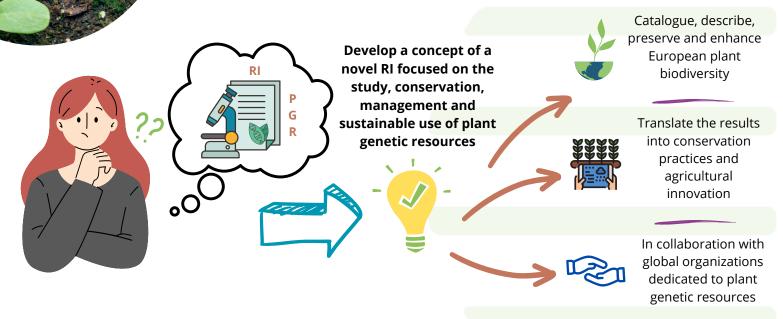


How could Europe contribute to conserving, characterizing and exploiting plant biodiversity for the benefit of society and the environment?

In Europe and associated countries, over 2 million plant genetic resource (PGR) accessions are conserved *ex situ* across 410 institutes. Even more diversity thrives *in situ* within European farmlands and wild habitats, contributing to agricultural resilience and climate mitigation efforts. However, the European PGR system faces significant challenges: information on genebank accessions is often incomplete, and *in situ* accessions lack documentation almost entirely; many genebanks and collections lack the necessary knowhow, resources, infrastructure, and quality standards, limiting their capacity to provide necessary services to scientists, breeders, and farmers, and limiting benefits to society.

To address these challenges, the PRO-GRACE (Promoting a Plant Genetic Resource Community for Europe) project aims to establish a European Research Infrastructure (RI) dedicated to the study, conservation, management and sustainable use of European plant genetic resources.

Expected main outcome



Expected main impact of the future GRACE-RI infrastructure

Making Europe a global leader in the study, conservation, and sustainable use of plant genetic resources. GRACE-RI will help the European agricultural sector, including public and private actors, and society at large, to face current and future challenges such as global change, the human impact on natural habitats, the agroecological transition, and food system sustainability. It will also support the objectives of the European Green Deal and the green transition.



PRO-GRACE aims to establish a concept of a research infrastructure on how to nurture and enable plant biodiversity in Europe

PRO-GRACE will tackle the numerous challenges confronting European plant genetic resources (PGR) by establishing rigorous science-based methods, processes and standards for PGR study, conservation, management and valorization. Additionally, it will develop the concept, regulatory framework, and governance necessary for a functional and efficient Research Infrastructure.

Drawing upon the <u>Plant Genetic Resources Strategy for Europe</u>, developed by the European Cooperative Programme on Plant Genetic Resources (<u>ECPGR</u>) over three years in consultation with various experts and stakeholders, and leveraging the insights gained from several EC-funded initiatives in the past decade, PRO-GRACE aims to:



Integrate state-of-the-art research methods in PGR management

2

Improve conservation and access to PGR

3

Reinforce the integrated European PGR information system (EURISCO)

4

Define rigorous quality standards for PGR ex situ and in situ management



Identify users of the future RI and their needs and establish the scientific services provided to them



Develop unified standards and procedures for the evaluation of PGR phenotypic traits

7

Analyze the policy, social and ethical framework to facilitate PGR access and benefit sharing

8

Analyze the present European RI ecosystem, identifying synergies and possible overlaps of the future GRACE-RI with existing ones

q

Develop a concept, governance model, and preliminary financial plan for the future GRACE-RI

The consortium consists of a diversity of project partners enabling a multi-actor approach to co-create the concept of the infrastructure



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