



# TOGETHER WE ARE STRONGER

## A European Programme for Plant Genetic Resources

**Jens Weibull**

Incoming Chair of the ECPGR  
Executive Committee

Pro-Grace/Emphasis Policy Symposium,  
27 June 2024, Brussels, Belgium



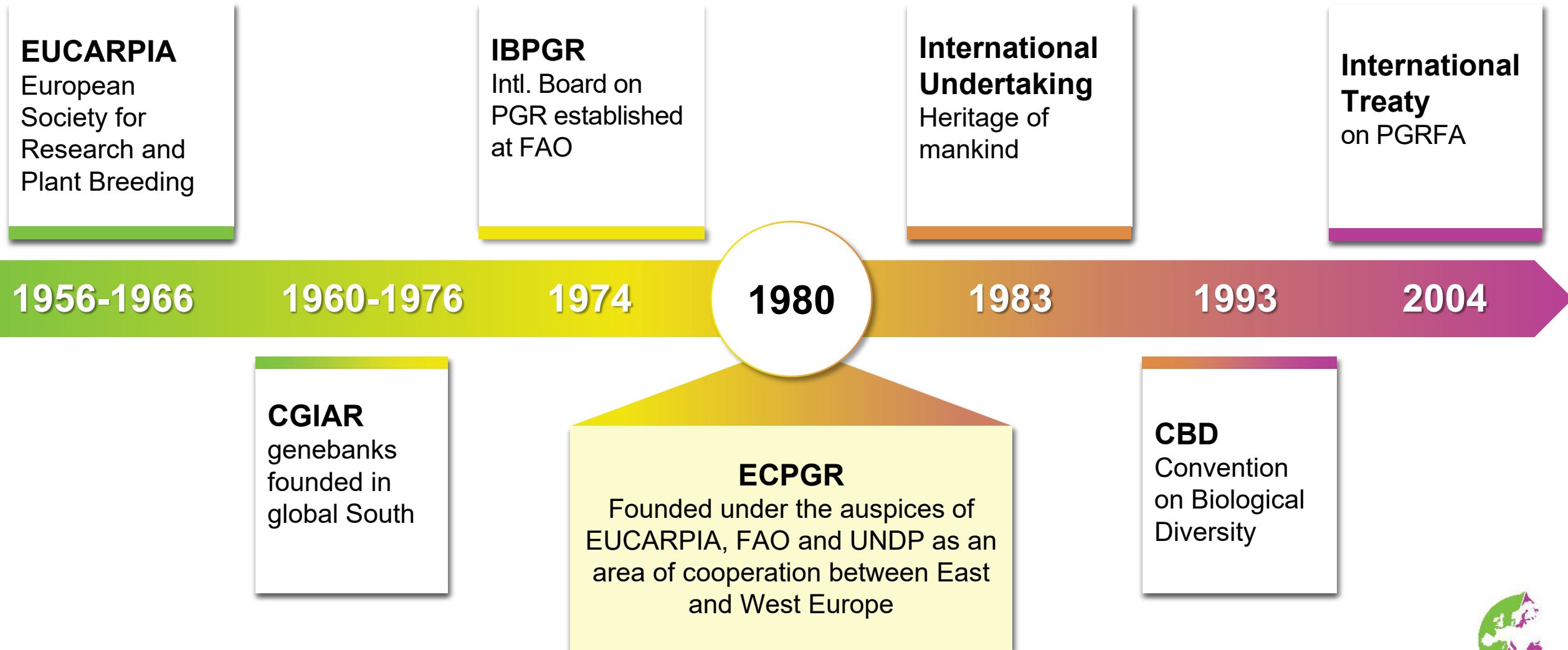
# Exchange and use of plant genetic resources



- Since Sumerians and Egyptians
- 1492 – Exchange across continents
- 1900 – Mendelian genetics – extensive crossing for crop improvement
- Search for variability (1920–1930s)
  - Harry Harlan – USA
  - Nikolai Vavilov – USSR
- Since the 1950s – Global attention on PGR
  - Regional initiatives for PGR conservation
  - FAO and UN conferences establish international instruments

