***ERANETMED** is funded by the European Commission's 7th Framework Programme*

CALL PRE ANNOUNCEMENT

ERANETMED JOINT CALL ON
Renewable Energies, Water Resources and their connections for the Mediterranean Region

The present document is a pre-announcement of the joint transnational research call of ERANETMED co-funded by the following Euro-Mediterranean countries:
Algeria, Cyprus, Egypt, France, Jordan, Greece, Germany, Italy, Lebanon, Malta, Portugal, Tunisia, Turkey, Spain.

WHO CAN APPLY

Only research teams from the above mentioned countries are eligible for funding, unless otherwise specified in national rules of funding agencies which will be published on the official launch of the joint call.

WHY A PRE ANNOUNCEMENT

It aims at giving sufficient time to research teams to prepare good proposals and submit them on time.

THEMES AND SCIENTIFIC SCOPE

- Renewable energies and energy efficiency **(call identifier: JC-ENERGY-2014)**
- Water resources management **(call identifier JC-WATER-2014)**
- ENERGY-WATER nexus **(call identifier: JC-NEXUS-2014)**

ACTIONS ADDRESSED

- Collaborative research
- Innovation
- Capacity building
- Mobility

CROSS-CUTTING ISSUES

- ✓ Socio-economic
- ✓ Governance
- ✓ ICT
- ✓ Gender

IMPORTANT DATES

- Launching of the call: **1 November 2014**
- Deadline for submission of proposals: **31 January 2015**

1. About ERANETMED

The ERA-NET scheme is an instrument of the European Commission's Seventh Framework Programme providing funding to improve the cooperation and coordination of national research activities and thus strengthen the European Research Area (ERA) with other regions of the world.

ERANETMED is a EU FP7 initiative that aims at co-ordinating research activities of the different national research programmes from EU Members States, Associated Countries and Mediterranean Partner Countries. In particular, the ERANETMED objective is to strengthen the collaboration and common capacity of research programme owners from above countries to address some of the major challenges that the Mediterranean is facing and strengthen Euro-Mediterranean research co-operation.

2. Scope of the call

Renewable energies, water resources and their nexus are important challenges in the Mediterranean region and face common constraints and issues, while trans-national research addressed to these challenges is still highly fragmented and requires a strong co-ordination and joint-effort of countries to enhance effective and high impact research as well as innovation.

2.1 Themes and scientific scope

Projects must address only one main Theme: **Renewable Energy or Water or Water-Energy Nexus.**

Each of the three themes must be addressed by focusing solely on one or more of the sub-themes described here after.

2.1.1 Renewable energies and energy efficiency (call identifier: JC-ENERGY-2014)

This Theme has the overarching objective of capitalizing on local large availability of renewable sources of energy, by developing adapted packages of solutions for the sustainability of vulnerable communities, both in terms of supply and demand, in addition to promoting the well integrated penetration of renewable energy solutions in the inhabited areas, while taking into account local cultural heritage, cost-effectiveness, environmentally friendly and innovative approach.

Applicants should also take in consideration pressing challenges related to energy security, efficiency, supply and climate change. The active participation of key industrial partners and technology suppliers is encouraged to form a multi-sector, multi-disciplinary consortium able to achieve the full impact on the theme. Awareness and innovative capacity building approaches are encouraged.

a. Hybrid renewable energy system integration

The objective is to support development and demonstration activities in the area of the integration of renewable energy sources to the electric utility. Hybrid integration of those technologies should be adapted to provide cost effective solutions to the increasing energy demand in the Mediterranean area. Different configurations can be considered to increase the efficiency, power availability, flexibility, dispatchability, energy storage, etc. Projects will have to demonstrate the potential in these respects and will have to prove the concepts at least at demonstration or laboratory scale. The project should enhance

the shared technology development between EU and Mediterranean researchers. Efficient hybridisation of two or more renewable energy systems, CSP, PV, Wind, Marine, Biomass and Biofuel is expected to broaden substantially the deployment area of renewable energy technology. Proposals with a clear plan for the commercial exploitation of the developed technology are preferred. The active participation of industrial partners and technology suppliers is encouraged to form a multi-sector, multidisciplinary consortium able to achieve the full impact of the project. Outcomes should also focus on reliability and increased system stabilisation and efficiency energy supply to minimise the effects of system failures.

b. Smart Micro-grids

Proposals should address demonstration of concepts for active micro-grid networks enabling the integration of increased numbers of small and medium-size distributed energy resources. Each successful project should test a specific concept at a single demonstration site under realistic conditions of inhabitants and users. The active participation of key partners from Mediterranean electricity utility and technology suppliers and authorities is highly encouraged to have impact on this topic. Applicants should also consider reducing the impact on the environment by relying on low-carbon energy resources (photovoltaic, wind, and concentrated solar power) that are either already in place or planned to be deployed in parallel with other initiatives.

c. Renewable energy and energy efficiency for smart and rural communities

The main objective is to increase and improve access to innovative, affordable and sustainable energy services for rural area by focusing on accessible renewable energy solutions as well as on energy efficiency measures. The development of closer and long-term links among the different Euro-Mediterranean stakeholders from research, industry and business sectors will foster technology and know-how sharing to solve bottlenecks of Mediterranean energy systems.

