

PRESS RELEASE N.1

20 November 2019

EXCALIBUR partners aim to develop a comprehensive strategy of soil management improving the effectiveness of biocontrol and biofertilization practices in agriculture.

Innovation drives today's development in almost any possible field. Agriculture and soil-management is not an exception and Excalibur project proves that right. By innovation and multi-actor approach Excalibur seeks to catalyse the process of developing new farming tools by improving our understanding about the relations of microbial inocula with the soil and crop

biodiversity. Sixteen partners from all over Europe have united their efforts to achieve this goal.

"Excalibur has the ambition of marking the road to a biodiversity-driven change in the soil management of crops through the acknowledgement of the important role of soil biodiversity conservation and exploitation", says Dr. Stefano Mocali, Project Coordinator.



The project aims to deepen the

knowledge on soil biodiversity dynamics and its synergistic effects with prebiotic and probiotic approaches in horticulture. In this context, new multifunctional soil microbial inoculants (bioinocula) and bio-effectors will be tested on three model crops of economic importance (tomato, apple, strawberry) under different experimental and open-field conditions across Europe.

The field trials planned in the project are playing a key role to achieve the project objective and for this reason, they have been defined in relation to the climatic and soil characteristics present in the different countries of the project's partners. A comprehensive analytical assessment of initial soil physico-chemical-biological properties for all experimental sites will be performed to obtain the largest and deepest possible assessment of the native biodiversity in the field hosting the trials. This will be followed by the monitoring of changes in these





properties as well as by evaluating how these properties are affecting the inoculated strains during the trials.

"Soil micro and macro organisms form complex interactions within specific ecological niches. By exploring these interactions, we believe that we will be able to understand better the functional processes before a crop species is introduced in the field and during the growth of the crops treated with the selected inocula. With this knowledge, we plan to develop models and a decision supporting system (DSS) that could help farmers and advisors in obtaining the best result from the biofertilizers and biopesticides applied in their fields", explains Dr. Eligio Malusa from partner organization INHORT.

Excalibur is financed by the research programme of the European Commission Horizon 2020. The project was launched in June 2019 and it will be implemented for a period of five years. For more information on the project and the partners, please visit: https://www.excaliburproject.eu/

FACTSHEET	
Project title:	Exploiting the multifunctional potential of belowground biodiversity in
	horticultural farming
Acronym	EXCALIBUR
Duration:	60 Months
Start Date:	1 June 2019
Overall Budget:	€ 6 995 107,50
EU Contribution:	€ 6 995 107,50
Coordinated By:	Consiglio Per La Ricerca In Agricoltura E L'analisi Dell'economia Agraria (CREA)
Key Words:	Agriculture, Soil biodiversity, Soil management, Plant Health, Plant nutrition
Partners:	16
Website:	https://www.excaliburproject.eu/
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