Coordination of **A**gricultural **R**esearch In the **M**editerranean Area

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ARIMNet2 JOINT CALL - 2016

FOR

TRANSNATIONAL RESEARCH PROPOSALS

The present document is a pre-announcement of the 2016 joint transnational research call of the ERANET ARIMNet2, based on national funds from participating countries of ARIMNET2.
Taking into account the time needed for the preparation of proposals, this pre-announcement aims at encouraging research teams to find partners and prepare their proposals as soon as possible.

What is ARIMNet2?

The ERA-NET ARIMNet2 Project (**A**gricultural **R**esearch **I**n the **M**editerranean **Net**work), funded by the 7th Framework programme, European Commission, aims at coordinating National Agricultural Research Programmes to strengthen the capacities of its partners in addressing the major challenges that the Mediterranean agriculture is facing in a coordinated way.
While agriculture in the Mediterranean countries is facing common issues and challenges, agricultural research is scattered and thus requires a coordination effort to step up the significant transnational cooperation. Coordination efforts are needed to develop research activities and boost innovation at all scales. It is the purpose and the ambition of the partners of the ARIMNet2 Project to join forces and promote innovative research and cooperation through different activities, including joint transnational calls.
For more information on ARIMNet2, please connect to www.arimnet2.net

Joint Transnational Research Call-2016
The aim of the 2016 call launched by ARIMNet2 partners is to enable collaborative interdisciplinary projects based on complementarities between scientists, disciplines and countries, sharing knowledge in a broad range of research topics. The call aims to promote international collaboration to create research consortia, which can respond appropriately to the global stakes and challenges Mediterranean agriculture is facing and can produce innovations.

Enhancing Mediterranean agricultural and food value chains
The countries of the Mediterranean basin face a number of similar problems in relation to agriculture, mainly as regards the use and management of natural resources, such as soil and water, and threats to the security and sustainability of agricultural production resulting from climate change. The vulnerability of the Mediterranean ecosystems and unsustainable

farming systems have led to problems such as soil erosion and runoff, overexploitation of natural plant cover, loss of fertility of agricultural land, soil degradation, underground water overexploitation, contamination and food safety problems.
However, socio-economic contribution of agriculture and food sectors to economic growth, rural development and employment is very important all around the Mediterranean. The diversity in products and the traditional know-how in food production and processing are important assets that have led the Mediterranean region to be deemed for the high quality and diversity of its food. Nevertheless, traditional Mediterranean food chains are suffering difficulties to face increase in urban demand and changes in consumption and life styles. This induces also poor nutrition and significant health problems.
Development of sustainable agriculture and local food industries, which generate employment and added value products, is a common objective for the Mediterranean countries.

Call Topics
Topics covered in the present call have been defined according to the current national priorities and taking into account research already supported in the previous ARIMNet calls launched in 2012 and 2015.

Through this call, ARIMNet2 consortium will to support integrated and trans-disciplinary research projects aimed at **producing innovations for enhancing contribution of agricultural and food systems to sustainable social and economic development.**
The 2016 joint transnational call will cover two topics.

- **Topic 1 : Promoting sustainable agriculture for socio-economic development**
- **Topic 2 : Valorising local products through food value chains improvement**

Topic 1 : Promoting sustainable agriculture for socio-economic development
Climatic conditions, in particular climate variability, require the development of production systems able to cope with risk and uncertainty. Rusticity and flexibility of the different components and of the whole are two major factors of resilience of the systems and their competitiveness and sustainability is required to be improved. Therefore, research is needed in order to improve simultaneously the productivity of agricultural systems and their sustainability. Facing climatic change and pressure in water availability, protecting the natural resources and the environment need an evolution of the current production practices to contribute to the economic and social development.

