



MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION

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Accelerating the green transition and energy access Partnership with Africa (LC-GD-11-1-2020)

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Avertissement

Cet appel à projets n'est pas finalisé et pourrait être significativement modifié. Ce qui est présenté aujourd'hui correspond donc à l'état de ce qui est connu aujourd'hui et pourrait être partiellement invalidé quand la Commission publiera la version définitive de cet appel.



Caractéristiques

- Titre : Accelerating the green transition and energy access Partnership with Africa
- Référence : LC-GD-11-1-2020
- Date de dépôt : 26 janvier 2021
- Type d'action : IA (*Innovation Action*)
- TRL : N/A mais on attend plutôt des TRL > 5
- Montant de la subvention attendue : entre 5M€ et 10M€ par projet
- Taux de subvention : 70% / 100%
- Nombre maximum de projets financés : 8

Analyse #1

Specific challenge

L'appel à projets fait référence à la « *Joint Communication for a Comprehensive Strategy with Africa* » adoptée en mars dernier. L'appel à projets reprend plusieurs de ses conclusions dont :

- *Africa is Europe's closest neighbour.*
- *The African continent has an enormous renewable energy potential.*
- *Africa still faces major challenges related to ensuring access to sustainable energy for all, and the development of its industrial base to create much needed jobs.*
- *Experience has shown that existing innovative solutions and technologies developed for developed markets need to be adapted, tailored and demonstrated to the multi-faceted context of Africa to bring not only economic, but also environmental, social and health benefits.*

Beaucoup d'information à cette adresse : <https://ec.europa.eu/research/iscp/index.cfm?pg=africa>

Analyse #2

Scope

Objectif : demonstration of innovative solutions related to:

- climate adaptation [including] a life cycle analysis showing the impacts of the proposed solutions on the environment,
- climate mitigation eg the water-energy-food nexus
- sustainable energy solutions eg renewable energy sources, including solutions for off-grid communities, and their integration into existing energy system

in the African social, economic and environmental contexts [including] a tailored value chain approach identifying the most suitable manufacturing value chains, on the basis of the local context, local material supply chain, local workforce with the objective to assure local sustainable economic development.

NB : International cooperation is encouraged. As the demonstration installation will be located in Africa, relevant African partners to implement the project are expected to participate in the project.

Analyse #3

Expected impact

À court terme

« provide evidence of technological reliability, economic viability, and of the environmental, health, climate, social and economic impacts of its renewable energy solutions »

À moyen terme

« create new markets opportunities for both European and African companies in the African continent »

À long terme

« Economic growths and job creation, both in the EU and in Africa »

La participation des SHS

Implantation locale des solutions => nécessité d'en comprendre les enjeux locaux → spécificité(s) africaines à prendre en compte

Disciplines

Compréhension des enjeux sociaux : Sociologie, démographie, géographie culturelle, anthropologie, ethnologie, sciences de la religion

Développement économique : économie et sciences de gestion

Actions de formation : sciences de l'éducation

Institutions

Institut français de recherche à l'étranger en Afrique, IRD et ses implantations sur le continent africain, Institut des mondes africains de l'EHESS, GIS Etudes africaines du CNRS, laboratoires internationaux du CNRS, SCANR

Avant de rédiger

Il convient de :

- connaître et comprendre le contexte dans lequel s'inscrit cet appel ;
- Prendre en compte ce qui a déjà été fait notamment via des financements de la Commission.

Le contexte

L'appel à projets fait référence à de nombreux documents de contexte :

- [AU-EU Research and Innovation Partnership on Climate Change and Sustainable Energy](#)
- [Sustainable development goals](#)
- [Green deal priorities](#)
- [Accord de Paris](#)

Ces documents précisent le contexte dans lequel vos projets doivent s'inscrire. Vous pouvez les citer pour montrer que votre projet :

- contribue à l'atteinte des objectifs politiques de l'Union ;
- s'inscrit dans le cadre plus larges des accords internationaux.

