



**EVA**  
European Evaluation Network

# INFORMATION ON ECPGR AND EVA

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EVA coordinator

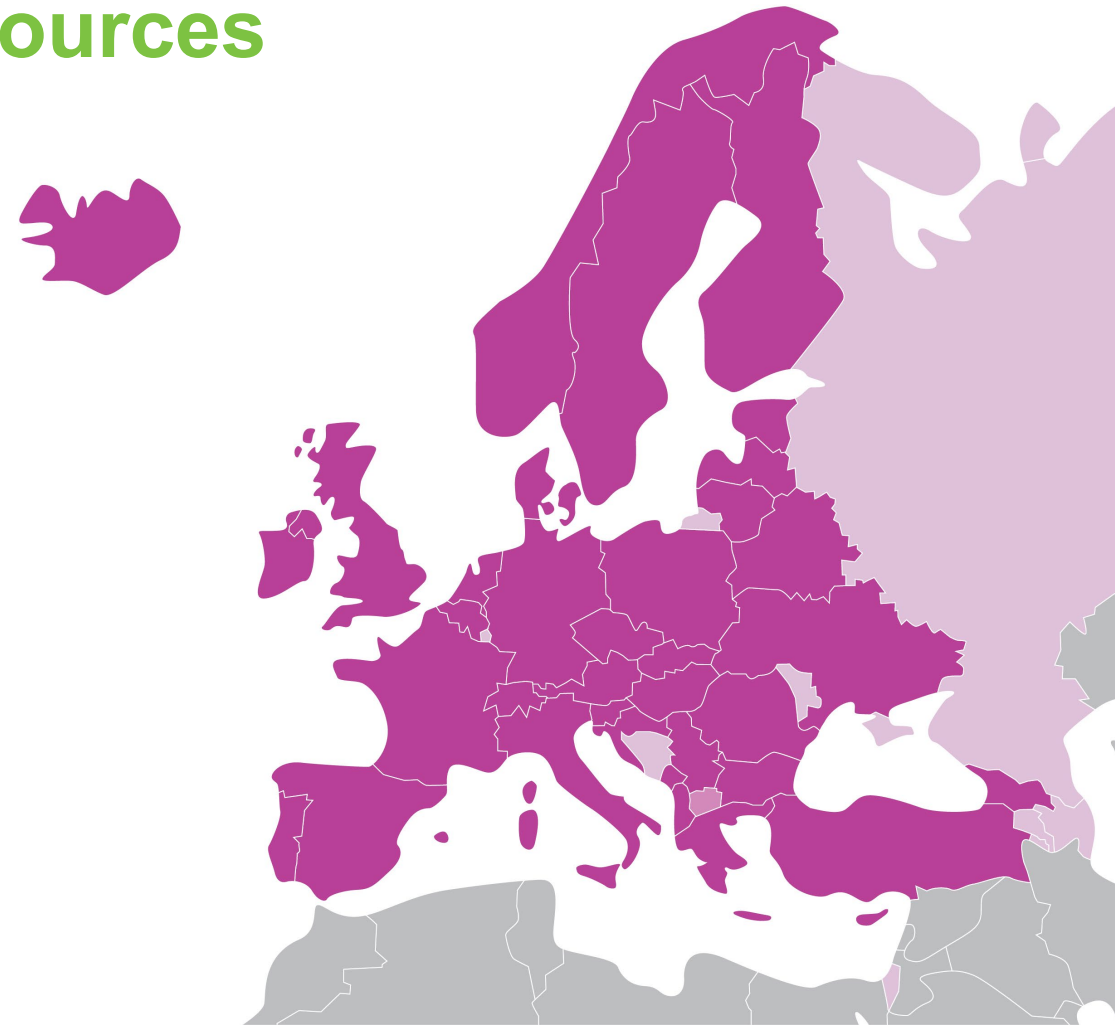
*ForEVA meeting, Bucharest, Romania*

*10 October 2023*



# The European Cooperative Programme for Plant Genetic Resources

**ECPGR** is a collaborative programme among most European countries since 1980, aiming at ensuring the **long-term conservation** and facilitating the **sustainable utilization** of plant genetic resources in Europe



