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**Partner search**

**Date (09-10-20)**

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

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| **LC-GD-2-2-2020** |

* **Quick description of the project**

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| **Design, preparation and physico-chemical characterizations of abundant metal-based electrodes and semiconducting photoelectrodes for challenging H2-producing electrolyzers** |

* **(\*) 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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| **Xxxxxxxxx**  **+ key words :** |

**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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| **We are a research laboratory specialized in the electrochemistry and photoelectrochemistry of electrodes catalytically active for sunlight-unassisted or assisted H2 production in PEC cells and electrolyzers. The expertise we propose is directed towards the design, preparation, optimization and physicochemical characterization (AFM, SEM, XPS, STM,…) of cost-effective (photo)electrodes integrated in a H2-producing electrolyzer.**  **+key words : Electrochemistry; Cost-effective electrodes; Photocathodes, Solar H2 production** |

**Organisation information**

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| **Organisation and country:**  **Institut des Sciences Chimiques de Rennes (ISCR) – UMR 6226 - France** |
| **Type of organisation:**  **□ Enterprise □ SME □ Academic 🗵Research institute □ Public Body □ Other: Association** |
| **Former participation in FP European projects?**  **🗵 Yes □ No** |
| **Web address:**  <https://iscr.univ-rennes1.fr/bruno-fabre> |
| **Description of the organisation:**  **Our team is a part of Institut des Sciences Chimiques de Rennes (ISCR), CNRS unit n°6226 located at University of Rennes 1 (France). ISCR is one of the largest chemistry department in France (c.a. 200 permanent researchers, and 150 PhD students or postdoctoral researchers). Its scientific activity covers almost all the fields in chemistry, including catalysis, electrochemistry, molecular materials, organometallic, organic or bio-inspired synthesis, solid-state chemistry and theoretical chemistry. The Institute has many and strong collaborations worldwide both in the academic and industrial environment. Four CNRS researchers of the MaCSE team will be involved in the present proposal. The MaCSE group has a strong expertise in the controlled functionalization of semiconductors (flat, porous or nanowires) and abundant metals surfaces with catalysts active for H2 production and conversion of small molecules (CO2 and N2) to high added-value products. Their research also focused on all molecular and surface electrochemistry aspects, being especially interested in reactivity and transport properties within complex assemblies or in non conventional electrolytic media.** |

**(\*) Contact details**

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| **Contact person name** | **Bruno FABRE** |
| **Telephone** | **+33 2 23 23 65 50** |
| **E-mail** | **bruno.fabre@univ-rennes1.fr** |
| **Country** | **France** |

**(\*) –Mandatory**