

INTERNATIONAL ALLIANCE FOR PHYTOBIOMES RESEARCH

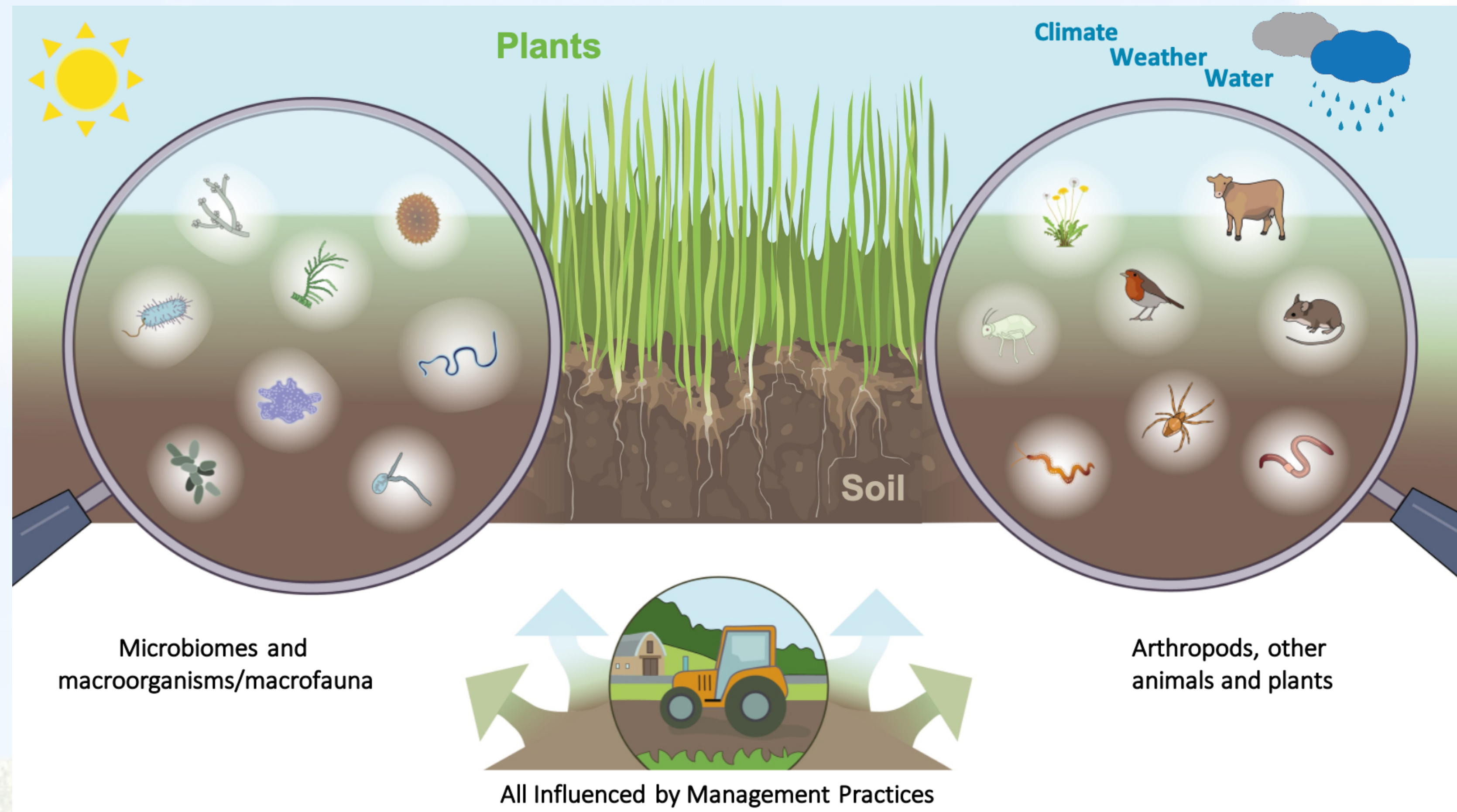


THE PHYTOBIOMES ALLIANCE

The mission of the International Alliance for Phytobiomes Research is to establish a science and technology foundation for site-specific, phytobiome-based enhancement of sustainable food, feed, and fiber production.

