

Information and updates from ECPGR and Vision of the future of AEGIS

Eva Thörn
Chair ECPGR ExCo



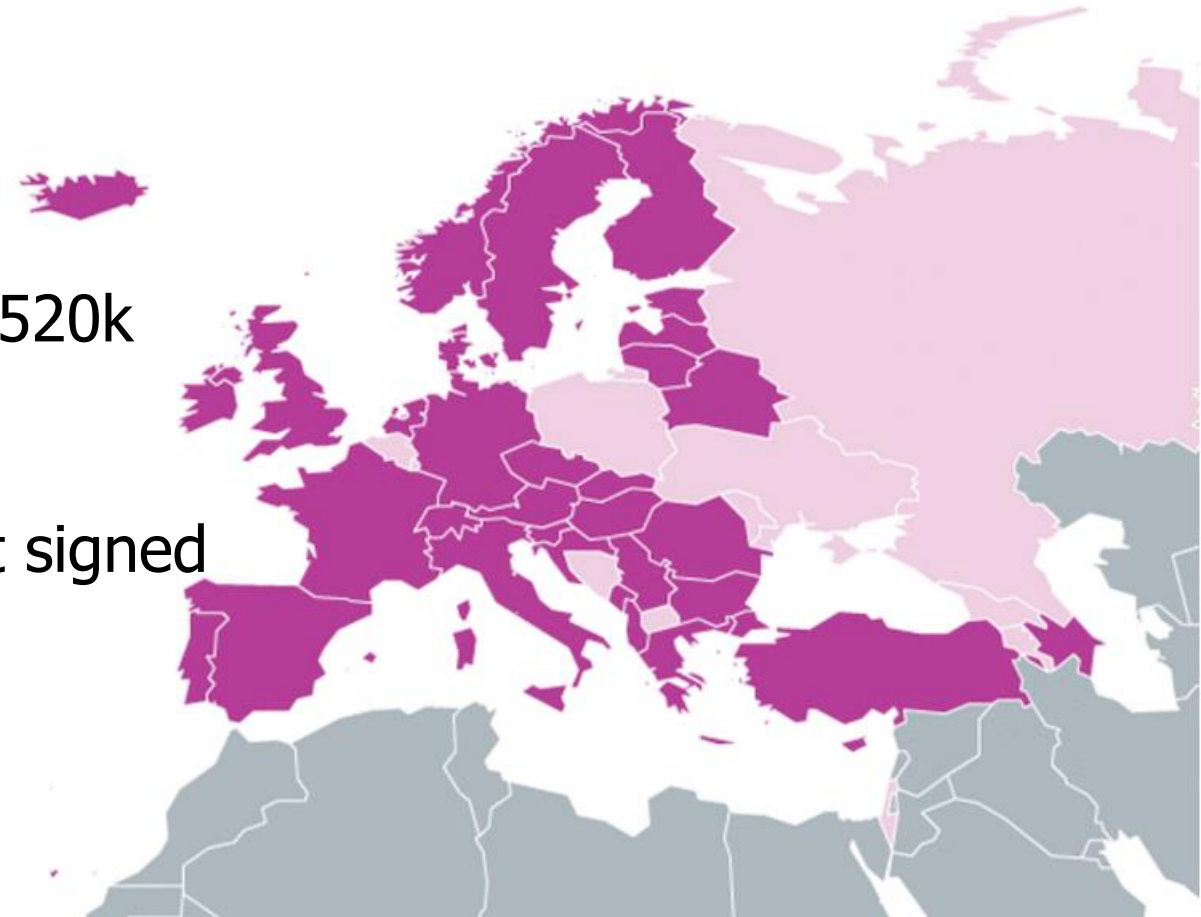
What is ECPGR

ECPGR is a collaborative Programme among most European countries, aiming at ensuring the long-term conservation and facilitating the utilization of plant genetic resources in Europe.

