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**Partner search**

**Date (14-08-2)**

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

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| **LC-GD-6-1-2020 Subtopic C.** |

* **Quick description of the project**

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| **(describe the objectives, activities, partners requested and their skills)**Following the Farm-to-Fork strategy, we propose an effective controlled release system of pesticides and fertilizers allowing reduction of the total amount of agrochemicals.Our idea is based on PHB natural polymer, fully biodegradable, biocompatible and non-toxic compound that serves as a matrix for pesticides or fertilizers. Gradual biodegradation of PHB matrix allows slow release of incorporated agrochemicals into the soil providing continuous concentration over a designed period. Using PHB as a carrier requires lower amounts of pesticides or fertilizers reaching the same or higher effect as commercially used formulations.We search for partners from the agriculture who would collaborate on the further development of new formulations and testing them in field conditions.  |

* **(\*) 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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| We search for industry partners who would contribute on further research and development and commercialization of new formulations of pesticides and fertilizers based on natural polymer PHB. **+ key words :** PHB, natural polymer, pesticides, fertilizers, controlled release system, long effect, nutrient loss prevention, enhanced efficiency |

**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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| Hydal PHA technology developed in NAFIGATE is the first in the world using 100% waste (used cooking oil) to produce natural polymer PHB. Hydal Biotechnology and Hydal PHA applications represent a circular biotechnology solution for the replacement of micro-plastics and micro-pollutants in various application areas. Here we would like to use specific properties of the PHB natural polymer to enhance the effectivity of agrochemicals, while decreasing their negative effect on the environment, phytotoxicity, and health risk to workers. Using PHB carrier for fertilizers would prevent flushing of the fertilizers from the soil and thus decrease nutrient loss. Furthermore, PHB polymer can increase the efficiency of pesticides preventing pesticide overuse. **+key words :** PHB, natural polymer, pesticides, fertilizers, controlled release system, long effect, nutrient loss prevention, enhanced efficiency |

**Organisation information**

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| **Organisation and country:****Nafigate Corporation, a.s., Czech Republic** |
| **Type of organisation:****□ Enterprise** ■ **SME □ Academic □Research institute □ Public Body □ Other: Association** |
| **Former participation in FP European projects?**■ **Yes □ No** |
| **Web address:**<https://www.nafigate.com/natural-polymer> |
| **Description of the organisation:**NAFIGATE Corporation, a.s. located in Prague, is a Czech technological company founded in 2011. 30+ highly skilled professionals form NAFIGATE. The vast majority of the employees are MSc professionals or hold a PhD. Hence, NAFIGATE represents a multi-professional team of biotechnologists, chemists, microbiologists, material engineers, environmental, legislation or marketing experts. Furthermore, the company cooperates with leading science and business research institutions, universities and industry enterprises in the Czech Republic and abroad.NAFIGATE deals with nanofiber applications and biotechnology. The former comprises development and production of nanofiber membranes for water and air purification, textile industry and cosmetics. The latter is represented by Hydal PHA technology.  |

**(\*) Contact details**

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**(\*) –Mandatory**