



EVA
European Evaluation Network



Federal Ministry
of Food
and Agriculture

INFORMATION ON ECPGR AND EVA

S. Goritschnig

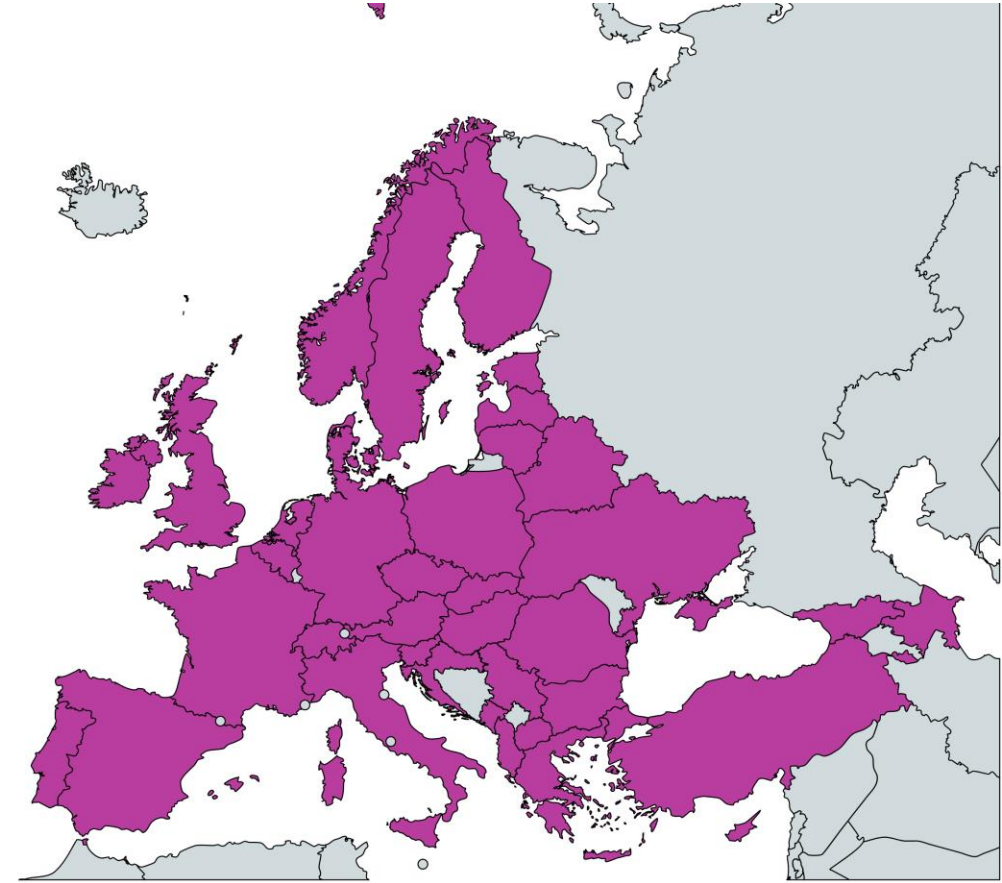
Scientific Officer ECPGR,
EVA coordinator

*EVA Boost - Perennials workshop,
Ancona, Italy
13 March 2025*



European Cooperative Programme for Plant Genetic Resources

Stakeholders in Europe collaboratively, rationally and effectively **conserve *ex situ* and *in situ*** PGRFA, provide **access** and increase sustainable **use**



Created with mapchart.net

Self-funded programme belonging to the participating countries
Member countries also contribute in-kind into the programme,
through collaborative PGR conservation activities



ECP/GR

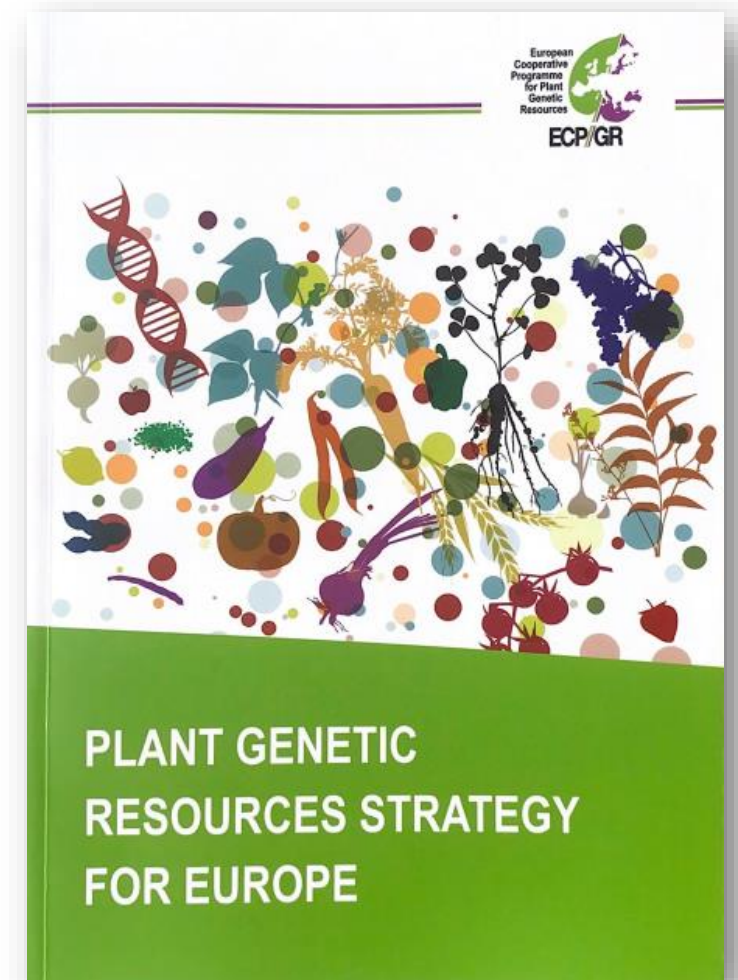
Aims

The **PGR strategy for Europe** outlines goals and necessary actions and step changes needed for the next decade.

ECPGR priorities are in line with this Strategy

The main objectives are:

1. Expanding the *in situ conservation* of crop wild relatives and wild food plants
2. Promoting *on-farm* plant genetic resources conservation and management
3. Consolidating and sustaining *ex situ conservation*
4. Promoting *sustainable use* of PGR
5. Strengthening a comprehensive *information system* for PGRFA.
6. Systematical *monitoring* of conservation and use of PGRFA



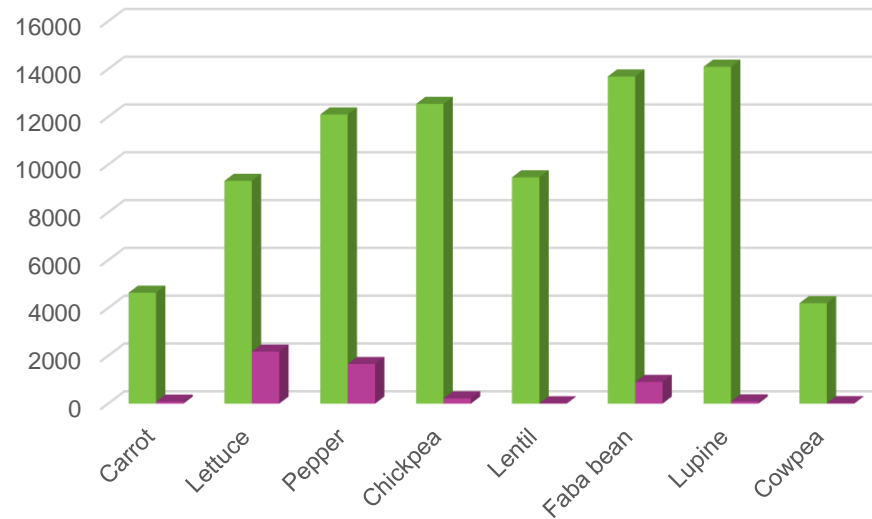
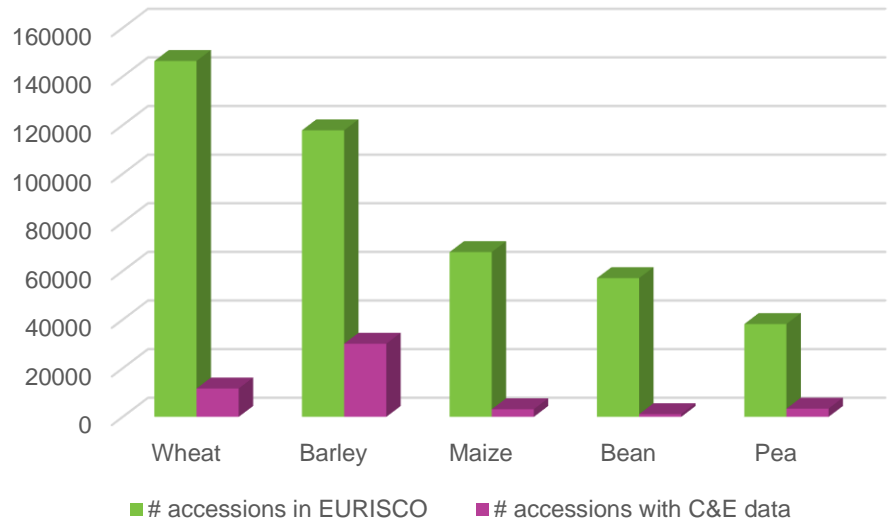
<https://bit.ly/PGRstrategy>