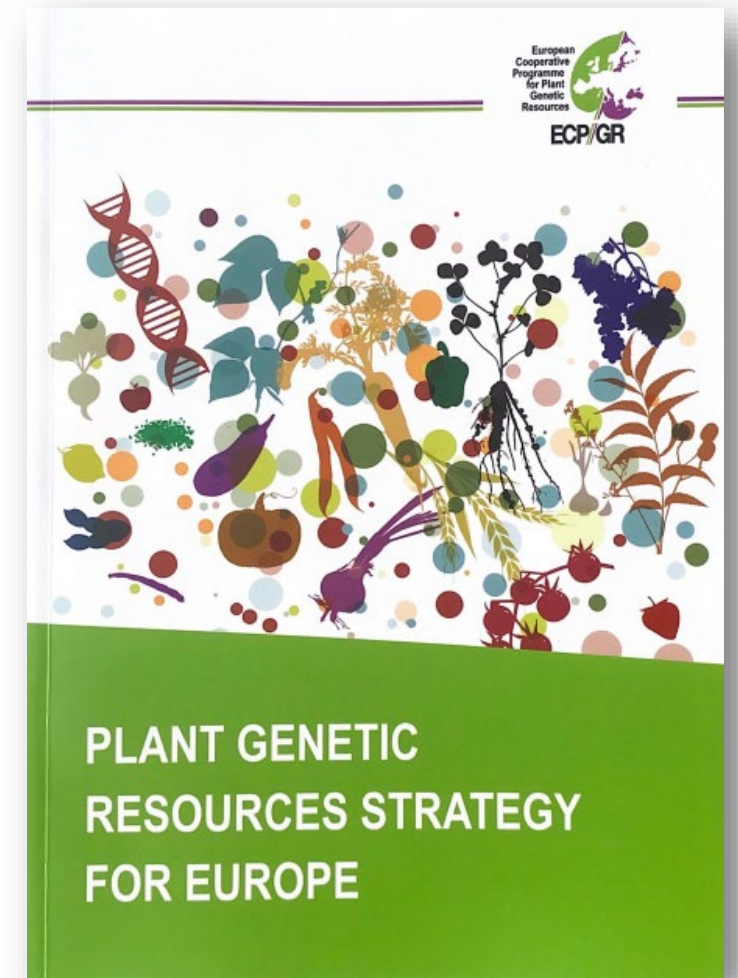
# Aims

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.



