

# ECPGR Phase X

Lorenzo Maggioni (ECPGR Secretariat)

First Meeting of Berries WG, 14-15 January 2020, Dresden, Germany

# ECPGR long-term goal

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

[www.ecpgr.cgiar.org](http://www.ecpgr.cgiar.org)

# Objectives of ECPGR Phase X (2019–2023)

1. To efficiently conserve and provide access to unique germplasm in Europe through **AEGIS** and the **European Collection**
2. To provide passport and phenotypic information of actively conserved European PGRFA diversity *ex situ* and *in situ* through the **EURISCO** catalogue
3. To improve *in situ* conservation and use of **crop wild relatives**
4. To promote **on-farm** conservation and management of European PGRFA diversity
5. To promote **use** of PGRFA



# Membership and funding

Ten Phases (1980-2023)

- Member countries contribute funding (ca. € 540 000 per year)
- National Coordinators are nominated at governmental level
- Use of funds:
  - Coordination
  - Working Group activities
  - Maintenance of EURISCO



# Structure

Executive Committee

Steering Committee

Coordinating Secretariat

*Crop Working Groups*

*Thematic Working Groups*

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

- *Leafy Vegetables*
- *Maize*
- *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*

# Berries Working Group



**Chair:** Monika Höfer

✉ [monika.hoefer\(at\)julius-kuehn.de](mailto:monika.hoefer(at)julius-kuehn.de)

Nominated as Chair for Phase X in March 2019

[View CV](#)

## Working Group activities and related events

### September 2019

The first meeting of the Working Group will take place 14-15 January 2020 at the Julius Kühn Institute in Dresden, Germany. [more info](#)

### March 2019

Monika Höfer, from the Institute for Breeding Research on Fruit Crops, Julius Kühn Institute, Germany, was nominated as Chair of the Working Group.

### January 2019

Countries are requested to send nominations for WG members (list available [here](#)). The WG will be able to start operating as soon as the Chair will have been nominated (selection process is ongoing).

## Background information

The Working Group was officially established in 2019, at the beginning of ECPGR Phase X.

## 49 ECPGR Berries Working Group Members

[Email Distribution](#)

**Chair:** Monika Höfer ✉ [monika.hoefer\(at\)julius-kuehn.de](mailto:monika.hoefer(at)julius-kuehn.de)

[Full list](#)

Genebank Curator (13)

Crop specialist (22)

Information/Documentation (8)

Plant breeder (18)

Policy and law (3)

Other expertise (8)

Contact Persons (11)

# Past ECPGR Activities on Berries



## The ECPGR *Ribes* and *Rubus* Database

Vilnius University Botanical Garden, Kairenu 43, LT-10239 Vilnius, Lithuania  
Tel: +370 5 2193139 Fax: +370 5 2317933

Webmaster: [Dr. Darius Ryliskis](#)

Database manager: [Dr. Darius Ryliskis](#)



The European Central *Ribes*/*Rubus* Database is under construction at the Vilnius University, Vilnius, Lithuania. We invite all related European institutions to join to the database development with their data contacting [Dr. Darius Ryliskis](#).

The database will contain passport data, based on the new version of the FAO/IPGRI Multicrop Passport Descriptors. All other data on accessions will be accepted after a separate discussion of compatibility.

The *Ribes* database contains 2551 records of *Ribes* accessions held in 11 countries, namely Czech, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Romania, Sweden and U.K. in the meantime. Part of accessions were evaluated during Ribesco ([Core collection of northern European gene pool of Ribes](#)) (071 AGRI GEN RES 870/2004) project and data of evaluation and photos were included into data base as additional fields..

The *Rubus* database contains 665 records of *Rubus* accessions held in 6 countries, namely Poland, Czech, Germany, Lithuania, Romania and Sweden (Nordic Gene Bank) in the meantime.

Database access	Further information
On-line - search.	<a href="#">Contributors</a>
<a href="#">Off-line - download</a>	<a href="#">Database description</a>
Off-line - hardcopy	

# 1. *Ex situ* conservation

## **AEGIS objective**

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



# A European Genebank Integrated System AEGIS



- Establishment of **decentralized European Collection** of unique and important accessions
- **Memorandum of Understanding** whereby countries commit to **long-term conservation** and management of European Accessions and to their availability
- **Availability through SMTA**, including non-Annex I material
- **Quality System**: agreed standards, reporting, monitoring & capacity building
- **Role of Working Groups** for the management of decentralized collection

# AEGIS benefits

## Users

- Transparent/well defined set of accessions available from all of Europe under clear and uniform terms of access (SMTA)
- Compliance with CBD/Nagoya Protocol
- Unique material
- Well conserved
- Well documented

