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

ERANETMED

Call for research proposals on Renewable Energies, Water Resources and their connections for the Mediterranean Region

CALL TEXT

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QUICK FACTS

The present Call is co-funded by the following Euro-Mediterranean countries:
Algeria, Cyprus, Egypt, France, Germany, Greece, Italy, Jordan, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia, Turkey.

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: **2 February 2015**
- ✓ Informing applicants on call results: **30 August 2015**

Further information: www.eranetmed.eu

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Facebook page:
https://www.facebook.com/eranetmed?ref=hl

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1. Introduction and background information

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 to the EU Research Framework Programmes 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.

Building on the joint interest of Research Programme Owners, the present Call is launched based on a Virtual Common Pot scheme, where each Funding Agency funds its own national research organizations* within a multilateral project selected through a peer review process.

This Call is co-funded by the following Euro-Mediterranean countries:
Algeria, Cyprus, Egypt, France, Germany, Greece, Italy, Jordan, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia, Turkey.

The total financial contribution to the Call is **13,420,000 Euros.**

2. Scope of the call

2.1 Thematic background

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.
In particular, water is by far seen as the most important but vulnerable resource in the Mediterranean region. The major problems of fresh water resources management in the region arise from the pressure to meet the increasing water needs in areas characterized by fast-growing population, water scarcity or limited water availability, exacerbated by extreme climate variability. Increased cost of energy production coupled with water scarcity, deteriorated water quality and overexploitation of resources often results in deficiency in food production, increased pollution threats to both terrestrial and marine environment and leads to non-equitable access to water resources as well as water supply and sanitation services, particularly in the rural and marginal areas. Consequently, it negatively affects health and produces various types of conflicts ranging from social domestic conflicts to sector conflicts (agriculture, urban areas, industry, tourism as well as ecosystem) and trans-boundary conflicts.
Renewable energies and energy efficiency become very important issues for the human community in the Mediterranean region. The development of renewable energy in the Mediterranean region requires a closer cooperation in research and innovation between countries.

* unless otherwise specified in the National Rules for Funding, Annexed to the Guide For Applicants.

The demand for fresh water tends to increase drastically in a region characterized by water scarcity, leading to increase in demand for intensive energy in water treatment processes. On the other hand, the emissions produced by traditional energy resources based on hydrocarbon and fossil fuel has serious consequences on the level of pollution in the entire region.

Renewable energy is not only playing a very important role in the social development of the Mediterranean by creating prospect of new jobs and business, but it also enhances the sustainable energy management. The region is undergoing an increasing energy demand which can hardly be satisfied according to most logical forecast. This trend will trigger a more dramatic scenario in areas of limited water availability, as well as in absence of a common regional strategy.

2.2 Themes and scientific scope

Projects must address only one main Theme (Renewable Energy or Water or Trans-disciplinary theme), making reference to Theme identifier.

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

2.2.1 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.

2.2.2 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.

2.2.3 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.

2.3 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.

Some combination of the above mentioned activities is possible or even desirable, where permitted by, and conditioned upon, the national regulations of the individual Funding Agencies (Annex 2 to the Guide for Applicants). 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).

2.4 Cross-cutting issues

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

2.5 Participation rules

2.5.1 Applicants

Applicants must be eligible for funding according to the regulations of their respective national Funding Agencies. 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 Agencies. Details on eligible institutions for each of the Funding Agency can be found in the Annex 2 of the Guide for Applicants, and should be consulted prior to proposal preparation.

Applicants from ERANETMED countries having no contribution in this Call can participate in project consortia with their own institution, as additional partners to the minimum number of participants, by funding their own involvement.

Research organizations or industry not belonging to countries participating in ERANETMED may participate in selected projects (as additional partners to the minimum number of participants) as co-funders, which means that they can contribute to a specific project either financially with "own contribution" or "in kind". Their commitment must be presented at the time of proposal submission according to the specific text template, which can be found in the Guidelines for Applicants.

2.5.2 Consortia

The **project consortium** must comprise project partners from at least 3 different countries whose Funding Agencies contribute to the present, of which at least one from an EU Member State/Associated Country to European Research Framework Programme 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 Call. The project Co-ordinator will have the following role:

- Be the single point of contact and entry point for information provided by the Call Secretariat (CS) before, during and after submission.
- To submit the Application Form on behalf of the consortium
- In any awarded project, compile and submit reports/deliverables to the Call Secretariat on behalf of the project consortium

The Co-ordinator will not be responsible for the financial management of research funding, which will be handled directly between research partners of the consortium and their national funding agencies.

The applicants are advised to contact their National Contact Point for ERANETMED call in their own country as listed in Annex 1 to the Guide for Applicants.

The project Co-ordinator shall inform the CS and each of the national funding agencies of any event that might affect the implementation of the project.

The consortium of applicants will need to draw up a consortium agreement (template in Annex 3 to the Guidelines for Applicants), which should include the fair handling of Intellectual Property Rights (IPR) and it must be signed before the conclusion of the grant agreement.

2.6 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.

2.7 Funding

The total committed financial contribution to the present Call will be of € 13,420,000. The total amount of funding by each Funding Party available for the call is given in table below.

Institution	Contribution
CIHEAM, International	300,000 €
TUBITAK (Turkey)	500,000 €
DGRSDT, Algeria	1,000,000 €
RPF, Cyprus	200,000 €
STDF, Egypt	750,000 €
ASRT, Egypt	750,000 €
ANR, France	2,000,000 €
CNRS - F, France	200,000 €
HCST, Jordan	220,000 €
CNRS - L, Lebanon	200,000 €
MESRSFC, Morocco	1,000,000 €
FCT , Portugal	500,000 €
MESRST , Tunisia	600,000 €
BMBF, Germany	1,500,000 €
MCST, Malta	400,000 €
MINECO, Spain	500,000 €
MIUR, Italy	2,000,000 €
GRST, Greece	800,000 €

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 any other funds available.