<https://bit.ly/PGRstrategy>

# ECPGR structure:



# PGRFA diversity in European Genebanks

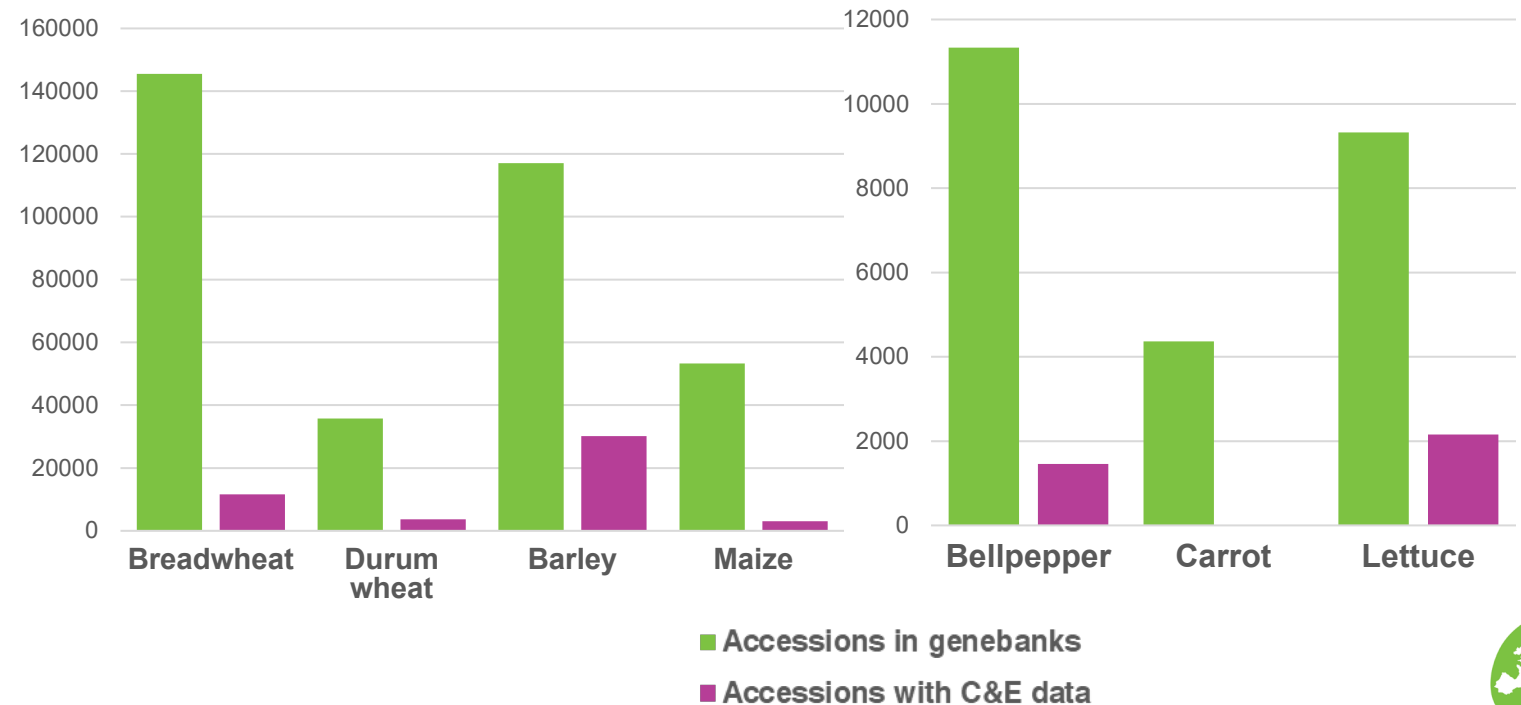
**2,080,035** accessions listed in EURISCO  
**43** national inventories,  
**402** holding institutes  
**6,737** different genera  
**45,178** species  
**428,375** MLS accessions  
**70,188** AEGIS accessions  
**230,532** DOIs

**Limited knowledge  
of characteristics of  
European genebank  
accessions**



<http://eurisco.ecpgr.org>

## EVA Crops in EURISCO



# European Evaluation Network for PGRFA



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

# EVA

European Evaluation Network

## EVA initiative aims to:

- **Increase knowledge** on germplasm held in European genebanks
- Improve passport information and add C&E data in **EURISCO**
- Promote the **use of genebank germplasm** in research, breeding and cultivation
- Identify **climate-resilient** breeding material
- Foster cooperation between public and private sector through **MoU with Euroseeds** signed in 2018
- Widen the stakeholders involved in using PGRFA through creation of **public-private partnerships**
- Create **self-sustaining networks** that evaluate available PGRFA in continuous evaluation cycles



### PUBLIC-PRIVATE PARTNERSHIPS

Increasing ECPGR knowledge and opportunities on public-private partnerships for the use of plant genetic resources for food and agriculture.

2017-  
2018

- Preparatory phase: PPP knowledge base, workshops to develop framework and projects
- **ECPGR Steering Committee approves EVA framework**
- Germany (BMEL grants project to implemnt EVA **Wheat and Barley** and **EVA vegetables** (2019-2022))

2019

2020 -  
2021

2022

- EVA project 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
- First in person project meetings of all EVA networks in 2022
- EVA crop networks present first results in international conferences

2023

2024

- Focus on final evaluations and data analysis, exploitation and dissemination
- Network discussions on continued and develop workplans for next phase
- **ForEVA** project develops **EVA Grain Legumes Network**, projected to start in 2024



