



Please return this document at  
Horizon2020@recherche.gouv.fr



## Partner search

Date (01-09-2020)

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

LC-GD-6-1-2020 : Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy

- **Quick description of the project**

CEA-Leti offers a unique added-value proposal for innovative solutions (TRL5-7) to improve **food safety, on-site measurements of contaminants/pathogens in food value-chain** (from farm to fork), **precision farming** (environmental monitoring) and **optimization of circular processes** (reduction of waste and losses).

CEA-Leti creates value and innovation through technology transfer to industrial partners, and can bring 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**

**Sub-topic C:** to reduce the dependency on the use of hazardous pesticides and fertilizer

**Sub-topic D:** to decrease the dependency on antimicrobials

**Sub-topic E:** to decrease food losses and waste

- **On-site food safety and environmental analysis with miniaturized / portable systems**
  - Full analytical chain from sample collection (air, water, food matrix) 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  $\mu\text{m}$ ) using an ultra-portable device
  - Sample preparation for bacterial detection
  - Standardized microfluidics (ISO): from design, chemistry to packaging
  - 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.anses.fr/en>, <https://digifermes.com/>

+key words : **food safety, food contaminants, air collection, bacteria, chemicals, microfluidics, imaging technologies, on-site measurements, miniaturized systems.**

### Organisation information

CEA Leti (Grenoble, France)

Type of organisation:

Enterprise  SME  Academic  Research institute  Public Body  Other: Association



<b>Former participation in FP European projects?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Web address:</b> <a href="http://www.leti.fr">www.leti.fr</a>
<b>Description of the organisation:</b> 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, and <b>environment (agro/agri) monitoring</b> . Our core research and development competencies are biology, chemistry, <b>biochemistry, sensing technologies, microfluidics, imaging technologies</b> , 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

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