@Khoury et al, 2016

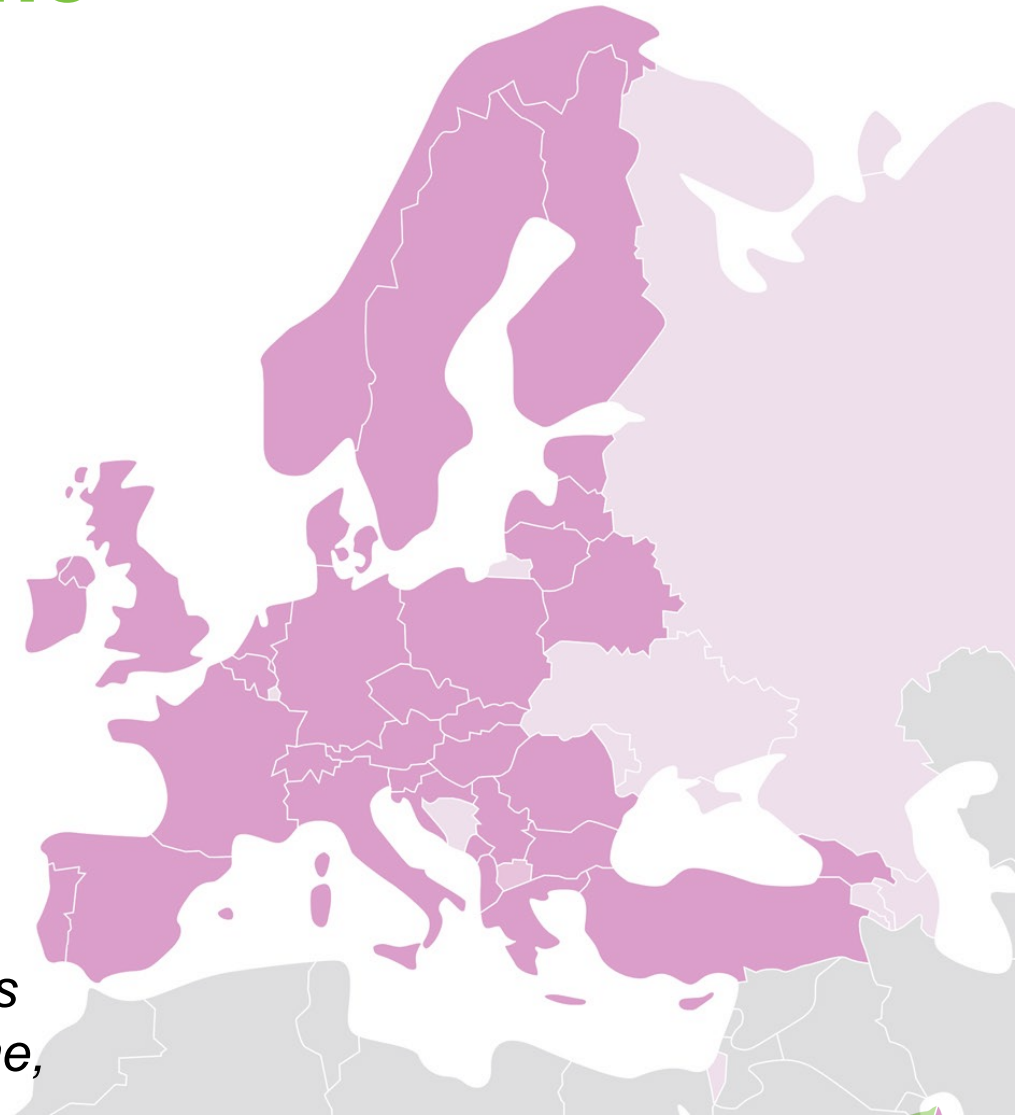
# Timeline of global developments in PGR conservation



