PHENET webinar series



The European Research Infrastructures (RI) on plant phenotyping (EMPHASIS), ecosystems experimentation (AnaEE), long-term observation (eLTER) and data management and bioinformatics (ELIXIR) join their forces in the EU funded project PHENET to codevelop next generation of tools, methods for the development of crop varieties, agricultural management practices to face future climatic scenarios across Europe and accompany agroecological transition. These tools are tested in a range of use cases addressing specific scientific questions and will result in new services that will be implemented and available within the RIs involved in PHENET.

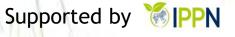
With this webinar series we provide an overview of the nine PHENET use cases, we address their scientific questions, present the tools that will be developed and provide a platform for a discussion and exchange with different stakeholders from academia and industry. Each webinar will include multiple speakers addressing a methodological section with presentation of latest developments in hardware, software, modelling solutions followed by applications of these methods to address relevant scientific questions illustrating how next generation phenotyping and envirotyping tools and methods can help to analyse different facets of the soil component, to explore the complex biotic interactions in agroecosystems, to decipher the complex genotypes by environment interaction, and to foresee how these tools and methods can be used to assess crops and forests across scales.

Further details:

https://www.phenet.eu/en/about-phenet/use_cases



GA: 101094587



Programme



22nd of Nov, 14:00 - 16:00 CET

Topic: assessment of crops and forests performance across scales

→ Register

Speaker:

Bertrand Muller, INRAE Introduction of PHENET and the webinar

Xavier Draye, UCLouvain Earth observation services and proxy-detection for Research Infrastructures

Laurent Saint-Andre, INRAE The case study of the Doller valley shows the need to integrate proxy and

remote sensing, field data, socio-economic issues and modelling for a low-

carbon territory

Arthur Monhonval, Soil Capital Farms 2 Platforms: phenotyping capabilities of RI to support innovation

towards the agroecological transition at the farm level

29th of Nov, 14:00 - 16:00 CET

Topic: biotic interaction in agroecosystems

→ Register

GA: 101094587

Speaker:

Bertrand Muller, INRAE Introduction of PHENET and the webinar

Cyril Pommier, INRAE Open Science services for data management, integration, sharing and

modelling

David Rousseau, Univ. Angers Adaptable phenotyping devices with AI embedded targeted towards

agroecological traits

Philipp Vermeulen, CRA-W Plant Health: Validated sensors and methodology applicable for biotic stresses

in wheat

Madhuri Paul, Univ. Bonn Intercropping in Europe: a systematic mapping study of arable grain crops

Oliver Schweiger, UFZ Multiple sensors in sentinel bumble bee colonies to disentangle and predict

multiple pressures on bee health



Supported by **IPPN**

Programme



6th of Dec, 14:00 – 16:00 CET

Topic: genotypes x environment interactions across scales

→ Register

Speaker:

Bertrand Muller, INRAE Introduction of PHENET and the webinar

Ioannis Athanasiadis, WUR Artificial intelligence in plant phenotyping – towards end-to-end models

David Rousseau, Univ. Angers Adaptable phenotyping devices with AI embedded targeted towards

agroecological traits

Raul Lopez-Lozano, INRAE Model-assisted wheat phenotyping to predict genotype performance and

adaptation to future environmental conditions

Walter Guerra, Laimburg High throughput phenotyping on apple

13th of Dec, 14:00 – 16:00 CET

Topic: digging into the complexity of soil components

→ Register

Speaker:

Bertrand Muller, INRAE Introduction of PHENET and the webinar

Ines Chaves, ITQB, Miguel

Cisneiros, BIODATA Building on Soil Ontologies

Ilja Reiter, CNRS Soil in ecological & agroecological settings

Hans Sanden, Akos Akos-Etele

Csibi, Paval Baykalov BOKU In-situ subsurface soil properties estimation with Vis-NIR spectroscopy

Nadia Soudzilovskaia, Towards understanding soil phenology

Univ. Haselt

GA: 101094587