Researchers participating in projects selected for funding will receive the grant directly from their national funding agencies after meeting their national regulations. Funding agencies whose national researcher organisations have been selected for proposals in different Themes reserve the right to decide, based on their national priorities and financial availabilities, which Theme will be funded in retained proposals. Funding will be administered according to the terms and conditions of the responsible national funding agency taking into account all other applicable national regulations and legal framework. Private organisations may also bid for funding as members of consortia, but should first check the national rules for funding eligibility of SMEs or large industries.

Eligible costs will be determined by the regulations and conditions of each national funding organisation/agencies (Annex 2 to the Guidelines for Applicants). Sub-contracting will be allowed according to the regulations of the national funding organisation involved.

3. Submission of Proposals

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

Proposals will be submitted, evaluated and decided upon according to the procedures described in the Guidelines for Applicant and in Section 4 of the present document. Only submissions through the online submission system will be accepted.

3.1 Deadline

All Proposals must be finally submitted by the Project Coordinators before the deadline: **2 February 2015 (at 5 PM CET)**. Delayed proposals will be considered non-eligible!

3.2 Double Submission

A given proposal may only be submitted for one of the main Themes supported within the framework of ERANETMED call (i.e. either Renewable Energy or Water or Energy-Water nexus) and a given Consortium can be granted only one proposal for the all Themes.

4. Evaluation and selection

4.1 Eligibility check of proposals

The eligibility check phase is divided in two steps, each of them aimed at verifying the compliance with two sets of criteria: i) **ERANETMED criteria**, ii) **National criteria**.

4.1.1 ERANETMED criteria for eligibility check

Each project proposal must:

- Involve researchers from at least **three countries** members of ERANETMED (at least one from the EU Member States/Associated Countries to EU Research Framework Programme and one from the Mediterranean Partner Countries) providing funds for the present Call. Additional researchers from other countries are welcome in a project consortium, but will have to fund their own contribution to the research project
- Be of a duration comprised between 24 and 36 months.
- Be written in English, using the Application Forms provided on the submission website
- Be uploaded completed and correctly (including all required documents) via the submission website before the call deadline (2 February 2015, 5 PM CET).
- Fit the formal requirements for proposal submission.

The eligibility check of ERANETMED criteria is made by the Call Secretariat (CS).

4.1.2 National eligibility criteria

The Funding Agencies contributing to the present Call will check and confirm the eligibility of applicants participating in a proposal consortium according to their national regulations (see Annex 2 of the Guidelines for Applicants).

4.2 Scientific evaluation

The scientific evaluation of proposals will be carried out by external and independent experts nominated by the Call Secretariat in consultation with the Funding Agencies.

4.2.1 Evaluation criteria and their rating

The following criteria will be at the base of the whole Scientific Evaluation process:

Criterion 1: - Scientific and/or technological excellence (Threshold 3/5)

- Quality, innovation and competitiveness of the transnational project.
- Sound concept, quality of objectives, progress beyond the state-of-the-art
- Quality and effectiveness of the scientific and technological methodology and associated work plan
- Relevance to the concept of the call: contribution to the objective of the call, innovation beyond research.

Criterion 2: Quality and efficiency of the implementation and the management (Threshold 3/5)

- Quality and efficiency of the management structure and procedures, its organization and coordination, including the management and sharing of data.
- Quality and relevant experience of the individual participants, including inter-disciplinarity and integration potential within partnership.
- Quality of the consortium as a whole (including complementarity, balance between North and South) and added value of the transnational collaboration.
- Appropriate allocation and justification of the resources to be committed (budget, staff, equipment), project feasibility and work-plan

Criterion 3: Potential impact (Threshold 4/5)

- Contribution to the advancement of knowledge and innovation, impact on sustainable development, and impact on socio-economic growth of the Mediterranean countries.
- Capacity to uptake research results.
- Appropriateness of measures for the dissemination and/or exploitation of transnational projects results, and management of intellectual property.
- Contribution to capacity building, training and mobility.

Proposals recommended for funding will need to score above the threshold for each criteria and get a minimum aggregated whole score at least 10 out of 15 points.

4.3 Selection and final funding decision

The Call Secretariat will inform the applicants about the results of the evaluation process. Successful applicants will be informed by their respective Funding Agencies regarding the next steps for concluding the individual project grant agreements at a national level.

5. Contract and monitoring

Funding to the consortium members will be conditionally awarded, pending the submission of a consortium agreement, which should include rules for fair management of Intellectual Property Rights. Some funding agencies will grant only after they have approved of the Consortium Agreement.

For each collaborative project approved for funding, individual **Grant Agreements** will be signed between each participating institution in a consortium (beneficiary) and its corresponding Funding Agency (in cases where these organisations are two separate legal entities). Grant Agreements or one-sided administrative acts (e.g.: subsidy awards) will regulate the transfer of funds to national beneficiaries based on national regulations. They will establish the legal ground for project funding according to the rules and regulations of the respective Funding Agencies.

The Call Secretariat will be responsible for the overall monitoring of the projects.

6. Call plan

The Call timing is shown in table below:

Call action	Scheduled
Launch of the Call	1st November 2014
Deadline for proposal submission	2nd February 2015
Results of Eligibility Check	1st March 2015
Scientific Evaluation	March-July 2015
Informing Applicants of Evaluation Results	30 August 2015
Contract Negotiation	September – November 2015