Autres références européennes possibles :

- [Towards a comprehensive Strategy with Africa](#)
- [Roadmap for EU -African Union S&T cooperation](#)
- [Communication relative à une nouvelle alliance Afrique –Europe](#)

Autres références africaines possibles :

- [Science, Technology and Innovation Strategy for Africa 2024](#)
- [L'Initiative de l'Afrique sur les Énergies Renouvelables](#)
- [Agenda 2063: Vue d'ensemble](#)
- [DRAFT AFRICAN UNION STRATEGY ON CLIMATE CHANGE](#)

Quelques projets précurseurs

[ERAfrica](#) (FP7) : ERAfrica is a European Union (EU) project aimed at promoting a unified European approach to collaborating with Africa in the field of science and technology research for innovation and sustainable development. ERAfrica forms part of the 7th Framework Programme suite of European research initiatives, and boasts as primary objective the creation of a “European Research Area Network” for the African continent, similar to other “ERA-Nets”

[RINEA](#) (2015 – 2018) : RINEA support the EU-Africa High Level Policy Dialogue (HLPD) on science, technology and innovation. The project plans to work in complementary ways with related projects, such as CAAST-Net Plus and PROIntensAfrica.

[PROIntensAfrica](#) (2015/2017): PROIntensAfrica is an initiative to develop a proposal for a long-term research and innovation partnership between Europe and Africa. Our focus is on the improvement of the food and nutrition security and the livelihoods of African farmers.

[MedSpring](#) (FP7) : The 'Mediterranean Science, Policy, Research & Innovation Gateway' tackles three societal challenges (Energy, High Quality Affordable Food, and Scarcity of resources) by creating a dialogue platform for involved stakeholders and societies.

[ERANETMED](#) (FP7) : The main aim of the project is to enhance Euro-Mediterranean co-ownership through innovation and competitive research in the societal challenges of the region. The project aims at reducing fragmentation of programming in the Mediterranean region by increasing coordination among national research programmes of European Member States, Associated Countries and Mediterranean Partner Countries.

[CAAST net plus](#) (FP7) : CAAST-Net Plus is a network of 26 partner organisations from all over Europe and sub-Saharan Africa working together to support bi-regional cooperation in research and innovation.

Le projet LEAP-RE



PRE-LEAP-RE

Long term Europe Africa Partnership on Renewable Energy

- Déposé en avril 2020 suite à l'AAP H2020 LC-SC3-JA-5-2020
- consortium rassemblant 96 partenaires de 34 pays d'Europe et d'Afrique, publics et privés, opérateurs de recherche et agences de financement

Cadre politique

- Stratégie Union Africaine – EU
- partenariat AU – EU sur le financement de la recherche et de l'innovation pour le Changement Climatique et l'Energie Durable

Objectif

- développer un partenariat de long terme entre l'Union Africaine et l'Europe en matière de recherche et d'innovation sur les énergies renouvelables

Le projet LEAP-RE



PRE-LEAP-RE

Les 6 roadmaps thématiques

- 1) Évaluation des priorités communes de recherche et d'innovation, actions pour le développement des énergies renouvelables ;
- 2) Gestion de la fin de vie, de la seconde vie et des impacts environnementaux des composants des énergies renouvelables ;
- 3) Smart stand-alone systèmes;
- 4) Smart grid (à différentes échelles) pour les applications hors-réseau;
- 5) Procédés et équipements pour les usages productifs ;
- 6) Solutions innovantes pour les usages domestiques prioritaires (cuisson propre et chaîne de froid).

