



#InvestEUresearch

Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

Sustainable Food Security

This presentation does not engage the Commission,
please refer to the official documents.

Research and
Innovation

Overview SFS Call

Functional ecosystems
to healthy food

Building capacities



Environment and climate-smart
food production and consumption

International Cooperation



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

Sustainable Food Security

From functional ecosystems
to healthy food

Research and
Innovation



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

SFS-01-2018-2019-2020

Biodiversity in action: across
farmland and the value chain

Gaëtan DUBOIS - UNIT B2

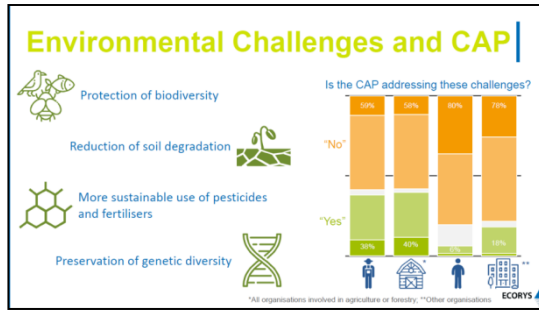
European Commission – DG AGRI

Research and
Innovation

Topic introduction

Scope B. Capitalising on native biodiversity in farmland landscape

- Background for the development of the topic



- Requirements to keep in mind

- "Citizen Observatories"
- 'multi-actor approach'
- open source collaboration and data collection
- a task to cluster between projects financed under this scope

EU Specific objectives	Impact indicators	Result indicators (only based on interventions supported by the CAP)
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	I.18 Increasing farmland bird populations: Farmland Bird Index	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.
	I.19 Enhanced biodiversity protection: Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends	R.26 Protecting forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services
	I.20 Enhanced provision of ecosystem services: share of UAA covered with landscape features	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration
		R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration
		R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows

Useful resources

- **Future of the common agricultural policy**

- https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en

- **Farming for Biodiversity - the results-based agri-environment schemes**

- http://ec.europa.eu/environment/nature/rbaps/index_en.htm

- **Biodiversity Strategy**

- http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm

- **EU pollinators initiative**

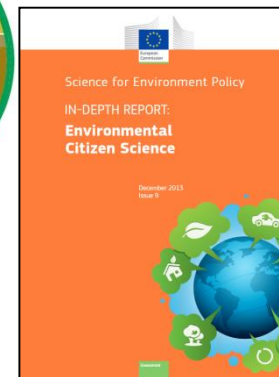
- http://ec.europa.eu/environment/nature/conservation/species/pollinators/index_en.htm

- **Environmental Citizen Science**

- http://ec.europa.eu/environment/integration/research/newsalert/pdf/IR9_en.pdf

- **EUNIS habitat classification & EEA activities**

- <https://www.eea.europa.eu/data-and-maps/data/eunis-habitat-classification>





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SFS-04-2019-2020

Integrated health approaches and
alternatives to pesticide use

Gaëtan DUBOIS - UNIT B2

European Commission – DG AGRI

Research and
Innovation

Topic introduction

Scope A. Integration of plant protection in a global health approach

- **Background for the development of the topic**



- Glyphosate, neonicotinoids, SDHI, chlordecone/CLD, ...
- Regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market
- Citizens' initiative "Ban glyphosate and protect people and the environment from toxic pesticides" & Commission's answer and follow-up
- Science-policy-society interface

- **Requirements to keep in mind**

- Multi-actor approach
- Transdisciplinary cooperation
- Research agenda on plant protection in the context of a global health approach
- Strengthen the European scientific community

Useful resources

- **Plant protection products**

https://ec.europa.eu/food/plant/pesticides_en

- **EFSA activities**

<https://www.efsa.europa.eu/en/topics/topic/pesticides>

- **Sustainable Use of Pesticides Directive**

https://ec.europa.eu/food/plant/pesticides/sustainable_use_pesticides_en

- **Citizens' initiative & Commission's answer and follow-up**

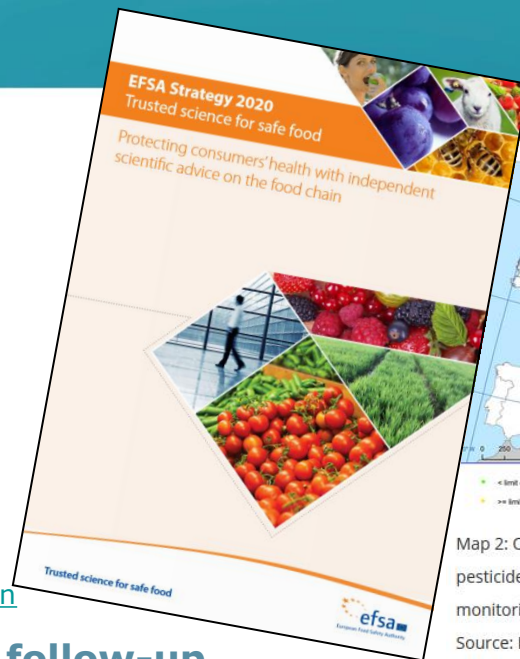
<http://ec.europa.eu/citizens-initiative/public/initiatives/successful/details/follow-up/2017/000002/en?lg=en>