ECPGR structure:



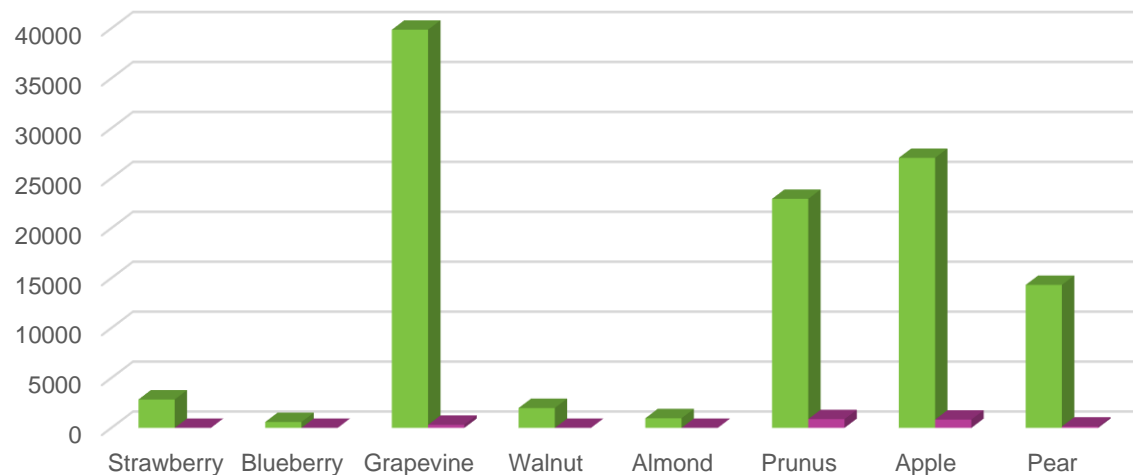
PGRFA diversity in European Genebanks

EVA Crops in EURISCO



<http://eurisco.ecpgr.org>

Perennials in EURISCO



2,104,512 Accessions total
 2,098,128 Ex situ accessions
 6,384 In situ CWR populations
 417 Ex situ collections
 36 In situ CWR collections
 43 Countries
 6,753 Genera
 45,425 Species
 436,572 MLS accessions
 119,474 AEGIS accessions
 300,900 DOIs





since 2019



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

EVA

European Evaluation Network

EVA aims to:

- 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



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2017-
2018

- Preparatory phase: PPP knowledge base, workshops to develop framework and projects
- **ECPGR Steering Committee approves EVA framework**
- Germany (BMEL grants project to implement EVA **Wheat and Barley** and **EVA vegetables**)

2019 -
2024

- **EVA project** (BMEL) starts in July 2019
- **EVA Maize** network is added in December 2019
- H2020 project **AGENT** extends activities of EVA Wheat and Barley to 2025
- Project extension with funds until 2024 to compensate for COVID-19 delays

2023

- Network discussions on continued and develop workplans for next phase
- **ForEVA** project develops **EVA Grain Legumes Network**, starting in 2024
- **EVA Boost project**, supporting EVA Legumes implementation, approved for 2024-2027

2024 -
2027

- EVA Networks continue collaborations as self-sustaining networks and with support of external projects / ECPGR Grant Scheme activities (EuroPepLand and Malanirs)
- **EVA Legumes** networks implementation through **EVA Boost project**
- Development of Roadmap towards implementation of **EVA Perennials** network within **EVA Boost project**