# EVA

European Evaluation Network

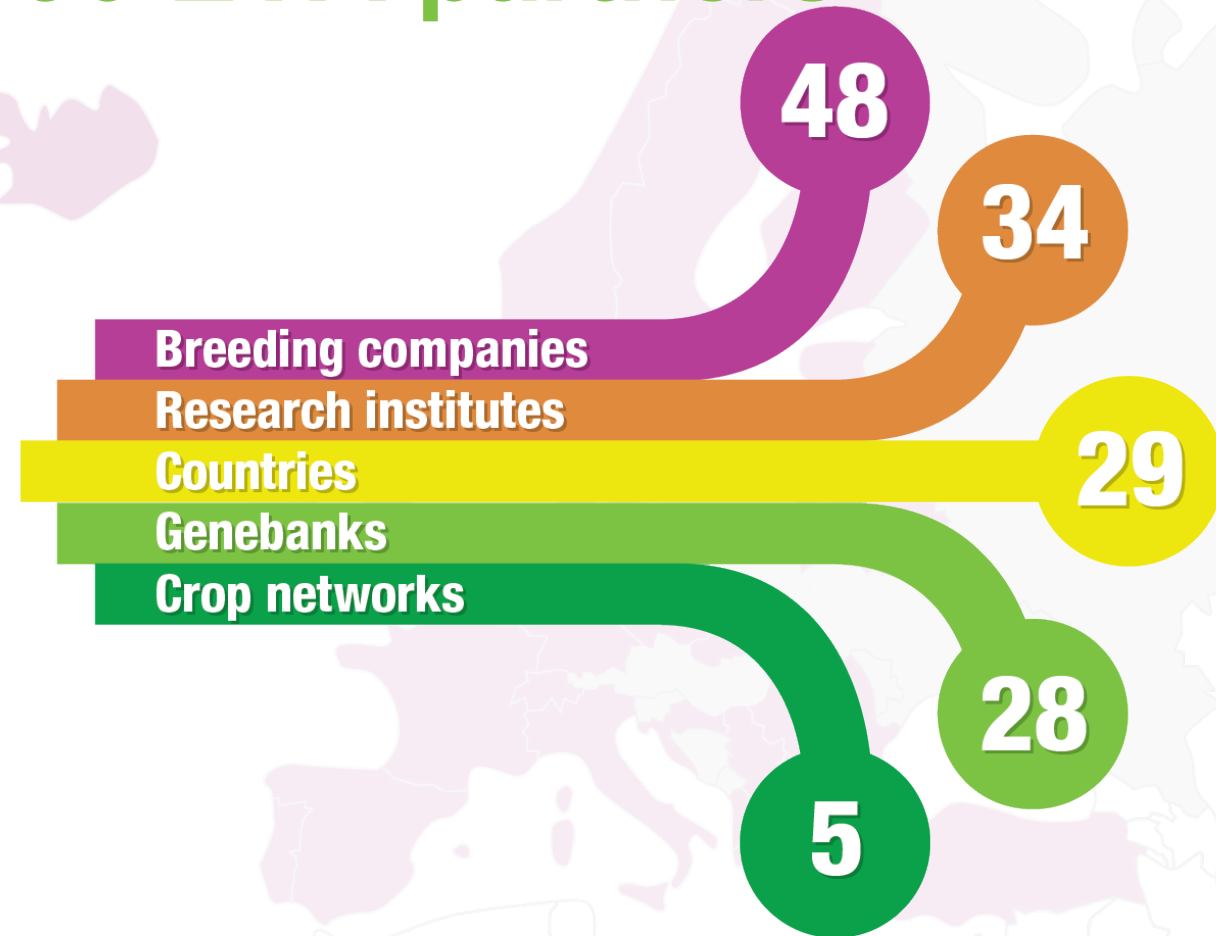
## More than 90 EVA partners

- **Public partners**

- Genebanks
- Universities and research institutes

- **Private partners**

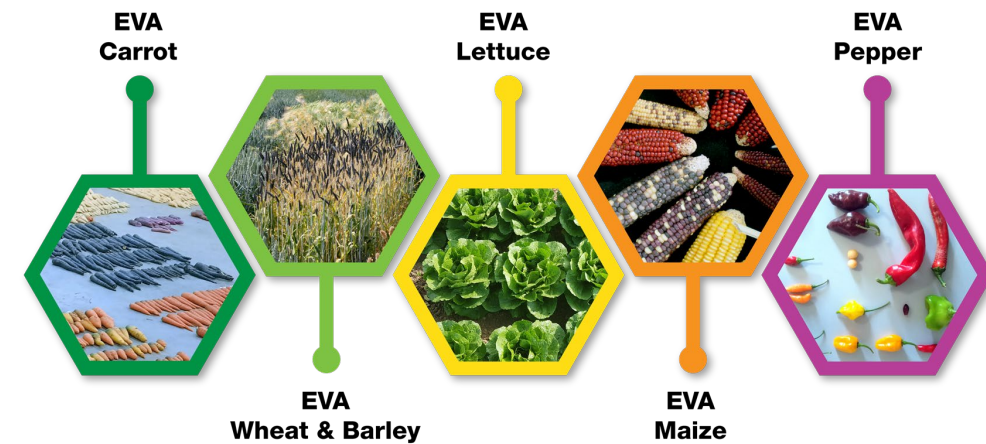
- Multinational breeding companies
- SME breeding companies
- Organic breeding companies
- Breeding and farming cooperatives





# Benefits of EVA networks

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

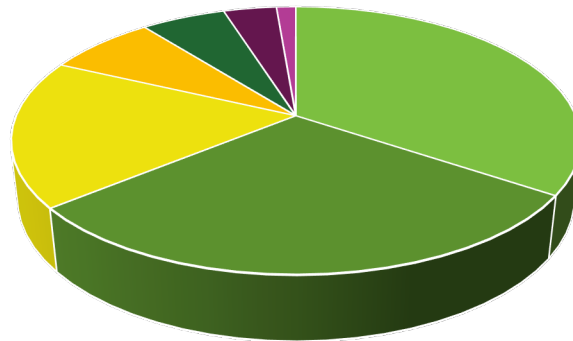


