PRIMA – SECTION 2

Thematic area 2: Sustainable farming systems under Mediterranean environmental constraints

Topic 1.2.1: Adaptation of agriculture to climate change.
Topic 1.2.2: Preventing emergence of animal and plant diseases.
Topic 1.2.3: Developing farming systems able to generate income, to create employment and to contribute to a balanced territorial development.

Overall budget: € 30 million **Among all three Thematic areas of this Section 2** **20 to 30 expected grants (all Thematic areas)**	**Submission deadline** **Stage 1: 27th March, 2018. 17:00h CET.** **Stage 2: 4th September, 2018. 17:00h CET**

01. List of countries, Consortium conditions, Guidelines for Applicants, Proposal template, etc.

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.*
*These countries agreements with PRIMA Foundation did not enter into force yet. Although it is expected to do during the current year, it is advisable to fulfil the consortium admissibility requirements without these countries partners.

Consortium must present at least three eligible partners from three different countries, being at least one EU country and one non EU country.

Stage 1 proposal template:
http://prima-med.org/wp-content/uploads/2018/02/PRIMA-Pre-proposal-Template-Stage-1.docx

Guidelines for Applicants 2018: Very similar to ERA NET in terms of kind of actions, funding schemes, participant's eligibility, evaluation criteria, etc. Please check the official Guidelines for Applicants in the following link:
http://prima-med.org/wp-content/uploads/2018/02/PRIMA-Guidelines-for-Applicants-Section-2.pdf

Section 2 topics will be funded on the basis of each country regulation* (kind of ERA-NET calls)
***The Spanish partners will be funded on the 'Marginal costs' scheme** (como los Planes Nacionales – Retos)

National regulations for PRIMA:
http://prima-med.org/wp-content/uploads/2018/02/PRIMA-National-Regulations.pdf

All countries National Contact Points:
http://prima-med.org/calls-for-proposals/ncps/

02. Funding per country

	Participating States															'to be' Participating States			
	PT	SI	CY	EL	FR	TN	ES	TR	DE	HR	IT	LU	MT	IL	DZ	EG	LB	JO	MA
Total commitment (K€)	750	100	200 to 400	2000	4000	1000	3000	1000	3300	285	7000	300	500	1000	2000	3000	500	1500	2000
Thematic area 2 Sustainable farming systems under Med environmental constraints	250			600			800	300		135			150		800	600		500	
TOPIC 2.1 Adaptation of agriculture to climate change	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
TOPIC 2.2. Preventing animal and plant pests and diseases outbreaks	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TOPIC 2.3. Farming Systems able to create employment and territorial development	X	X	X	X	X	X		X	X		X	X	X	X	X	X		X	X

Abbreviations of the table: PT: Portugal; SI: Slovenia; CY: Cyprus; EL: Greece; FR: France; TN: Tunisia; ES: Spain; TR: Turkey; DE: Germany; HR: Croatia; IT: Italy; LU: Luxembourg; MT: Malta; IL: Israel. DZ: Algeria; EG: Egypt; LB: Lebanon; JO: Jordania; MA: Morocco

TOPIC 1.2.1: ADAPTATION OF AGRICULTURE TO CLIMATE CHANGE

Specific Challenge:

Climate change is dramatically impacting the Mediterranean area and solutions need to be found to adapt agricultural practices to rising temperatures, drought and soil salinity, and increasing occurrence of extreme events. Agriculture is indeed already limited by climate change all around the Mediterranean and this situation is predicted to worsen in the near future, with the northern part of the region experiencing similar conditions to those existing today on the southern shores. Adapting to climate change is therefore a common necessity for Mediterranean agriculture.

Scope:

Research is needed to better understand how plants, soil biota and animals adapt to environmental constraints and why certain varieties/breeds are tolerant or resilient to biotic and abiotic single or multiple stresses, such as drought, multiple summer stresses, warm winters, salinity, etc. Primary focus should be on biological adaptation mechanisms and genotype-environment-management interactions (resulting in adapted and productive phenotypes), as well as on valorising local genotypes taking advantage of spontaneous and domesticated biodiversity in the Mediterranean agricultural and animal husbandry systems. The richness of Mediterranean biodiversity is an asset that can be used to restore or develop new varieties and hybrids, crops and breeds that are adapted to the environment and may be used for genetic improvement. Moreover, production of new breeds/hybrids/varieties adapted to the Mediterranean conditions and able to face climate change should be pursued.

