



Horizon 2020 Work Programme for Research & Innovation 2018-2020



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

Davide AMATO

Team Leader – Transition Analysis and Outreach

European Commission – DG R&I.C5 Environmental and Social Transition

Horizon 2020

The policy context

Global commitments





United NationsFramework Convention on Climate Change

European policies



CAP & EIP-AGRI



Climate & energy



Bioeconomy strategy



Circular economy



Integrated Maritime and common fisheries policies



Digital single market

Manage our resources wisely to nourish people sustainably

Understand, preserve and valorise oceans

Develop smarter, greener, circular rural economies

Sustainable food security

Blue Growth

Rural Renaissance +

Food and Natural Resources

Dynamic & innovative food and farming sectors

Resource & climatesmart eco-healthy food production and consumption Productive, healthy, resilient seas and oceans

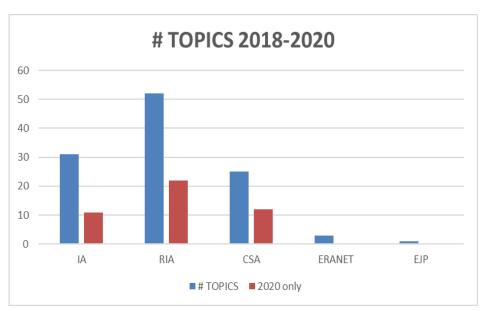
Sustainable aquatic resources for food and bio-based value chains

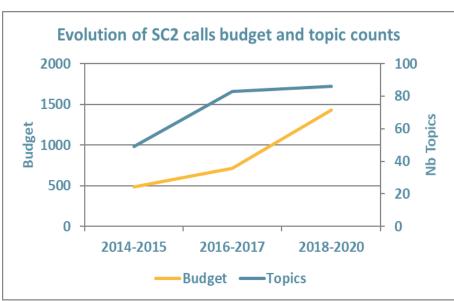
Strong blue economy

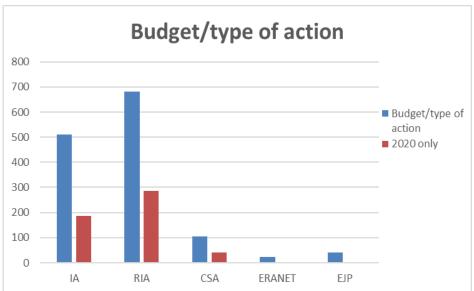
Sustainable growth based on circularity and connectedness

Enhanced innovation systems Strong & attractive rural areas

De-risking investments in innovative technologies fostering industrial, rural and coastal development







Close to market actions with investment in new knowledge

Same topics, more budget → more projects per topic

Reinforced support to policy (RIAs, IAs, CSAs, procurement)



Open innovation, open science, open to the world

Open innovation

• €500+ mio for multi-actor projects (interactive innovation linked to EIP-AGRI)



Open science

- Research data sharing by default
- Open science clouds: Food cloud demonstrators (10M€) & Blue cloud services (6M€)



Open to the world

- 119M€ on EU-AFRICA partnership on Food and Nutrition Security and Sustainable Agriculture (11 projects): food systems, sustainable intensification and income diversification
- 28M€ on EU-CHINA (5 projects): food safety, soil management and bio-based fertilisers
- 64M€ on "All Atlantic Ocean Research Alliance" (8
 projects):coordination, marine ecosystems and new value chains
- PRIMA



International cooperation



Funding for third countries

Applicants <u>automatically</u> eligible for funding:

- EU Member States and the Overseas Countries and Territories linked to Member States
- Countries associated to Horizon 2020
- Countries identified in WP General Annex A (developing countries)
- International European interest organisations

Details:

http://ec.europa.eu/research/participants/portal/desktop/ en/funding/reference_docs.html#h2020-workprogrammes-2018-20-annexes (after WP adoption)

In addition, eligible for funding:

- ✓ When explicitly foreseen in the call
- ✓ when provided for under a bilateral scientific and technological agreement or any other arrangement
- when Commission deems participation essential for carrying out the action



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 <u>composition of the consortium</u> and the description of the project <u>must reflect a balanced choice of key actors</u> with complementary types of knowledge: building blocks for innovation are expected to come from science as well as from practice and intermediaries
- * "<u>all along the project</u>": a clear role for the different actors in the work plan, from the participation in the <u>planning</u> 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



Food and Natural Resources



- Testing out new approaches e.g., Food 2030, Living labs
- Preparation of future initiatives and Missions - e.g., agro-ecology/soil
- Even stronger focus on impact sharper impact statements
- Support to policy EU Bioeconomy Strategy, new CAP...