www.ecpgr.cgiar.org/

Phase IX (2014-2018)

- Annual budget ca. € 520k from 38 countries
- Letters of Agreement signed by 33 countries



Structure

Executive Committee

Steering Committee

Coordinating Secretariat

Crop Working Groups

Thematic Working Groups

- *Allium*
- *Avena*
- Barley
- *Beta*
- *Brassica*
- Cucurbits
- Fibre Crops (Flax and Hemp)
- Forages
- Grain Legumes

- Leafy Vegetables
- *Malus/Pyrus*
- Medicinal and Aromatic Plants
- Potato
- *Prunus*
- Solanaceae
- Umbellifer Crops
- *Vitis*
- Wheat

- Wild Species Conservation in Genetic Reserves
- On-farm Conservation and Management
- Documentation and Information

ECPGR objectives (Phase IX)

Long-term Goal:

National, Sub-regional and Regional Programmes in Europe rationally and effectively conserve *ex situ* and *in situ* PGRFA and increase their utilization

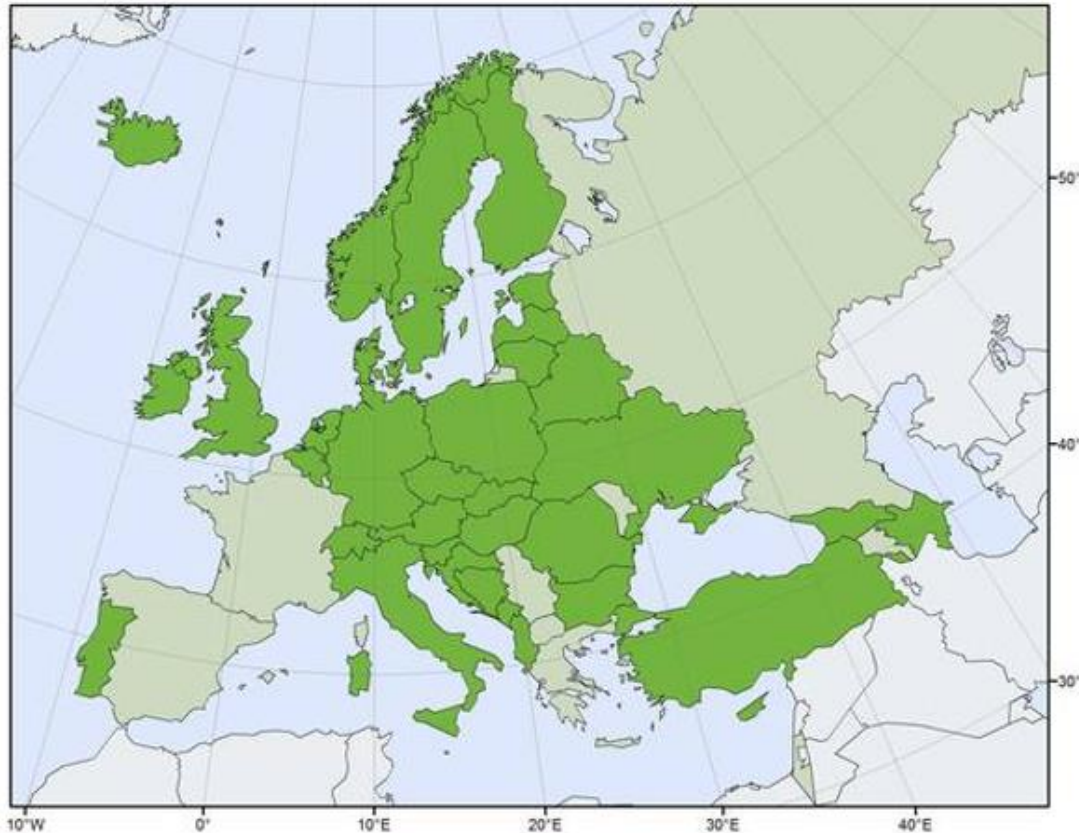
Objectives of ECPGR – outcomes of Phase IX