EVA

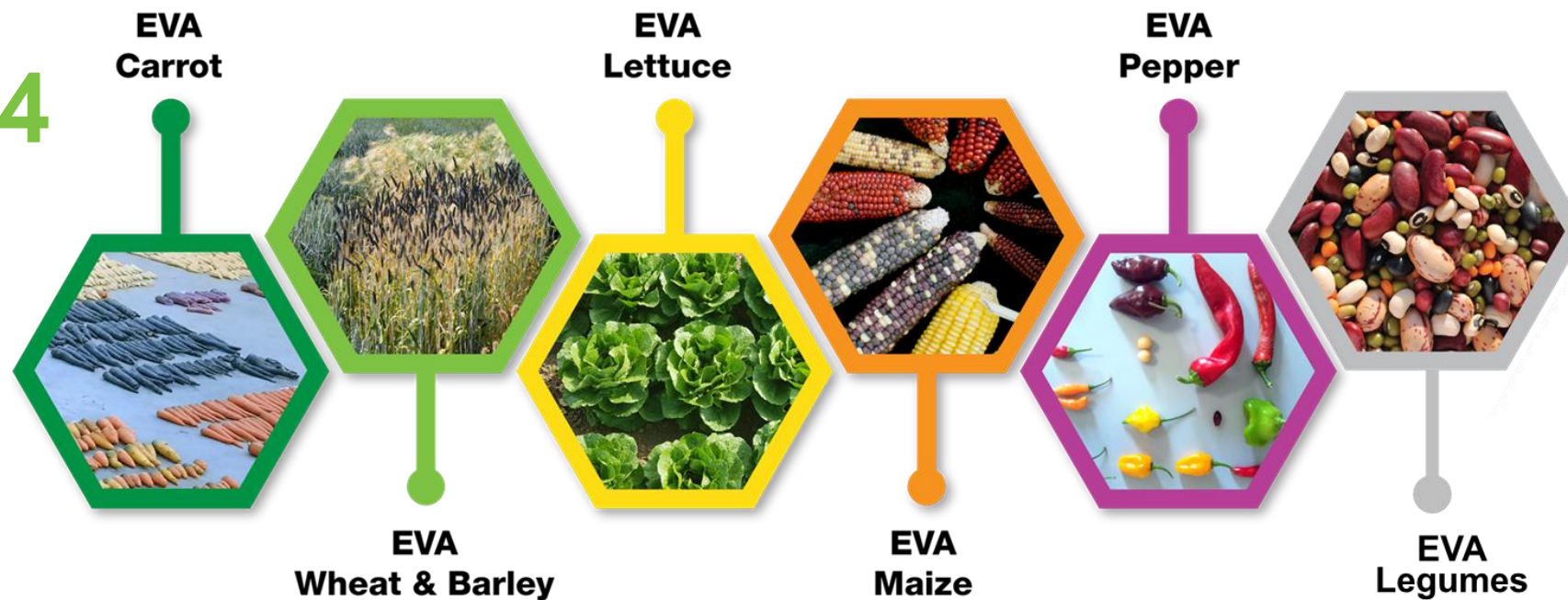
European Evaluation Network

More than 100 EVA partners

- **Public partners**
 - Genebanks
 - Universities and research institutes
- **Private partners**
 - Multinational breeding companies
 - SME breeding companies
 - Organic breeding companies
 - Breeding and farming cooperatives



EVA 2020 - 2024



Network	Carrot	Wheat/Barley	Lettuce	Maize	Pepper	Legumes
Countries	7	20	8	13	16	22
Public partners	6	21	6	15	19	39
Private partners	8	26	6	9	6	11
Crops	1	3	2	1	1	7
Accessions	67	3,737	367	1,018	229	>300

>100 Evaluation trial sites across Europe



EVA wheat trial 2021, BASF (V. Spamer)



EVA lettuce trial 2022 *Sativa* Rheinau (C. Aichholz)



EVA pepper trial 2021, Semillas Fito (M. Fernandez)



EVA carrot trial 2021 Institut Agro Angers (E. Geoffriau)

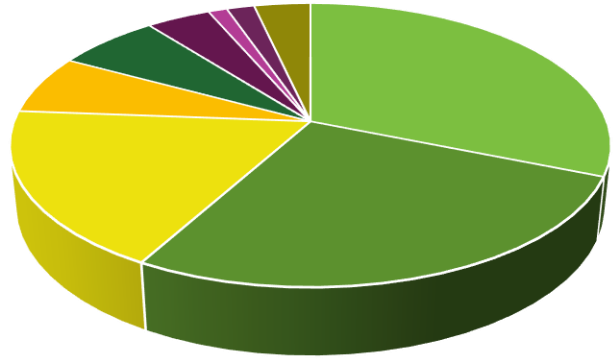


EVA maize trial 2021, CREA-CI (C. Balconi)

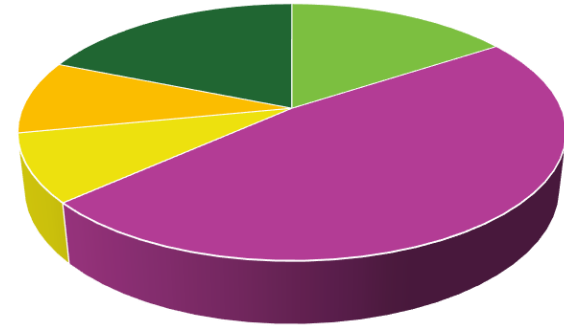


Output of EVA networks (2020-2024)

