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Horizon2020@recherche.gouv.fr

**Partner search**

**Date (DD-MM-YY)**

* **(\*) Indicate numbers of relevant topics for Green Deal call:**

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| **LC-GD-11.1** |

* **Quick description of the project**

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| **(describe the objectives, activities, partners requested and their skills)**  **Rural areas in Sub-Saharan countries are often off-grid and rely solely on expensive and polluting generators. The aim of this project will be to create a smart energy system using a combination of solar panel and anaerobic digestion to provide sustainable energy, improve sanitation through waste reuse and increase income with a zero waste circular economy.**  **The aim activities would be divided into 3 main work programs:**   * **Anaerobic digestion and waste recovery process** * **Development of post-treatment process (micro-algae, struvite)** * **Development of smart system to combine solar panel and AD and off grid supply**   **Our expertise is on the anaerobic digestion and biogas production so we are looking for partners able to contribute to**  **- solar panel activities (high efficiency, SME if possible)**  **- development of the integrated system and off grid control (SME or academic)**  **- Post treatment system for nutrient and/or CO2/heat recovery** |

* **(\*) Do you intend to apply as ? :**

**Coordinator: Yes**

**Participant: Yes**

**Description of the expertise proposed (up to 1000 characters) - *specify which points of the "expected impact" of the call you are targeting***

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| **BioSystems and Bioprocessing engineering group of the Luxembourg Institute of Science and Technology has a long experience in the optimisation of bioenergy production (methane or hydrogen), bioprocess monitoring and control, end of use biomass valorisation and waste recycling for circular agriculture. We can provide a wide range of services such as feedstock and digestate composition, microbial population determination, evaluation of the methane potential, pilot-scale test and anaerobic bioreactor design.**  **+ key words : Anaerobic digestion, feedstock analysis, bioprocess monitoring, biomethane production, end of use biomass valorisation, circular agriculture, chemical analysis** |

**Organisation information**

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| **Organisation and country: Luxembourg Institute of Science and Technology, Luxembourg** |
| **Type of organisation:**  **Research institute** |
| **Former participation in FP European projects?**  **□ Yes □ No** |
| **Web address: https://www.list.lu/en/research/erin/environmental-and-industrial-biotechnologies/group/biosystems-and-bioprocessing-engineering-group/** |
| **Description of the organisation:** **LIST develops competitive and market-oriented product/service prototypes for public and private stakeholders, and works across the entire innovation chain: fundamental and applied research, incubation, transfer of technologies. By transforming scientific knowledge into technologies, smart data and tools, LIST empowers citizens in their choices, public authorities in their decisions and businesses in their strategies.** |

**(\*) Contact details**

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**(\*) –Mandatory**