- Access to unique international research and breeding network
- Access to genebank collections and unique materials
- Shared expertise and knowledge
- Joint work based on expertise and capacity
- Large phenotypic datasets from multilocation trials
- Joint analysis and dissemination of results
- Data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



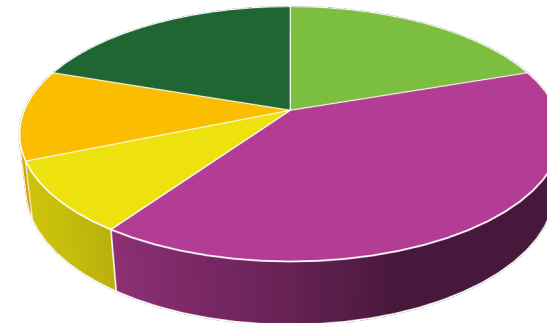
# Output of EVA networks (2020-2023)

>5000 accessions



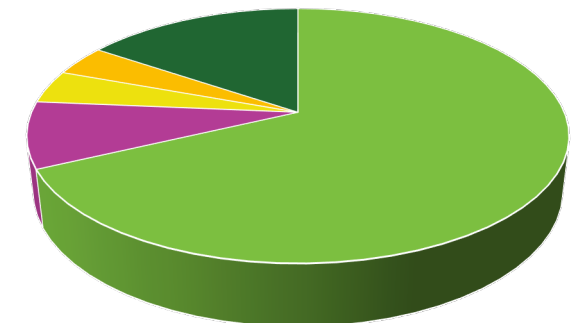
- barley
- maize
- lettuce
- carrot
- wheat
- durum wheat
- pepper