- **Eurostat & EEA**

http://ec.europa.eu/eurostat/statistics-explained/index.php/Archive:Agri-environmental_indicator_-_pesticide_pollution_of_water

- **Cost action – safety culture and risk management in agriculture**

http://www.cost.eu/COST_Actions/ca/CA16123



Map 2: Occurrence and exceedance of selected pesticides (listed in Figure 1) in groundwater monitoring stations, 2010-2011

Source: European Environment Agency, WISE-SoE Groundwater



science and policy
for a healthy future



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SFS-05-2019

New and emerging risks to plant
health

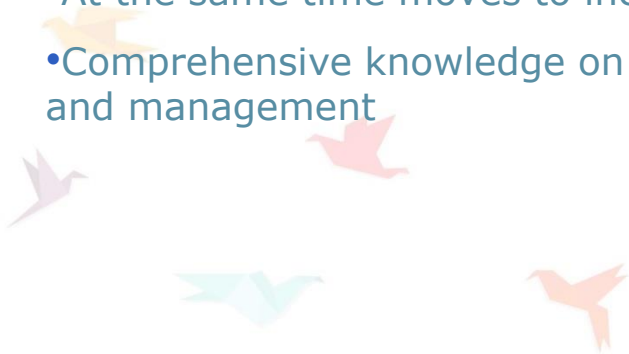
Patrizia Eleonora GANCI – Unit B2
European Commission – DG AGRI

Research and
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SFS-05-2019 New and emerging risks to plant health

Background

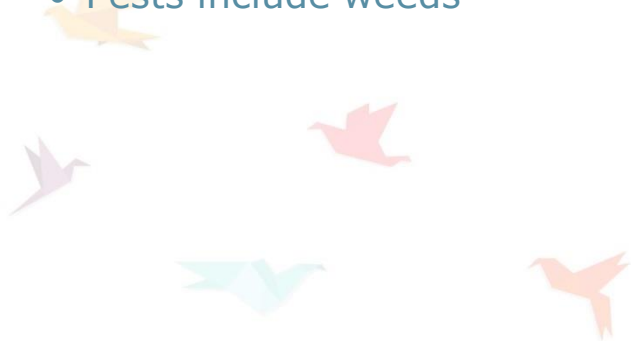
- Introduction, spread and establishment of pest and diseases facilitated by
 - Trade and movement of goods and people
 - Climatic variations and changes in agricultural/forest management practices
- At the same time moves to increased reliance on plant protection products
- Comprehensive knowledge on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



SFS-05-2019

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



SFS-05-2019

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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Infoday, 25 June 2018

SFS-08-2019

Improving animal welfare

Louis MAHY – Unit B2
European Commission – DG AGRI

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SFS-08-2019 Improving animal welfare

Scope B: Precision livestock farming

❖ Relevant EU projects

WELFARE INDICATORS - http://cordis.europa.eu/project/rcn/99394_en.html

WELFARE QUALITY - http://cordis.europa.eu/project/rcn/74914_en.html

ECONWELFARE - http://cordis.europa.eu/project/rcn/87806_en.html

EU-PLF - https://cordis.europa.eu/project/rcn/105333_en.html

IoF2020 - https://cordis.europa.eu/project/rcn/206761_en.html

SFS-08-2018: Improving animal welfare - Scope A: Organic and low-input farming

ERA-Net SusAn: FreeWalk - <https://www.freewalk.eu/en/freewalk.htm>

SFS-08-2019 Improving animal welfare

Scope B: Precision livestock farming

❖ Scope

- Innovative technologies
- Indicators
 - Consumer - & management decisions
- Business models
- Various stages of the production system
- Efficiency & air pollutants

❖ Multi actor



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018
SFS-11-2018-2019

Anti-microbials and animal
production Scope: B [2019]
Alternatives to anti-microbials

Jean-Charles Cavitte UNIT B 2
European Commission – DG AGRI

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Innovation

SFS-11-2018-2019: Scope: B. [2019] Alternatives to anti-microbials

Background

With the **widespread use of anti-microbials** for human and animal health in recent decades, the world is increasingly confronted with the emergence and spread of microbes that resist anti-microbial treatment.