Expected Impact:

- Development and profiling of new varieties / hybrids /breeds that are tolerant/resistant/resilient to biotic and abiotic stresses, productive in Mediterranean climate conditions (aridity, drought, warm winters, uneven rainfalls and salinity) and efficient in the use of limiting resources (water/soil fertility) taking into account the needs of the users and the legislative constrains.
- Valorisation of the local biodiversity that has naturally adapted and show resilience to environmental constraints in the Mediterranean conditions and that may sustain agriculture in stressful environments exacerbated by climate warming. In particular exploitation of neglected spontaneous and domesticated biodiversity in Mediterranean agricultural and animal husbandry systems, and aquaculture.

TOPIC 1.2.2: PREVENTING and CONTROLLING EMERGENCE OF ANIMAL AND PLANT DISEASES

Specific Challenge:

The Mediterranean Region is a hotspot for biodiversity but it is also a rich and well-known centre of origin and dispersion for virulent plant and animal pests and diseases. Diseases are increasing under the influence of climate change and of the intensification of trade flows in the Mediterranean. Plant and animal diseases and pests cause significant decreases in yield, quality and safety of Mediterranean crops, in particular fruit, cereal and vegetables and of animal productions, with strong economic and social consequences. When a new disease breaks out, it is already generally too late to find solutions. Scientific knowledge has to be obtained in order to understand outbreaks phenomena and to develop preventive solutions as well as Integrated Pest Management solutions.

Scope:

The challenge drives the need for a better understanding of the ecology and physiology of pests and pathogens, and the interactions between hosts, pests and pathogens, and other organisms at multiple trophic levels. Tackling these challenges requires trans-disciplinary research, involving plant/animal health specialists (e.g., on biology, entomology, pathology, microbiology and epidemiology), plant breeders, agronomists and zoo-technicians, food technologists. It should also involve social sciences to understand the determinants of current situation and study the acceptability of the proposed solutions. Prevention of plant and animal diseases, discovery and application of sustainable systems of pest/pathogen control (e.g. based on the exploitation of natural plant defence or multi-trophic interactions), and mitigation of the impact of diseases on food safety and/or human health are the main scopes of this topic. Stakeholders of the human and animal health sectors, taking into account ecology and environment within a One Health paradigm should be involved.

Expected Impact:

- Control of the effects of climate change and the associated risks for plant and animal health (including existing and emerging diseases, and adaptation of livestock systems);
- Provision of integrated pest and diseases control/management solutions, for plants and animal systems;
- Implementation of novel tools including the development of biocontrol agents, exploitation of natural defences, secondary metabolites and trophic interactions, development of vaccines, immunity and diagnosis tools, innovative therapeutics, development of biosystems that avoid the rapid surge of resistance of pests/pathogens to control agents;

- Research and disease surveillance networks in tight link with existing official networks such as the Euro-Mediterranean network for animal health (REMESA)

TOPIC 1.2.3: DEVELOPING FARMING SYSTEMS ABLE TO GENERATE INCOME, TO CREATE EMPLOYMENT AND TO CONTRIBUTE TO A BALANCED TERRITORIAL DEVELOPMENT

Specific Challenge:

Agriculture is a major economic sector in Mediterranean countries and the growth of rural employment is critical for fighting rural poverty and stabilize population in the territories. Research and innovation is needed to enhance the potential benefits of agriculture in terms of employment and poverty alleviation, through the development of labour-intensive and environmentally-friendly agriculture and the design of sustainable and profitable farming systems for small-scale agriculture. Potential synergies among activities of the various actors along the food chains and of the economic sectors in rural areas and rural/urban synergies should be enhanced, and addressed at different levels (farms, region, territories…).

Scope:

This topic calls for projects aimed at developing i) multidisciplinary approaches, including agronomy, food sciences, environmental, economic and social sciences for developing an integrated assessment and design of profitable and sustainable farming systems able to create employment and rural development and to sustainably use limiting resources, ii) tools (best practices, decision support systems, models, discussion and co-development platforms, precision farming, etc.) that can assist farmers to improve the management of their farms in a risky and uncertain environment, iii) participatory approaches for integrating farmers' knowledge in the innovation process, iv) territorial approaches that analyse the diversity and spatial organization of farming systems and their environmental and social conditions in the Mediterranean in order to be able to develop site-specific solutions needed by the heterogeneity prevailing within and between the Mediterranean countries and v) Social sciences approaches aimed at: understanding of the determinants for adoption of innovations by farmers and design of public policies aimed at enhancing adoption of innovation suited to improve farmers' livelihoods.

Expected Impacts:

- Design of public policies aimed at enhancing adoption of innovation suited to improve farmers' livelihoods
- Implementation of tools (best practices, decision support system, models, discussion and co-development platforms) that can assist farmers to improve farm management in a risky and uncertain environment, and secure a sustainable income;
- Delivery of participatory approaches for integrating farmers' knowledge in the innovation process.