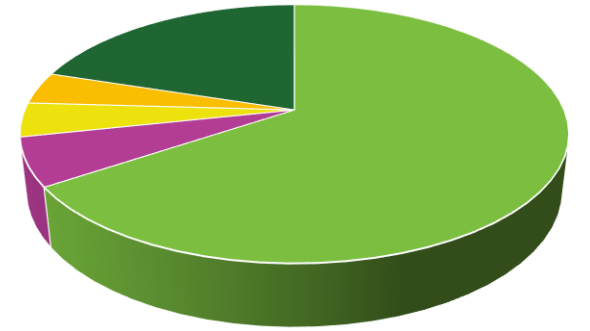
>5000 accessions



> 300 Traits evaluated



448 EVA trials

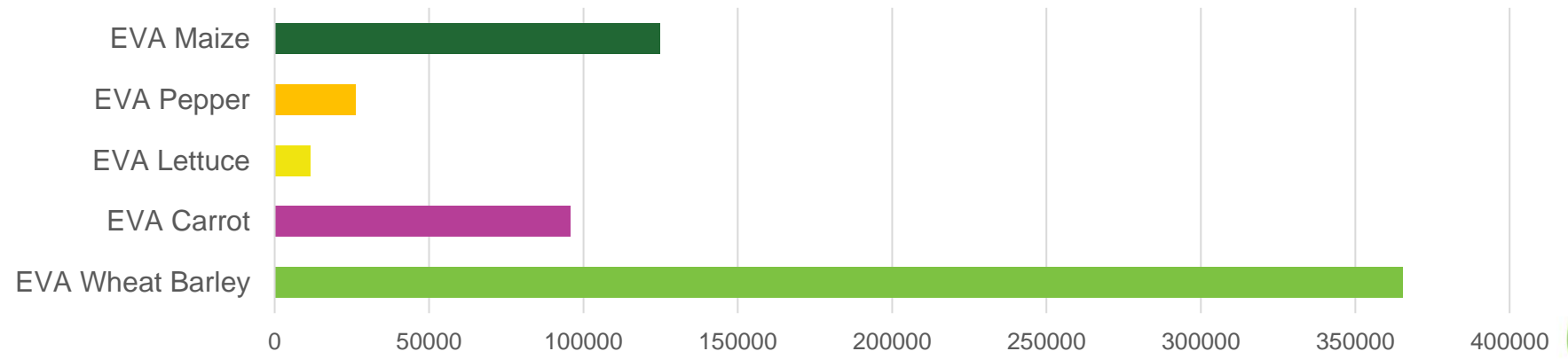


- barley
- maize
- lettuce
- carrot
- chickpea
- wheat
- durum wheat
- pepper
- bean

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

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

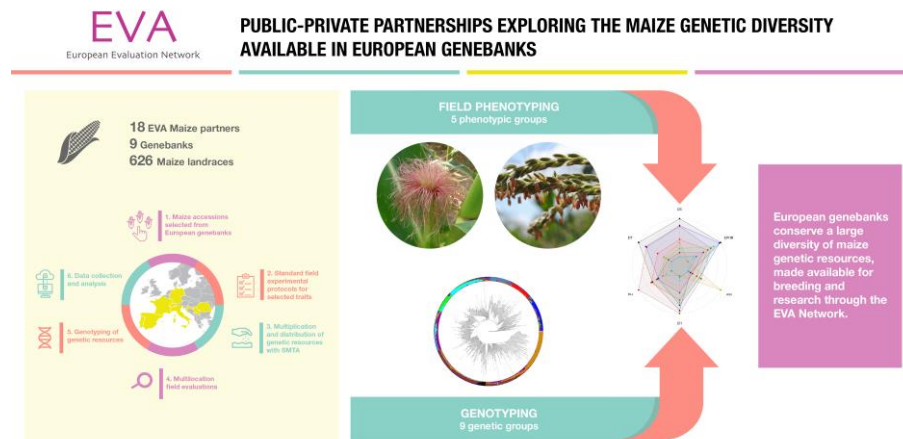
> 620.000 evaluation data points



Dissemination

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>



Genetic Resources ORIGINAL ARTICLE *Genetic Resources* (2024), 5 (10), 117–125
DOI: [10.46265/genresj.IHXU5248](https://doi.org/10.46265/genresj.IHXU5248)
<https://www.genresj.org>
ISSN: 2708-3764

The EURISCO-EVA Information System, an innovative approach to the data management of multi-site crop evaluation data

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^b European Cooperative Programme for Plant Genetic Resources (ECPGR), c/o Alliance of Biodiversity International and CIAT, via di San Domenico 1, Rome, 00153, Italy

