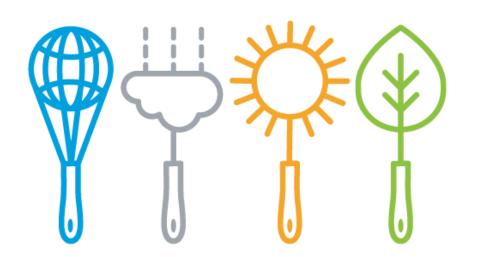


HORIZON 2020

Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy'



Miriam de Angelis

NCP 'Climate action, Environment, Resource Efficiency and Raw Materials'





H2020 Architecture



- European Research Council
 - Frontier research by the best individual teams
- Future and Emerging Technologies
 - Collaborative research to open new fields of innovation
- Marie Skłodowska Curie actions
 - Opportunities for training and career development
- Research infrastructures (including e-infrastructure)
 - Ensuring access to world-class facilities

Industrial Technologies

- Leadership in enabling and industrial technologies
 - Information and Communication Technologies (ICT), nanotechnologies, materials, biotechnology, manufacturing, space
- Access to risk finance
 - Leveraging private finance and venture capital for research and innovation
- Innovation in SMEs
 - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Europe in a changing world -Inclusive, innovative and reflective societies
- Secure society

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

enterprise europe network



Societal Challenge 2: main objective

Securing sufficient supplies of safe, healthy and high quality food and other bio-based products, by developing productive, sustainable and resource-efficient primary production systems, fostering related ecosystem services and the recovery of biological diversity, alongside competitive and low carbon supply chains.

Societal Challenge 2: main features

MULTI-ACTOR APPROACH:

- Involvement of end-users such as farmers, fishers, consumers, public authorities (at national, regional and/or local level), advisors, enterprises, and society at large, all along the project: from the participation in the planning of work and experiments, their execution up to the dissemination of results and to the possible demonstration phase.
- Involvement of additional actors/groups of actors during the project.
- SOLUTIONS INTEGRATING SOCIO-ECONOMIC SCIENCES AND HUMANITIES, especially:
 - **Gender differences** to be taken into account in risk assessment, in developing, designing and performing the safety tests for new products.
 - Ethical aspects.

INTERNATIONAL COOPERATION:

• Support to strategic bilateral agreements and dialogue, as well as multilateral cooperation initiatives and cooperation with international institutions.



Topics stemming from the EU - China dialogue and the China-EU Task Force on Food, Agriculture and Biotechnology, the Transatlantic Research Alliance, launched by the Galway Statement on Atlantic Ocean Cooperation, the International KBBE Forum, the EU - Africa dialogue, exc.





International KBBE (Knowledge Based Bio-Economy) Forum

 Scientific cooperation initiative between the European Commission, Australia, Canada and New Zealand to address the global challenges affecting the Bioeconomy

Four Working Groups are at the heart of the Forum's activities:

- Working group on Food and Health (elderly-related issues are included)
- Working group on Aquaculture and Fisheries
- Working group on bio-based Products
- Working group on Sustainable Agriculture
- <u>Biotriangle</u> is the FP7 financed project that supports EU participation in the KBBE Forum

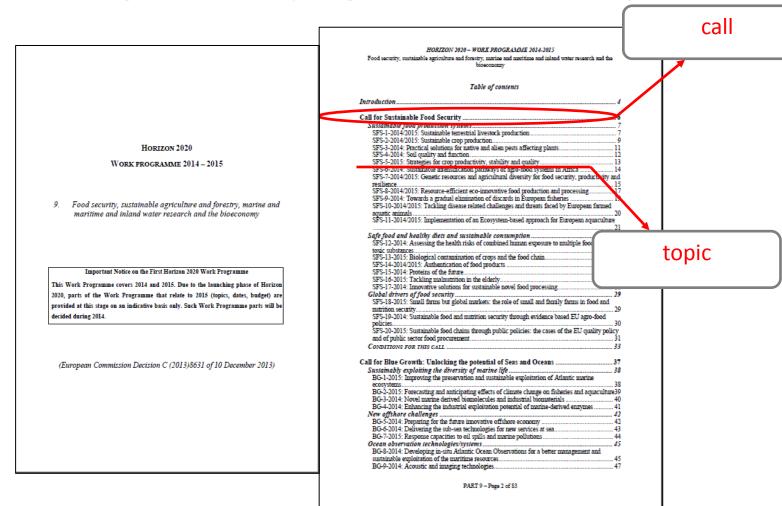
http://ec.europa.eu/research/bioeconomy/international-cooperation/forum/index_en.htm







Societal challenge 2: work programme*, calls, topics...



