



# EXCALIBUR

## EXCALIBUR BRINGS TOGETHER MORE THAN 150 STAKEHOLDERS IN 5 INTERNATIONAL EVENTS

EXCALIBUR aims to enhance the efficacy of microbial biostimulants and biopesticides capable of improving crop production and protection, respectively, by stimulating the native soil biodiversity. This is expected by reducing the use of chemical inputs towards a more sustainable agriculture, aligned with the goals of the Common Agricultural Policy, the EU Green Deal, and the Farm to Fork Strategy.

In addition, EXCALIBUR aims to ensure that the valuable knowledge generated during the implementation of the project reaches as many stakeholders as possible. To this end, many efforts are dedicated to dissemination through the organisation of webinars and workshops and the participation in different events.

Three webinars held between January and April were promoted by CREA, focusing on protocols and methodologies for detecting bioinoculants in soil, multivariate approaches to study soil microbial communities, and addressing microbial metabolic profile by means of Phenotype Microarray technology (BIOLOG). The first provided an overview on the past and current methods for tracking and monitoring the bioinoculants in soil, with a particular attention on the progress beyond state-of-the-art within EXCALIBUR. The second one was dedicated to the multivariate analysis discussing the approach followed within EXCALIBUR to link soil chemical-physical parameters to climatic conditions and biological parameters. In the third webinar, a general overview of the Phenotype Microarray methodology and applications was held by Dr Enrico Tatti (Global Field Application Scientist at BIOLOG, Inc.). Then, several “how-to” and tips from the hands-on experience built over years of performing phenotype microarray experiments were presented, as well as practical examples introducing the data analysis.

The webinars reached around 25 attendees each, including researchers, students, and post-docs, covering five different institutions and increasing the project’s visibility.

Another of EXCALIBUR's objectives is to establish collaborations with other projects working on the same topics in order to create synergies and optimise resources. In line with this, and in collaboration with the Horizon 2020 projects SoildiverAgro and SOILGUARD, a workshop during the 3rd Global Soil Biodiversity Conference (Dublin, Ireland) was organized in March 2023. The workshop focused on molecular and traditional methods to assess soil biodiversity. Beside presenting different projects and initiatives in this field, the attendees were encouraged to engage in a lively debate concerning the complexities of harmonizing seemingly straightforward tasks such as collecting, processing, shipping, and storing soil samples necessary to standardize the assessment of biodiversity.

Finally, a workshop was jointly organized with PREPSOIL project during MACFRUT (Rimini, Italy) in May 2023 addressing all stakeholders in the area who manage soil at different levels (institutions, research centres, farmers), which was attended by more than 50 people. To foster a dialogue between the different stakeholders, the presentations and discussions concerned legal requirements derived from the EU Regulation on microbial biostimulants and the interest of manufacturers in their production and market. The policies at regional level related to the soil and its biodiversity were presented along with the results of the baseline analysis of biodiversity and of some trials carried out in EXCALIBUR. The point of view of farmers and advisors on practices improving soil fertility and some ecosystem services (e.g. carbon sequestration) were also debated considering possible measures supporting their implementation. The role of soil and its fertility, strongly linked to the level of biodiversity present in it, was the common denominator of the contributions during the workshop which underlined the importance of the objectives of the European Soil Mission.

## About EXCALIBUR

EXCALIBUR is an international research project launched in June 2019 and funded by the European Union's research and innovation programme Horizon 2020 under grant no. 817946. EXCALIBUR, led by Dr Stefano Mocali at the Council for Agricultural Research and Economics (CREA, Italy), brings together other 15 European partners: NHM and NIAB (UK), InHort and InterMag (Poland), RI.NOVA and UNITO (Italia), KIS (Slovenia), NIOO-KNAW (The Netherlands), UCPH (Denmark), TUGRAZ (Austria), UGR and IZERTIS (Spain), and KOB and FÖKO (Germany).

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