

# Joint PRO-GRACE/EMPHASIS policy symposium and workshop about plant genetic resources and phenotyping

27-28 June 2024

Rue du Trône 62, Brussels, Belgium & Online

## Promoting a plant genetic resources community for Europe

The European project PRO-GRACE, in collaboration with the EMPHASIS European plant phenotyping infrastructure, will be holding a policy symposium and workshop about plant genetic resources and phenotyping at Rue du Trône 62 in Brussels hosted by PRO-GRACE partner CSIC and organized by Euroseeds on 27 and 28 June 2024, with the possibility of online participation.

## How could Europe contribute to conserving, characterizing and using plant biodiversity for the benefit of society and the environment?

A policy symposium and a networking event will take place on Thursday, 27 June from 13:00 to 19:00 (CEST) to address the challenges and opportunities regarding the conservation, characterization, access and use of (non-)commercial plant genetic resources present in genebanks and in their natural habitat in Europe.

The aim of this policy symposium is to engage European and national level policymakers, as well as interested stakeholders, to raise awareness about the potential of a future research infrastructure dedicated to plant genetic resources to address biodiversity loss: GRACE-RI.

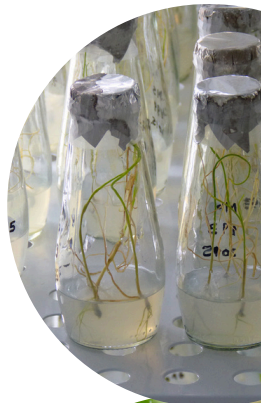
## How can phenotyping help to exploit the untapped potential of plant genetic resources in Europe?

A workshop on the challenges and opportunities for harmonization of plant phenotyping will be held on Friday, 28 June from 8:30 to 15:15 (CEST). This session will be of particular interest to plant researchers and breeders, who are interested in making use of plant genetic resources from genebanks and (non-)commercial sources.

The aim of this plant phenotyping workshop is to provide an inventory of the different initiatives for phenotyping plant genetic resources and to discuss how plant phenotyping can support the management and utilization of plant genetic resources and to make this huge amount of data available for scientific and breeding activities and how to ensure it is interoperable with different information systems.

**Please find on the next pages the agenda with confirmed speakers. Registration for on-line participation is possible till 26 June: [click here](#).**

Please check the dedicated webpage on the PRO-GRACE website for additional info. In case of any questions, please contact [NickVangheluwe@euroseeds.eu](mailto:NickVangheluwe@euroseeds.eu)



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## AGENDA

**Thursday, 27 June 2024, 13:00-19:00 CEST: Symposium and networking event on challenges and opportunities regarding the conservation, characterization, access, and use of (non-)commercial Plant Genetic Resources (PGRs)**

12:00-13:00	Registration and light lunch
13:00-13:05	<b>Chair: Nick Vangheluwe</b>
	Welcome by Antonio Granell from Consejo Superior de Investigaciones Científicas (CSIC), Spain and by Nick Vangheluwe from Euroseeds, Belgium
13:05-13:20	Why a European Research Infrastructure dedicated to PGRs by PRO-GRACE project coordinator Giovanni Giuliano from ENEA, Italy
13:20-13:35	Research and innovation for conservation and use of PGRs by Gisela Quaglia from the R&I Unit, DG AGRI, European Commission
13:35-13:50	International policy frameworks impacting the conservation, access, and use of PGRs by Leire Escajedo San-Epifanio from University of the Basque Country (UPV/EHU), Spain
13:50-14:05	Examples of national initiatives for the conservation of PGRs by Theo Van Hintum from the Centre for Genetic Resources (CGN), The Netherlands and by Antonio Granell from CSIC, Spain
14:05-14:10	INCREASE project and the decentralized conservation of PGRs by Roberto Papa, UNIVPM, Italy
14:10-14:25	Together we are stronger: A European Programme for Plant Genetic Resources by Jens Weibull, Sweden
14:25-14:35	Seed sector perspective on the potential of PGRS by Szonja Csörgő from ISF, Switzerland
14:35-14:45	EMPHASIS: The road towards a plant phenotyping community by EMPHASIS coordinator Roland Pieruschka from Forschungszentrum Jülich, Germany
14:45-14:55	Q&A
14:55-15:00	Wrap-up & conclusions
15:00-15:30	Coffee break

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**Thursday, 27 June 2024, 13:00-19:00 CEST: Symposium and networking event on challenges and opportunities regarding the conservation, characterization, access, and use of non-commercial Plant Genetic Resources (PGRs)**