* Downloadable from the Participant Portal:

http://ec.europa.eu/research/participants/portal/desktop//en/funding/reference_docs.html#h2020-work-programmes-2014-15-main-wp



enterprise

europe network

3 Calls







Sustainable Food Security



Blue Growth: Unlocking the potential of Seas and Oceans



Innovative, Sustainable and Inclusive Bioeconomy











Call Sustainable Food Security 2015

TOPICS	EVALUATION TYPE	BUDGET 2015 (€MIO)	DEADLINE
I. Sustainable food production systems			
SFS-1-2014/2015: Sustainable terrestrial livestock production (subtopic C - RIA)	2-stage	7.00	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
SFS-5-2015: Strategies for crop productivity, stability and quality (RIA)	2-stage	15.00	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
SFS-7-2014/2015: Genetic resources and agricultural diversity for food security, productivity and resilience (subtopic B - RIA)	2-stage	20.00	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
SFS-10-2014/2015 : Tackling disease related challenges and threats faced by European farmed aquatic animals (subtopic B - RIA)	2-stage	Aggre gated budge t	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
II. Safe food and healthy diets and sustainable consumption			
SFS-13-2015: Biological contamination of crops and the food chain (RIA)	2-stage	10.00	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
SFS-16-2015: Tackling malnutrition in the elderly (RIA)	2-stage	9.00	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*
III. Global drivers of food security			
SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security (RIA)	2-stage	4.50	24/02/2015 (1 stage)* 11/06/2015 (2 stage)*



*PROVISIONAL



SFS-1-2014/2015: Sustainable terrestrial livestock production - SUBTOPIC C

SPECIFIC CHALLENGE	The development of the livestock sector at EU and global level is challenging as it puts pressure on the environment, human health and the welfare of animals within the systems. Means to <u>improve sustainability</u> and productivity of terrestrial livestock systems need to be sought through breeding, nutrition and health.		
SCOPE	 Proposals should undertake an holistic assessment of the sustainability and potential delivery of ecosystem services, social services, resilience, competitiveness and possible trade-offs of diverse EU animal production systems. Proposals should extend to socio-geographic and demographic changes of the concerned farming community and projections, as well as the expected place of animal products in the society and diets in the future, looking across the whole food chain. Proposals should establish a farm-level observatory and knowledge exchange networks on the sustainability of livestock. Proposals should fall under the concept of 'multi-actor approach'. 		
ORIENTATIVE EU CONTRIBUTION	EUR 5–7 million 1 PROPOSAL FUNDED		
TYPE OF ACTION	Research and Innovation Action FOCUS		
TYPE OF SUBMISSION/EVA LUATION	Two stages		





FOCUS



RESEARCH AND INNOVATION ACTION (General Annex, p. 8)

Activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment.

Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

Reimbursed up to 100% of eligible costs







Two-stage evaluation

• proposal submission max 15 pages; focus on content and results • proposal evaluation 2 criteria: excellence and impact outcome: 'GO' or 'NO GO'	
Stage 2	 proposal submission only stage 1 'GO' proposals admitted proposal evaluation 3 criteria: excellence, impact, implementation



SFS-5-2015: Strategies for crop productivity, stability and quality

SUBMISSION/EVA

LUATION

Two stages

SPECIFIC CHALLENGE	Crop productivity is determined by <u>genetic variability</u> and the <u>interactions of the genotype with its</u> <u>environment</u> . Understanding these interactions <u>in breeding programmes and farm management</u> is critical to address <u>stagnating yields</u> and <u>yield gaps</u> and to build resilience <u>to biotic and abiotic threats</u> .
SCOPE	 Proposals should propose smart approaches and tools to better identify, predict and introduce useful genetic variation in crops, as well as favourable combinations of genotypes and management practices in different environments. They should tackle crop improvement in a holistic manner. They should seek for novel breeding targets to improve yield, yield stability, quality, biotic/abiotic stress tolerance/resistance and environmental benefits. Activities and results should help diversifying and optimising crop management at different stages of plant development. Proposals should fall under the concept of 'multi-actor approach'. International cooperation: inclusion of participants established in third countries is encouraged.
ORIENTATIVE EU CONTRIBUTION	EUR 3-5 million
TYPE OF ACTION	Research and Innovation Action
TYPE OF	