# AEGIS benefits

## Genebank curators

- Clear and participatory framework establishing and revising standards for conservation
- Capacity building support triggered by peer/mentorship review system
- Stable commitment from country/region to conserve European Collection for the long-term

# AEGIS benefits

## Policy makers

- Compliance with International Treaty / Nagoya Protocol
- Mechanism to prioritize resources
- Strengthened position of European region (example of efficiency/ commitment)

# AEGIS membership



35 Member countries

68 Associate Member Agreements



# The European Collection

Total number of European Accessions: **56 934** (January 2020)

Country	No of accessions
Albania	8
Bosnia and Herzegovina	22
Bulgaria	341
Croatia	90
Czechia	1636
Estonia	129
Germany	26757
Italy	8132
Latvia	27
Lithuania	45
Montenegro	31
Netherlands	5845
Nordic Countries	4779
Poland	443
Romania	739
Slovakia	640
Switzerland	5611
United Kingdom	1659
<b>Total</b>	<b>56 934</b>

# Berries accessions in AEGIS

Taxon	No	Holding country
<i>Fragaria vesca</i>	1	Nordic countries
<i>Ribes</i> sp.	0	-
<i>Rubus</i> sp.	0	-
<i>Vaccinium</i> sp.	0	-

# Crop-specific conservation standards

## CROP-SPECIFIC FIELD GENE BANK STANDARDS

Agreed by the *Prunus* Working Group

January 2016

FAO Field genebank standards	Crop-specific field genebank standards for <i>Prunus</i> spp.: Almond ( <i>P. dulcis</i> ), Apricot ( <i>P. armeniaca</i> ), European Plum ( <i>P. domestica</i> ), Japanese Plum ( <i>P. salicina</i> ), Peach ( <i>P. persica</i> ), Sweet Cherry ( <i>P. avium</i> ) and Sour Cherry ( <i>P. cerasus</i> )  <i>No comment in this column means agreement with FAO standard</i>	Remarks (reasons for deviating from FAO standards)
5.1.3 For those species that are used to produce seeds for distribution, the site of the field genebank should be located so as, to minimize risks of gene flow and contamination from crops or wild populations of the same species to maintain genetic integrity.		The issue of maintaining genetic integrity, minimizing risks of gene flow and contamination from crops or wild populations does not apply to clonally propagated <i>Prunus</i> accessions.
5.1.4 The site of the field genebank should have a secured land tenure and should be large enough to allow for future expansion of the collection.		
5.1.5 The site of the field genebank should be easily accessible to staff and supplies deliveries and have easy access to water, and adequate facilities for propagation and quarantine.		
<b>5.2 Standards for acquisition of germplasm</b>		
5.2.1 All germplasm accessions added to the genebank should be legally acquired, with relevant technical documentation.		
5.2.2 All material should be accompanied by at least a minimum of associated data as detailed in the FAO/Bioversity multi-crop passport descriptors.		
5.2.3 Propagating material should be collected from healthy growing plants whenever possible, and at an adequate maturity stage to be suitable for propagation.		
5.2.4 The period between collecting, shipping and processing and then transferring to the field genebank should be as short as possible to prevent loss and deterioration of the material.		

# Crop-specific conservation standards



## ***Prunus*-specific standards (PGS) for genebank management**

***Daniela Giovannini<sup>1</sup>, Emilie Balsemin<sup>2</sup> and Johannes Engels<sup>3</sup>***

<sup>1</sup> *Consiglio per la Ricerca in agricoltura e l'analisi dell'Economia Agraria (CREA), Unità di ricerca di Frutticoltura, Forlì, Italy*

<sup>2</sup> *Centre National pour la Recherche Scientifique (CNRS), Unité Mixte de Recherche Géographie de l'Environnement (GEODE), Toulouse, France*

<sup>3</sup> *ECPGR Secretariat, c/o Bioversity International, Maccaresse, Rome, Italy*



Photos © Daniela Giovannini, except for apricot © Pavlina Drogoudi and for almond © Pasquale Losciale.