Le projet LEAP-RE



PRE-LEAP-RE

Structure du projet

- pilier (1) consistant à mettre en oeuvre des appels à projets de recherche et d'innovation.
- Un pilier (2) consistant à la réalisation de 8 projets de recherche et d'innovation d'ores et déjà sélectionnés, portés par des membres du consortium (laboratoires publics, entreprises...).
- Un pilier (3) rassemblant les activités de coordination globale du programme, la valorisation des résultats et la préparation des suites potentielles du programme au-delà de 2025

Pillar 1
External Research funding and capacity building activities - implemented through open calls for proposal for R&I projects, funded by the LEAP-RE funding agencies (including national, regional funding agencies or private players)

Pillar 2
Internal Consortium R&I projects and capacity building activities with substantial financial contributions from the research institutions, implemented by consortium members.

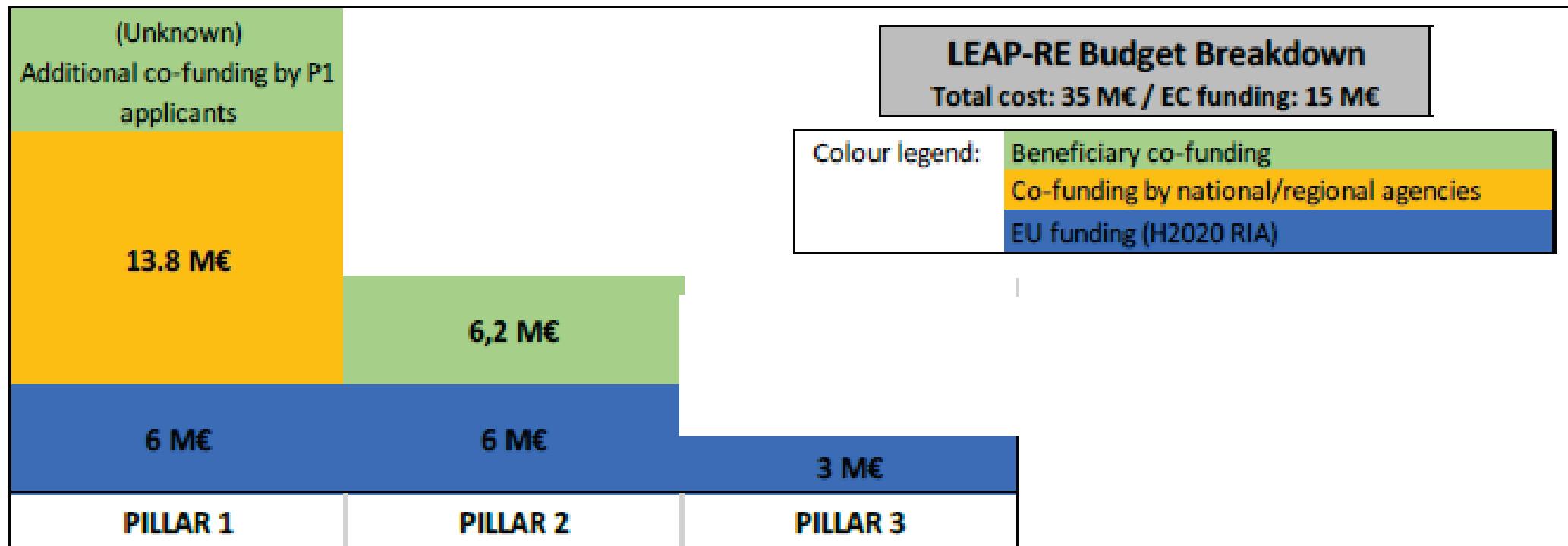
Pillar 3
Management, coordination, monitoring and evaluation and development of the future long-term collaboration model of the AU-EU partnership in RE