Adaptation of agriculture to climate change calls for solutions to be found in terms of genetics and agronomics to cope with water scarcity, changes in temperatures and increase in climate variability. Several issues have to be addressed in this perspective: Genetic breeding of varieties resistant to drought and to climate hazards; adaptation to climate change; use of local biodiversity; development of new farming systems combining different activities and species; diversification of cropping systems using local crop species; water-saving techniques and water efficient cropping systems; development of protein rich crops. The diversity of production systems can help to valorize the diversity of soils, slopes, and wet areas but can also play a non-negligible role in water circulation, fauna and flora dissemination or soil distribution.

Soil is a major resource for Mediterranean agriculture sustainability. The "4‰" Cop 21 Initiative[1] aims to develop practical measures on restoration, improvement and/or preservation of carbon stocks in soils. Management of soil carbon will contribute to climate change adaptation. The scientific approaches should develop: Studies of mechanisms and assessment of the potential for carbon storage in soils across Mediterranean regions; performance evaluation of best farming practices for soil carbon and their impact on food security and on other regulation and production services; monitoring and estimating variations in soil carbon stock, especially at farmers level; increasing water holding capacity of soils rich in organic matter.

Intensive use of chemicals (fertilizers, pesticides, antibiotics) has also generated environmental and human health problems. Several research issues should be considered in order to improve the sustainability of production systems such as on-farm improved efficiency of input uses and integrated pest management. Development of low-input systems using integrated approaches between ecology and agronomy should also be addressed.

Topic 2: Valorising local products through food value chains improvement

Improvement in the agricultural systems should take into account the potential outlets and markets for agricultural products. Thus, food chain organisation is a requirement for local economic development. The enhancement of Mediterranean food value chains is closely related to technological aspects of production and transformation, market and food chain organisation and industrial strategies. In particular, it is necessary to develop processing technologies for better valorisation of typical local products, to boost rural economy, and to create new jobs. The utilisation of the Mediterranean biodiversity, the traditional knowledge and culinary heritage should be encouraged.

A valorisation of the nutritional qualities of Mediterranean foods and the development of new products based on the traditional Mediterranean products should also consider the convenience and the accessibility of food for households. A better control of the quality throughout the food chain is a condition for food safety (hazards and risk assessment, improvements in food shelf life, storage and transportation conditions). Better management of the food chain, organisation and logistics, should allow for the reduction of food wastes and losses.

Development of new products and technologies, food safety improvement, should consider different dimensions along the whole food chain, i.e. Consumer needs, outlets and markets, and agricultural systems, within a global value chain approach. Social organization of food chains, coordination among actors, norms and standards and the promotion of territorial products through geographical indications and designation of origin should also be addressed.

Expected impacts of the projects

- Integrated approaches to address complex challenges linking technical and socio-economic issues;

[1] http://agriculture.gouv.fr/sites/minagri/files/4pour1000-gb_nov2015.pdf

- Improved soil and water quality and agronomic practices with limited input use (e.g. pesticides, chemical fertilisers, energy and water);
- Improved local products and farming systems best suited to Mediterranean conditions;
- Diversification and increase of farmers' incomes through access to new markets;
- Innovations along the whole food chain contributing to local development.

Application procedure

Proposals should be submitted via the Electronic Submission System (ESS) that will be available on the date of the call publication. The link to the call web site will be available on the ARIMNet2 website: www.arimnet2.net.

The ***application process*** **will be a** ***one-step process***.

Important dates

- Call publication: 1st April, 2016;
- Deadline of proposal submission: June 1th, 2016;
- Communication of the final evaluation results: November 2016.

Participating Funding Organisations

The 2016 joint call will be funded through a *virtual common pot* by the Mediterranean funding partners and countries participating in the call. At the data of this preannouncement the following funders have preliminary expressed their willingness to support the call for a not yet defined amount. The final list and the amount by each funder will be available in the call announcement (to be issued on 1st April 2016 at www.arimnet2.net).

Countries supporting the 2016 joint call: France, Slovenia, Italy, Spain, Greece, Israel, Turkey, Morocco, Tunisia, Algeria, Egypt, Malta

To be confirmed: Portugal, Cyprus

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