop trade relations in sustainable and fair ways considering the **role that labour plays in overall production cost** and the impact of the **internalisation of environmental costs** on the competitiveness of agricultural productions.

Expected impacts

- More evidence-based policies and improved civil society dialogue building on **improved data, analysis, and methods**;
- **Improved coherence between EU policies** (Agriculture, Environment, Trade, Climate, Food security, Development…);
- **Best practices and policies** for multilateral trade contributing to the Sustainable Development Goals and global agreements on environmental and climate challenges

European Commission

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

FNR-02-2020: Developing long-term monitoring and evaluation frameworks for the Common Agricultural Policy

Iuri AGANETTO – Unit B2

European Commission – DG AGRI

Research and Innovation

FNR-02-2020: Developing long-term monitoring and evaluation frameworks for the Common Agricultural Policy

Topic € 2M (CSA)

Background

- Common Agricultural Policy (CAP) for the period post2020 assigns a prominent role to the use of indicators for the preparation of the CAP plans and for the monitoring of the policy.
- Research and Innovation Actions should pave the way for longer-term modernisation of monitoring and evaluation.

European Commission

Requirements to keep in mind

- Establish an inventory of indicators, proxies and data needs which would allow for a better targeting of agricultural policy, **in social, environmental and economic terms**.

- Exploration of **advanced and innovative data capturing methods** that:

  - (a) rely on a combination of **different sources** (i.e. combining satellite data + ground sensors + drones)
  - (b) be **automated** and/or rely on **platforms**, sensors or other systems in place + anticipating **future needs**
  - (c) respect other **economic or social needs** (cost-benefit ratio + privacy etc.)

- Pathways for managing future data flows between the **private sector, Member States** and **the EU** (mutualisation of resources + better use of data)

- Needs at **farm level** should be covered (e-declaration, one-stop data entry etc.)

Useful resources

- Existing relevant initiatives:

Recap, BEACON, CAPSELLA, SENSAGRI, Sen4Cap

RUR-03-2018: **CONSOLE, EFFECT, Contracts 2.0**

RUR-20-2018: **NIVA**

- Future projects: DT-ICT-08-2019

RE.CAP
Reinforcing CAP

CONSOLE

sen4cap
common agricultural policy

CAPSELLA
CAPSELLA is your Innovation lab for agrobiodiversity

Sensagri

European Commission

Questions?

European Commission

Thank you!

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Funding and Tender Portal:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020

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