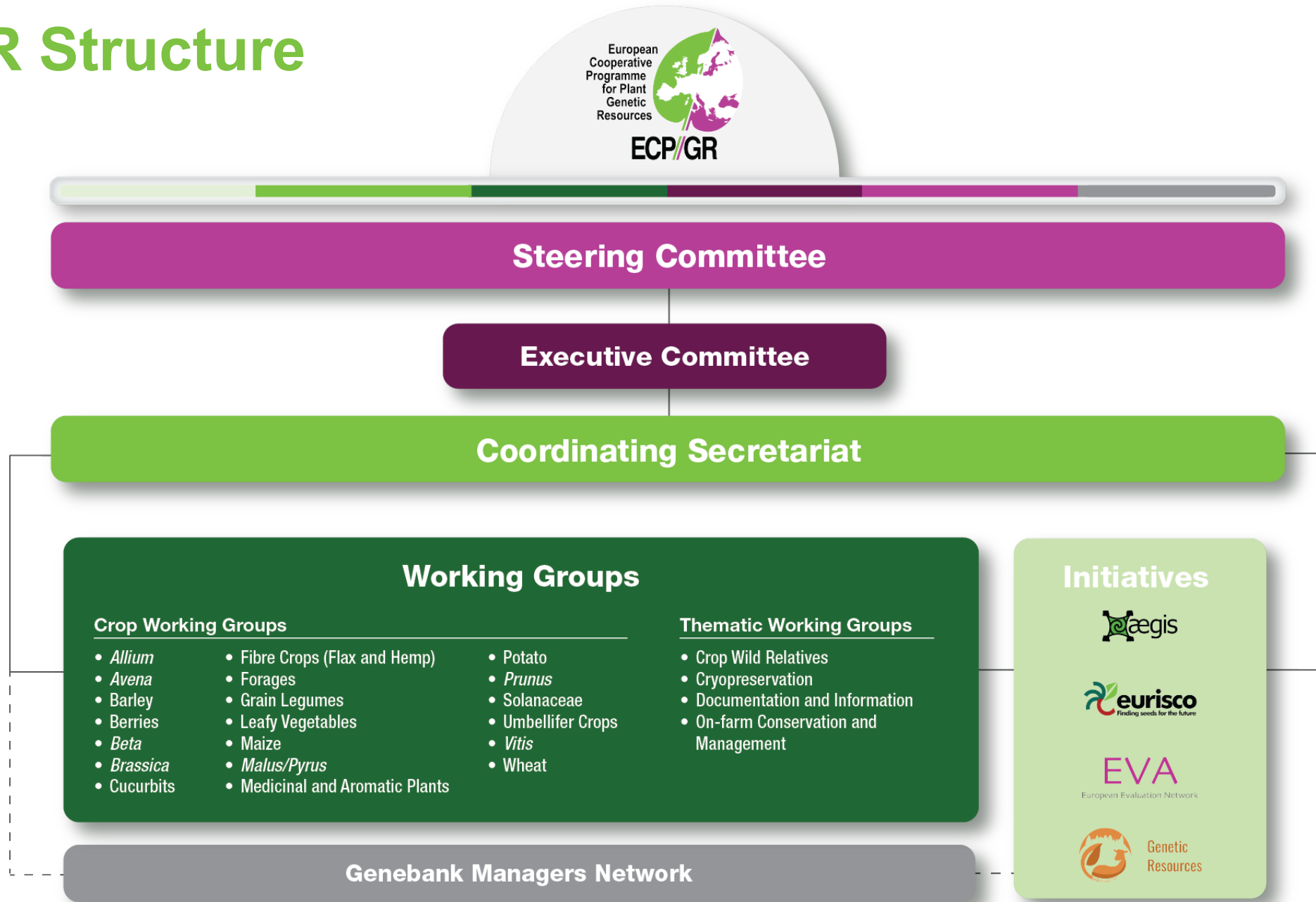
# European Cooperative Programme for Plant Genetic Resources

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

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



# ECPGR Structure



# ECPGR Working Group activities

- PGR descriptor lists
- Guidelines and standards
- Reports and publications
- Crop databases
- Projects