ORIGINAL RESEARCH article
Front. Plant Sci., 18 August 2023
Sec. Plant Bioinformatics
Volume 14 - 2023 | <https://doi.org/10.3389/fpls.2023.1252777>

frontiers
in Plant Science

Development and application of Single Primer Enrichment Technology (SPET) SNP assay for population genomics analysis and candidate gene discovery in lettuce

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Benefits of EVA networks

Joint work on pre-competitive level provides benefits to all partners:

- Access to unique international research and breeding network
- Access to genebank collections and unique materials
- Shared expertise and knowledge
- Joint work based on expertise and capacity
- Large phenotypic datasets from multilocation trials
- Joint analysis and dissemination of results
- Data embargo as incentive for private partners to contribute in-kind
- Results and materials will be publicly available (through EURISCO and SMTA)





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EVA Boost: 09/2024 – 12/2027

EVA

European Evaluation Network

'EVA Boost' project

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)

An initiative by:



Funded by:



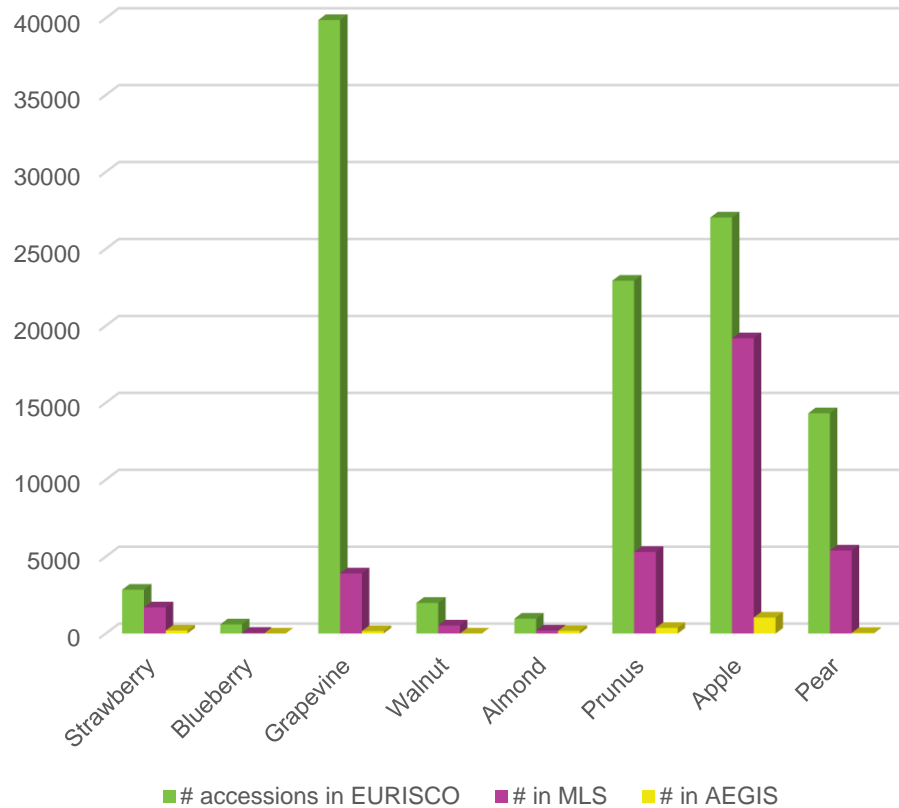
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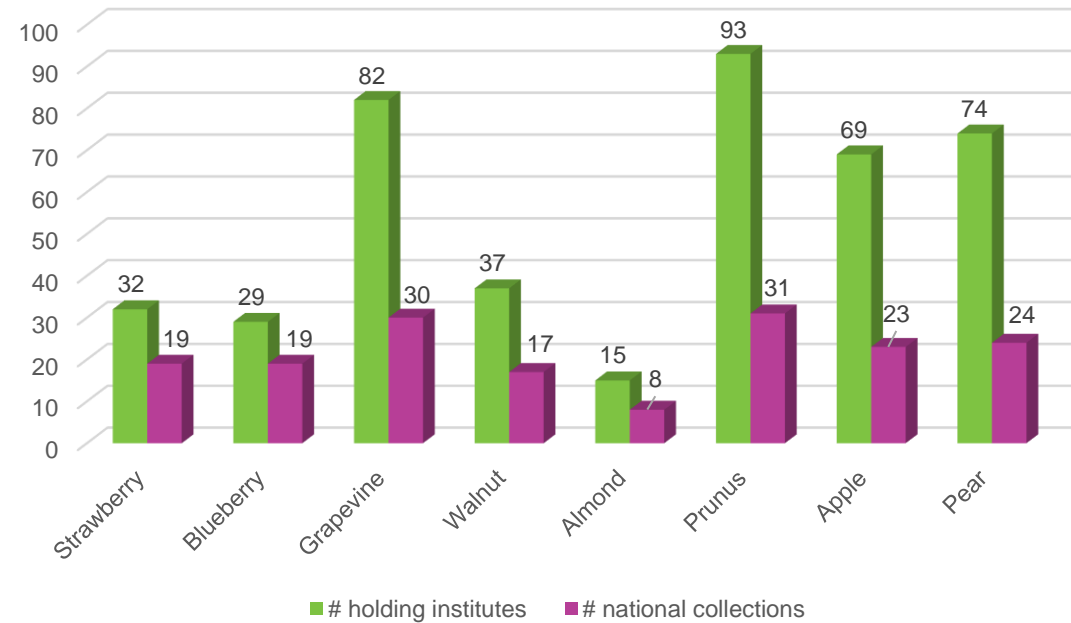
Factsheet
available [here](#)