Antimicrobial resistance (AMR) is responsible for an estimated 25 000 deaths yearly and over EUR 1.5 billion of healthcare costs and productivity losses in the EU alone.

The **European One Health Action Plan against AMR**

(https://ec.europa.eu/health/amr/sites/amr/files/amr_action_plan_2017_en.pdf) focussing on three pillars:

- making the **EU** a best practice region;
- **boosting** research, development and innovation;
- shaping the global **agenda**.

EU action on AMR: https://ec.europa.eu/health/amr/antimicrobial-resistance_en

SFS-11-2018-2019 Scope: B. [2019] Alternatives to anti-microbials

Background/useful resources

Related initiatives:

EJP OneHealth (SFS-36-2017), e.g. Mo-MIR PPC project

JPIAMR, e.g. 6th call in the therapeutic area
<https://www.jpiamr.eu/supportedprojects/6thcall/>

JTI "Innovative Medicines Initiative", e.g. COMBACTE-NET (medical sector)
<https://www.combacte.com/about/about-combacte-net-detail/>

Feed-a-Gene project: <https://www.feed-a-gene.eu/>

SFS-11-2018-2019 Scope: B. [2019] Alternatives to anti-microbials

Requirements to keep in mind

- ***Develop and test alternatives to anti-microbials:***

- Any type of alternative intervention measures, other than vaccines
- Basic research on gut microbiome excluded
- ***Take into guidelines, standards, legislation in the field (e.g. EMA, OIE)***
- Expectation that ***TRL level brought from 5-6 to TRL7***

Cross-cutting issues

- Topic applies to both ***terrestrial and aquatic animals***
- **Multi-actor approach**, involving at least representatives of practitioners (e.g. veterinarians), of the feed/feed additives and pharmaceutical industries.



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SFS-12-2019

A vaccine against African swine
fever

Jean-Charles Cavitte UNIT B 2
European Commission – DG AGRI

Research and
Innovation

SFS-12-2019: A vaccine against African swine fever

Background

A devastating viral disease present in Europe for several years, in an increasing number of member States. The threat is permanent (including incursion of exotic strains from endemic countries). Potential for very serious and rapid spread.

Serious socio-economic impact on farming sector and is of major importance in the international trade of animals and animal products.

Concerns raised on the possibility to eradicate the disease without vaccination. No vaccine currently available.

SFS-12-2019: A vaccine against African swine fever

Background/useful resources

Blueprint and roadmap on the possible development of an ASF vaccine, by the EU Reference Laboratory https://ec.europa.eu/food/animals/animal-diseases/control-measures/asf_en#bmrp

EU Infrastructure projects:

- **VetBioNet**: Veterinary Biocontained facility Network for excellence in animal infectiology research and experimentation
- **Transvac2**: European Vaccine Research and Development Infrastructure
- **Infravec2**: Research Infrastructures for the control of vector-borne diseases

COST Action: ASF-STOP

DEFEND project (SFS-10-2017)

International: **GARA** (Global African swine fever Research Alliance) <https://www.ars.usda.gov/GARA/>

SFS-12-2019: A vaccine against African swine fever

Requirements to keep in mind

- Vaccines against ASF for *domestic pigs and wild boars*
- Developing pilot *vaccines and their companion DIVA test*
- **Vaccination** as part of a control strategy in different scenarios.
- At least the ASF *viruses circulating in Europe*
- **May also cover all or the most relevant exotic ones.** Wild fauna other than wild boars may also be addressed. Participation by non-EU regions particularly affected by ASF is recommended.
- Expectation that **TRL level brought to 5-6**

Cross-cutting issues

- **Multi-actor approach**, involving at least animal health authorities and the farming and business sectors. Involvement of the pharmaceutical industry highly recommended



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LC-SFS-17-2019:

Alternative proteins for food and
feed

Razvan Anistoroaei, UNIT F3 Agri-Food Chain
European Commission – DG RTD

Research and
Innovation

LC-SFS-17-2019: Alternative proteins for food and feed



- **Why?**
- Feeding the world of today and tomorrow
 - To ensure sufficient, nutritious, safe and affordable food to a fast growing global population with changing dietary habits while facing climate change and natural resource scarcity
- **Policy/EU initiatives** : SDGs, Food2030, New CAP, EU Bioeconomy Strategy
- **Goals:**
 - Future-proofing protein supply chains for **food and/or feed**, based on the principles of diversity, sustainability and resilience
 - Develop new market opportunities for novel products, exclusively or partly derived from non-traditional proteins (plant-based, aquatic, insects, ...)