1. **AEGIS** is operational and accessions are characterized and evaluated
2. Functionality of **EURISCO** ensured (data quality & quantity + *in situ* data)
3. ***In situ* and on-farm conservation and management** of priority crop wild relative (CWR) and landrace (LR) populations are implemented throughout Europe
4. Relations with **users** of germplasm are strengthened
5. Commitment and regular resources from donors are increased
6. Secretariat support is adequate to sustain operations of ECPGR

Outcome 1- AEGIS is operational

- To create **A European Genebank Integrated System for PGRFA**, aimed at **conserving the genetically unique and important accessions for Europe and making them available** for breeding and research. Such material will be safely conserved under conditions that **ensure genetic integrity and viability in the long term**

AEGIS membership



34 Member countries
60 Associate Members' Agreements

1. **Albania** (05 May 2009) - [Associate Members](#)
2. **Austria** (04 December 2012) - [Associate Members](#)
3. **Azerbaijan** (15 July 2009) - [Associate Members](#)
4. **Belarus** (01 November 2011) - [Associate Members](#)
5. **Belgium** (31 May 2012) - [Associate Members](#)
6. **Bosnia and Herzegovina** (18 May 2010)
7. **Bulgaria** (01 December 2009) - [Associate Members](#)
8. **Croatia** (01 December 2009) - [Associate Members](#)
9. **Cyprus** (15 September 2009) - [Associate Members](#)
10. **Czech Republic** (22 July 2009) - [Associate Members](#)
11. **Denmark** (21 February 2010) - [Associate Members](#)
12. **Estonia** (21 May 2009) - [Associate Members](#)
13. **Finland** (01 December 2009) - [Associate Members](#)
14. **Georgia** (17 May 2009) - [Associate Members](#)
15. **Germany** (04 November 2009) - [Associate Members](#)
16. **Hungary** (21 November 2011) - [Associate Members](#)
17. **Iceland** (21 October 2010) - [Associate Members](#)
18. **Ireland** (21 July 2009)
19. **Italy** (02 March 2014) - [Associate Members](#)
20. **Latvia** (31 May 2012) - [Associate Members](#)
21. **Lithuania** (11 October 2010)
22. **Montenegro** (15 December 2010)
23. **Netherlands** (27 May 2009) - [Associate Members](#)
24. **Norway** (16 August 2009) - [Associate Members](#)
25. **Poland** (16 May 2010) - [Associate Members](#)
26. **Portugal** (19 November 2009) - [Associate Members](#)
27. **Romania** (13 April 2010) - [Associate Members](#)
28. **Slovakia** (16 June 2009) - [Associate Members](#)
29. **Slovenia** (20 September 2009) - [Associate Members](#)
30. **Sweden** (30 May 2011) - [Associate Members](#)
31. **Switzerland** (26 July 2009) - [Associate Members](#)
32. **Turkey** (13 November 2011) - [Associate Members](#)
33. **Ukraine** (29 April 2009)
34. **United Kingdom** (17 June 2010) - [Associate Members](#)

The European Collection

Through signing the MOU countries accept responsibility for European Accessions:

- Long-term conservation according to quality standards
- Availability through Standard Material Transfer Agreement (SMTA)
- Safety-duplication

