

PRIMA – SECTION 2

Topic 2.2 1 -(RIA) Redesign agro-livelihood systems to ensure resilience

Advised budget for proposals: not less than €1 Million

Submission deadline

Stage 1: 15th April 2020. 17:00h CET

Stage 2: 16th September 2020. 17:00h CET

01. Focus and profile of the projects

SRIA priority addressed:

2.1 Adaptation of agriculture to climate change

Genetic and plant breeding but cropping system diversification, and spatial organisation, as well as diversification of animals are also important for improving resilience to climate change.

2.2 Developing sustainable and productive agro-ecosystems

Better integration of natural environmental regulation of biotic and abiotic stresses into farming systems, optimization of input use, development of new cropping systems and use of digital technologies. To do so, the specificity of Mediterranean ecosystem assets and vulnerabilities must be taken into account and solutions adapted to local conditions must be developed.

Link to SRIA: http://prima-med.org/wp-content/uploads/2018/02/PRIMA-SRIA_Strategic-Research-and-Innovation-Agenda.pdf

Types of action: Innovation Action (RIA)

Funding level: Depending on National Regulations (check the 2019 while waiting for the 2020 ones: <http://prima-med.org/wp-content/uploads/2019/01/National-Regulations-2019-v5.pdf>)

Technology Readiness levels (TRL): TRL 3-5

Duration of the projects: from 36 months to 48 months

Submission and evaluation procedure: Two-stage application procedure. For the first stage, a short proposal (maximum 10 pages) must be submitted by the first deadline. Successful applicants in the first stage will be invited to the second stage to submit a full proposal (maximum 50 pages).

02. List of countries, Consortium conditions, Proposal template and Orientation paper

EU Countries: Croatia, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, Portugal, Spain, Slovenia.

Non-EU Countries: Israel, Tunisia, Turkey, Algeria, Jordan, Egypt, Lebanon and Morocco.

Consortium must present at least three legal entities from three different countries, being at least one EU country and one non-EU country.

Stage 1 proposals templates (beware, 2019 templates. Check the web page for update):

- Administrative aspects: <http://prima-med.org/wp-content/uploads/2018/12/PRIMA-Pre-proposal-Template-PART-I-RIA-and-IA-2019.docx>
- Technical aspects: <http://prima-med.org/wp-content/uploads/2018/12/PRIMA-Pre-proposal-Template-PART-II-RIA-and-IA-2019.docx>

Orientation paper Calls 2020: Very similar to H2020 in terms of kind of actions, funding schemes, participant's eligibility, evaluation criteria, etc. <http://prima-med.org/wp-content/uploads/2020/01/Orientation-Paper-calls-2020.pdf>

Reference documents (pending updated 2020 call for proposal specific documents):
<http://prima-med.org/calls-for-proposals/reference-documents/>

03. Challenge

Intensification of agriculture in the Mediterranean region to date has been mostly supported by irrigated (also requiring high-inputs of fertilizers, chemicals and labour) at the expense of more sustainable and climate-ready crops. This has contributed to an unsustainable use and management of natural resources (soil, water, and biodiversity), and to the degradation of the Mediterranean lands (salinization, soil pollution and loss of fertility, leading to desertification). Climate change is likely to further undermine the sustainability of current farming systems, e.g. by further accelerating invasions of pest/disease and reducing water availability.

Consequently, farmers' income and welfare are also increasingly unpredictable and unstable. Increasing the resilience of the agro-systems and / or favouring the transition to new farming systems that make a correct and efficient use of biological and natural resources is urgently needed. When possible, the development of mixed systems making sustainable use of all living resources (e.g. soil microbial communities, livestock) can make a positive contribution to raise the productivity of the entire farming system. The use of these practises and of new technologies, can contribute to a positive, inclusive growth trajectory that is both ecologically and economically sustainable and resilient to climate change.

04. Scope

Increasing the resilience of the system is a major challenge to face and overcome adverse and unforeseen events by improving the capacity of crops to properly respond to climatic perturbations (climate-ready crops), while ensuring an economic stability of the farmers and food security in the region. Research projects should aim at providing solutions for improving agroecosystem resilience to climate change in the Mediterranean area.

Projects should identify, design and test innovative farming systems that are resilient to climate change, and that can maintain sustainable productions even after extreme climatic events, including e.g. droughts, floods and alien pest invasions.

These systems should allow sustainable and efficient use of natural resources and decrease the use of chemical inputs. The maintenance or increase of the productivity, resistance, and recovery of the agro- system can be achieved through crop diversification and valorization of biodiversity discovery and use of perennial crops, implementation of crop-livestock sustainable associations with a focus on the production of local and highly nutritious forage, application of agro-technologies provision of ecological services with a circular economy approach.

Projects should produce outcomes concerning sustainable, widely adaptable solutions or dealing with the design of new agro-ecological farming systems supported by social or economic analyses, useful for policy decisions in terms of local governance, adaptive learning, product valorization, or incentives. The pathway to transition to more sustainable and resilient farming systems should be investigated and should provide guidance to the

farmers. Resilience by the proposed farming systems should be assessed with appropriate socio-economic and ecological performance indicators.

Research and innovation proposals will be based on multi-actor approach and involve local stakeholders in the identification of barriers and opportunities from technical and socioeconomic point of view. Proposals should identify solutions to contribute to a balanced territorial development ensuring farmer incomes. In this respect, innovations may be of a technical/technological, organizational/social and institutional nature and addressed to favour the adoption of the proposed systems.

05. Expected impact

- Systems redesigned to minimize the risk of failure associated with yield losses due to inappropriate farming systems (e.g. monoculture) and climate change, and secure the incomes of the farmers ☑ Adoption of environmentally, socially and economically sustainable agroecosystems productions. ☑ New organizations facilitating learning and coordination among actors, between farmers and along the value chain
- Increased efficiency of the use of natural resources (water)
- Increased soil fertility by the proposed farming systems.
- Increased income and satisfaction by the farmers
- Yield stability and quality in comparison to standard farming systems under challenging environmental conditions

06. Key Performance Indicators

- Number of innovations in farming systems developed enabling sustainable and efficient agriculture and food systems.
- SDG#2 Indicator 2.4.1 Proportion of agricultural area under productive and sustainable agriculture