Perennial crops documented in Eurisco

Perennial accessions in EURISCO

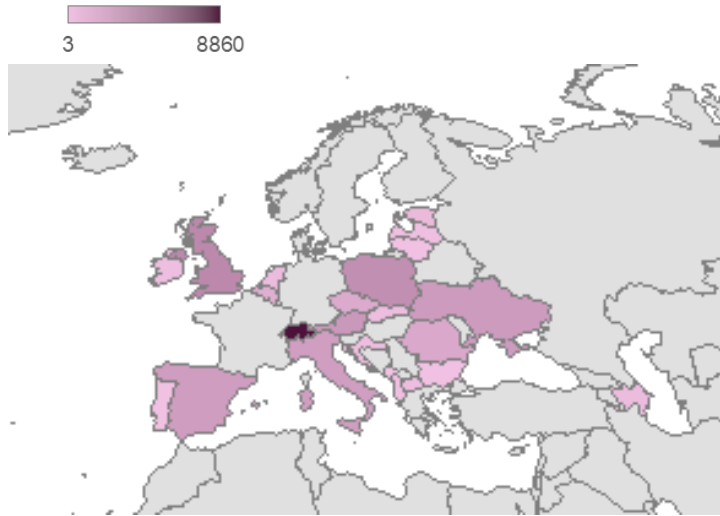


Perennials collections in Europe



* Strawberry: 20 *Fragaria* spp.
 Blueberry: 39 *Vaccinium* spp.
 Prunus: 184 *Prunus* spp.

Apple (*Malus domestica*)



Pear (*Pyrus communis*)



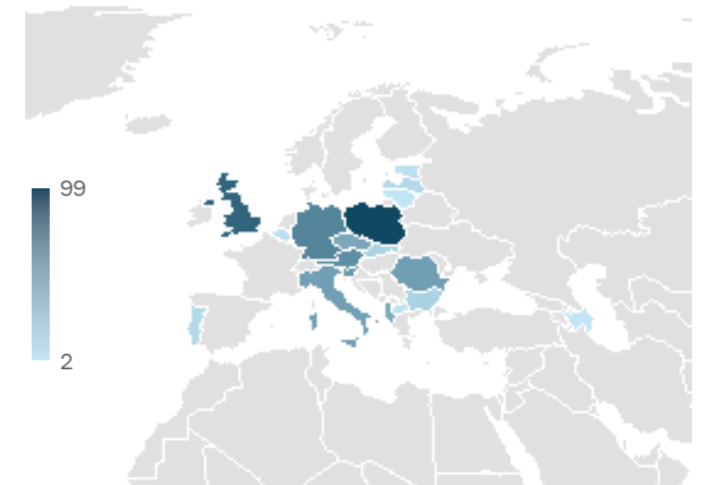
Prunus (*Prunus* spp.)



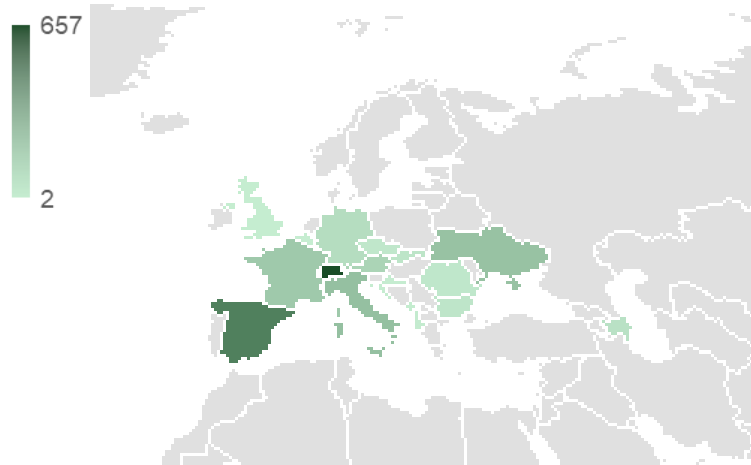
Strawberry (*Fragaria* spp.)