Requirements to keep in mind

- **Innovation Actions: 32 M€ (4 X 8)** with activities such as prototyping, testing, demonstrating, piloting with limited research activities
- **Featuring consumer acceptance by a clean labelling approach**
- **Responsible Research and Innovation (RRI)** to align the process and its outcomes with values, needs and expectations of society (multi-actor approach optional)

Links

- http://ec.europa.eu/environment/sustainable-development/SDGs/implementation/index_en.htm
- <http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=food2030>
- http://ec.europa.eu/environment/circular-economy/index_en.htm



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Sustainable Food Security

Environment and climate smart food
production and consumption

Research and
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Infoday, 25 June 2018

LC-SFS-19-2018-2019

Climate-smart and resilient farming

Gaëtan DUBOIS - UNIT B2

European Commission – DG AGRI

Research and
Innovation

Topic introduction

Scope B. Efficiency and resilience of mixed farming and agroforestry systems

- **Background for the development of the topic**

- EIP-AGRI activities
- incorporating land use and forestry into the EU's emission-reduction efforts

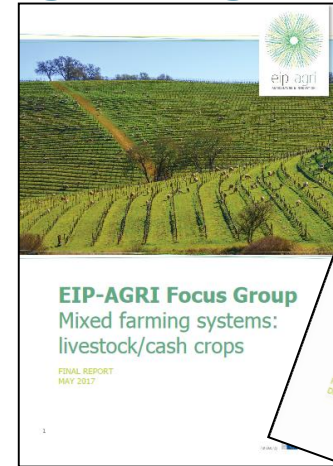
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CLIMATE
ACTION



- **Requirements to keep in mind**

- Multi-actor approach
- proposals funded under this topic (A and B) will contribute to develop a conceptual framework on resilience and mitigation at different levels and its policy implications.
- Proposals should include a task to cluster with other projects financed under the same topic.



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Useful resources

- **Future of the CAP**
 - https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en
- **European Climate Adaptation Platform (Climate-ADAPT)**
 - <https://climate-adapt.eea.europa.eu/about>
- **An economic assessment of GHG mitigation policy options for EU agriculture - EcAMPA**
 - <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/economic-assessment-ghg-mitigation-policy-options-eu-agriculture>

EU Specific objectives	Impact indicators	Result indicators (only based on interventions supported by the CAP)
Contribute to climate change mitigation and adaptation, as well as sustainable energy	<p>L9 Improving farm resilience: Index</p> <p>L10 Contribute to climate change mitigation: Reducing GHG emissions from agriculture</p> <p>L11 Enhancing carbon sequestration: Increase the soil organic carbon</p> <p>L12 Increase sustainable energy in agriculture: Production of renewable energy from agriculture and forestry</p>	<p>R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation</p> <p>R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management</p> <p>R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)</p> <p>R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)</p> <p>R.16 Enhance energy efficiency: Energy savings in agriculture</p> <p>R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry</p>





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Infoday, 25 June 2018
LC-SFS-20-2019

European Joint Programme on
agricultural soil management

Agnieszka Romanowicz UNIT B 2
European Commission – DG AGRI

Research and
Innovation

LC-SFS-20-2019 European Joint Programme on agricultural soil management

- Importance of soil at regional, national, EU and Global level
- This is EJP co-fund only nominated officially PM/PO can participate
- Important elements of the EJP: contribution to climate change discussion, test fields, education,



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Infoday, 25 June 2018
SFS-23-2019

Integrated water management for
agricultural land in small agriculture
catchment

Agnieszka Romanowicz UNIT B 2
European Commission – DG AGRI

Research and
Innovation

SFS-23-2019 Integrated water management for agricultural land in small agriculture catchment

- Water management is covered in number of EU legislations
- This topic will cover both quantity and quality of water as well as infrastructure for water retention and nutrient recovery in dual systems (drainage/irrigation)
- Important elements of the topic: multi-actor approach, preference for specific regional focus



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

CE-SFS-24-2019:

Innovative and citizen-driven food
system approaches in cities

Tatiana Tallarico Unit F3 Agri-Food Chain
European Commission – DG RTD

Research and
Innovation

CE-SFS-24-2019: Innovative and citizen-driven food system approaches in cities

- **Why?**

- Half of humanity lives in cities today → How to ensure food security?
- Cities' role?
- Need for urban food strategies



- **Scope**

- Identify + assess benefits of food-related urban innovative approaches → Online database
- Replicate them through pilot activities → validate benefits for cities and citizens
- Cover European cities in rural and coastal areas and urban agglomerations
- Municipalities and SMEs



