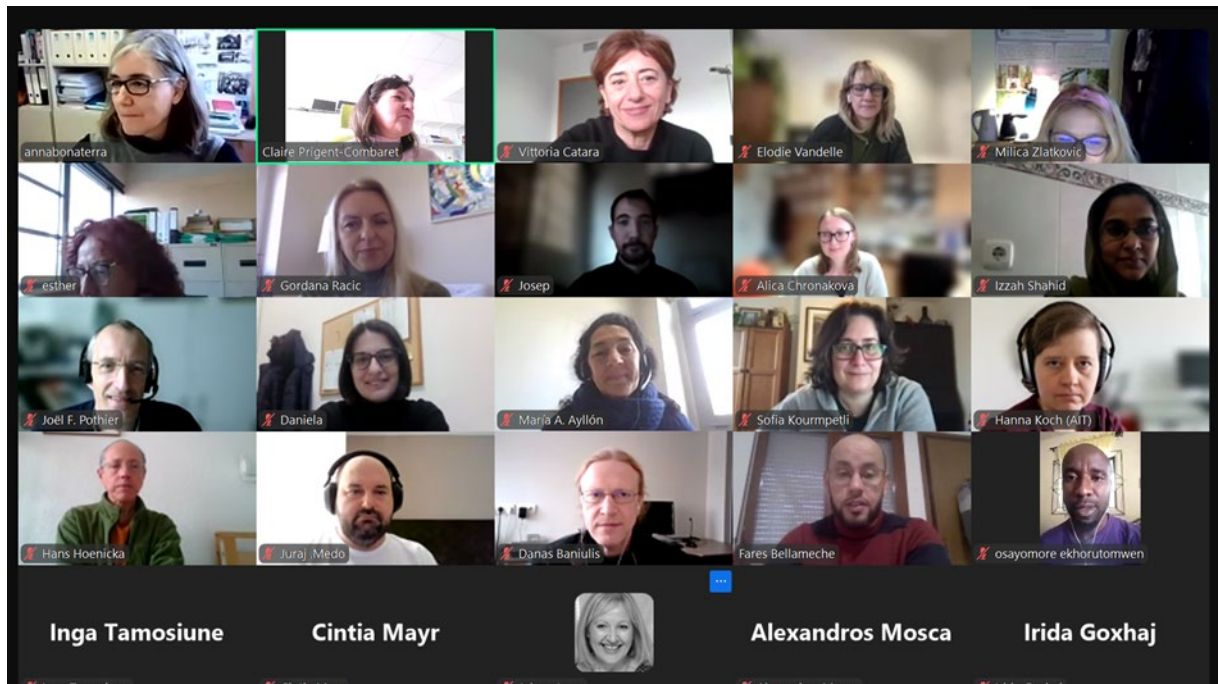


Minutes of the 4th WG4 on line meeting of the cost action MiCropBiomes

- **Organizers:** Anna Bonaterra and Claire Prigent-Combaret (WG4 Leaders) Conceição Santos and Francesco Spinelli (Chair and Vice Chair of the Action)
- **Date:** 07/02/2025
- **Platform:** Zoom meeting
- **Meeting participants:** Alica Chronakova (CZ), Alexandros Mosca (IT), Busra Aktas (TR), Cintia Mayr (AT), Danas Baniulis (LT), Elodie Vandelle (IT), Esther Badosa (ES), Fares Bellameche (IT), Frederic Debode (BE), Gordana Racic (RS), Hanna Koch (AT), Hans Hoenicka (DE), Inga Tamosiune (LT), Irida Goxhaj (AL), Izzah Shahid (ES), Jelena Lozo (RS), Joanna Pulawska (PL), Joël F. Pothier (CH), Josep Ramoneda (ES), Juraj Medo (SK), María A. Ayllón (ES), Marija Andjelkovic (RS), Milica Zlatkovic (RS), Nacho Vilchez (PT), Nuria Giralt (ES), Osayomore Ekhurutomwen (NG), Sofia Kourmpetli (UK), Sofija Kostandinovska (MK), Vittoria Catara (IT), Zizis Vryzas (EL), Claire Prigent-Combaret (FR), Anna Bonaterra (ES)



Update of the main activities of the first period of the COST action

- 5 STSM were awarded and carried out between May 1, 2024, and September 30, https://microbiomes.eu/grants/short-term-scientific-missions-stsm/stsm_call_1;
- Training school held in Verona 29-31 July on “Dissecting the Role of Phytobiota in Plant Health”. 10 trainees selected to participate to the School (35 applicants);
- 1st Annual Meeting MiCropBiomes held in Porto: 76 registrations. The meeting included the session 3 regarding the topics of WG4 and the participation of an invited lecture and two oral presentations.