2.1.2 Water resources management (call identifier JC-WATER-2014)

This Theme must be addressed in the context of global change, particularly demographic, climate, new trends of water yields and availability. The problem related to water quality, water tariffs and economic aspects are also key as well as implication with policy and governance.

a. Integrated water management from the catchment to coastal zone

The scope is Integrated Water Resources Management (IWRM) from catchment – basin to coastal zone, thus account for both inland and coastal zone water resources, the multiple use of waters and the interlinks with basin scale socio-economic activities, policy and governance. In the coastal zone, coastal surface and ground-water quality as well as salinity in estuaries and lagoons due to changes of river flows caused by irrigation, hydropower and water supply should be addressed. Applicant should also address catchment-basin scale land use changes in relation to water quality and quantity, reservoir management, intense agricultural activities as well as urban and industrial development depleting water resources and contaminating water.

One important impact expected is a substantial contribution to policy and governance, ensuring the sustainable management of water resources at catchment to basin scale, also establishing a systematic process of developing, allocating and monitoring the use of water

resources. Therefore, it is expected that different management bodies should start to work together in order to find common approaches and tools to enhance good governance.

b. Integrated water use efficiency

The main objective is the development of new research and possibly enhancing new technologies in water use efficiency in the whole chain, from supply to end-users, coping with water scarcity, climate, water yields and water quality. Research will have to address water saving for different uses from civil to agricultural and industrial while identifying best water management practices to improve efficiency, increase water productivity, promoting the use non-conventional water resources and identifying appropriate measures to face extreme events and conditions.

c. Water reuse in agriculture

The applicants should address the re-use of treated municipal waste water as well other low-quality water resources and its impact on future water availability. More specifically the objective is to foster innovative research on waste water treatment technology and re-use in agriculture accounting for public health, land management and environment. In addition, applicants should address most relevant constraints and barriers to the social acceptance, public awareness, socio-economic aspects including pricing and tariffs and the problems related to building good policies and governance.

d. Water desalination

The objective is to identify ways for developing adequate technologies or optimising existing technology for desalination accounting for cost-energy effective and environmentally friendly schemes. Social and political awareness and adequate governance should be addressed as a key for the successful and sustainable development desalination.

2.1.3 ENERGY-WATER nexus (call identifier: JC-NEXUS-2014)

Applicant could also decide to address energy and water issues in the same project. The objective is to develop research and enhance new innovative approaches and technologies in order to maximise the energy efficiency and use of renewable energy accounting for the reduction of impact on natural water yields. Equally, the applicant should address ways to increase efficiency of water systems (including conventional and non-conventional water systems) through adequate energy saving and renewable energy technology development and application. Proposals should also explore and indicate ways to reduce impact on fossil energy sources and emissions through a better water and energy management. It is of paramount importance to take into account different socio-economic, cultural, geographical, climate and policy/governance framework conditions. Applications in rural and marginal areas are encouraged.

2.2 Actions addressed

Four types of collaborative activities – "actions" – can be funded by this call: Collaborative research, Innovation, Capacity Building and Mobility. These actions include the following targets and specific activities:

a. **Collaborative research.** The collaborative research is a joint undertaking by a partnership of institutions ("consortium") designed to produce new knowledge through scientific research, whereby each team within the partnership actively pursues specific

task objectives with a view to pooling the results to contribute to the achievement of a set of common, well-defined project objectives. Collaborative research should take into account to develop an impact, demand and policy driven research, also accounting the inclusion of SMEs and enhancing innovation..

b. **Innovation**, including prototype development and demonstration actions. In particular, it is a joint undertaking by a partnership of institutions ("consortium") designed to bridge the gap between the outcomes of research projects and commercialisation, by supporting activities related to the first application and further market uptake of innovative techniques, processes, products or services, and helping overcome barriers that could hamper their commercial success.

c. **Capacity building**, it is a joint undertaking by a partnership of institutions ("consortium") designed to assist relevant organisations to improve their capacities and/or their enabling environment for research and innovation. Activities should target the strengthening of institutional capacities, rather than individual capacities. If combined with Mobility, it could target strengthening of individual capacity of young researchers through individual grants, bursaries and scholarships.

d. **Mobility**, mainly based on supporting grants to young researchers from MPCs/AC to develop post-graduate studies linked with funded projects.

As a basic condition, all projects must be collaborative research projects. Therefore, it will be mandatory for each proposal to include at least action a) (Collaborative research). Applicants are encouraged to propose collaborative projects including at least another of the above actions (b,c,d).

2.3 Cross-cutting issues

Applicants are encouraged to take into account for their research important cross-cutting issues, particularly: socio-economic, governance, ICT and gender.

2.4 Participation rules

2.4.1 Applicants

Applicants must be eligible for funding according to the regulations of their respective national Funding Parties. They can represent research and higher education entities, companies, and other legal entities such as NGOs, once again subject to institutional restrictions set by individual Funding Parties (more details and national rules will be published with the official launch of the call on November 1st, 2014)

2.4.2 Consortia

The project consortium must comprise project partners from at least 3 different countries whose Funding Agencies contribute to the 1st Joint Call, of which at least one from an EU Member State/Associated Country and one from a Mediterranean Partner Country.
The Project Consortium designates a Project Coordinator which must belong to an entity legally established in one of the countries funding this Joint Call.

2.5 Duration

The duration of a project can range between 24 and 36 months.

The projects are expected to start not later than three months after the conclusion of the Grant Agreement.

2.6 Funding

The funding of an individual proposal will depend on the nature and duration of the proposed activities and must be justified in terms of the resources needed to achieve the objectives of the project. The funding requested should therefore be realistically adjusted to the actual needs of the proposal, taking into account synergies with any other funds available.

3. Submission of Proposals

This call is **a one step call**, which implies the direct submission of a full proposal.

Further information:
www.eranetmed.eu