Requirements to keep in mind

- **Innovation** Action: 15 M€ (2 X 7,5)

Useful resources

- **Cross-cutting issues**
 - **Responsible** Research and Innovation (RRI)
- **Policy background documents**
 - [SDGs](#), [EU Urban Agenda](#), [Circular economy](#), [Jobs & Growth](#), [FOOD 2030](#)



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Sustainable Food Security

Building capacities

Research and
Innovation



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Infoday, 25 June 2018

DT-SFS-26-2019:

Food Cloud Demonstrators

Name Wim Haentjens UNIT F3 Agri-Food Chain
European Commission – DG RTD

Research and
Innovation

DT-SFS-26-2019: Food Cloud Demonstrators



- **Why?**
 - To support the transition to more open & data-rich research
 - To accelerate and support the transition to a more Open Science and Open Innovation model, to stimulate intra- and interdisciplinary research; ... to address sharp growth in data volumes
- **Policy/EU initiatives** : SDGs, Food2030, Open Science, European Open Science Cloud
- **Goals:**
 - Build Food Cloud demonstrators that increase data findability, accessibility interoperability, and reusability, that improve the services provided to research communities and facilitate re-use of data by a wider user community
 - Focus on use cases that address researchers' needs and FOOD 2030 priorities



Requirements

- Innovation Actions: ≤ 10 M€ ; with activities such as prototyping, testing, demonstrating, piloting with limited research activities
- Support food system approach to research & innovation
- Ensure LT sustainability of demonstrators – business model
- Monitor & measure awareness, interest, added value and uptake of solutions (data management skills, training)
- Reduce fragmentation

Links

- http://ec.europa.eu/environment/sustainable-development/SDGs/implementation/index_en.htm
- <http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=food2030>
- <https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud>



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Infoday, 25 June 2018

SFS-28-2018-2019-2020:

Scope B [2019]: Adding Value To
Plant GenRes

Annette SCHNEEGANS, UNIT B2
European Commission – DG AGRI

Research and
Innovation

SFS-28-2018-2019-2020

Scope B [2019]: Adding Value To Plant GenRes



Background

- Genetic Resources (GenRes) hold the key to the adaptation of agriculture to changing and more variable climate
- However, their diversity remains underused (in terms of inter and intraspecific diversity), even where GenRes collections are in place
- One reason for this is the limited access and quality of information on GenREs available to users in ex-situ and in-situ collections
- Objective: Step up collaborative efforts to **expand and improve preservation, access and use** of GenRes

SFS-28-2018-2019-2020

Scope B [2019]: Adding Value To Plant GenRes

Requirements to keep in mind

- Expected activities:

- optimise management, services and cooperation across plant GenRes collections

- identify valuable traits of GenRes accessions and improve information to users

- Give attention to **less adapted material** and to **traits** associated with **resilience, adaptability, quality** of crops

- While **focusing on Europe**, international resources and activities shall be taken into account

- 2 projects funded:** foresee task for joint activities

Useful resources

Policy background documents

- **Report of Focus Group on GenRes:**

<https://ec.europa.eu/eip/agriculture/en/focus-groups/genetic-resources-cooperation-models>

- **European biodiversity strategy:**

http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm

- **International Treaty on Plant Genetic Resources for Food and Agriculture:**

<http://www.fao.org/plant-treaty/en/>

- **Forest Genetic Resources:**

<http://www.fao.org/forestry/fgr/64582/en/>



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SFS-30-2018-2019-2020:

Agri-Aqua Labs
Scope B [2019]: Looking behind
plant adaptation

Annette SCHNEEGANS, UNIT B2
European Commission – DG AGRI

Research and
Innovation

SFS-30-2018-2019-2020: Agri-Aqua Labs

Scope B [2019]: Looking behind plant adaptation

Background

- Plants possess a number of **effective strategies to (pre)adapt to changing conditions** and to tolerate rather than avoiding stress
- With increasingly variable environments it is important to understand how
 - plants adapt to different conditions
 - the circumstances that favour one strategy over the other and
 - how crops may respond to (future) climate

SFS-30-2018-2019-2020: Agri-Aqua Labs

Scope B [2019]: Looking behind plant adaptation

Requirements to keep in mind

- Proposals are requested to
 - look into **mechanisms and dynamics** that underlie adaptive processes of crops and how these responses are modulated by the type and severity of conditions/stresses
 - Improve capacities for **modelling plant adaption responses**
- "While taking advantage of findings from (semi) model crops, work shall **focus on crop plants and relevant agronomic conditions**"
- 2 projects expected to be funded: Foresee task for joint activities



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

CE-SFS-31-2019:

ERANETs in agri-food

Hans-Joerg Lutzeyer Unit F3 Agri-Food Chain
European Commission – DG RTD

This presentation does not engage the Commission,
please refer to the official documents.

