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**Partner search**

**Date (2-07-20)**

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

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| **LC-GD-**  **Main area: Area 5.1:** Green airports and ports as hubs for sustainable and smart mobility. |

* **Quick description of the project**

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

**Coordinator: No**

**Participant: Yes**

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

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**Or 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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| In the team “management of the electrical energy” at the LEMTA, the researchers are specialists in power electronics applied to energy systems. Their research interests include the stability study of distributed power systems, the design, the modelling and the control of power electronic systems and since recent years the centralised-decentralised-distributed control of multi sources multi carrier microgrids. The researchers have a strong expertise in power electronics applied to islanded microgrids especially for aircraft industry: green taxiing, power architectures and energy management strategies applied to VTOL, active stabilizers for HVDC bus dedicated to Aircraft applications for passive component optimisation, innovative control strategies for Power Electronic Modules (PEM), development of partial converter for batteries systems connected to HVDC bus, actuator fault tolerant architectures.  For hydrogen systems, in partnership with the ‘Hydrogen and electrochemical systems’ team in the same lab, the reserachers develop original power electronics converters for PEM fuel cell management systems allowing to limit the ageing, and some control laws to improve the overall efficiency and to limit the degradation of the electrochemical components.  **key words:** power electronics, islanded microgrids, aircraft, more electric aircraft, transport phenomena, electrochemistry, ageing, optimization. |
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**Organisation information**

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| **Organisation and country:**  LEMTA – Université de Lorraine – CNRS – FRANCE |
| **Type of organisation:**  **~~□ Enterprise □ SME~~ ⊗ Academic ~~□Research institute □ Public Body □ Other: Association~~** |
| **Former participation in FP European projects?**  **⊗ Yes □ No** |
| **Web address:** [**https://lemta.univ-lorraine.fr/**](https://lemta.univ-lorraine.fr/) |
| **Description of the organisation:**  The LEMTA is a joint Université de Lorraine and CNRS (French research national council) research unit working on adding to knowledge in the field of Engineering Sciences. Its research activities are centred around energy, heat and mass transfers in complexe systems and fluid mechanics, with a special group working on electrochemical systems. The research work at the Lemta is carried out by nearly 80 researchers and teacher-researchers, 25 administrative and technical staff in different research support departments and 65 doctoral and post-doctoral collaborators. |

**(\*) Contact details**

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**(\*) –Mandatory**