ECPGR Activity Grant Scheme – Third Call, 2016

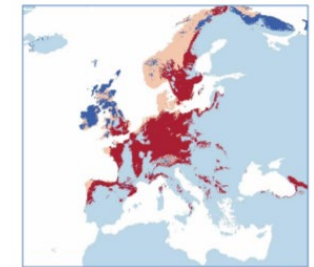
Activity Report

## Consequences of climate change for conserving leafy vegetable CWR in Europe

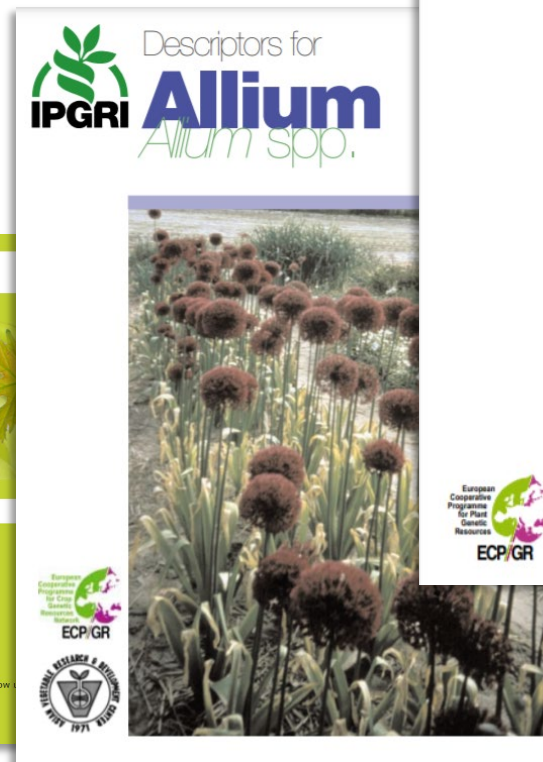
CCLEAFY

1 September 2016 – 1 September 2017


R. van Treuren, R. Hoekstra, U. Lohwasser, J. Šuštar-Vozlič  
contributions of F. Rocha, C. Allender, D. Fasoula, A. Beharav and N. Maxted



October 2017



### The European *Vitis* Database



**Genetic resources of grapes**

[Register for SSR-marker data admission via public access](#)

The European *Vitis* Database is being maintained since 2007 by the ©Julius Kühn-Institut – Federal Research Centre for Cultivated Plants (JKI), Institute for Grapevine Breeding Gailweilerhof, Siebeldingen, Germany. The establishment of the European *Vitis* Database with free access via Internet has been carried out in the scope of the European Project Genres081. The follow and enlargement will be accomplished within GrapeGen06 and by the European Cooperative Programme for Plant Genetic Resources (ECPGR).

Members of the European Cooperative Programme for Plant Genetic Resources (ECPGR) *Vitis* Working Group ©JKI 2007  
Last modified: November, 2016

European Cooperative Programme for Plant Genetic Resources ECPGR

- Users handbook
- SQL table scheme
- Public access
- Rare traditional varieties on-farm
- Contributors of data
- Descriptors/file formats
- Institute codes
- Important links
- Imprint
- Data privacy
- Varieties registered in Europe
- Home page

Login [ Case sensitive ]

User name:

Password:



# ECPGR Initiatives

Documentation



European Search Catalogue  
for Plant Genetic Resources

*Ex situ* Genebank operations and  
Quality management



A European Genebank  
Integrated System

PGR access and use



European Evaluation  
Network for PGRFA

Dissemination



Genetic  
Resources

Open Access Journal  
[www.genresj.org](http://www.genresj.org)

# Documentation

## Online catalogue

- Information on European *ex situ* collections: passport, characterization and evaluation data
- Extension to *in situ* collections recently implemented
- Largest PGR data provider
- Register for multilateral system and link with Genesys global database

