LEAP-RE

Long-Term Joint EU-AU Research and Innovation Partnership on Renewable Energy

Research & Innovation Action

Partner catalogue – find a partner for your consortium

Last update: September 1rst 2022

This project has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement 963530.

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1. Forms for partners looking for a partner in their consortium:

1.1CDER/ALGERIA

Date: 31/08//2022

Section 1 – I am looking for:
☑ A partner for my project - ☐ In Europe - ☐ In Africa - ☑ In Europe or Africa - ☑ A partner from the public sector - ☑ A commercial company
☐ A project to join

Section 2 - Call Information: which MAR(s) do you address?
☑ MAR 1: Mapping renewable energy joint research and innovation
☐ MAR 2: End of life of renewable energy components
☑ MAR 3: Smart stand-alone systems
☐ MAR 4: Smart grids
☑ MAR 5: Productive uses of energy
☑ MAR 6: Domestic uses of energy

Section 3 - Your Organisation
Organisation name and location: Centre for Renewable Energy Development(CDER)/Algeria
Contact person:Dr. Amel Boulemtafes Boukadoum
E-mail:a.boulemtafes@cder.dz; aboukadoum@gmail.com
Website:www.cder.dz
Description of the organisation (max. 100 words): The Center for Renewable Energies Development (CDER) is a scientific and technological public institution (EPST) affiliated to the National Ministry of Higher Education and Scientific Research (MESRS). The main mission of CDER is to conduct scientific research

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and technological development programs in the field of Renewable Energies and Energy Efficiency.(Solar, Wind, Geothermal and Biomass energy.)

The CDER as center of excellence and a key actor in research, development and expertise in the field of renewable energies and energy efficiency, is actively involved in the national program for research and technological development, as defined by law and policy of renewable energies promotion for a long term sustainable development perspective.

The CDER researchers are highly mobilized to contribute to the national energy transition effort throughout its 5 research departments and the three regional research units.

The CDER, in conformity with its statutory missions, actively participates in the development of scientific knowledge and tools to assist decision making strategies that will promote the development of RE.

Section 4 - Free Keywords:

Section 5 - Project Description

Solar Thermal and Geothermal Energies Division (TTSG) is one of the five research departments of CDER. It is responsible for conducting scientific research and technological development in the areas of low temperatures systems, concentrating solar, the bioclimatic and geothermal.

TTSG department is responsible for carrying out research and development projects in the field of solar thermal and geothermal energies as well as the integration of energy efficiency measures in the building sector. The main department research activities are the conversion of solar and geothermal energies into heat, mechanical and electrical energies at low and high temperatures.

Our research team is involved in developing solar thermal systems for industrial and agricultural sectors, optimization and design of processes for converting solar energy into thermal energy at low temperatures (solar space heating, solar domestic water, solar drying, solar cooling and solar heat storage).

Within this project, we seeks to design and develop an innovative standalone solar dryer for semi-pilot scale, dedicated to the drying of agricultural products (mainly grapes) in collaboration with the owner of an agricultural farm. Our objective is to promote the development of grape drying activity and to limit post-harvest losses (grapes are very perishable products) and to obtain a very competitive dried product in terms of cost and quality. To this end, our mission is to propose an optimized solar drying protocol from picking to storage of the dried product. As drying is the key step of the protocol, the system that we propose will be a prototype of a standalone solar dryer (TRL $\geq$ 4) operating continuously and exclusively on solar energy (mainly thermal and photovoltaic for the back-up of energy), equipped with a temperature control system as well as a heat storage system to ensure drying process in continuous mode.

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Our objectives throughout this project can be summarized as follows: • To design an efficient solar dryer, adapted to the local need, simple from a technological point of view and made from available locally materials so that can be easily reproducible in an industrialization process. We are also available to join other consortiums in related fields.

Section 6 - Partner Profile Sought
Type of organisation: Academic Institutions ((Universities, research center), Energy Companies
Required Skills and Expertise (if applicable): Solar energy, Mechanical energy, thermodynamics, designing tools, modeling, …etc

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1.2 MPCE - France and UDL - Algeria

Date: 30/08/2022

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☐ A project to join

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Section 3 - Your Organisation
Organisation name and location: **MPCE - France and UDL - Algeria**
Contact person: **Mohamed Elmeguenni and BelAbbes Bachir Bouiadjra**
E-mail: elmeguennimohamed@yahoo.fr and bachirbou@yahoo.fr
Website:
Description of the organisation (max. 100 words): we are working on new innovative projects around renewable energy: different solutions ongoing with new innovative ideas.

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We are looking for some partners to join the team to help and to further develop these ideas with a goal to continue together for a long-term teamwork around the renew strategy.

Section 4 - Free Keywords
renewable energy, sustainability, feedstock, biogas, biofuel, recyclable

Section 5 - Project Description
Our main goal in this project, is the development of a basic suitable system (waste recovery) for different types of feedstocks (organic and inorganic waste) and at the same time value the renew use technologies with a right segregation. This project will be the simple accessible solution for an autonomo-energy self-sufficiency for all and with guaranteed safety. we propose to use a sustainable approach for the transformation and the storage stage of the needed energy.

Section 6 - Partner Profile Sought
Type of organisation: A partner from the public sector, university and/or a commercial company
Required Skills and Expertise (if applicable):

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1.3 University of Port Harcourt / Nigeria

Date: 11 August 2022

Section 1 – I am looking for:
☐ A partner for my project - ☐ In Europe - ☐ In Africa - ☑ In Europe or Africa - ☐ A partner from the public sector - ☑ A commercial company
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☑ MAR 6: Domestic uses of energy

Section 3 - Your Organisation
Organisation name and location: University of Port Harcourt, Nigeria
Contact person: Dr Ogheneruona Diemuodeke
E-mail: ogheneruona.diemuodeke@uniport.edu.ng
Website: www.uniport.edu.ng
Description of the organisation (max. 100 words): The University of Port Harcourt is highly ranked in sustainable energy development and environmental sustainability. The university shares the vision of excellence in research in some of the African nations and helps them to play key roles in bringing solutions to the global climate crisis in the areas of energy and sustainable development. The university is an entrepreneurial university that is keen to transfer hard and soft skills in the energy system development space. The Department of Mechanical Engineering of the university houses the energy and thermofluids group that is focused on the research and development of innovative energy solutions.

Section 4 - Free Keywords:
Sustainable energy, hybrid energy, solar, wind, refrigeration, entrepreneurship

Section 5 - Project Description

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The political livelihood of the coastal rural communities greatly relies on fish and seafood production. However, between 30-45% of the fish and seafood products do not get to the marketplace to support the rural community's socioeconomic development because of spoilage arising from a lack of storage facilities. Therefore, the project seeks to design and develop an innovative clean energy system for the refrigeration of fish and seafood. The project will utilise the energy from sun and wind to power the refrigeration system that will be based on both vapour absorption and compression refrigeration technologies with novel cost-effective energy storage based on a water phase change mechanism without the use of batteries. The project will begin by conducting an in-depth renewable energy resource assessment, energy demand analysis and refrigeration technology mapping. We are also available to join other consortiums in related fields.

Section 6 - Partner Profile Sought
Type of organisation: Academic Institutions, Energy Companies and Entrepreneurs
Required Skills and Expertise (if applicable):

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2. Forms for partners looking for a project to join

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