PRIMA – SECTION 1

Topic 1.2.1-2020 (RIA/IA)
Genetic conservation and animal feeds
Sub-topic A) Conservation and valorisation of local Animal Genetic Resources (RIA)
Sub-topic B) Alternative animal feeds (IA)

Overall budget: € 10,7 million **Advised budget for sub-topic A proposals: €1,7 Million** **Advised budget for sub-topic B proposals: €2,5 Million**	**Submission deadline** **Stage 1: 1st April 2020. 17:00h CET** **Stage 2: 2nd September 2020. 17:00h CET**

01. Focus and profile of the projects

Strategic Research and Innovation Agenda (SRIA) priorities addressed:

2.1 Adaptation of agriculture to climate change

Genetic and plant breeding 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

This priority tackle the challenge of food scarcity to face the ever-growing food demand. The solution of the intensification of farming practices has often led to pollution, overexploitation of natural resources. A possible solution is the development of sustainable and productive agro ecosystems.

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

Types of action: Research and Innovation Action (RIA) sub-topic A and Innovation Action (IA) sub-topic B

Funding level: According to Horizon 2020 Rules
For the sub-topic A) RIA: 100%;
For the sub-topic B) IA: 70% (except for non-profit legal entities, where a rate of 100% applies)

Technology Readiness levels (TRL): RIA TRL 3-5, IA TRL 6-7

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

The Mediterranean's population will reach 560 million people in 2030; the demand for meat as animal products is set to climb steeply as the population increases. It is urgently needed to transform the livestock production systems into more sustainable ones respecting the environment and meeting the expectations of consumers and citizens, while providing a fair income and good working conditions to producers.
With increasing demands for animal products by an ever-growing Mediterranean population and changing societal needs, animal breeding needs to evolve to incorporate genomic information in order to speed up response and increase productivity and quality in a context of climate change. Deeper investigation on the local breeds through genetic analyses and conservation programmes to valorise them are needed, making livestock production systems more resilient.
At the same time, sustainable livestock production in the Mediterranean is affected by the decrease of availability and quality of plant forage causing import of high prices feedstuffs such as cereals, which are the base of most of the concentrates. The lack of local alternative feeds combined with the rearing of non-adapted breeds and/or the inadequate management of herds can have a strong negative impact on soil while threatening the competitiveness and the sustainability of the livestock systems, especially in the South and East of the Mediterranean Area.

04. Scope

Sub-topic A) Conservation and valorisation of local Animal Genetic Resources (RIA)
Knowledge of animal genetic resources for food and agriculture is fundamental to the sustainable use, development and conservation of these resources.
Proposals shall consider mapping, genetic characterization and monitoring of local breeds, well adapted to the Mediterranean environment, tolerant to heat stress and diseases resistant.
Proposals shall decipher the links between epigenetic, genomic and the phenotypic adaptive33 traits to increase the reliability of genomic breeding with the goal of increasing their resilience under a climate change context. In doing so, proposals shall take advantage of existing databases, past EC projects outputs, and existing national

breeding programs to avoid duplications. Proposals should also characterize and valorise the final products of local breeds promoting the use of these breeds which can generate high quality products for the consumers (meat, milk….) and with high added value for the farmers (labels, genetic certification, new products..). Networks or platforms shall be established around the Mediterranean basin for genetic conservation and the promotion of adapted breeds bringing economic benefits to the farmers through capacity building and dissemination of good practises. Decision-making tools for the end users are encouraged, to select the most appropriate breeds according to the specificities of the production environment (agro-pastoralism, extensive or intensive production systems, mix crop livestock systems, …).

Sub-topic B) Alternative animal feeds (IA)

Projects shall capitalize on what has been done in research programmes and EC projects and asses alternatives feed resources based on local agricultural production. Proposals shall evaluate the impact of using alternative animal feeds on animal productivity and on the quality of the product. Environmental impact of alternative feeds should also be considered. Proposals should analyse the socio-economic impact of the proposed alternatives animal feeds and promotion of the adoption of these news feeds by the farmers. The proposed actions should be in line with the development of national and/or regional strategies and policies Activities shall comprise testing, demonstrating and/or piloting in a (near to) operational environment, as well as experimental production, in partnership with the main stakeholders including farmer's and consumers organisations, advising institutions and the private sector (mainly SMEs).

Proposals for both sub-topics A and B should fall under the concept of the multi-actor approach, ensuring that all the stakeholders, from farmers to consumers and regulators, will contribute to the building of sustainable livestock production systems to further add value to EU Mediterranean foods of animal origin.

05. Expected impact

For A proposals:

- Better knowledge of epigenetic and genetic processes leading to the adaptation of breeds to the changing Mediterranean environmental conditions
- Ensure the genetic conservation of local best adapted breeds and valorise them
- Propose to the farmers new options of breeds adapted to the local conditions (matching genetic and epigenetic with environment)
- Increase small farmers' incomes via the rearing of local breeds and the sale of products (raw or transformed) with high added value

For B proposals:

- Development and adoption of new alternative feed sources
- Adoption of a circular economy approach in the livestock production by valorising the by-products
- Valorisation of local crops or adapted species to the local conditions for animal feeding
- Reduce the cost of production and improve the quality of the final products
- Favor mix crop-livestock systems

06. Key Performance Indicators

- Number of innovations in farming systems developed enabling sustainable and efficient agriculture and food systems
- SDG#2- Indicator 2.5.1: Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities
- SDG#2- Indicator 2.5.2 Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction