



EVA

European Evaluation Network

THE EVA EXPERIENCE DURING PHASE XI

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EVA Coordinator

18th ECPGR Steering Committee

Tbilisi, 1 June 2026



European Evaluation Network for PGRFA aims to:

EVA

European Evaluation Network

<https://www.ecpgr.org/eva>

Since 2019

- Promote the **use of germplasm diversity** held in European genebanks in research, breeding and cultivation
- Promote exchange of PGR material with **SMTA**
- Foster cooperation between **public and private** sector, involving wider groups of stakeholders in using PGRFA
- Generate **standardized** multilocation evaluation data to identify **climate-resilient** breeding material
- Increase **knowledge**, improve passport information and add C&E data in **EURISCO**
- Create **self-sustaining networks** that evaluate available PGRFA in continuous evaluation cycles

EVA timeline across phases

Phase IX

- Preparatory phase: PPP knowledge base, workshops to develop framework and projects
- **ECPGR Steering Committee approves EVA framework**

Phase X

- **EVA project** (BMEL) (2019–2025): **Implementation of five EVA networks**
- H2020 project **AGENT** extends activities of EVA Wheat and Barley to 2025
- **ForEVA Grant scheme** activity develops **EVA Grain Legumes Network**

Phase XI

- **EVA Boost project** (BMLEH) approved for 2024–2027
 - **EVA Legumes** networks implementation
 - Development of Roadmap for **EVA Perennials** network implementation
- **Grant scheme** activities support continued collaboration of EVA Networks:
 - EVA Pepper – **EuroPepLand**
 - EVA Maize – **MALANIRS**
 - EVA Wheat and Barley – **ValoResWB**



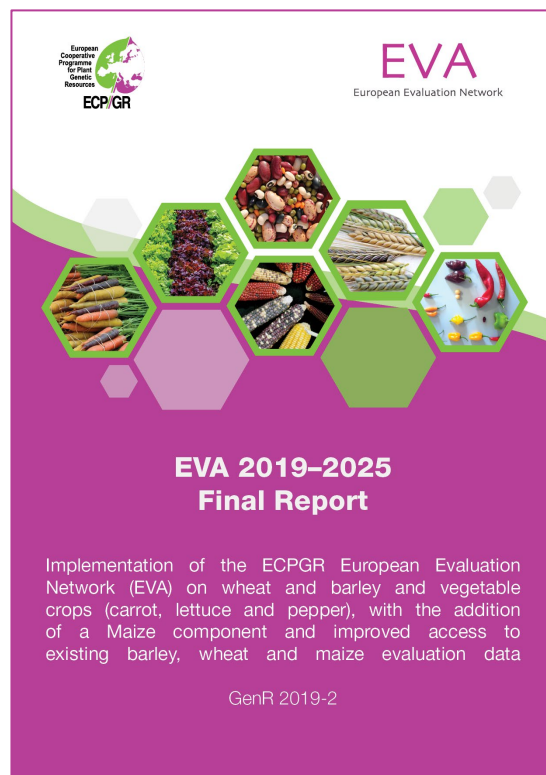
EVA Projects funded by Germany

EVA

2019–2025

€1,053,275

- Implementation of EVA network on wheat, barley, vegetable crops and maize (EVA) (GenR 2019-2)



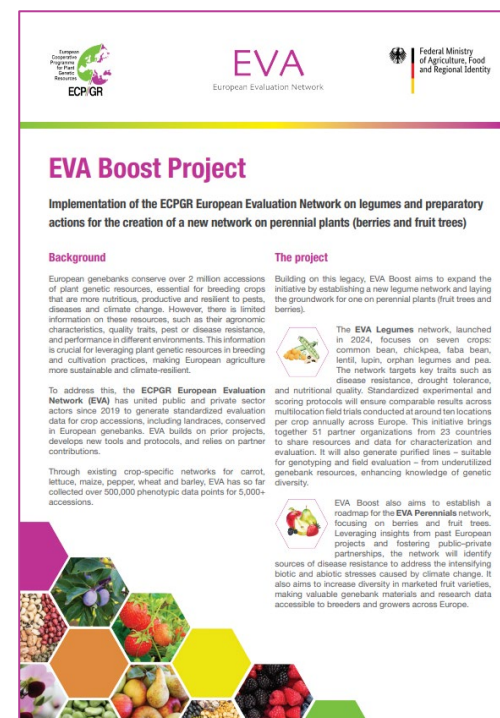
<https://www.ecpgr.org/resources/ecpgr-publications/publication/eva-2019-2025-final-report-2026>

EVA
Boost

2024–2027

€353,740

- Implementation of the ECPGR European Evaluation Network (EVA) on legumes and preparatory actions for the creation of a new network on perennial plants (berries and fruit trees) – EVA Boost (GenR 2024-2)



https://www.ecpgr.org/fileadmin/bioversity/publications/pdfs/EVA_Boost_factsheet.pdf

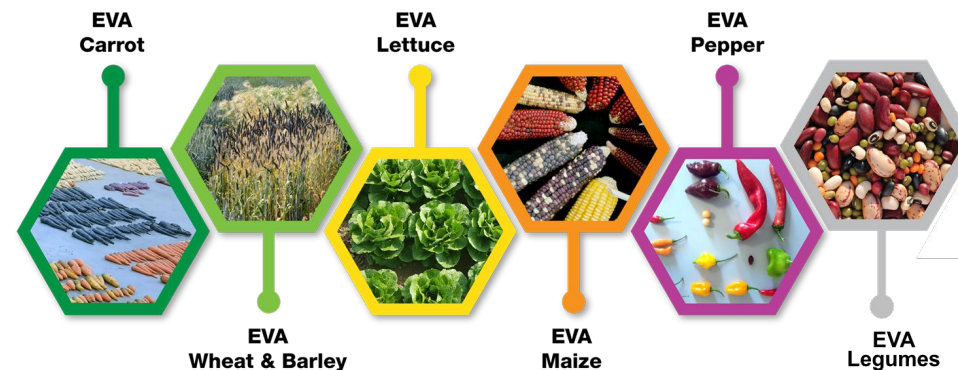
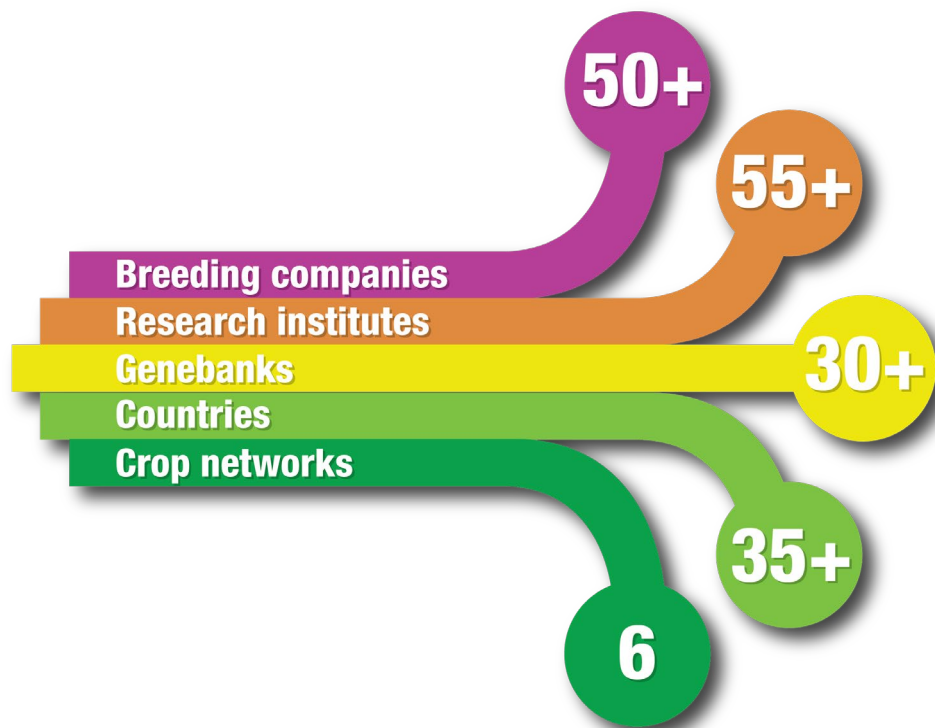
Current status of EVA networks



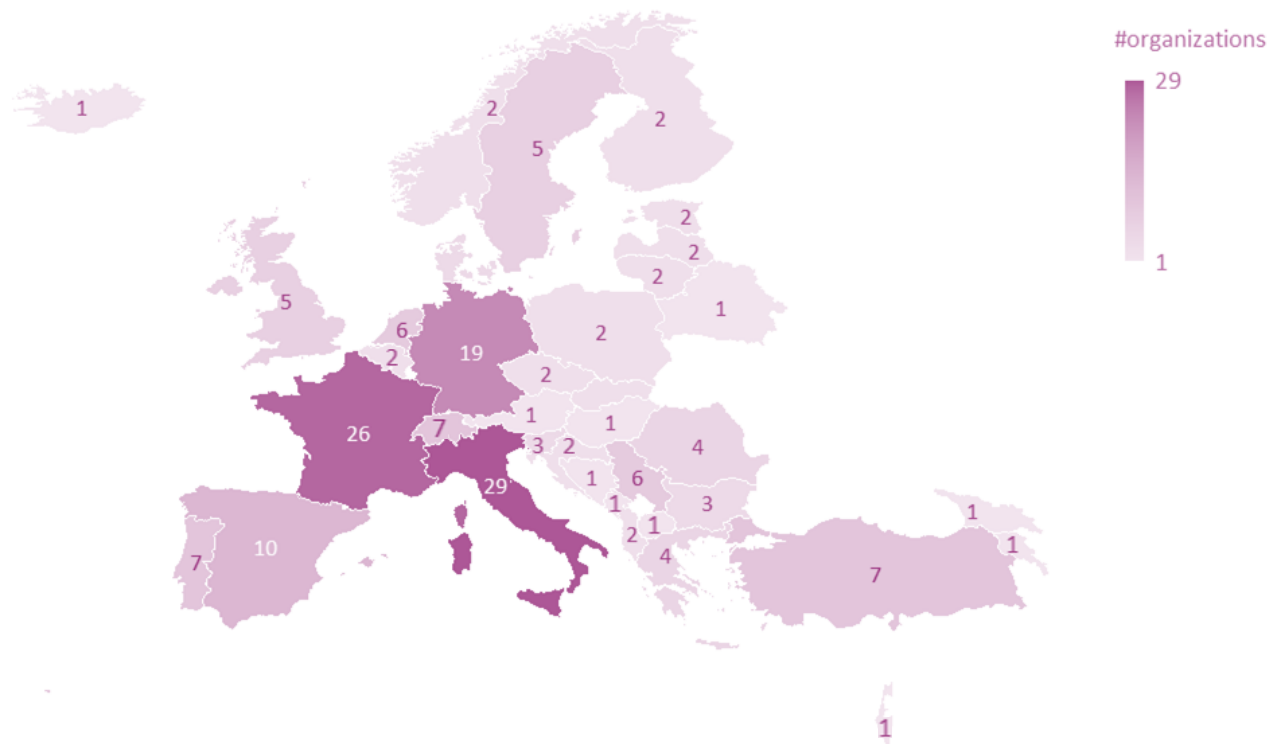
Collaborative crop-specific Public–Private Partnerships

130 partners from 37 countries

www.ecpgr.org/eva




EVA Partners across Europe



Includes also organizations participating in multiple EVA Networks



EVA Wheat and Barley

- 47 partners from 22 countries, 24 from private sector
- Analysis has identified promising accessions with putative new resistances
- Breeders want to include first pre-breeding step → [ValoResWB](#) Grant Scheme Activity
-  **AGENT** data analysis is pending; exploitation of AGENT materials in future.



EVA Maize

EVA

European Evaluation Network

- 24 partners from 13 countries, 8 from private sector
- Grant Scheme Activity [MALANIRS](#) enlarged network and EVA Maize collection
- Analysis of combined data from EVA, MALANIRS, MineLandDiv and DromaMed projects to define a new European Maize core collection for further field evaluations





EVA Carrot

EVA

European Evaluation Network

- 18 partners from 9 countries, 9 from private sector
- New carrot collection assembled and under evaluation by company partners
- EVA Carrot network (plus some new institutes) submit a proposal to 3rd co-funded call of the AGROECOLOGY Partnership



"Fostering plant and animal genetic diversity and empowering farmers to accelerate the agroecological transition"



ECP/GR



EVA Lettuce

- 10 partners from 7 countries, 4 from private sector
- Collection expanded for wild lettuce (*L. serriola*) with *Bremia* testing and genotyping for association studies
- New Leafy Vegetables WG Chair plans joint meeting in October 2026 (TBC).



EVA Pepper

EVA

European Evaluation Network

- 25 partners from 16 countries, 5 from private sector
- Grant Scheme Activity [EuroPepLand](#) expands network and collection with European landraces
- Combined diversity analysis of genotyping data of landraces to develop core collection for further field evaluations
- Results will be presented at



ECP/GR



EVA Legumes



EVA
European Evaluation Network

- 52 partners from 24 countries, 11 from private sector
- 7 crop groups with scientific leads
- Plant material from partner genebanks, and EU projects
- In 2026, field evaluations, lab trials for biotic stresses and nutritional characterization, Farmers' network and participatory evaluations



Faba bean
Lea Narits, METK



Common bean
Barbara Pipan, KIS



Chickpea
Elena Bitocchi, UVPM



Lentil
Lucia dela Rosa, CSIC



Lupin
Luciano Pecetti, CREA-ZA



Orphan Legumes
Penelope Bebeli, AUA

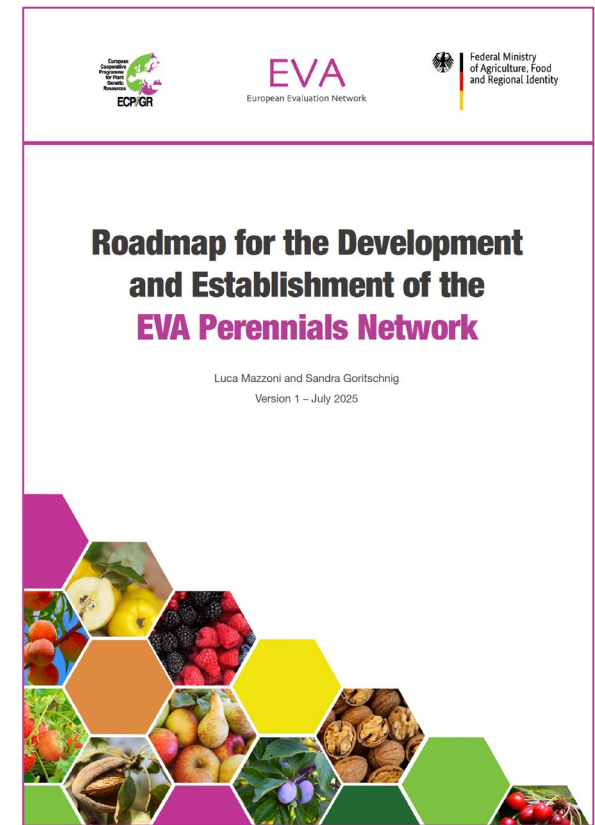


Pea
Diego Rubiales, IAS-CSIC



EVA Perennials

- Activity connected stakeholders and identified priorities
- Roadmap defines steps towards establishing EVA Perennial networks
- Proposals to EU Horizon to support setting up multi-site evaluation orchards
- Grant Scheme activity BerryTraits supports C&E data standardization for eventual EVA network



<https://www.ecpgr.org/resources/ecpgr-publications/publication/roadmap-for-the-development-and-establishment-of-the-eva-perennials-network-2025>

EVA data status



EURISCO-EVA data management

EURISCO-EVA Intranet

- EURISCO backbone used also by Horizon projects AGENT and INCREASE
- Information system for multilocation phenotypic data

Standard protocols

- Comparable data from multilocation trials

Standard data templates

- Facilitate FAIR data

The screenshot displays the EVA Maize data management interface. At the top, the EVA logo and navigation menu are visible. The main content area is divided into several sections:

- Overview Table:** A table comparing data across All Networks and EVA Maize.
- Observed Data:** A panel showing 57187 Phenotypic Data Points for the experiment EVA Maize, 10-MAY-2023 04:27:42.
- Accessions:** A panel showing 910 Accessions for the experiment EVA Maize, 10-MAY-2023 04:27:42.
- Experiments:** A panel showing 97 Phenotyping Experiments and 5 Genotyping Experiments for the experiment EVA Maize, 10-MAY-2023 04:27:42.
- Phenotypic Data:** A panel with filters for Crops (Wheat), Experiment Group (--none--), Experiment Year (2021), Trait (EVB_WFHB (Fusarium Head Blight - Fusarium Spp.)), Accessions, and Experiments.
- Frequency of Observed Trait Score:** A bar chart showing the distribution of observed trait scores. The x-axis represents Observed Trait Scores (0 to ND), and the y-axis represents Frequency (0.000 to 700.000).

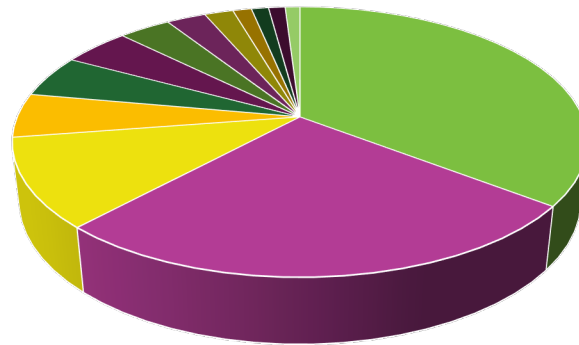
	All Networks	EVA Maize
Crops	8	1
Accessions	4397	910
Partner Institutes	89	18
Countries of Operation	32	9
Experiment Locations	113	30
Traits	287	
Phenotyping Experiments	549	
Phenotypic Data Points	394700	
Genotyping Experiments	17	

Observed Trait Score	Frequency
0	596.000
1	351.000
2	32.000
3	56.000
4	45.000
5	378.000
6	365.000
7	358.000
8	181.000
9	658.000
ND	546.000



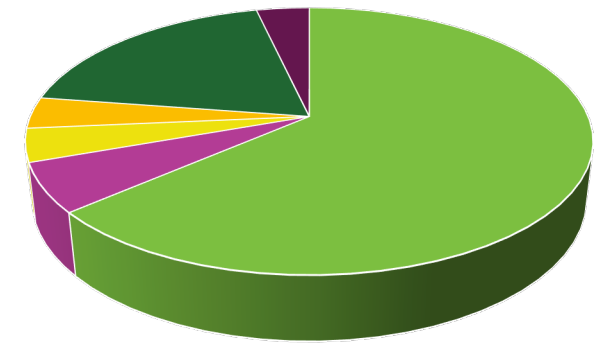
Data output of EVA networks (2020–2025)

5,742 accessions



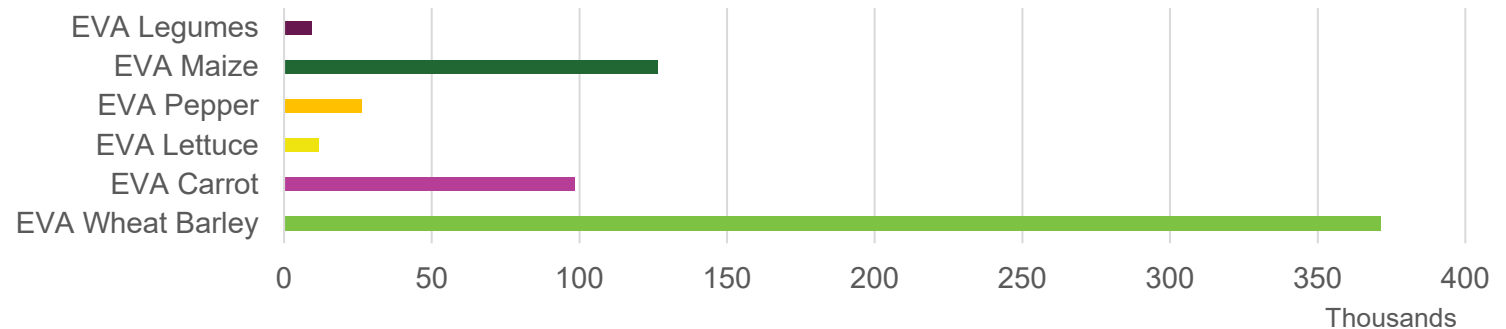
- Triticum
- Hordeum
- Zea
- Lactuca
- Phaseolus
- Capsicum
- Cicer
- Lens
- Daucus
- Lupinus
- Pisum
- Vigna
- Vicia

473 Trials



- EVA Wheat Barley
- EVA Carrot
- EVA Lettuce
- EVA Pepper
- EVA Maize
- EVA Legumes

643,482 datapoints

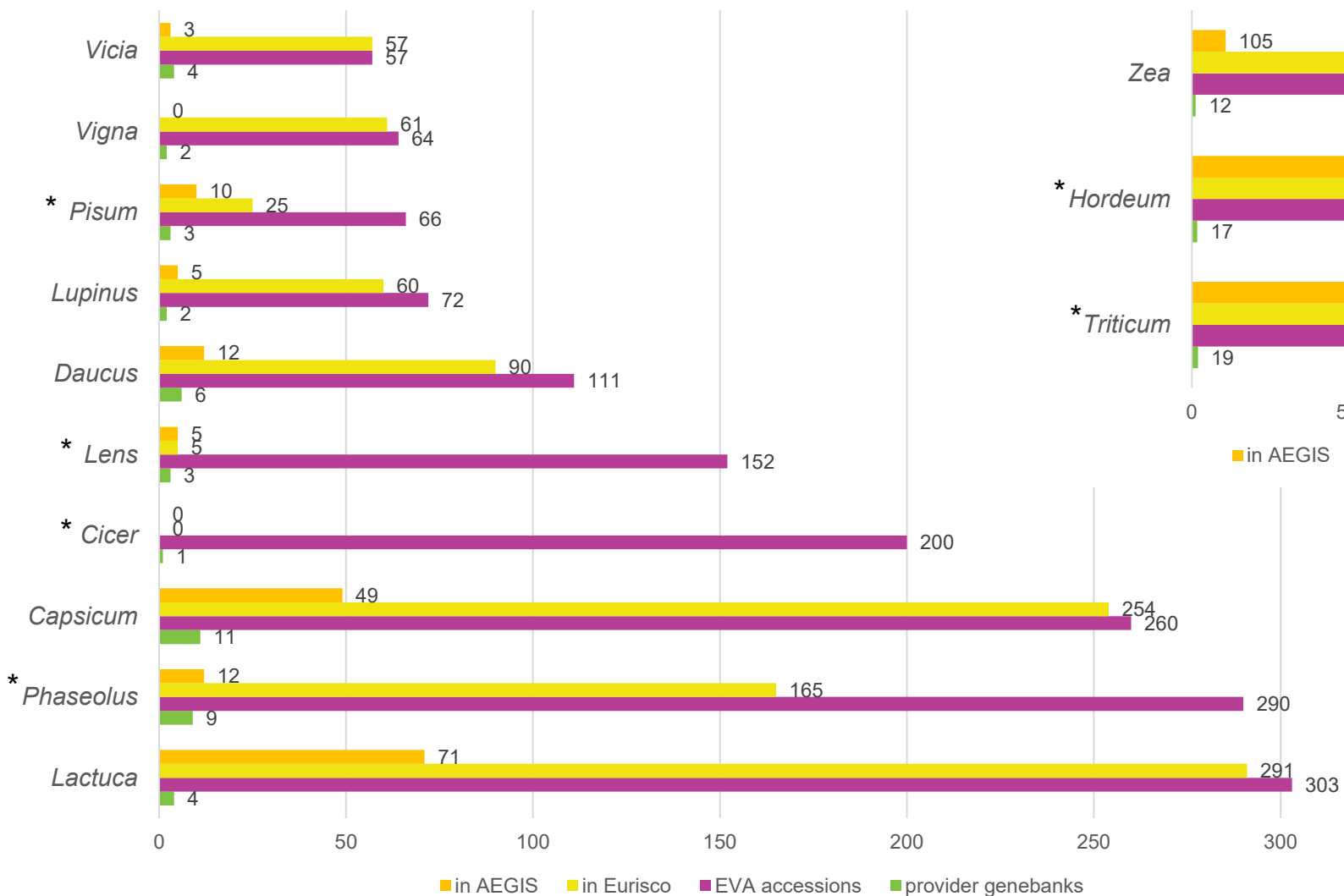


Data as of 06/05/2026

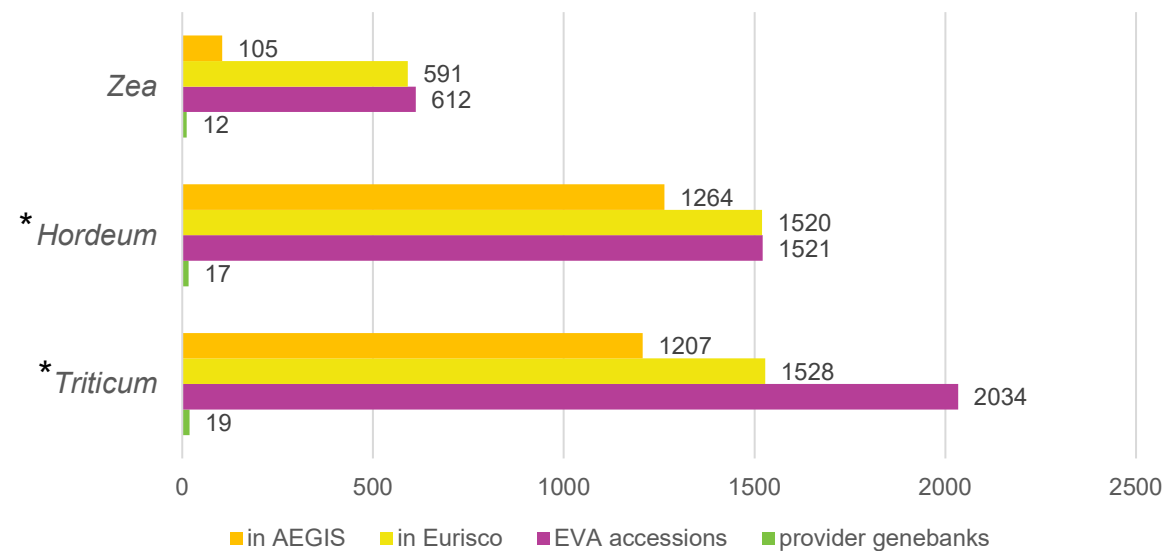


EVA accessions in EURISCO and AEGIS status

Vegetables and Legumes



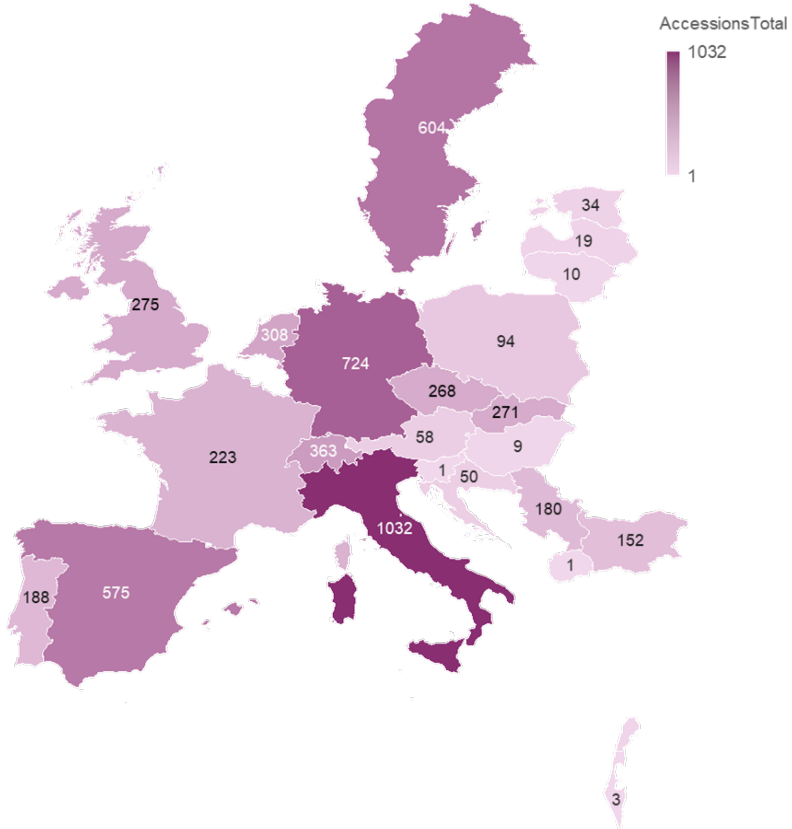
Field crop accessions



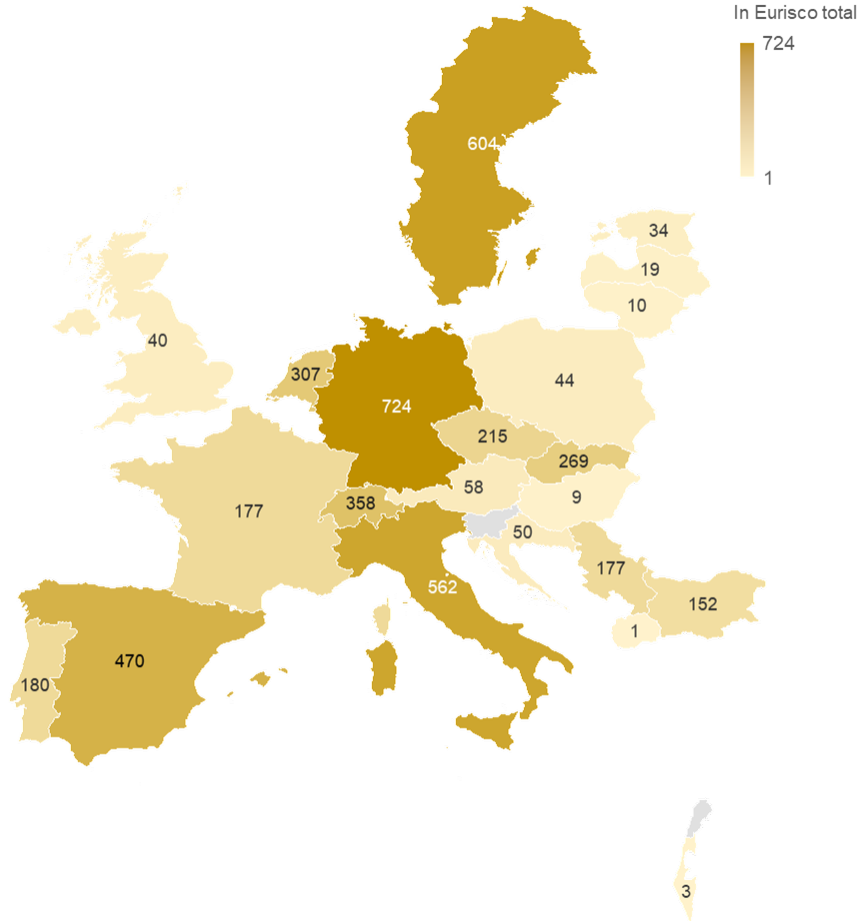
*SSD lines sourced from EU projects

EVA accessions in EURISCO and AEGIS status

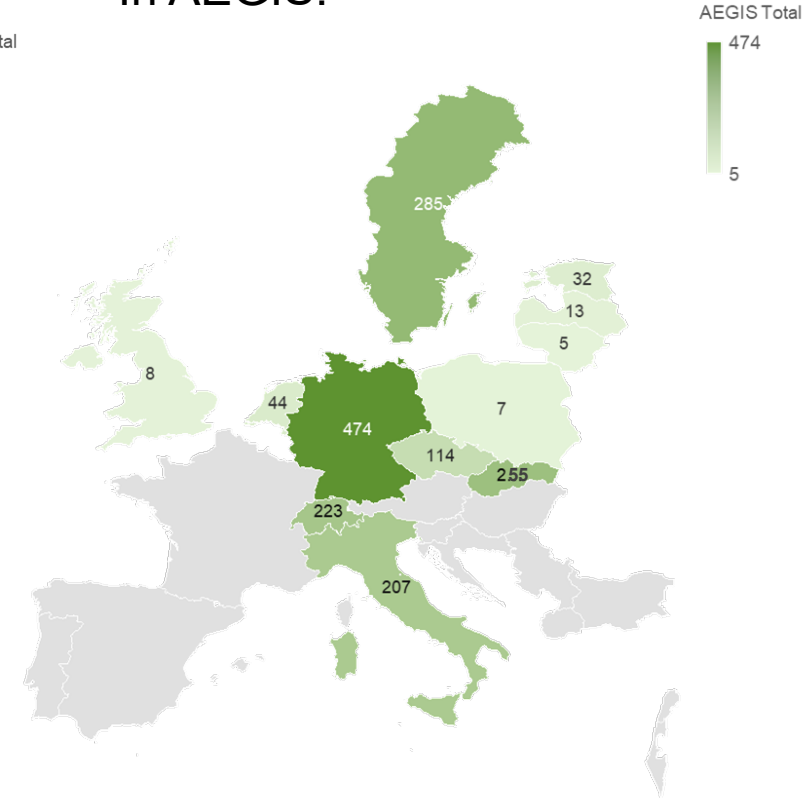
All EVA Accessions:



In EURISCO:



In AEGIS:



Dissemination and outreach



Scientific publications

Position paper



Goritschnig, S., Weise, S., Guzzon, F., Maggioni, L., van Hintum, T., Steffensen, L. L., Stein, N. and Giuliano, G. (2025) **Strengthening European research cooperation on plant genetic resources conservation and use**, *Genetic Resources*, (S2), pp. 119–134. doi: <https://doi.org/10.46265/genresj.LUZJ7324>.

EURISCO-EVA



Kumar, S., Guzzon, F., Goritschnig, S. and Weise, S. (2024) **The EURISCO-EVA Information System, an innovative approach to the data management of multi-site crop evaluation data**, *Genetic Resources*, 5(10), pp. 117–125, doi: <https://doi.org/10.46265/genresj.IHXU5248>

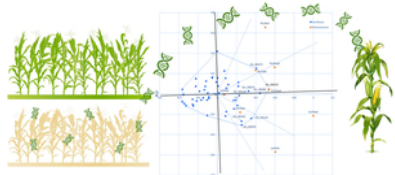
Read the [blog](#)

EVA Maize



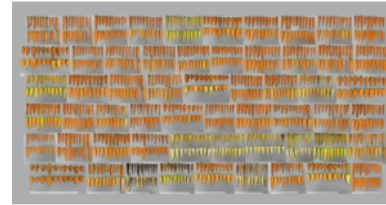
Balconi C, Galaretto A, Malvar RA, Nicolas SD, Redaelli R, Andjelkovic V, Revilla P, Bauland C, Gouesnard B, Butron A, et al. **Genetic and Phenotypic Evaluation of European Maize Landraces as a Tool for Conservation and Valorization of Agrobiodiversity**. *Biology*. 2024; 13(6):454. DOI: <https://doi.org/10.3390/biology13060454>

Read the [blog](#)



Santiago R, R.A. Malvar, P. Revilla, A. Butrón (2025) **Maize landraces as useful donors of genetic diversity for resilience to drought**, *Journal of Agriculture and Food Research*, Volume 23, <https://doi.org/10.1016/j.jafr.2025.102297>

EVA Carrot



Phenotypic diversity of 60 accessions evaluated in EVA Carrot in 2020-2021. Credit: E. Geoffriau

Goritschnig, S., Pagan, P., Mallor, C., Thabuis, A., Chevalier, J., Hägnefeld, A., Bertolin, N., Saigon, S., Groenewegen, M., Ingremeau, A., Santillan Martinez, M., Lehnert, H., Keilwagen, J., Burges, T., Budahn, H., Nothnagel, T., Lopes, V., Allender, C., Huet, S. and Geoffriau, E. (2023). **Exploring European carrot diversity through public-private partnerships in EVA Carrot**. *Acta Hortica*. 1384, 63-70. DOI:<https://doi.org/10.17660/ActaHortica.2023.1384.8>

Read the [blog](#)

EVA Lettuce



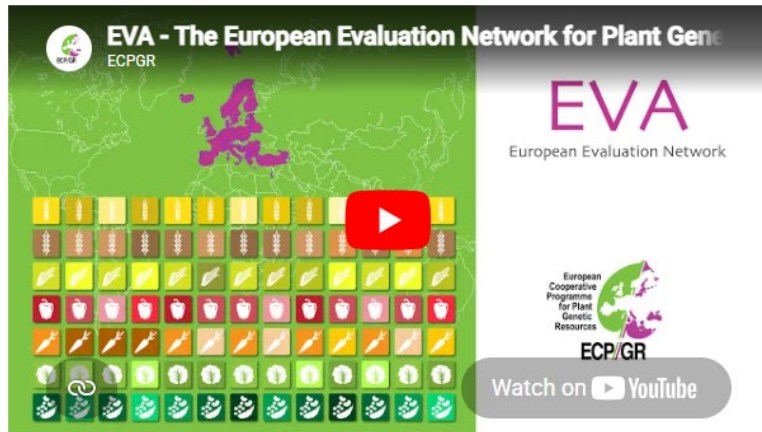
Photo: C. Aichholz and T. Zollinger

Tripodi P, Beretta M, Peltier D, Kalfas I, Vasilikiotis C, Laidet A, Briand G, Aichholz C, Zollinger T, Treuren Rv, Scaglione D and Goritschnig S (2023) **Development and application of Single Primer Enrichment Technology (SPET) SNP assay for population genomics analysis and candidate gene discovery in lettuce**. *Front Plant Sci*. 14:1252777. doi: [10.3389/fpls.2023.1252777](https://doi.org/10.3389/fpls.2023.1252777)

Read the [press release](#)

<https://www.ecpgr.org/eva/documents-and-links/publications>

Communications and outreach



<https://bit.ly/EVA-PGR>



<https://encyclopedia.pub/video/1816>



<https://bit.ly/SPET-lettuce>

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 genetic diversity and increase the diversity 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 maximize 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 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.

Financial support for the EVA Networks comes from the German Federal Ministry of Agriculture, Food and Regional Identity (BMEL) and the Horizon project AGENT (www.agent-project.eu).

EVA Boost Project
Implementation of the ECPGR European Evaluation Network on legumes and preparatory actions for the creation of a new network on parental plants (berries and fruit trees)

Background
European genebanks conserve over 2 million accessions of plant genetic resources, essential for breeding crops that are more nutritious, productive and resilient to pests, diseases and climatic change. However, there is limited information on these resources, both in their agronomic characteristics, quality traits, yield or disease resistance, and performance in different environments. This information is crucial for leveraging plant genetic resources in breeding and cultivation practices, making European agriculture more sustainable and resilient.

To address this, the ECPGR European Evaluation Network (EVA) has invited public and private sector actors since 2019 to generate standardized evaluation data for crop accessions, including landraces, conserved in European genebanks. EVA builds on prior projects, develops new tools and protocols, and relies on partner contributions.

Through existing crop-specific networks for cereals, legumes, maize, grapes, wheat and barley, EVA has so far collected over 500,000 phenotypic data points for 8,000 accessions.

The project
Building on this legacy, EVA Boost aims to expand the network by establishing a new legume network and laying the groundwork for one on parental plants (fruit trees and berries).

The EVA Legumes network, launched in 2020, focuses on seven crops: common bean, chickpea, faba bean, lentil, lupine, vetch, and lupinus. The network targets the data sets on disease resistance, drought tolerance, and nutritional quality. Standardized experimental and scoring protocols will ensure comparable results across multiplication facilities/conservation facilities/locations per crop annually across Europe. This initiative brings together EU partner organizations from 25 countries to share resources and data for characterization and evaluation. It will also generate quality data – suitable for genotyping and trait evaluation – from international genebank resources, enhancing knowledge of genetic diversity.

EVA Boost also aims to establish a roadmap for the EVA Parentals network, focusing on berries and fruit trees. Leveraging insights from past European projects and networks, EVA Boost will identify public-private partnerships. The network will identify sources of disease resistance to address the increasing impact of climate change on crop production. It also aims to increase diversity in marketed fruit varieties, making available genebank materials and research data accessible to breeders and growers across Europe.

Challenges and priorities

Data curation, management and analysis:

- Variable quality of datasets despite standardization challenge analysis
- Need for centralized data and metadata curation
- Update intranet database and connection with EURISCO
- Create a public data portal (as in AGENT)

Resource mobilization and outreach:

- Base funding for activities is needed (multiplication, specific experiments, meetings)
- Enhance collaboration with relevant EU projects as stakeholders for results exploitation
- New project proposals are difficult as they require an available coordinator, novelty and expected outcomes of the call need to be compatible with the EVA objectives

Acknowledgements

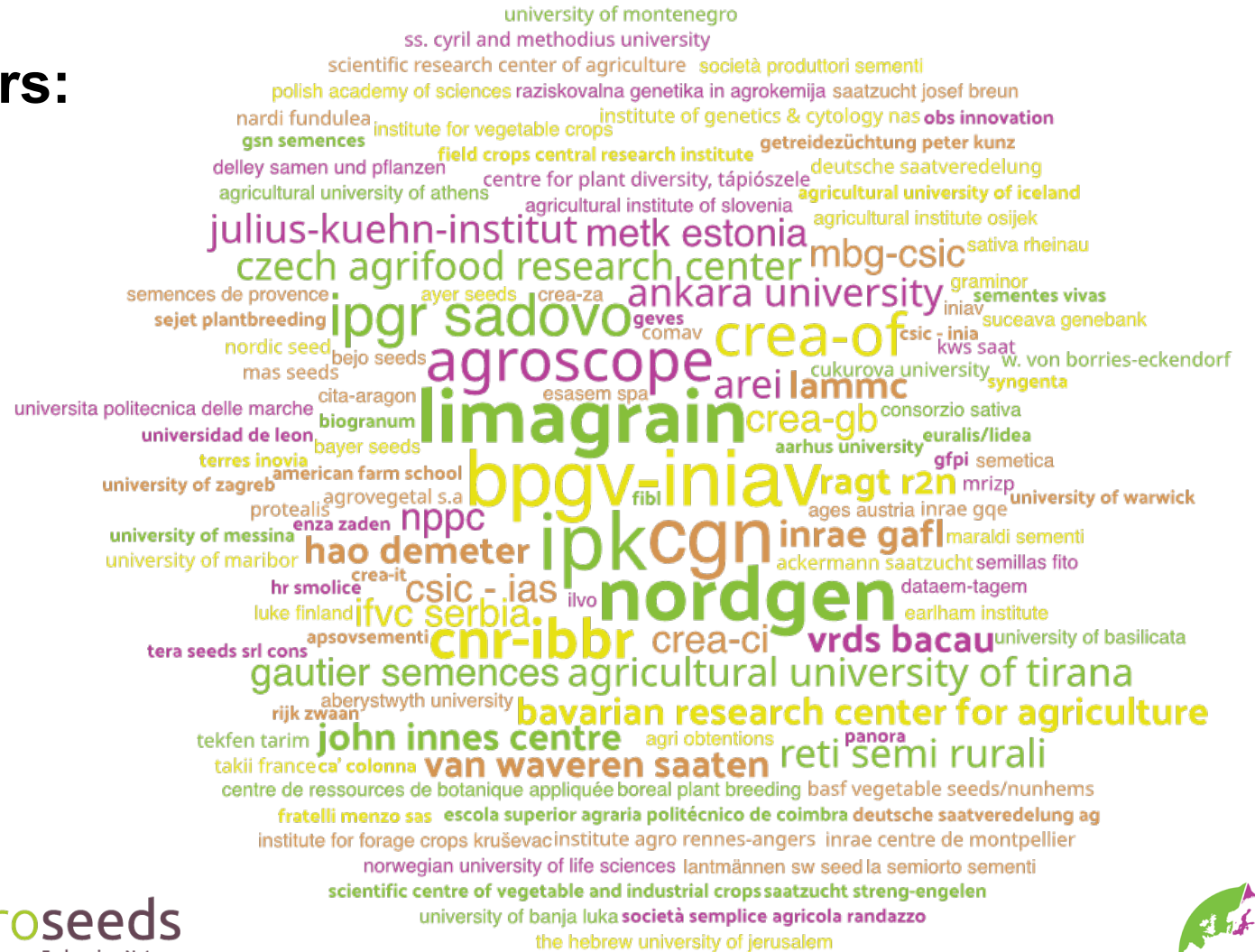
Funding:



Federal Ministry
of Agriculture, Food
and Regional Identity



Partners:



A top-down view of various sliced vegetables, including purple, orange, and white pieces, arranged on a bed of green leafy herbs. The text 'THANK YOU' is centered in white, with a horizontal rainbow-colored bar underneath it.

THANK YOU