## 2. Documentation

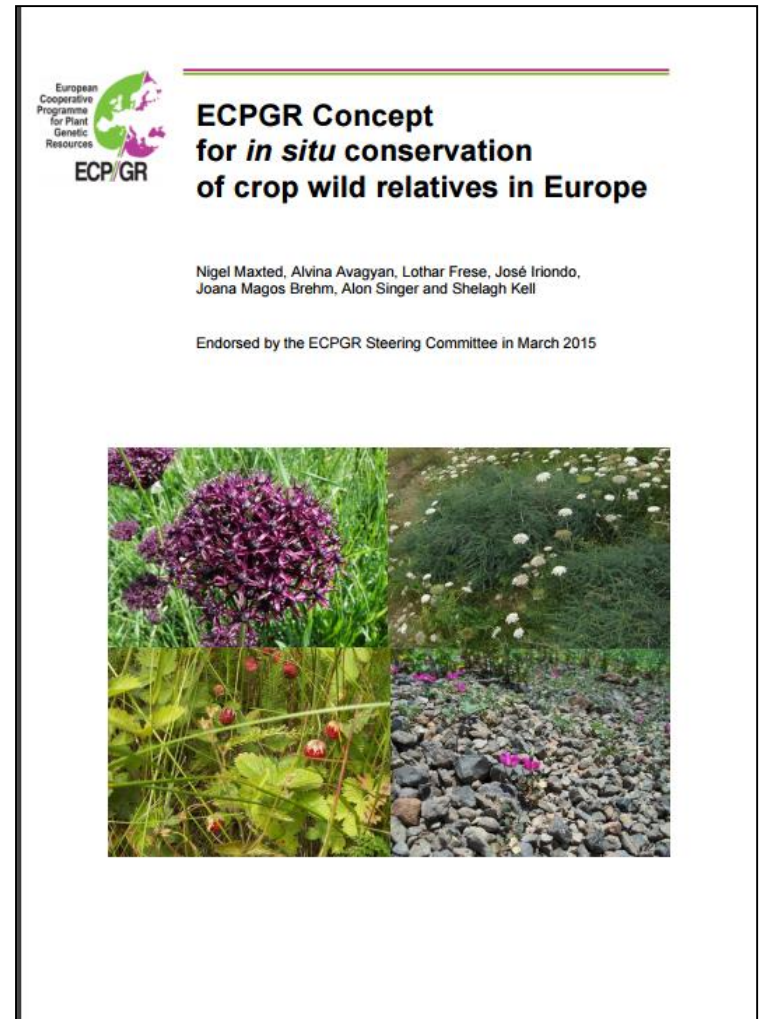
→ See Stephan Weise PPT





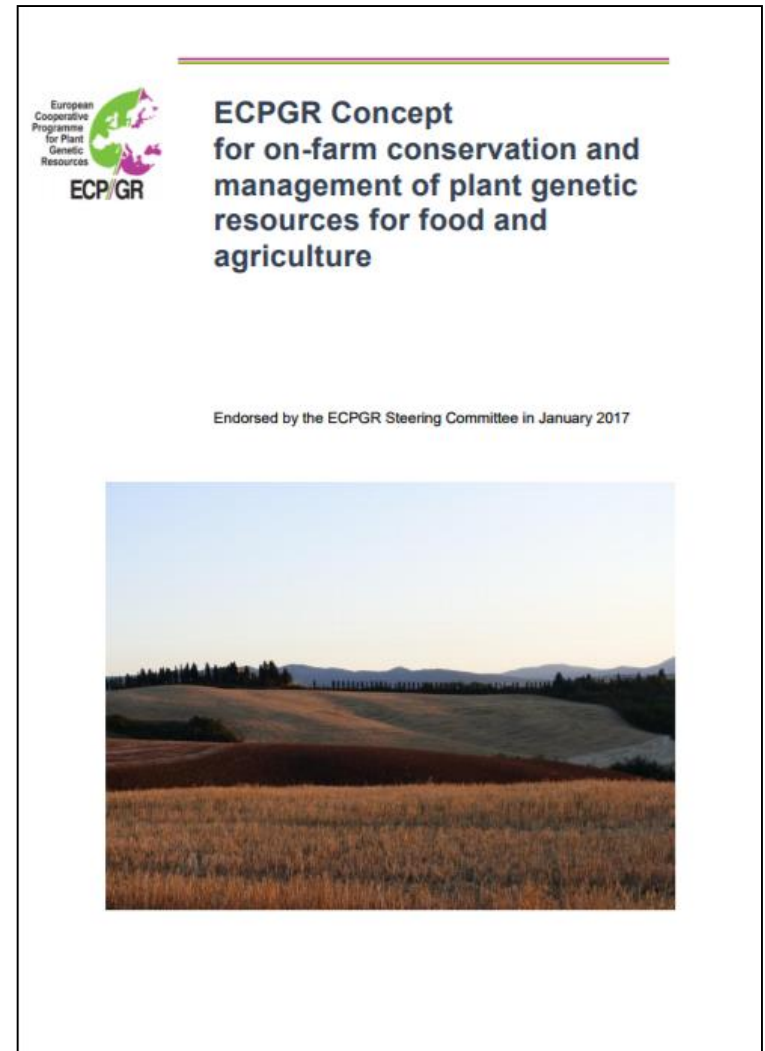
# 3. Conservation of crop wild relatives

- 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**



## 4. On farm conservation and management

- 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.