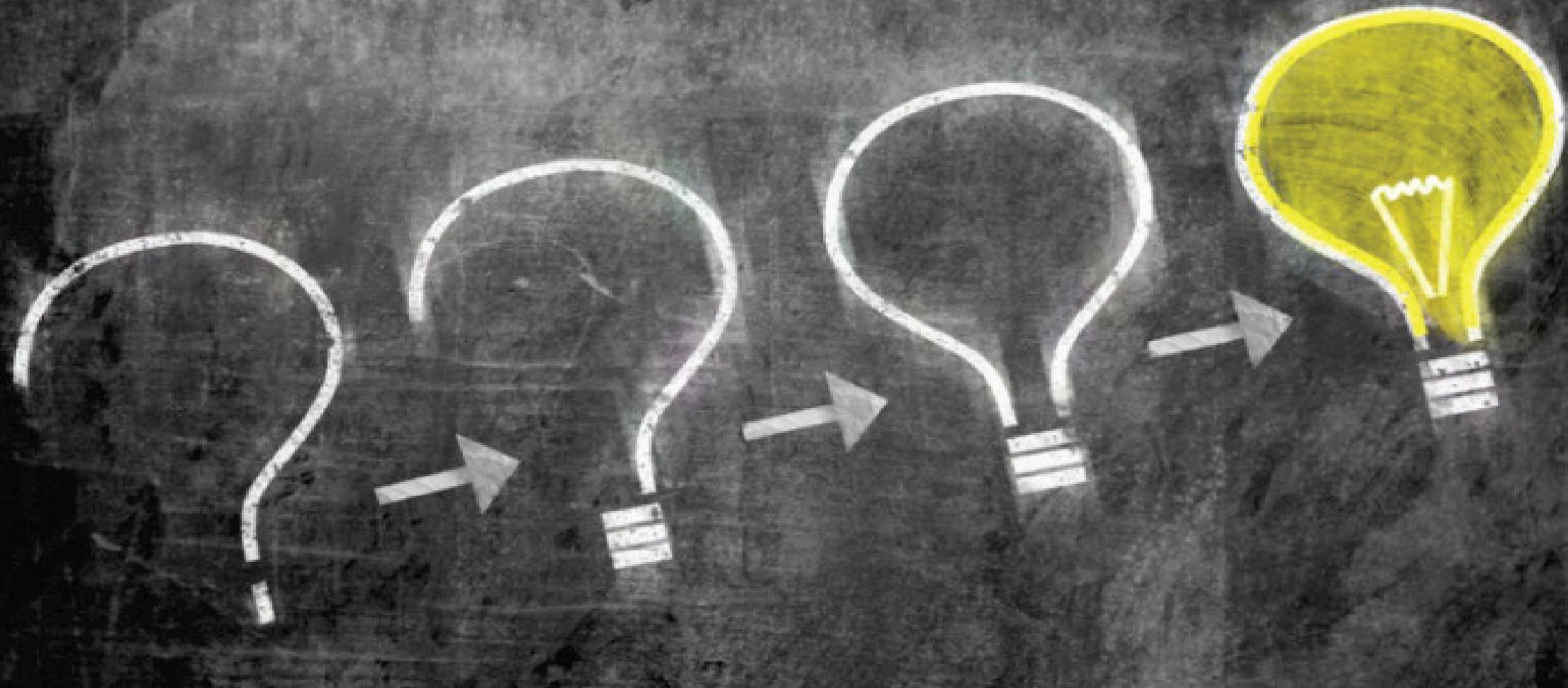
Le projet LEAP-RE



PRE-LEAP-RE

Financements proposés





ANNEXE

Specific challenge:

As recognised in the Joint Communication for a Comprehensive Strategy with Africa (adopted on 9/3/2020), innovation is key to enable African countries to pursue sustainable pathways to development through a low-carbon, climate resilient and green growth trajectory, leapfrogging fossil fuel based and inefficient technologies. The present R&I Partnership on Climate Change and Sustainable Energy of the EU/AU High-Level Policy Dialogue on Science, Technology and Innovation is expected to strongly contribute to Action 1 of the Comprehensive Strategy with Africa.

The African continent has an enormous renewable energy potential that it has just began to successfully harness. The adoption of innovative, affordable, efficient and renewable energy solutions will support Africa achieving sustainable development growth and economic transformation. This will also help Africa addressing the urgency of climate change actions and mitigating its effects.