PHYTOBIOMES: COMPLEX SYSTEMS OF PLANT-BASED AGRICULTURE

Phytobiomes consist of all organisms living in, on, or around plants (e.g., microbes, animals, other plants), and the environment (i.e., soil, air, water, and climate).

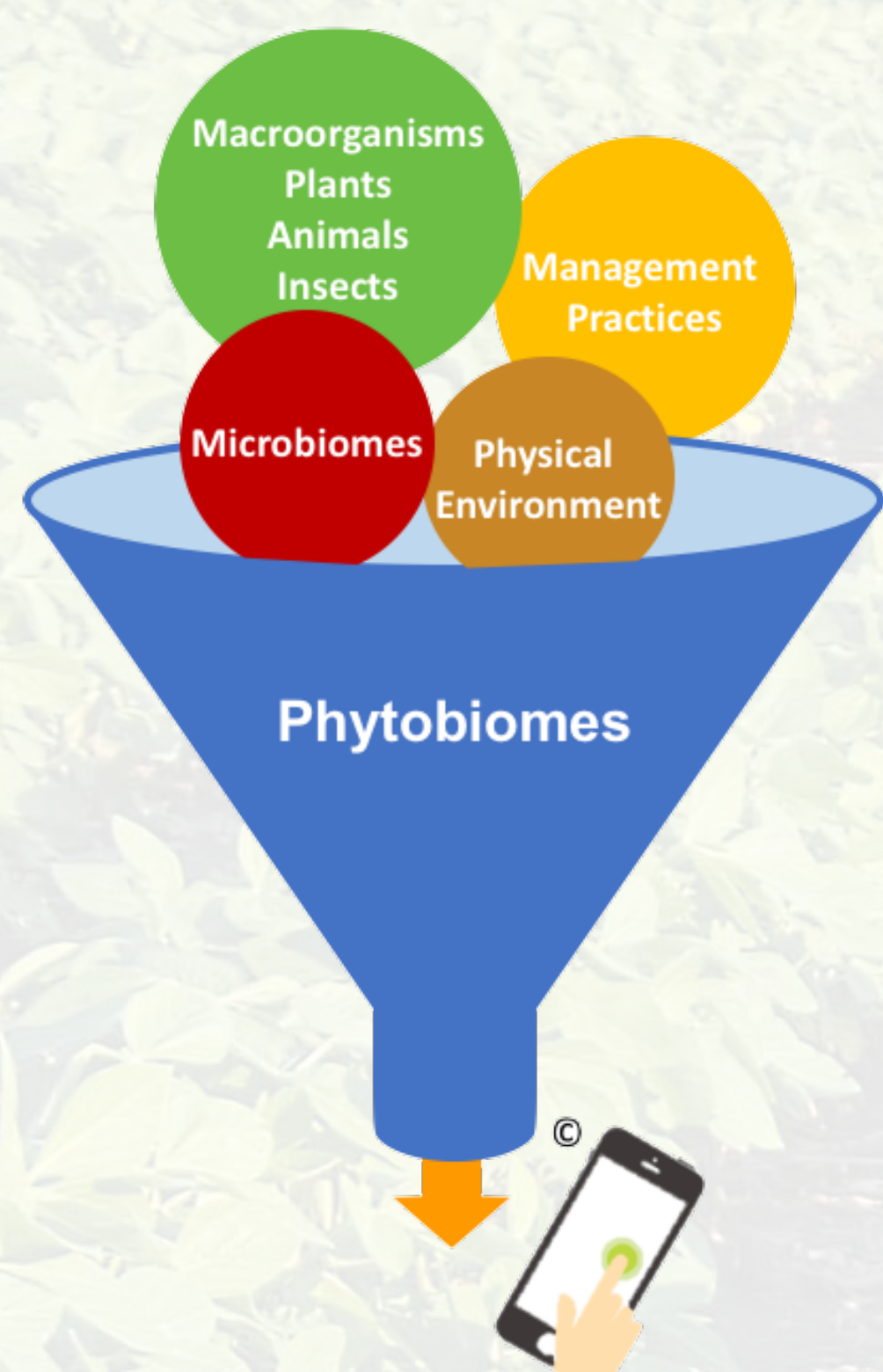


FUNDED COORDINATED PROJECTS

- » **Microbes4Climate** – Microbial services addressing climate change risks for biodiversity and for agricultural and forestry ecosystems: enabling curiosity-driven research and advancing frontier knowledge
Funded by Horizon Europe Framework Programme (HORIZON) – Coordinator: MIRRI, Portugal
- » **Novel microbiome technologies to increase profitability for Australian horticulture**
Funded by Hort Innovation, Australia – Coordinator: Kirsty Bayliss, Murdoch University
- » **USCCN – United States Culture Collection Network**
Funded by the National Science Foundation (NSF), USA – Coordinator: Dusti Gallagher, Phytobiomes Alliance
- » **Improved Identification and Detection of Select Agent *Ralstonia solanacearum* Strains Threatening the US Potato Industry**
Funded by the USDA Animal Plant Health Inspection Service (APHIS), USA – Coordinator: Kellye Eversole, Phytobiomes Alliance
- » **Root2Res – Root phenotyping and genetic improvement for rotational crops resilient to environmental change**
Funded by Horizon Europe Framework Programme (HORIZON) – Coordinator: ARVALIS, France and The James Hutton Institute, UK
- » **CIRCLES – Controlling micRobiomes CircuLations for bEttEr food Systems**
Funded by the EU Horizon 2020 research and innovation programme – Coordinator: Marco Candela, University of Bologna, Italy
- » **MASTER – Microbiome Applications for Sustainable food systems through Technologies and EnteRprise**
Funded by the EU Horizon 2020 research and innovation programme – Coordinator: Paul Cotter, Teagasc, Ireland