SFS-7-2014/2015: Genetic resources and agricultural diversity for food security, productivity and resilience - SUBTOPIC B

Spurring genetic variation of crops, forest trees and animals as well as diversifying production through the SPECIFIC improvement of local livestock breeds, forest plants and crops. CHALLENGE Proposals should improve the status and use of (in particular European) ex-situ and in-situ genetic collections, supporting acquisition, conservation, characterisation/evaluation and especially the use of specific genetic resources in breeding, farming and forestry activities. Proposals should undertake broader dissemination and awareness raising activities. In particular, they SCOPE should closely liaise with relevant on-going initiatives e.g. seeking to harmonise, rationalise and improve management of existing collections and databases. Proposals should fall under the concept of 'multi-actor approach'. International cooperation: inclusion of participants established in third countries is encouraged. **ORIENTATIVE EU** EUR 5-7 million **CONTRIBUTION** TYPE OF ACTION Research and Innovation Action TYPE OF SUBMISSION/EVA Two stages

LUATION







SFS-10-2014/2015: Tackling disease related challenges and threats faced by European farmed aquatic animals - subtopic B

SPECIFIC CHALLENGE

Prevention and management of diseases and disease-related threats (e.g. parasites and related infections) for the sustainability of the European aquaculture industry (especially the mollusc production sector)

SCOPE

- Proposals should consider pathogens with documented impact on the production of the main farmed species of mollusc in Europe (oysters, mussels, clams and scallops).
- They should focus on <u>minimising transmission and impact of disease</u>, while addressing risk assessment and management of infected farmed molluscs.
- They should also consolidate the basis for genetic selection of mollusc strains resistant to the pathogens.
- Particular focus should be put on <u>oyster pathogens and diseases</u>, with emphasis on Oyster Herpes virus (OsHV-1), in order to better understand genetic diversity, pathogens spread, pathogenicity and key drivers of emergence and/or absence of <u>disease outbreaks in relevant parts of the world</u>.
- <u>International cooperation</u>: KBBE Forum (in Asia, South Korea)

ORIENTATIVE EU CONTRIBUTION

EUR 4 million

TYPE OF ACTION

Research and Innovation Action

TYPE OF SUBMISSION/EVA LUATION

Two stages

TIP: go and have a look at the FP7 project s **ASEM-AQUACULTURE09**, **SEAT** and **AFSPAN** as well as the **ASEM Aquaculture Platform**, established as an EU-Asia framework for dialogue, networking and coordination or sustainable aquaculture development. Thai partners (the Network of aquaculture centers in Asia-Pacific and the Kasetsart University) were involved in the consortia!





SFS-13-2015: Biological contamination of crops and the food chain

LUATION

SPECIFIC CHALLENGE	Controlling the incidence of mycotoxins in crops and reduce contamination throughout the feed and food chains.	
SCOPE	 Proposals should aim at reducing the risk of mycotoxin contamination in crops and all along the feed and food chains. They should bring about technical, management and organisational solutions that are effective at the various stages of production as well as at pre- and post-harvest levels and also deal with the safe use of contaminated batches. Proposals should take into account the development of ICT solutions and cost effective control tools to policy-proposed solutions. Proposals fall under the concept of 'multi-actor approach' and involve the farming sector in proposed activities. International cooperation: China 	
ORIENTATIVE EU CONTRIBUTION	EUR 3-5 million overcrowded call!	
TYPE OF ACTION	Research and Innovation Action	
TYPE OF SUBMISSION/EVA	Two stages	