Africa still faces major challenges related to ensuring access to sustainable energy for all, and the development of its industrial base to create much needed jobs. In line with the Africa-Europe Alliance for sustainable investment and jobs, the EU-AU R&I Partnership on Climate Change and Sustainable Energy wants to support the development of sustainable energy solutions adequate to the African context that would address those challenges.

Experience has shown that existing innovative solutions and technologies developed for developed markets need to be adapted, tailored and demonstrated to the multi-faceted context of Africa to bring not only economic, but also environmental, social and health benefits. For facilitating market uptake and sustained deployment of technologies, R&I policies need to be coupled with capacity building and appropriate financing solutions. Additional considerations towards affordability, distribution channels as well as meaningful engagement of civil society in the implementation of research proposals are also key for the success of possible technology solutions. Attracting private and / or public investors towards sustainable energy solutions will contribute to a sustainable economic development benefitting both continents.

Significant efforts are being made (including with the support of the European Commission) to address the development of innovative solutions through research and innovation actions; however, demonstrations of the value of these solutions are still needed.

Scope:

The proposals to be funded under this topic will cover the demonstration of innovative climate adaptation, climate mitigation and sustainable energy solutions, in the African social, economic and environmental contexts. The solutions could address developments in the areas of renewable energy sources, including solutions for off-grid communities, and their integration into existing energy system, energy efficiency in particular in urbanised and rural contexts, the water-energy-food nexus, with the aim of providing sustainable energy access (electricity/cooking) or creating improved health, economic wealth and jobs (productive use of energy/energy efficiency).

Beside the activities related to the design, construction, commissioning and operation of the demonstration installation, the proposals are expected to develop and implement a tailored value chain approach, identifying the most suitable manufacturing value chains, on the basis of the local context, local material supply chain, local workforce with the objective to assure local sustainable economic development. The latter should also include the identification of technical, vocational and educational needs of the workforce and propose relevant training and qualification activities. The proposals are also expected to define its market strategy and its business strategy to ensure a quick and viable commercial take up of the technological solution demonstrated.

Proposals shall include a life cycle analysis showing the impacts of the proposed solutions on the environment, on climate change targets, and on the social and the economic dimensions, from a cradle to grave viewpoint. Where relevant, proposals will consider adopting a circular economy approach, aligned with the EU Green Deal priorities.

The Commission considers that proposals requesting a contribution from the EU of between EUR 5 to 10 million would allow the specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

In line with the Union's strategy for international cooperation in research and innovation, international cooperation is encouraged. As the demonstration installation will be located in Africa, relevant African partners to implement the project are expected to participate in the project.

Copernicus data and products can support the optimal location of some infrastructures (hydro energy, wind energy, solar energy, even maybe coastal marine energy) and can also support to evaluate the impact on the environment (and human) of these new energy structures and the loss of biodiversity associated with it;

In addition, proposals will need to demonstrate the benefits of the proposed solutions with particular regard to the Sustainable Development Goals 2, 4, 5, 6, 7, 8, 11, 12, 13.

Funded proposals will participate and contribute to the EU/AU Partnership on Climate Change and Sustainable Energy.

Expected impacts:

The short-term impact of the proposals will be to provide evidence of technological reliability, economic viability, and of the environmental, health, climate, social and economic impacts of its renewable energy solutions. The evidence needs to cover too the climate adaptation and climate mitigation potential of the solutions. They are expected to contribute to the strengthening of the joint EU-AU Climate Change and Sustainable Energy Partnership efforts, with emphasis of improving the visibility of EU Science Diplomacy actions in Africa.

The medium term impact will be in the creation of new markets opportunities for both European and African companies in the African continent and technological uptake to accelerate the achievements of the targets of the Paris Agreement for both continents, in line with Europe's Green Deal ambition of climate neutrality, and its external dimensions.

Economic growths and job creation, both in the EU and in African third countries are also expected in the longer term.

Type of Action: Innovation Action