Research and
Innovation

CE-SFS-31-2019: ERANETs in agri-food

- **Why?** Improve the coordination between national and EU funding on a selected number of agri-food topics
- **Sub-topics**
 - A. ICT-enabled agri-food systems
 - B. Climate change and food systems
 - C. International veterinary vaccinology
- **Requirements to keep in mind**
 - ERA-Net Cofund: EU contribution of 6 M€ (A) and 5 M€ (each of B. and C.)



SFS-31-2019: ERANETs in agri-food

Scope: A ICT enabled agri-food systems

Background

The FOOD 2030 initiative identified digitalisation and precision techniques as major drivers of change of Agri-Food systems.

However, the sector could be faster in take-up. The open network organisation of the food sector with its multitude of SMEs and its cultural diversity is a European asset, but also a specific challenge for ICT and precision solutions.

The ERA-Net ICT-AGRI played a key role in aligning national programmes on precision farming systems, beginning with ICT-AGRI-1 in 2009. In recent years, Horizon 2020 started funding a portfolio of European projects on digitalisation and precision farming.

Further alignment of national programmes is needed to remove barriers to adoption of digital technologies, taking a food systems view and reduce the environmental footprint, increase system resilience and empower consumers.



SFS-31-2019: ERANETs in agri-food

Scope: B. Climate Change and Food Systems

Background

Proposals under this sub-topic will aim at aligning national programmes in view of developing climate-resilient and sustainable value chains for food systems. In particular they will assess risks and vulnerabilities of food systems faced with climate change, including expected effects on supply chains, thereby offering low carbon footprint solutions (technological and/or non-technological) to increase resilience and sustainability. Specific focus will be put on the socio-economic impacts of climate change on different food chains, price volatility and the territorial dimension on access to accessible and nutritious foodstuffs. Complementarity with SusFood ERA-NETs should be ensured throughout the project development stages.

The topic is open to address international cooperation with national programmes of international partner regions.

SFS-31-2019: ERANETs in agri-food

Scope: C. International veterinary vaccinology*

Background re. vaccinology

Vaccination one of the most cost-effective prevention strategies for controlling and eliminating infectious diseases of animals. Vaccines identified as an important component in strategies to reduce reliance on antimicrobials. International collaboration required.

Need to increase knowledge on immunology and to develop novel tools and generic technology platforms for producing novel and/or improved vaccines; vaccine delivery systems and thermo-stabilisation; efficient and safe vaccine against highly pathogenic avian influenza viruses and its companion DIVA test. Industry engagement in projects selected under the ERA-Net is encouraged.

Contribution of projects to the objectives of the STAR-IDAZ international research consortium (<http://www.star-idaz.net/>): international cooperation expected

****: indicative text. Scope being revised towards research on infectious animal diseases, adding also a particular focus on African swine fever***

SFS-31-2019: ERANETs in agri-food

Scope: C. International veterinary vaccinology*

Main relevant EU projects/topics/initiatives

SAPHIR: <https://www.h2020-saphir.eu/> ; **PARAGONE:** <https://www.paragoneh2020.eu/>

PALE-BLU: <http://www.paleblu.eu/> ; **DELTA-FLU:** https://cordis.europa.eu/project/rcn/210501_en.html

PIGS: https://cordis.europa.eu/project/rcn/210504_en.html

SWINOSTICS: <https://www.cyric.eu/project/swinostics/>; **VIVALDI:** <http://www.vivaldi-ia.eu/>

HEALTHYLIVESTOCK (SFS-46-2017); **DEFEND** (SFS-10-2017); **Topic SFS-12-2019:** *vaccine against ASF*

EU Infrastructure projects:

• **VetBioNet:** Veterinary Biocontained facility Network for excellence in animal infectiology research and experimentation; **Transvac2:** European Vaccine Research and Development Infrastructure; **Infravec2:** Research Infrastructures for the control of vector-borne diseases

SCAR CWG "Animal Health and Welfare" updated SRA 2017: https://www.scar-cwg-ahw.org/wp-content/uploads/2018/04/Final-Report-CWG-AHW-CASA_updated-EU-AH-SRA.pdf

DISCONTTOOLS: <http://www.discontools.eu/>

COST actions, e.g. ASF-STOP, Euro-FBP, PiGutNet, COREMI, COMBAR...