15:30-15:45

**Chair: Giovanni Giuliano and Sandra Goritschnig**

ESFRI 2024 Landscape Analysis in Health & Food domain, ESFRI Roadmap and future project evaluation by Martyn Chamberlain from DG Research and Innovation, European Commission

15:45-16:15

A European research infrastructure to enable the potential of PGRs: 'GRACE-RI' by Sandra Goritschnig from ECPGR, Italy

16:15-17:00

Stakeholder interactive session about the proposed European research infrastructure 'GRACE-RI'

17:00-17:30

Wrap-up & conclusions

17:30-19:00

Reception and networking

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## AGENDA

### Friday 28 June, 09:00-15:15 CEST: Workshop on the evaluation and valorisation of PGRs

8.30-9:00	Registration
9:00-9:15	<b>Chair: Véronique Lefebvre</b>
	Setting the scene and formulation of expected outcomes of the joint workshop by Véronique Lefebvre from INRAE, France and Ignazio Verde from CREA, Italy
9:15-9:30	Introduction to EMPHASIS: the European plant phenotyping research infrastructure by EMPHASIS coordinator Roland Pieruschka from Forschungszentrum Jülich, Germany
9:30-9:50	How to make genebank materials attractive for users? Genebank perspective by Jaime Prohens from Universitat Politècnica de València, Spain
9:50-10:10	European projects contributing to improved genebank inventories, the example of AGENT and EVA by Sandra Goritschnig from ECPGR, Italy
10:10-10:30	Breeder's perspective on ensuring the sustainable use of PGRs by Nick Vangheluwe from Euroseeds, Belgium
10:30-11:00	Coffee break
11:00-12:00	<u>First thematic session: Seed phenotyping</u>
	<b>Chair: Carla Pinheiro</b>
	<i>Seeds are the main heritable unit stored by genebanks and are at the heart of plant breeding and production. Phenotyping of seed traits that affect plant development or product quality provide a basis for predicting plant growth and development.</i>
	<ul style="list-style-type: none"><li>• Using phenomics to predict quality traits in maize by Stéphane Nicolas from INRAE, France (10 min)</li><li>• Automated calculation of seed descriptor values and characterization of seeds by Karsten Hartelius from Videometer A/S, Denmark (10 min)</li><li>• PhenoSeeder: automated phenotyping and sowing of individual seeds of different sizes by Viktor Sydoruk from Forschungszentrum Jülich, Germany (10 min)</li><li>• Volatilome profiling as a new tool for seed phenotyping by Michelina Ruocco from CNR, Italy (10 min)</li><li>• Q&amp;A (20 min)</li></ul>
12:00-13:00	Lunch break

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### Friday 28 June, 09:00-16:00 CEST: Workshop on the evaluation and valorisation of PGRs

13:00-14:00

Second thematic session: Cost-effective phenotyping

**Chair: Ignazio Verde**

*Collecting high quality phenotyping data is the basis for accurate analyses. Development of low-cost methods and application for measuring of increasing number of traits can contribute to high quality comparable trait assessment conducted in multiple locations and environments.*

- Phenotyping by citizen scientists in INCREASE by Roberto Papa from UNIVPM, Italy
- How and why collect phenotyping data on farm by Riccardo Bocci from Rete Semi Rurali, Italy (10 min)
- Most cost-effective experiments are those in databases: Using and reusing indoor and multisite field experiments for assessing the genetic variability of plant responses to environment by François Tardieu from INRAE, France (10 min)
- Cost-effective plant phenotyping tools: combining emerging technologies and open-source solutions by Jose Jimenez-Berni from CSIC, Spain (10 min)
- Q&A (20 min)

14:00-15:00

Third thematic session: Data management

**Chair: Roland Pieruschka**

*Phenotypic data sets are growing exponentially. Standardized protocols, data validations, common descriptors etc. are essential to increase the predictive power of these data.*

- Rethinking Plant Genetic Resources Documentation in the Age of Data-Driven Science by Catherine Aguilar from Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany (10 min)
- Tools to manage trial, phenotyping and marker datasets: FAIRness in the Legume Generation consortium by James Brett from Earlham Institute, UK (10 min)
- Data management tools for phenomics: from acquisition to validation, integration and sharing by Cyril Pommier from INRAE, France (10 min)
- Bandwagon status for metabolomics in plant phenotyping by Yves Gibon from INRAE/University of Bordeaux, France (10 min)
- Q&A (20 min)

15:00-15:15

Wrap-up & conclusions