**EURISCO: A European hub for delivering original and certified data on PGR**



<http://eurisco.ecpgr.org>



since 2003



ECP/GR

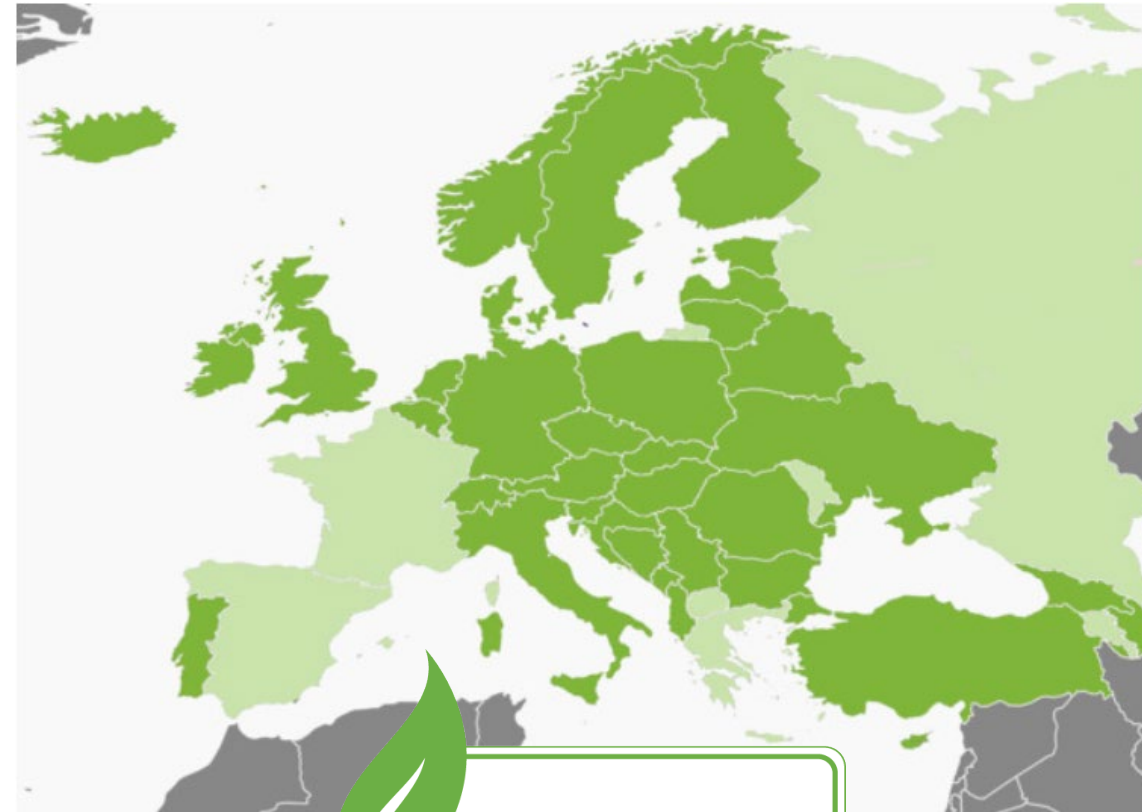


# AEGIS – A European Genebank Integrated System



Conserving in a **collaborative way** and at **agreed quality standards**, the **genetically unique** and important accessions for Europe of **all crops** and making them **available** for breeding and research **through SMTAs**