Useful recoures

- <http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=food2030>
- <http://ec.europa.eu/programmes/horizon2020/en/news/agriresearch-conference-innovating-future-farming-and-rural-communities>
- <https://scar-europe.org/>
- <https://www.era-learn.eu/network-information/networks>





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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

Sustainable Food Security

Targeted international cooperation

Research and
Innovation

EU-Africa R&I Partnership on food and nutrition security and sustainable agriculture

Sustainable intensification

Agriculture and food systems for nutrition

Expansion and improvement of agricultural markets and trade

Cross cutting issues

2 ZERO HUNGER



EU-Africa R&I Partnership on food and nutrition security and sustainable agriculture

- Adopted in April 2016 science and technology cooperation for a 10 year period
- Flexible approach with funding from H2020 and African Union Grants
- Currently running projects:
 - **InnovAfrica**
 - **SEACRIFOG**
 - **ERANet- LEAPAgri**
 - **CSA- under evaluation**



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

SFS 34-2019

Food Systems Africa

Hans-Joerg Lutzeyer Unit F3 Agri-Food Chain
European Commission – DG RTD

This presentation does not engage the Commission,
please refer to the official documents.

Research and
Innovation

SFS 34-2019 Food Systems Africa



Why? Implementing the EU-African Union Partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA)

Nutrition sensitive agriculture, avoiding that increasing agricultural output leads to more hunger (Sikasso Paradox): Lack of agricultural diversity results in increasing levels of malnutrition

Background: Linked to Pillar 2 of the EU-Africa FNSSA Roadmap

- sustainable post-harvest technologies (incl. bio-based packaging),
- food safety (incl. free of mycotoxins),
- reduced food waste,
- food-supply chains to local urban and high value global markets (conventional and organic),
- Multi-actor approach



Useful recoures

Expected Impact:

sustainable healthy African diets in 10 African cities, Empowerment of small farmers and food SMEs, contributing towards reduction of malnutrition within the first 1000 days of life

Requirements to keep in mind

- in addition to the minimum number of participants at least four participants from a specific region of Africa (as defined by African Union) and a minimum of five participants from Africa
- Total Budget: 21 Million, proposals requesting an EU contribution on 7 million
- Deadlines: 23 Jan. 2019, first stage, 4 Sept. 2019 second stage

Links:

- https://ec.europa.eu/research/iscp/pdf/policy/eu-africa_roadmap_2016.pdf
- <http://www.rinea.org/en/589.php>



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

SFS-35-2019-2020:

Sustainable Intensification in Africa:
scope A and B

Agnieszka Romanowicz UNIT B 2
European Commission – DG AGRI

Research and
Innovation

SFS-35-2019-2020: Sustainable Intensification in Africa: scope A and B

- This topic contributes to the first pillar of the cooperation, dedicated workshop took place on 23 January 2017.
- **Scope A: African Farming Systems, sustainable intensification pathways (RIA)** – this is a general topic which includes multi-actor approach and cross cutting issues from pillar 4 of the partnership (e.g. role of female in agriculture)
- **Scope B: Soil system for Africa (RIA)**
- **Requirements to keep in mind: Scope A: proposals shall include at least five participants from specific region of Africa (as defined by the African Union) and a minimum of eight participants from Africa. Scope B: proposals shall include at least eight participants from Africa. Due to logistics the laboratory for soil sample analysis should be located on the African continent.**
- **Total budget 35 million (scope A up to 7,5 million per proposal; scope B, up to 5 million)**

Useful resources

- Policy background documents:

https://ec.europa.eu/research/iscp/index.cfm?pg=news_by_country&country_name=africa

- Key definitions:

- LUCAS soil sampling and database:

<https://esdac.jrc.ec.europa.eu/projects/lucas>

- Link to FAO – Global Soil Partnership with information on the IPTS members:

<http://www.fao.org/global-soil-partnership/en/>

Research and Innovation Cooperation in Food, Agriculture and Biotechnology (FAB) with China

- The cooperation started in 2013 and during the Horizon 2020 period up to 20 project might be funded under this cooperation.
- Topics in WP 2018-2020 are co-drafted with CAAS.
- The co-funding mechanism is now fully established with dedicated funding for FAB projects.