Planned activities for the second period

- 10 STSM were awarded to take place between January and August 2025 <https://microbiomes.eu/grants/short-term-scientific-missions-stsm/stsm-call-3>
- Training school on metabarcoding/metagenomic use in plant-microbiome research. Juraj Medo presented the proposed structure:
 - i) **online Training School** on basics and introduction (Why to choose amplicon sequencing?, experimental design, available technologies, methodological aspects) (April 2025) Open: no need to select trainees (no reimbursement by COST) up to 50/60 participants. LOS 1,500€; and
 - ii) **face-to face Training school**, main topics: sampling, DNA extraction, library preparation. Five days (summer 2025). Five trainers, ten trainees reimbursed by COST 20,080 € (procedure to apply and selection process). LOS 3,000€
- Second Annual Conference of the COST Action MiCropBiomes as well as the face-to-face meetings of the working groups and the management committee will take place in Cyprus from 17 to 19 June 2025.
- Several publications in preparation. Specifically, 18 members of WG4 are preparing a review paper on “Design of synthetic microbial communities for climate-resilient agriculture”.
- Frederic Debode presented the Book “Integration of the Microbiome in Risk Assessment (Frederic Debode, Claude Bragard, Vanessa Gelhay). It is an open access living book published by Academic Press.

Interest in WG4 of participants in the COST action

Several participants of the COST action presented their projects and interest in the activities of the WG4. The participants were:

- **Josep Ramoneda.** Centre for Advanced Studies of Blanes (CEAB-CSIC).
Apply predictive models of adaptation of plant-associated microbiome to pH and drought in agriculture.
Improve the design of microbial inoculants and complex consortia for agricultural biostimulation and pathogen control based on better knowledge of the environmental preferences of taxa to ensure their optimal adaptability to the plant-soil system.
- **Vittoria Catara.** University of Catania.
 - Multi-level investigations on microbe-microbe interactions within the plant holobiont to develop new biocontrol strategies.
 - Bacterial consortia for biocontrol of tomato diseases. Biocontrol and Biostimulants.
 - Tomato plant microbiome interaction in response to biotic and abiotic stresses
 - Assessment of the impact of treatments with BCA for Citrus Mal Secco Disease on bacterial and fungal communities in the rhizosphere and phyllosphere.Expertise in bacterial bioprospecting. Greenhouse assays in tomato. Microbial communities' analysis. Young researchers with bioinformatics expertise.
- **Fares Bellameche.** Università di Modena e Reggio Emilia - Department of Life Sciences
 - Innovative Zeo-Biopesticides, based on useful microorganisms, for eliminating the use of copper-based pesticides.
 - Management and conservation of the soil microbiota for sustainable and eco-efficient production.
 - Characterization and evaluation of beneficial microbes and their fermentative byproducts for the development on innovative biostimulants.Experience in prediction models on the use of SynComs and their impacts on microbiota.

- **Zisis Vryzas.** School of Agriculture of Aristotle University of Thessaloniki.
Member of the IUPAC Advisory Committee on Crop Protection Chemistry.
-Comparisons between conventional and more sustainable biological solutions.
-Environmental fate of low risk pesticides.
-Pesticide risk assessment and prioritization exercises.
-Ecotoxicological behavior of pesticides and their metabolites.
Ongoing project GP/EFSA/PLANTS. “Develop a stepwise approach for a fit for purpose risk assessment, in particular for low-concern active substances and uses”. Develop new guidelines for registration of products in the European Union: new tools to assess low impact new pesticide
16th IUPAC International Congress of Crop Protection Chemistry: New sections on 2027 on low impact pesticides
- **Osayomore Ekhurutomwen.** Nigerian Institute for Oil Palm Research
-Microbial communities on coconuts
-Selection of inoculants and enhancement. New formulations and delivery systems.

Biocontrol/Biostimulant product database

WG4 launched a collaborative database initiative on commercial biocontrol/biostimulant products.

Supporting this initiative is very important and starts by helping to compile a list of commercial products. The database can be updated following this link on the website: https://docs.google.com/spreadsheets/d/115JeD7nTLPsenN2rnD249zxtEkh4UL1t/edit?usp=drive_link&oid=104528922540014452807&rtpof=true&sd=true

We thanks María A. Ayllón who contributed including several products in the database.

Gordana Racic is interested in leading this initiative.

Alica Chronakova, would participate in the database on Biocontrol and especially Streptomyces sp or Actinobacteria,

Upcoming activities of the whole Microbiomes action

- 2025.03.20 09.00 CET: WG5 ONLINE MEETING
- 2025.03.21 09.00 CET: WG3 ONLINE MEETING
- 2025.03.28 09.00 CET: WG2 ONLINE MEETING
- 2025.04.11 09.00 CET: WG4 ONLINE MEETING
- 2025.04.16 09.00 CET: WG1 ONLINE MEETING

- April 2025. **On line Training course**

- 17-19/06/25 **2nd Annual meeting of the COST Action (Cyprus)**

- Summer 2025 **Face-to-face training school on metabarcoding/metagenomic use in plant-microbiome research (SK)**

- From 23 to 26/09/25 **International Congress on Biosolutions (France)**

Biosolutions 2025 is the evolution of the 6th Natural Products and Biocontrol Congress. This edition will focus on cutting-edge research related to the mechanisms of action, impact, and fate of biosolutions in plant production, including biocontrol and biostimulants.

We announce the call for Abstracts – Biosolutions 2025

Why Attend?

- Engage with leading experts from academia, industry, and research.
- Participate in plenary sessions, poster presentations, and One-to-One meetings.
- Gain insights into the latest scientific advancements and practical applications in biosolutions.

Student Support

Three student grants will be awarded to promising PhD candidates (more details on the website).

Submit Your Abstract

Take advantage of Early Bird rates and submit your abstract now! Visit www.biosolutions2025.com for more information.

The conference will be added to the list of candidate events for ITC conference grants.