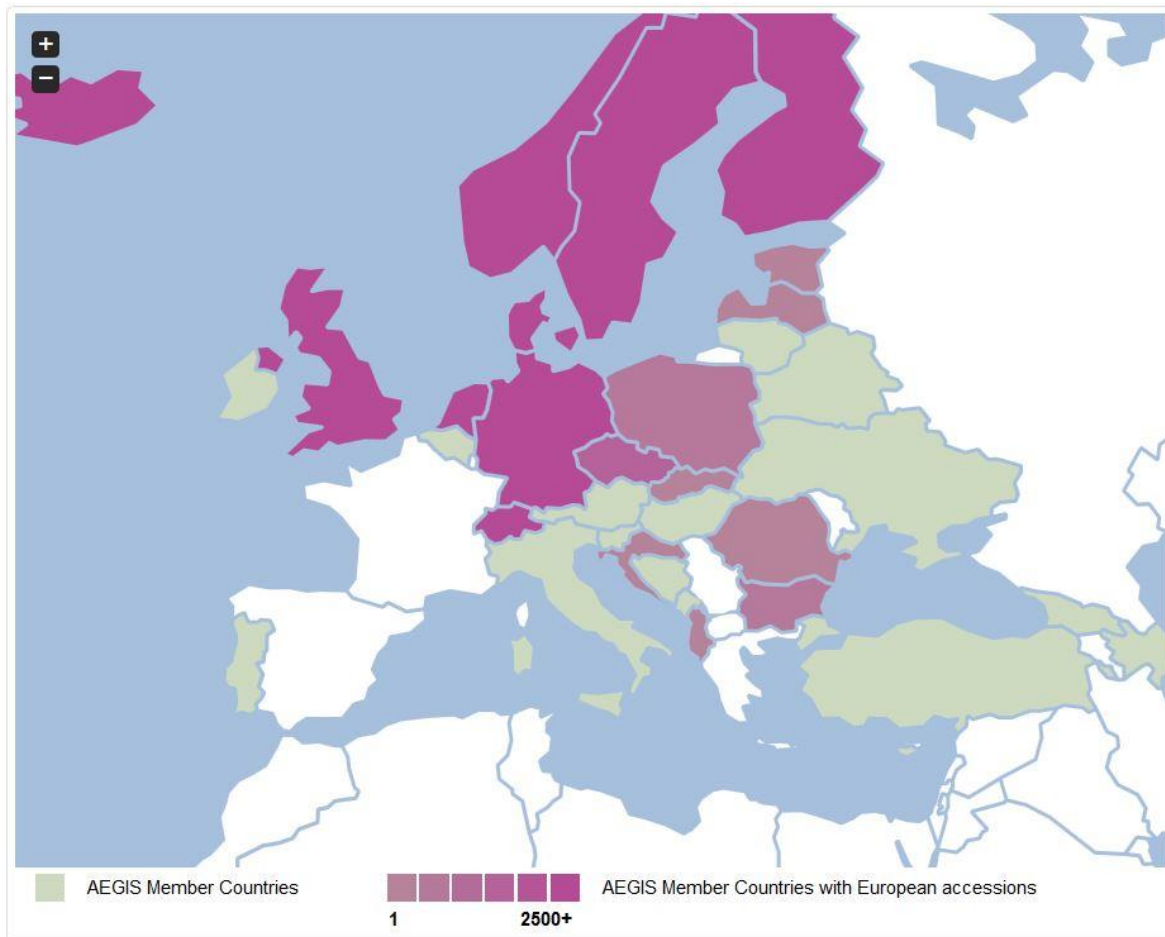
Working Groups are responsible for:

- Oversight over the Selection of European Accessions
- Establishment of crop-specific quality standards
- Preparation of crop conservation/management strategies

The European Collection

26 512 accessions included in the European Collection

Country	No of accessions
Albania	8
Bulgaria	261
Croatia	90
Czechia	1285
Estonia	89
Germany	7904
Latvia	21
Netherlands	5853
Nordic Countries	3708
Poland	303
Romania	194
Slovakia	299
Switzerland	4838
United Kingdom	1659
Total	26512



Perceived Benefits of AEGIS

- Improved **security of germplasm** through long-term commitment and systematic safety-duplication
- Facilitated access to and **availability** of germplasm
- Improved **quality standards** of conserved material
- **Cost efficient** conservation activities
- **Reduced unwanted duplication** of germplasm material
- Improved **sharing of knowledge** and information

New AEGIS initiative

Pilot study:

- Creation of a **peer review system** amongst *ex situ* genebanks in Europe
- Led by CGN under the umbrella of ECPGR, in collaboration with the Trust and the ITPGRFA.