35	Member countries
63	Associate Member Agreements
121,988	AEGIS accessions
> 390	Genera

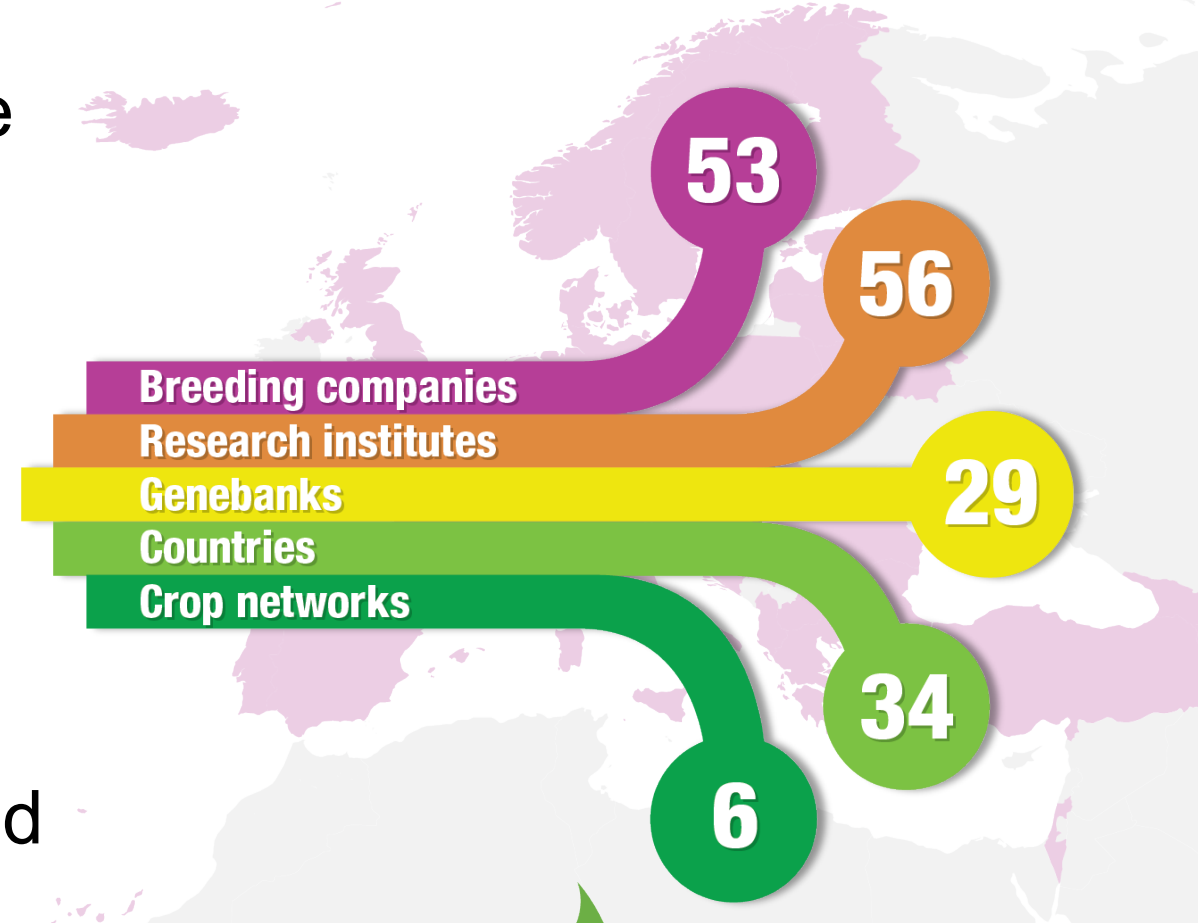


# EVA – The European Evaluation Network

EVA

European Evaluation Network

- Establish crop-specific public-private partnership networks
- Generate standardized multilocation evaluation data
- Explore diversity in European genebanks
- Promote the use of genebank germplasm in research, breeding and cultivation





Genetic Resources

# OA Journal for stakeholders



- Diamond open access journal – free to publish and read
- Dissemination of research, opinions and other articles on genetic resources
- Developed within H2020 project GenResBridge
- Published by ECPGR and ERFP

[www.genresj.org](http://www.genresj.org)



GenRes Bridge

Genetic resources for a food-secure and forested Europe



# ECPGR has been a central and reliable coordinating hub for PGR conservation, use and research for > 40 years



**36**

Member countries and National Coordinators



**43**

Eurisco National Focal Points, providing info on > **2M** accessions



**24**

Working Groups and **842** members collaborating on PGR conservation and research



**35**

AEGIS member countries, with **63** institutes conserving unique accessions with agreed quality standards

Since 1980



**>130**

EVA partner organizations evaluating crop diversity of European collections



**400**

*Ex situ* holding institutes conserving **43** national collections



**48**

Grant scheme activities since 2014, ~**200** publications by Working Groups



MoUs with FAO (ITPGRFA), Crop Trust, Euroseeds

# The need for urgent action

Despite ongoing national and regional efforts:

