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**Partner search**

**Date (10-11-20)**

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

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| * **LC-GD-1-2-2020: Towards Climate Neutral & socially innovative cities** * **LC-GD-2-1-2020: Demonstration of innovative critical technologies to enable future large scale deployment of offshore renewable energy technologies** * **LC-GD-2-2-2020 : Develop and demonstrate a 100MW electrolyser upscalling the link between the renewables and commercial/industrial applications** * **LC-GD-2-3-2020: Accelerating the green transition and energy access Partnership with Africa** * **LC-GD-5-1-2020: Green airports and ports as hubs for sustainable and smart mobility** * **LC-GD-9-1-2020: European Research Infrastructures capacities and services to address European Green Deal challenges** |

* **Quick description of the project**

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| **(describe the objectives, activities, partners requested and their skills)** |

* **(\*) 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***

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| Energy efficiency of machine tools and manufacturing systems  Complex energy audit  Design of optimization measures (e.g. high-speed, high-pressure pumps)  Lightweight design with lower energy demands  Smart machine tool solutions for higher process energy efficiency, manufacturing productivity, accuracy, and reliability  Digital Twins of Machine Tools, systems and processes  Predictive maintenance, machine tool and system condition monitoring  Automation solutions, smart and intelligent components  M2M communication, integration to MES + ERP  Advanced hybrid manufacturing processes for higher manufacturing efficiency (milling + additive)  Complex technology optimization and cost analysis  Laser technology for engraving and micromachining, surface structuring, polishing and cleaning  **+key words :** Energy efficiency, Smart Machine Tool, Digital Twin, Predictive maintenance, Lightweight design, Technology optimization, Additive manufacturing, Hybrid manufacturing processes, Laser technology |

**Organisation information**

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| **Organisation and country:**  **Czech Technical University in Prague, Department of Production Machines and Equipment, Research Centre of Manufacturing Technology (RCMT), Czech Republic** |
| **Type of organisation:**  **□ Enterprise □ SME x Academic □ Research institute □ Public Body □ Other: Association** |
| **Former participation in FP European projects?**  **x Yes □ No** |
| **Web address:**  [**http://www.rcmt.cvut.cz/index.php/rcmt-en/**](http://www.rcmt.cvut.cz/index.php/rcmt-en/) |
| **Description of the organisation:**  The RCMT has been established in 2000 as an institute of the Faculty of Mechanical Engineering of the Czech Technical University in Prague (CTU). Department of Production Machines and Equipment, RCMT, is a highly professional and well-equipped facility working as an educational and training facility and a research base for the Czech machine tool industry. Technical support for the industry is in the foreground of RCMT activities. RCMT team comprises approx. 70 professionals specialized in design, engineering analyses and research. The team-members encounter and solve a variety of engineering problems on a daily basis due to intensive cooperation with machine tool producers all over the Czech Republic. RCMT represents the Czech Republic in technical fields in CECIMO, the European Association of the Machine Tool Industry. |

**(\*) Contact details**

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