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Partner search

Date (23-07-2020)

- **Indicate numbers of relevant topics for Green Deal call:**

LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility

- **Quick description of the project**

CEA-Leti offers a unique added-value proposal for innovative solutions (up to high TRL) for **on-site measurements of pathogens** (bacteria, virus) **and pollutants** (particles) in the air (outdoor and indoor) and on contaminated surfaces.

CEA-Leti creates value and innovation through technology transfer to industrial partners and end-users, and can bring along along its ecosystem of SMEs, start-ups and other stakeholders to enrich the partnership.

- **Do you intend to apply as ? :**

Coordinator: No

Participant: Yes

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

A : Air quality (indoor, outdoor, **including decontamination from microbiological pathogens**)

B : Solutions for emission reduction at ports, focusing on CO₂ and **noxious pollutant emissions (SOx, NOx and particulates)**,

- **Environmental surveillance with Miniaturized / portable systems**
 - Full analytical chain from sample collection in the air to fast and specific characterization, including sample preparation
 - System integration, electronics, data analysis and communication (autonomous device)
 - Prototyping of devices (usability studies)
- **Key technologies :**
 - Highly efficient airborne particle collection (from 10 nm to several µm) using an ultra-portable device
 - Gas sensors and analyses
 - Standardized microfluidics (ISO): from design, chemistry to packaging
 - Surface functionalization for antimicrobial activity
 - Sample preparation for bacterial detection
 - Non-conventional optical microscopy (Lens Free imaging) for pathogen identification
- **Background :** <https://eithealth.eu/project/lumint/>, <http://www.leti-cea.com/cea-tech/leti/english/Pages/What's-On/News/arise-project.aspx>, https://www.esa.int/ESA_Multimedia/Images/2016/09/Matiss

+key words : Environmental surveillance, air quality, air sampling, surface contamination, airborne particles ultra-portable collector, microfluidics, microbiological pathogens, pollutants, network of SMEs and start-up



Organisation information

CEA Leti (Grenoble, France)	
Type of organisation: <input type="checkbox"/> Enterprise <input type="checkbox"/> SME <input type="checkbox"/> Academic <input checked="" type="checkbox"/> Research institute <input type="checkbox"/> Public Body <input type="checkbox"/> Other: Association	
Former participation in FP European projects? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Web address: www.leti.fr	
Description of the organisation: The Microtechnologies for Biology and Health Division of CEA Leti focuses on the development of innovative tools, methods and systems for applications in the fields of in vitro diagnostic, wearable medical devices, delivery systems, pharmaceuticals, environment monitoring and impact on health. Our core research and development competencies are biology, chemistry, biochemistry, sensing technologies, microfluidics, organ-on-chips imaging technologies, and signal processing algorithms. Our strategy is to serve the industry and answer to the health and environmental challenges, going toward miniaturization, multi-modality and connected devices, delivering prototypes “ready to transfer” to industrial partners.	

Contact details

Contact person name	Caroline Desvergne, PhD, European project manager
Telephone	+33 6 31 11 43 86
E-mail	caroline.desvergne@cea.fr
Country	France