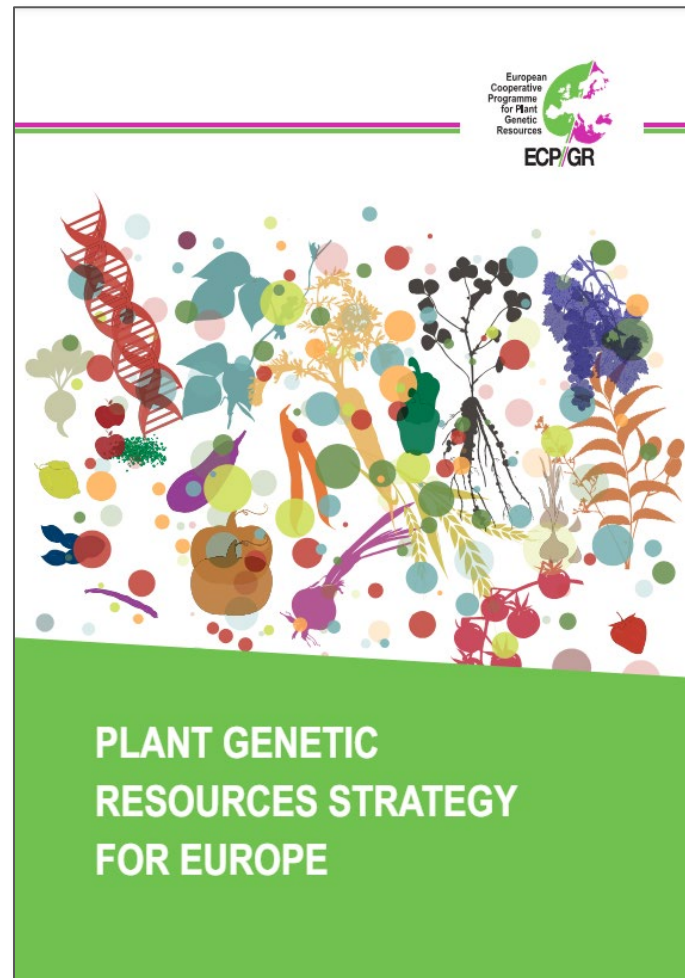
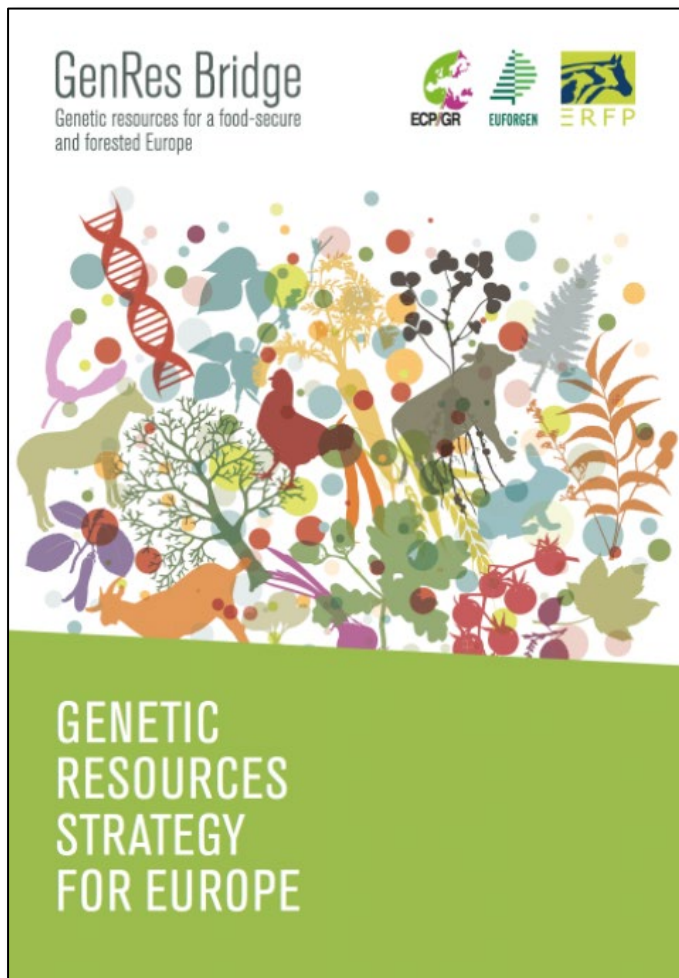
- Mounting challenges posed by climate change and declining food security
- PGR are still not always adequately conserved *ex situ*, rarely *in situ* and often hardly accessible
- Insufficient coordination, poor state of genebanks, vulnerability of landraces and wild relatives
- Researchers and plant breeders need access to an efficient system of conservation and targeted investments to explore and exploit the existing diversity.



**AN URGENT POLITICAL COMMITMENT IN EUROPE IS NEEDED!**

# Genetic Resources Strategy for Europe

Launched in Bruxelles, 30 November 2021



Developed via extensive consultations with experts and stakeholders

Implementation is subject to firm political will



Since 2021



# PGR Strategy for Europe – Priorities by 2030

- Expanding *in situ* conservation of crop wild relatives (CWR) and wild food plants (WFP)
- Promoting ‘on-farm’ PGR conservation and management
- Consolidating and sustaining *ex situ* conservation, building on AEGIS
- Strengthening a comprehensive information system for PGRFA, building on EURISCO
- Promoting the sustainable use of PGR



# Conclusion

- PGR are essential for our food security
- Europe's PGR require:
  - Long-term investments and a sustained financial basis for collaborative European and national programmes
  - A coherent European policy framework
  - An efficient long-term infrastructure for conservation, documentation and sustainable use
  - Dedicated education and professional programs

**PRO-GRACE can be a route to implementation**





**Thank you  
for your attention!**