SFS-16-2015: Tackling malnutrition in the elderly

SPECIFIC CHALLENGE	Tackling malnutrition and weight loss affecting the elderly through an adequate diet with all essential nutrients, and the promotion of physical activity.	
SCOPE	 Dietary strategies to <u>prevent and treat malnutrition</u> in the elderly should be developed. <u>Dietary recommendations</u> to prevent functional decline should be developed. A holistic strategy could include, amongst others, the <u>role of nutrients</u> (including those from marine sources where relevant) in the human organism, the gut microbiome, food preparation at home, and a better understanding of the role of the physical and social environment (such as social networks). Proposals could include the development of smarter and more intelligent devices for the monitoring of food intake. <u>International cooperation</u>: KBBE Forum (in Asia, Japan) 	
ORIENTATIVE EU CONTRIBUTION	EUR 9 million — 1 PROPOSAL FUNDED	
TYPE OF ACTION	Research and Innovation Action	
TYPE OF SUBMISSION/EVA LUATION	Two stages	

TIP: check the KBBE Forum activity on Food and Health (elderly-related issues are included): a dedicated event is in preparation!





SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security

SPECIFIC CHALLENGE

It is therefore important to gain a better understanding of the contribution of small farms and food businesses to food and nutrition security (FNS) and their resilience to shocks in an increasingly globalised and uncertain world. In particular, it must be understood whether small and family farms may contribute to a 'right balance' between technical, economic, environmental and social sustainability, taking into account the linkages with the up- and downstream sectors and in particular small and medium sized enterprises differentiating between the urban and rural dimensions of FNS

SCOPE

- Proposals should thoroughly assess the role of family farms and other small food businesses and particularly those with small structures in achieving sustainable FNS.
- Research should identify the optimal enabling environment for small and family farms and businesses to accomplish the aforementioned role on FNS and the multiple dimensions of sustainability with respect to infrastructure, supply chain and governance needs.
- <u>International cooperation</u>: inclusion of participants established in third countries is encouraged (esp. Africa and Asia).

ORIENTATIVE EU CONTRIBUTION

EUR 4-5 million

1 PROPOSAL FUNDED

TYPE OF ACTION

Research and Innovation Action

TYPE OF SUBMISSION/EVA LUATION

Two stages







Call Innovative, Sustainable and Inclusive Bioeconomy 2015

I. Sustainable Agriculture and Forestry

TOPICS	EVALUATIO N TYPE	BUDGET 2015 (€MIO)	DEADLINE
III. Cross-cutting actions covering all activities			
ISIB-12-2014/2015: Public-Public Partnerships in the bioeconomy (subtopic B, C, D, E, F – ERANET Cofund)	1-stage	15.00	11/06/2015*







ISIB-12-2014/2015: Public-Public Partnerships in the bioeconomy (subtopics B, C, D, E, F)

SPECIFIC CHALLENGE

Agriculture, forestry and the agri-food sector are integral parts of the European economy and society. They are subject to multiple pressures from external drivers, which include rising food, feed, fuel and fibre demand, globalisation, environmental changes and public health aspects, and are constrained by planetary boundaries such as land and water limits. With the expected increase in global population, demand for animal food products and competition for natural resources, agriculture and forestry will need to become more efficient, and sustainable

SCOPE

- Rural development.
- Monitoring and mitigation of agricultural and forestry greenhouse gases.
- Sustainable crop production.
- Sustainable livestock production.
- Biomarkers for nutrition and health.

ORIENTATIVE EU CONTRIBUTION

EUR 5 million

FOCUS

TYPE OF ACTION

ERANET Cofund

TYPE OF SUBMISSION/EVA LUATION

Two stages



FOCUS



PROGRAMME COFUND: ERANET

ERANET is an action whose main purpose is to supplement **INDIVIDUAL CALLS** <u>funded by entities, other than eu bodies, managing research and innovation programmes.</u>

- ✓ COMPULSORY CO-FUNDED CALLS
- ✓ **ELIGIBLE PARTICIPANTS**: research funders programme managers/owners
- ✓ TRANSPARENT IMPLEMENTATION VIA **CALLS WITH EXTENDED SCOPE**: all era-net actions are based on co-funded calls with proposal evaluation and selection built on H2020 standards
- ✓ **STABLE REIMBURSEMENT RATES**: era-net plus reimbursement rate from FP7 (33%) is applied







Thank you!

APRE

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