Expected result:

- A transparent and **cost effective system** of *ex situ* genebanks, providing **secure conservation** and **facilitated access** to the PGR to crop researchers, plant breeders and farmers, now and in the future.
- **Exchange of knowledge** within the genebank network, resulting in a quality improvement.
- The review report can serve as a **basis for fund raising**.

Outcome 2- Quantity and quality of data in EURISCO

Online catalogue, with information on the European *ex situ* collections: passport and C&E data

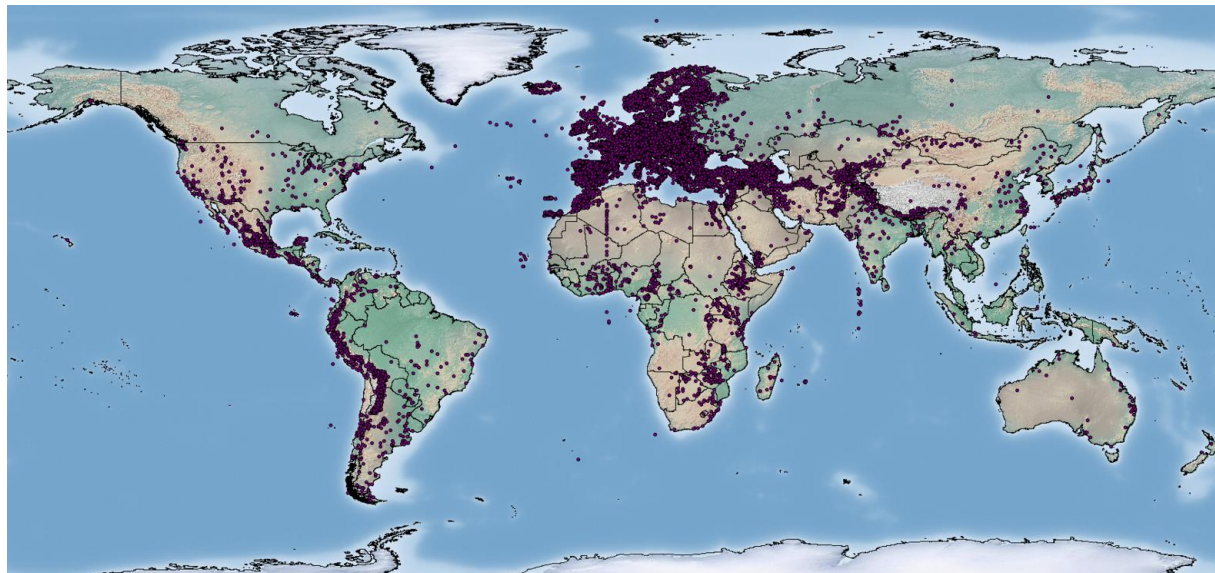


<http://eurisco.ecpgr.org>



Online catalogue of accessions in European genebanks: EURISCO

- Data gathered from 43 national inventories
- 1.8 M accession data from > 300 institutions throughout Europe
- Larger data provider to Genesys and the Global Information System
- Register for MLS (365k) and AEGIS (28.9k) European accessions



EURISCO development planned for 2017

- User survey to get feedback and implementation of improved search functionalities
- Adoption of MCPD v.2.1 including additional descriptors
- An improved user interface to increase the searching performance via taxonomic names (project funds offered by Germany)
- Uploading of C&E datasets via Grant Scheme Activities
- Instructions for National Focal points regarding C&E datasets

Outcome 3- *In situ* conservation and management

- National and regional conservation strategy planning
(checklists -> priorities -> inventories -> action plans)
- Designation and management of **Most Appropriate Wild Populations** (genetic diversity and traits of interest) in **genetic reserves**