> 230 Traits evaluated



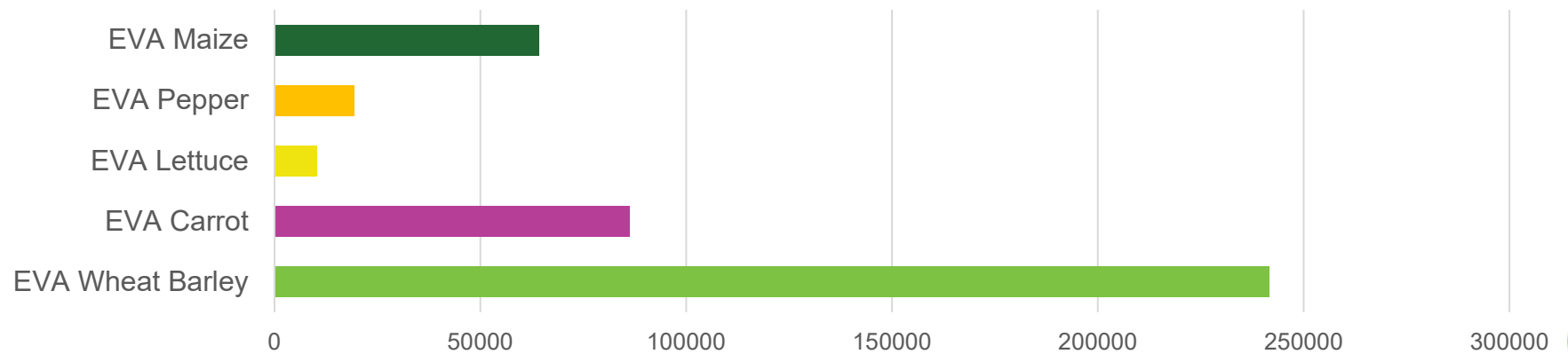
- EVA Wheat Barley
- EVA Lettuce
- EVA Maize
- EVA Carrot
- EVA Pepper

309 EVA trials



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

> 420.000 evaluation data points

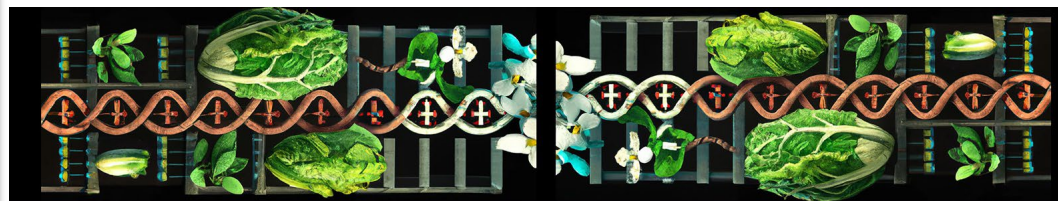


# Dissemination and exploitation



**66<sup>th</sup> ANNUAL CONGRESS  
ITALIAN SOCIETY OF  
AGRICULTURAL GENETICS**

Bari, 5-8 September 2023



EUCARPIA Leafy Vegetable Conference 28 - 31 August 2023 in Utrecht, the Netherlands

ORIGINAL RESEARCH article

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



## 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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- <sup>11</sup> European Cooperative Programme for Plant Genetic Resources (ECPGR) Secretariat c/o Alliance of Bioversity International and CIAT, Rome, Italy



ECPGR  
@ECPGR

.@gosandrago introduced @ECPGR's work to conserve and use plant genetic resources in Europe, and presented a paper on a SPET SNP assay in lettuce just published in Frontiers by the #EVANetwork team [doi.org/10.3389/fpls.2023.1252777](https://doi.org/10.3389/fpls.2023.1252777)

#leafyveg23

Guido Van den Ackerveken @guidopmi · Aug 29

European Evaluation Network for genetic resources by @gosandrago #leafyveg23 today she is presenting the efforts on lettuce, in particular robust SNP genotyping panel.



# Acknowledgements

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and Agriculture



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## EVA network partners:



## ECPGR Secretariat:



Lorenzo  
Maggioni



Loredana  
Maria



Nora  
Capozio



Stephan  
Weise



Filippo  
Guzzon





**THANK YOU**

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