



EVA – The European Evaluation Network

Breeding companies, research institutes and genebanks
joining forces to evaluate crop diversity in European collections

European genebanks conserve more than 2 million accessions of **plant genetic resources** – the building blocks for selecting and breeding crops that are more nutritious, productive and resilient to pests, diseases and climatic changes.

However, we have limited information on these resources in terms of their agronomic characteristics, quality traits, resistance to pests or diseases, and how they perform in different environments. This information is essential to translate the full potential of plant genetic resources into breeding and cultivation practices to make European agriculture more sustainable and resilient to climate change.

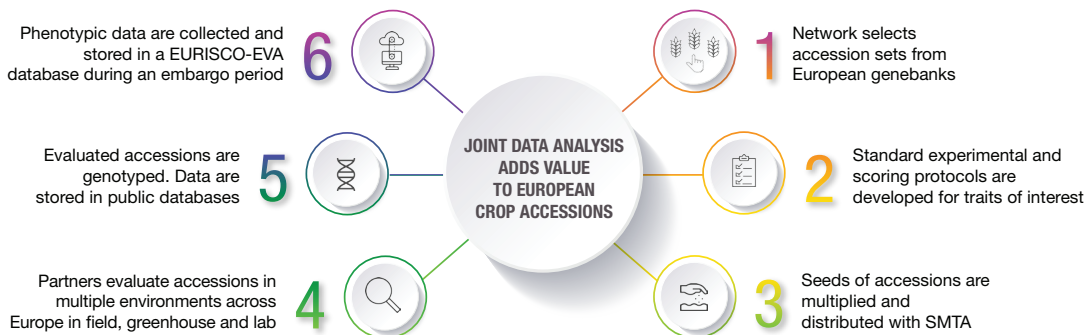
To bridge this gap, harness the potential of crop

genetic diversity and increase the diversity of stakeholders in plant breeding, the European Evaluation Network (EVA) was established in 2019 by the European Cooperative Programme for Plant Genetic Resources (ECPGR).

Through crop-specific **public–private partnerships**, EVA is generating standardized evaluation data (both phenotypic and genotypic) for numerous crop accessions and landraces available in European genebanks.

EVA is funded by the German Federal Ministry for Food and Agriculture through a project grant from 2019 to 2024. The EVA Wheat and Barley network also interacts with and receives support from the H2020 project AGENT (www.agent-project.eu/).

How the EVA crop networks operate



EVA crop networks

EVA is implemented through crop-specific networks, covering both cereal and vegetable crops. Currently, there are **five networks**.



CARROT



LETTUCE



MAIZE



PEPPER



WHEAT & BARLEY

EVA networks outlook

New EVA networks are being considered and can be developed through ECPGR Grant Scheme Activities.

The 'forEVA' project established in 2023 by the ECPGR Grain Legumes Working Group is working towards the implementation of an EVA network for Legumes, working on different legume species, and potentially starting in 2024.

EVA is envisioned as a self-sustaining long-term project, coordinated by the ECPGR Secretariat, executed mainly through in-kind contributions of evaluation partners and supported financially through additional project grants for certain activities such as genotyping.

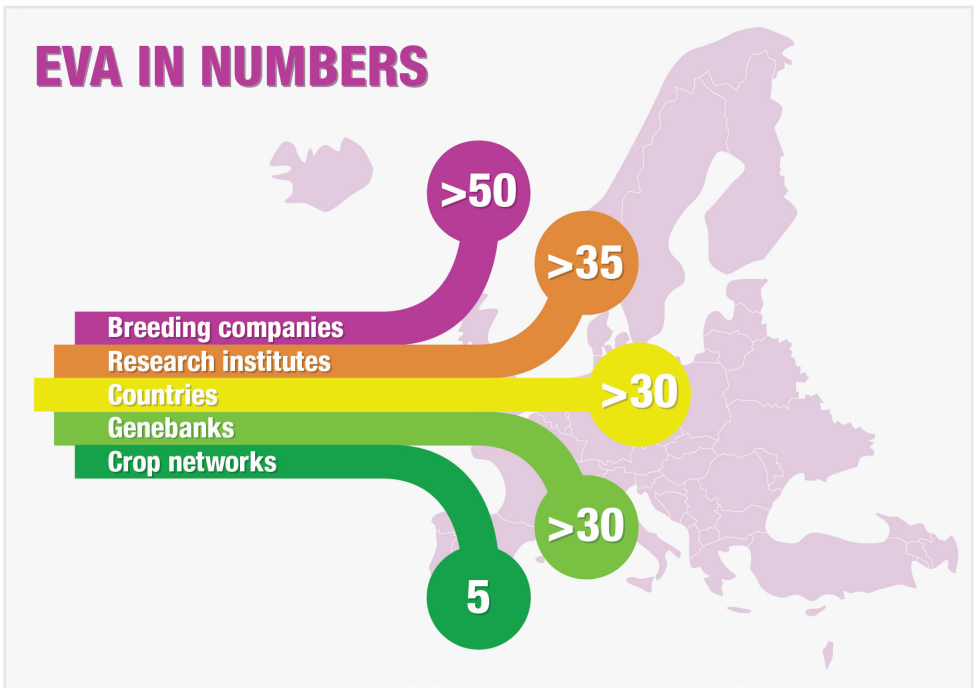
Partners

As of 2023, EVA brings together around 90 partners from more than 30 countries, including breeding companies, genebanks and research institutes.

Genebanks contribute to the EVA networks as providers of propagation material. They also provide background information on accessions to facilitate their selection and ensure (in cooperation with the National Focal Point) that the existing data in the European Search Catalogue for Plant Genetic Resources (EURISCO) are current. Genebanks are also actively involved in the multiplication of accessions, evaluation and data analysis.

National research institutes and **universities** participate in EVA, contributing their scientific expertise in areas such as genotyping, performing lab disease tests and data analysis as well as contributing to seed multiplication and field trials.

Private sector partners in the crop-specific EVA networks include **breeding companies** of all sizes, from small cooperatives to large multinationals, all equally benefiting from their participation in EVA. Breeding companies typically provide in-kind contributions to multiplications and evaluations, and perform most of the evaluation field trials.



All activities within the EVA networks are intended at the pre-competitive stage to increase knowledge on valuable traits of publicly available crop germplasm, with a view to introducing these into public and private breeding programmes. Evaluation data from different environments across Europe will also help identify adapted accessions for breeding climate-resilient crops.

The plant genetic resources evaluated in the EVA networks are publicly available at the respective holding institutes and exchanged between evaluation partners throughout the project in compliance with the terms outlined in the Standard Material Transfer Agreement (SMTA) of the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture.

Crop-specific public–private partnerships

Joint phenotyping and genotyping

Evaluations in different European environments

Identification of climate-resilient breeding material

Enriched genebank inventories

EVA

European Evaluation Network

www.ecpgr.org/eva



For more information or if interested in joining the EVA networks, please contact Sandra Goritschnig, EVA Coordinator (s.goritschnig@cgiar.org)

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Federal Ministry
of Food
and Agriculture



EVA is part of the European Cooperative Programme for Plant Genetic Resources (ECPGR), a collaborative programme among most European countries aimed at ensuring the long-term conservation and facilitating the increased utilization of plant genetic resources in Europe.

www.ecpgr.org

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