- » **The UK Crop Microbiome Cryobank**
Funded by the Biotechnology and Biotechnology Sciences Research Council (BBSRC) – UK Research Innovation
Coordinator: Matthew Ryan, CABI, UK
- » **SUCSEED – Stop the use of pesticides on seeds**
Funded by the Agence National de la Recherche (ANR), France – Coordinator: Matthieu Barret, INRAE, France

STRATEGIES AND PRIORITIES OF THE PHYTOBIOMES ALLIANCE

VISION



Phytobiome-enabled next-generation precision agriculture

STRATEGIES

- » **Identify research, resource and technology gaps and develop roadmaps to fill them**
- » **Coordinate and manage projects to address gaps**
- » **Facilitate international and public-private collaborations**
- » **Focus on pre-competitive science**
- » **Develop an interdisciplinary community of researchers committed to advancing phytobiomes science**
- » **Empower industry growth and profitability**

SHORT TERM PRIORITIES

- Enhance understanding of the interactions between plants, microbiomes, and other components of phytobiome systems
- Link site-specific and temporal geophysical and biological data
- Develop databases that support correlation studies between biological and geophysical phytobiome components
- Draft standards, protocols, check-lists (minimum information, sampling, reference datasets, regulatory requirements...)
- Deploy genome sequence-based classification system for microbes
- Design preliminary models for several agroecosystems (crops, forage, trees...)
- Draft regulatory science roadmap for microbials

ORGANIZATIONAL STRUCTURE



PHYTOBIOMES ALLIANCE SPONSORS



For more information about becoming a sponsor or ways to be involved contact Dusti Gallagher, gallagher@eversoleassociates.com or Lori Leach, leach@eversoleassociates.com

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