Horizon Europe Partner Search Form

\boxtimes	I offer my expertise to participate
	I am planning to coordinate a project and I am looking for Project Partners

Topics

Topics I am interest in (please specify):

- > Validating and further developing indicators for soil health and functions (HORIZON-MISS-2021-SOIL-02-02)
- ➤ Linking soil health to nutritional and safe food (HORIZON-MISS-2021-SOIL-02-03)
- ➤ Incentives and business models for soil health (HORIZON-MISS-2021-SOIL-02-05)
- ➤ Engage with and activate municipalities and regions to protect and restore soil health (HORIZON-MISS-2021-SOIL-02-06)
- National engagement sessions and support to the establishment of soil health living labs (HORIZON-MISS-2021-SOIL-02-07)

Project information

Field of expertise related to the topic: We are a team of researchers with multidisciplinary focus (soil chemical analysis; chemical characteristics of different soil amendments; agriculture and forest field experiments; laboratory experiments). We are grouped in the LAMMC Chemical Research Laboratory. Our experts coordinated and participated in several national and international research projects (e.g. "Stimulating novel technologies from earth remote observation to predict European soil carbon"; "Optimizing roots for sustainable crop production in Europe – pure cultures and cover crops" (H2020); "Quality diagnostics of biogas production by-product (digestate) for innovative use as a biofertilizer" (National funding) etc.).

Potential contribution to the project: The first direction of our scientific activity is investigation of properties of agricultural soils. The Chemical Research Laboratory of the LAMMC plan to conduct field experiments, to estimate the biomass yield and chemical composition of various plant-raw materials and digestates, other soil amendments, determination of contents of macronutrients C, N, P, K, fibre (NDF, MADF), lignin, also total organic and humified carbon, nitrogen compounds and other important plant nutrients in soils and biofertilisers. The project could attempt to explore the feasibility of use of a wide variety of agriculture-derived feedstocks for biogas production. Biogas production processes as well as feedstocks differ, which determines qualitative differences among digestates. The main task will predict the effect of different types of digestates on soil, agricultural plants and the environment. Modern, rapid, but accurate biofertilizers quality diagnostics methods (for example, NIRS spectroscopy) will be used. New methods are developed at the laboratory enabling rapid but very accurate analyses.

The second direction of our activity is agroforestry research. There are still gaps in understanding processes in soils of the adjacent land (forest, agroforest, grassland) and their relations with certain number of species including wildlife that could affect plant composition and correspondingly soil properties. We could determine these relations and contribute restoring equilibrium in the mixed agricultural-agroforest-forest landscape. Agroforestry, that combine trees with plants on the same area, become today's hot topics. Our study will allow estimating the maximum stocks of organic carbon compounds that can potentially be sequestrated in the soil, and organic carbon in aboveground biomass in different agrosystems (agroforestry plantation, forest, grassland, cropland).

The wide scientific project results dissemination is planned. Scientific articles for a journal included in the Clarivate Analytics Web of Science database, summarizing the information obtained in the experiment will be prepared. The results of the research project will be presented at national and international scientific conferences. Competent, qualified and experienced members of the research team will be included.

Role in the project: Research Training Dissemination Technology Development Other			
Project idea:			
Project description:			
Already experience as a Coordinator:			
Already experience as a Partner: $oximes$			
Target Coordinator/Partner sought:			
Organization Type	☐ Higher education/University☐ Public Research Centre☐ Large Scale Enterprise☐ Small and Medium Scale Enterprise	Public Body International NGO National NGO Other, please specify:	
We are looking for	following Expertise / Competencies:		
We would like to join emerging Horizon partnerships and are open to other ideas and suggestions under the relevant call.			
Contact details			
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Short profile of organization: Lithuanian Research Centre for Agriculture and Forestry (LAMMC) is state research institution. We focus on the generation, garner and dissemination of new scientific know-how geared to awareness of sustainable land, forest and environment resources, their competitive development and use, elaboration of innovative technologies and products. LAMMC research groups and open access infrastructure make us competitive in HORIZON EUROPE program, especially cluster 6 and Soil Mission. We are seeking for joint multidisciplinary collaboration for HE and other projects.

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