Blueberry (*Vaccinium* spp.)



Walnut (*Juglans regia*)



Grape (*Vitis vinifera*)



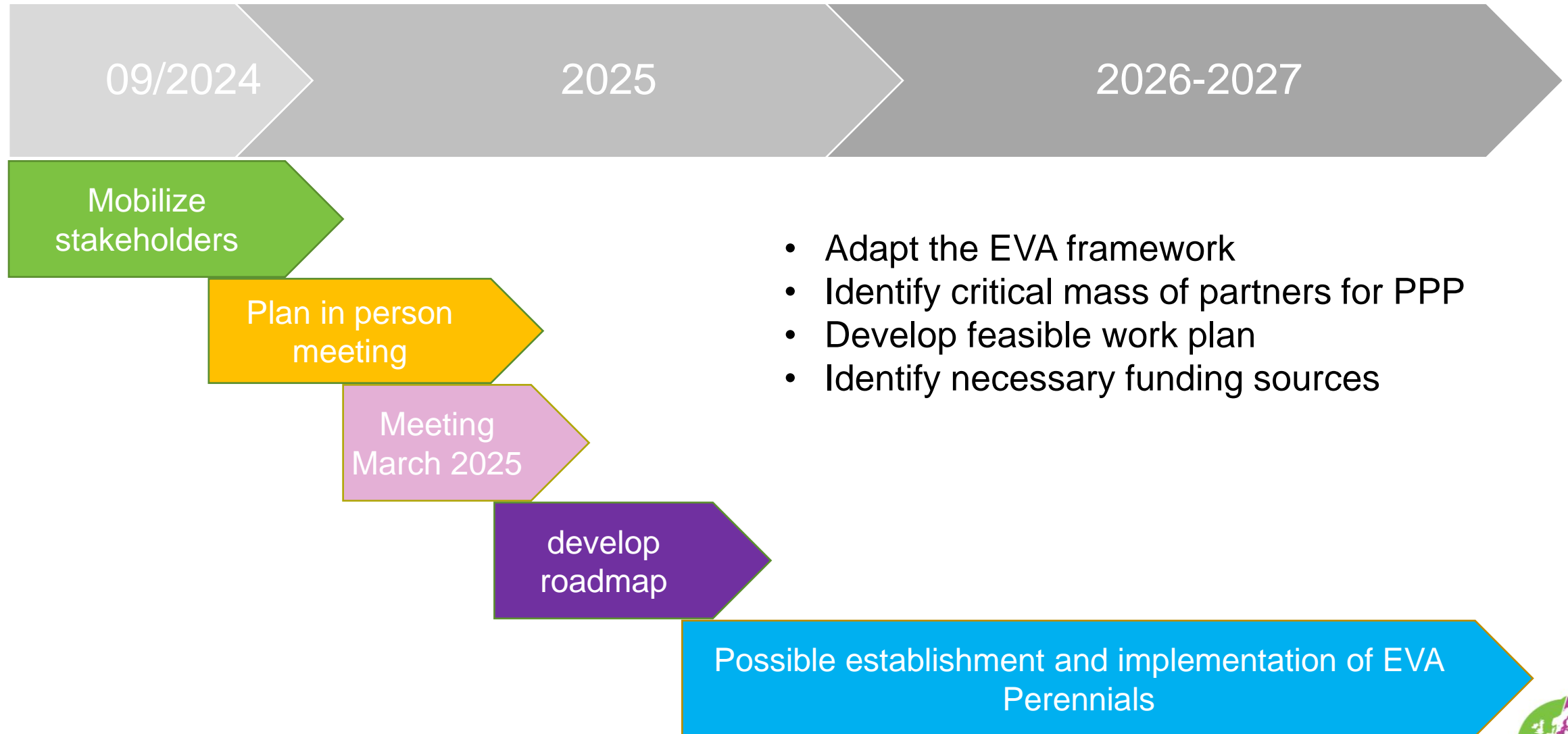
EVA Boost activity for perennials



Preparatory actions towards an EVA network for berries and/or fruit trees:

1. Identify **relevant stakeholders** in private and public sector starting from the ECPGR Working groups.
2. Organize **in-person workshop** bringing together genebanks and stakeholders to discuss scope and activities
3. Development of a **roadmap** towards establishment and implementation of potential EVA networks on berries and/or fruit trees

Roadmap towards EVA Perennials




EVA - The European Evaluation Net...


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THANK YOU