Useful resources EU-China cooperation

- Policy background documents:

<https://ec.europa.eu/research/iscp/index.cfm?pg=china>

Information on co-funding mechanism from MOST:

- [MOST web site - call notice official version in Chinese](#)
- [Call Notice - unofficial English translation](#)
- [Application Guidelines - unofficial English translation](#)
- [Administrative Check Requirements - unofficial English translation](#)
- [Frequently Asked Questions on the CFM](#)



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

SFS-37-2019

Integrated approaches to food
safety controls across the food chain

Natalia Brzezina UNIT B2
European Commission – DG Agri

Research and
Innovation

Topic introduction

- Background

**Food safety
in the food chain**

Effective functioning
of national and international markets
with trust and transparency



Food safety risks occur along the food chain from numerous contaminants and are increased by malpractices or fraudulent practices

Development of **integrated approaches** along the entire food chain for detecting, assessing, and mitigating relevant pathogens and other contaminant hazards is essential, yet challenging in particular for **SMEs**

Topic introduction

- **Requirements to keep in mind**

- Develop **integrated approach** for detecting, assessing and mitigating food safety risks from biological or chemical hazards (whether emerging or not) through the entire food chains
- Include **common risks** and focus on **specific sector(s)** while taking into account **diversity of the supply chains** within sector(s)
- Gather relevant **data** to assess risks and deliver **practical solutions** (technology and management related) to control hazards and their combinations
- Develop **detection** and **monitoring tools** enabling data collection, integration, validation and analysis

Topic introduction

- **Requirements to keep in mind**

- Establish and validate **non-targeted** and **targeted rapid detection methods** for biological and chemical hazards
- Pay attention to developing and/or improving systems ensuring **process efficacy** and **validation for hazard control**
- Work within the **food safety risk analysis framework**
- Develop simple and practical decision support tools **tailored** towards the needs of agri-food sector, in particular **SMEs**, and scientific stakeholders

Topic introduction

- **Cross-cutting issues**



- EU-China FAB Flagship initiative
- Balanced R&I cooperation between the EU and China
- China-based entities → the Chinese co-funding mechanism

- Multi-actor approach → involvement of SMEs and food safety control authorities

- Other project/s financed under this topic & complementarity with EU-China-Safe



EU-China-Safe

Project ID: 727864

Funded under:

[H2020-EU.3.2.1.3 - Empowerment of rural areas, support to policies and rural innovation](#)

[H2020-EU.3.2.2.1 - Informed consumer choices](#)

Delivering an Effective, Resilient and Sustainable EU-China Food Safety Partnership

Research & Innovation Action (\approx €4/proposal)

Useful resources

- **Key definitions**

Integrated approach

- Efficient food safety control systems,
- Supported by reliable authentication and traceability approaches,
- Implemented across the entire food chain,
- Focused on the combination of hazard monitoring and control options in the specific stages of the food chain where the impact would be greater, or combinations of these at multiple stages

- **Links**

- EU regulatory framework on food safety: https://ec.europa.eu/food/safety_en



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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Infoday, 25 June 2018

CE-SFS-39-2019

High-quality organic fertilisers from
biogas digestate

RUIZ ESPI Jose UNIT B2
European Commission – DG AGRI

Research and
Innovation

Topic introduction

- **Circular Economy Package (December 2015)**

- Proposal for a revised **fertilisers regulation** (March 2016): favourable framework for organic-based fertilisers
→ **new technologies** needed

- EU Bioeconomy Strategy review (2017) → **bioeconomy to become more circular**



- **EU-China FAB flagship initiative (2013)**

Topic introduction

- **Challenges**

- EU Member States and China promote biogas → digestate an environmental & economic concern

- Used as fertiliser / amender, but:

- Soil / water pollution

- Food contamination

- Quality

- Use / handling



Topic introduction

- **Requirements to keep in mind**

- Technologies to convert digestate into a suitable fertiliser / amender:

- Reduced risks
- Better fertilising properties
- Format, formulation, handling

- Field tests

- Focus on small-scale, TRL 6-7

- Impact assessment

- Policy recommendations

- Cluster with CE-RUR-08 and other (H2020 and BBI JU)

- Balanced EU-China cooperation

Innovation Action
€ 5 M
(≈ € 5 M/project)



Useful resources

- **Circular Economy:** http://ec.europa.eu/environment/circular-economy/index_en.htm
- **EU Bioeconomy Strategy:** <http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=strategy>
- **EU Bioeconomy Strategy review (SWD):** https://ec.europa.eu/research/bioeconomy/pdf/review_of_2012_eu_bes.pdf
- **Fertiliser Regulation (EC proposal, March 2016):** <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-157-EN-F1-1.PDF>
- **Nutrient Recovery and Reuse (NRR) in European agriculture (RISE foundation):** http://www.risefoundation.eu/images/files/2016/2016_RISE_NRR_Full_EN.pdf
- **EIP-AGRI Focus Group on nutrient recycling:** <https://ec.europa.eu/eip/agriculture/en/focus-groups/nutrient-recycling>



Thank you!

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www.ec.europa.eu/research

www.ec.europa.eu/agriculture

Participant Portal

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