Sustainable food security topics (2020)

From functional ecosystems to healthy food

Environment/ Climate-smart Food production and consumption

Building capacities

Targeted international cooperation

- Biodiversity in action
- Livestock microbiome
- Integrated health approaches & <u>alternatives to</u> <u>contentious pestcides</u>
- New and emerging risks to plant health
- IPM
- Epidemiology of contagious animal diseases
- Genome and epigenome enabled breeding in terrestrial livestock

- Emerging challenges for soil management
- Forest soils

2 topics - 24 M€

- GenRes & prebreeding
- Agri-Aqua labs

2 topics - 19 M€

- EU-Africa
 - ✓ Sustainable intensification
 - ✓ Diversifying revenue in rural Africa through bio-based solutions
- EU-China
 - √ Healthy soils for healthy food production

3 topics - 35 M€



Type of actions: RIA, IA, CSA



Blue Growth topics (2020):

Climate-Ocean

• The Future of Seas and Oceans Flagship Initiative (BG-07, 18 M€)

Sustainable food chains

 Fisheries in full ecosystem context (BG-10, 10 M€) De-risking Investments Land-Sea Connection

International cooperation

 Towards a productive, healthy, resilient, sustainable and high-valued Black Sea (BG-11, 18 M€)

1 topic - 18 M€

1 topic - 10M€

2018-2019

2018-2019

1 topic - 18 M€

Type of actions: RIA, IA (lump-sum)



Rural renaissance topics (2020)

Dynamics & policies

- Agricultural markets and international trade
 - 1 topic 4 M€

Food & nonfood Value chains

- Connecting consumers and producers
- Innovative agri-food value chains: boosting sustainabilityoriented competitiveness
- Reducing food losses and waste
- Closing nutrient cycles (2 scopes: IA + RIA)
- Sustainable wood value chains

Taking advantage of the digital revolution

2018-2019

- + UNDER LEIT-ICT call
- DT-ICT-09-2020:
 Digital service platforms for rural economies 30 M€ (incl. 15M€ SC2)

1 ICT topic - 15 M€

Innovation and human capital

 Thematic networks compiling knowledge ready for practice

1 topic - 10 M€

5 topics - 74 M€

Type of actions: RIA, IA, CSA



European Commission

Call deadlines

Opening	Submission procedure	Stage	Deadline	Info to applicants	Grant Agreements
15 Oct. 2019	single stage	Single stage	22 Jan. 2020	June 2020	Oct. 2020
	2-stages	1 st stage	22 Jan. 2020	May 2020	-
		2 nd stage	08 Sept. 2020	Nov. 2020	May 2021



Evaluation of proposals



✓ Innovation actions >>> higher weighting for "IMPACT"







Scores



The proposal **fails** to address the criterion or cannot be assessed due to missing or incomplete information.



Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.



Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.



Good. The proposal addresses the criterion well, but a number of shortcomings are present.



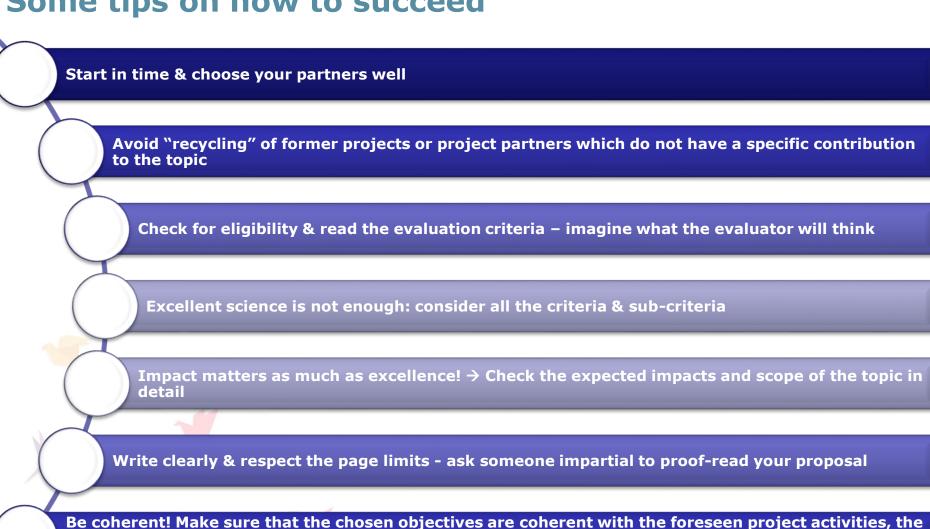
Very Good. The proposal addresses the criterion very well, but a small number of shortcomings are present.



Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Commission

Some tips on how to succeed



competence of the partners and the planned budget per activity. Make sure the cost/benefit ratio is

Commission

sound. Keep in mind that all costs should be reasonable in the light of the foreseen outcomes.



Innovation

Horizon Europe

THE NEXT EU RESEARCH & INNOVATION INVESTMENT PROGRAMME (2021 – 2027)

#HorizonEU

Based on the Commission Proposal for Horizon Europe, the common understanding between co-legislators and the Partial General Approach, both approved in April 2019



Our vision

A sustainable, fair and **prosperous** future for **people** and **planet** based on European values.

- Tackling climate change (35 % budgetary target)
- Helping to achieve Sustainable
 Development Goals
- Boosting the Union's competitiveness and growth





Horizon Europe

The ambitious EU research and innovation framework programme (2021-2027)



to strengthen the EU's scientific and technological bases and the European Research Area (ERA)



to boost Europe's innovation capacity, competitiveness and jobs



to deliver on citizens' priorities and sustain our socioeconomic model and values

The Commission proposes a budget of € 100 billion for Horizon Europe.



European Parliament and Council reached a common understanding on Horizon Europe on 19 March 2019

- Budget, synergies and third country association still pending, depending on the overall MFF negotiations
- Commission has started preparations for the implementation of Horizon Europe





Horizon Europe: Preliminary structure





Pillar 3
Innovative Europe

European Innovation Council

European innovation
ecosystems

European Institute of
Innovation
and Technology

Widening Participation and Strengthening the European Research Area

Joint Research Centre

Environment

Resources, Agriculture and

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



Clusters in 'Global Challenges and Industrial Competitiveness'

Clusters	Areas of intervention	
Health	 Health throughout the life course Non-communicable and rare diseases Tools, technologies and digital solutions for health and care, including personalised medicine 	 Environmental and social health determinants Infectious diseases, including poverty-related and neglected disease Health care systems
Culture, creativity and inclusive society	Democracy and GovernanceSocial and economic transformations	Culture, cultural heritage and creativity
Civil security for society	Disaster-resilient societiesProtection and Security	Cybersecurity
Digital, Industry and space	 Manufacturing technologies Advanced materials Next generation internet Circular industries Space, including Earth Observation Emerging enabling technologies 	 Key digital technologies, including quantum technologies Artificial Intelligence and robotics Advanced computing and Big Data Low-carbon and clean industry Emerging enabling technologies
Climate, Energy and Mobility	 Climate science and solutions Energy systems and grids Communities and cities Industrial competitiveness in transport Smart mobility 	 Energy supply Buildings and industrial facilities in energy transition Clean, safe and accessible transport and mobility Energy storage
Food, bioeconomy, natural resources, agriculture and environment	Environmental observationAgriculture, forestry and rural areasCircular systemsFood systems	 Biodiversity and natural resources Seas, oceans and inland waters Bio-based innovation systems in the EU Bioeconomy



Lessons Learned

from Horizon 2020 Interim Evaluation



Support breakthrough innovation





Create more impact through mission-orientation and citizens' involvement





Strengthen international cooperation





Reinforce openness





Rationalise the funding landscape





Encourage participation



Key Novelties in Horizon Europe

European Innovation Council

R&I Missions

Extended association possibilities

Open science policy

New approach to Partnerships

Spreading Excellence



Strategic plan gives direction to the work programme

Horizon Europe legislative package

Strategic Plan 2021-2024

Work programme 2021-2022

Calls for proposals

Main Features

Early involvement and extensive exchanges with Member States Extensive exchanges with the European Parliament Consultations with stakeholders and public at large



Thank you!

#InvestEUresearch #HorizonEU

https://ec.europa.eu/info/designing-next-research-and-innovationframework-programme/what-shapes-next-frameworkprogramme_en?pk_campaign=rtd_news

#H2020SC2

www.ec.europa.eu/research/bioeconomy www.ec.europa.eu/agriculture/research-innovation_en

Participant Portal

http://ec.europa.eu/research/participants/portal/deskto
p/en/home.html