ECPGR Concept for *in situ* conservation of crop wild relatives in Europe

Nigel Maxted, Alvina Avagyan, Lothar Frese, José Iriondo,
Joana Magos Brehm, Alon Singer and Shelagh Kell

Endorsed by the ECPGR Steering Committee in March 2015



Outcome 3- On farm conservation and management

CONCEPT (IN PRINT) ENDORSED BY STEERING COMMITTEE IN JANUARY 2017:

- European Inventory of on-farm genetic diversity
- Developing indicators for monitoring diversity and threat
- Promoting good practices for on-farm management
- Concept of European agro-diversity sites
- Addressing issues of ownership, access, availability, marketing, etc.

Outcome 4- Relations with users

Voluntary contribution by Germany for:

- A workshop on *Private Public Partnerships for the use of PGRFA*, June 2017
- A part-time research assistant for 6 months at the ECPGR Secretariat
- Development of dedicated ECPGR webpages providing examples of public private partnerships on use of PGRFA

Expected outcomes:

- Increased ECPGR knowledge and opportunities on Private Public Partnerships for the use of Plant Genetic Resources for Food and Agriculture
- A list of recommendations, prioritization and a feasibility analysis for an "Evaluation Programme on PGRFA in Europe"

ECPGR Activity Grant Scheme

Working Group activities (meetings and other actions) are carried out on the basis of a competitive scheme.

Participation in these activities of technical experts from all the member countries are guaranteed by a country quota.

Depending on funding availability, the Secretariat will regularly open calls for ECPGR-funded actions.

Fourth Call of the ECPGR Activity Grant Scheme

All WGs: Networking among Working Groups for discussing and coordinating the implementation of ECPGR objectives

***Allium* WG:** Safeguarding of *Allium* crop diversity in Europe in changing climate conditions

***Malus/Pyrus* WG:** Common ECPGR protocols and tools available for Characterization & Evaluation of *Malus/Pyrus* genetic resources

Umbellifer Crops WG: Improving the characterization and conservation of umbellifer crop wild relatives in Europe

Documentation and Information WG: GRIN-Global Workshop 2017 for European Genebanks

MoU signed between International Treaty and ECPGR

A framework for cooperation on a range of activities related to access to and exchange of information and the sharing of expertise, by which the Treaty Secretariat and the ECPGR Secretariat will collaborate in areas of mutual interest, with the aim of promoting synergy and the coherent implementation of Art. 5, 6, 16 and 17 and the objectives of the Treaty.

ECPGR offering assistance to the European Commission (EC) and the European Parliament

Following up from the preliminary conclusions and recommendations of the “Preparatory Action on EU plant and animal genetic resources”, a letter from the European genetic resources networks was sent to the European Commission.

The letter encourages the EC to capitalize on the expertise of the existing GR networks and offers a close collaboration with the EC for the development of a “EU Agrobiodiversity Strategy”.

Targets for the future of ECPGR

- Expanded characterization of PGRFA as part of the AEGIS process
- Increased availability of data through EURISCO
- Expanded scope of MLS = increased access as part of AEGIS
- Promoted use through the On-farm concept
- Improved partnerships between genebanks and users

Targets for the future of AEGIS

Increased number of MoUs

Increased number of AMs

Increased number of accessions

Use of AQUAS

Exchange of services

Increased use of accessions

Upcoming events – ECPGR

- Workshop on Private Public Partnerships, June 2017, Bonn, Germany
- Possibility of safety-duplication of AEGIS accessions to Svalbard with Trust support in 2017
- Fifth Call for proposals: to be launched in June with deadline in September 2017
- Meeting of all Chairs: October 2017 in Ljubljana, Slovenia
 - Discussion of ECPGR objectives and Mode of operation for Phase X
- End-of-Phase Steering Committee meeting: May 2018

Thanks!