# 5. Relations with users

## Establishment of the European PGRFA Evaluation Network (EVA)

**WHEREAS** the world is facing increasing challenges to food security through the loss of diversity and the underutilization of the diversity that exists;

**WHEREAS** the natural range of growing conditions in Europe calls for and permits more comprehensive evaluation of PGRFA across different environments;

**WHEREAS** it is of strategic importance for Europe to better utilize Plant Genetic Resources for Food and Agriculture to facilitate adaptation of European agriculture to climate change and to contribute towards the achievement of Sustainable Development Goals;

**WHEREAS** it is important not only to increase the use of genetic diversity in plant breeding, but also to increase the diversity of stakeholders in plant breeding, including private and public sectors, small and medium enterprises and participatory plant breeding actions;

**WHEREAS** there is an opportunity to build on existing networks for conservation and use of PGRFA and to develop a European PGRFA Evaluation Network which is open for participation by both private and public sectors in order to facilitate the exchange of data on evaluation in a standardized format;

Now therefore, the Steering Committee of the ECPGR hereby establishes the European PGRFA Evaluation Network in the form of Private/ Public Partnerships within the framework of the European Cooperative Programme for Plant Genetic Resources (ECPGR), in accordance with the following provisions.

### 01 Definitions

For the purposes of this Proposal –

- i) “AEGIS” means the European Genebank Integrated System;<sup>1</sup>
- ii) “ECPGR” means the European Cooperative Programme for Plant Genetic Resources;
- iii) “EURISCO” means the European Search Catalogue for Plant Genetic Resources;<sup>2</sup>

<sup>1</sup> AEGIS entered into force in 2009 within the framework of ECPGR in order to improve coordination with respect to the conservation of PGRFA in Europe and to facilitate the exchange of PGRFA and related information among the countries and genebanks of Europe, and is now functioning to conserve genetically unique and important accessions for Europe and to make them available for breeding and research

<sup>2</sup> EURISCO is a European cooperative mechanism, which provides information on nearly 2 million accessions of crop plants and their wild relatives, preserved *ex situ* by almost 400 institutes, based on a network of National Inventories of 43 member countries: EURISCO forms part of the Global Information System on Plant Genetic Resources for Food and Agriculture provided for under the International Treaty of Plant Genetic Resources for Food and Agriculture, and is now being extended to characterization and evaluation data.

- European Evaluation Network (EVA) approved by the ECPGR Steering Committee in Thessaloniki, May 2018

→ See Other PPT

# ECPGR Mode of Operation of Phase X

- Two budget lines of similar amounts  
(Euro 300k for 5 years)

1. Meetings
2. Other activities (Grant Scheme)

Instructions:

<http://www.ecpgr.cgiar.org/about/management-structure/>

# Budget line “Meetings”

- Principles:

1. Meetings should be planned in order to enable proactive Working Group members to collaborate **towards implementing ECPGR objectives**
2. The most important crop collections and crop distribution areas of given gene pools should be represented in the meetings, as far as possible.
3. Meetings should be organized according to criteria of efficiency and cost-effectiveness, also merging different WGs and taking advantage of synergies with other fora (EUCARPIA, COST, etc.)
4. Organization of meetings should be made in collaboration between WG Chairs and the Secretariat.
5. The country quota system guarantees a balanced participation.



# Budget line “Meetings”

- Practice:
  1. Each WG can apply for funds to organize a meeting
  2. Applications can be submitted **at any time** to the ExCo through the Secretariat and should indicate: purpose of the meeting; criteria of efficiency and cost-effectiveness; possible synergies; names of participants; suggested date and location of the meeting
  3. Applications would be **processed within 4 weeks** from the submission

# Budget line “Meetings”

- Limitations
  1. The meetings can span through **maximum three nights**
  2. **Only WG members** can be funded by ECPGR
  3. **The country quota system applies.** One quota allows attending one meeting

# Budget line “Other activities” = Grant Scheme

- General principle:

Additional activities directed to implement the ECPGR objectives will be funded through the Grant Scheme based on selection of proposals by the ExCo. There is no limitation whether these activities should be meetings or different actions and the country quota does not apply.

# Budget line “Other activities”

- Practice:

Applications for other activities should be submitted by WG Chairs through the same **ECPGR Grant Scheme** procedure and rules adopted during Phase IX, except for the following **elements of simplification** which are introduced:

1. Meetings of Working Group members and/or other actions can be funded, with **no limitation regarding the ratio** between the budget used for meetings and for other actions
2. Meetings approved under this budget line are **not subject to country quota**
3. No limitations in the number of participants
4. Budget limitations depend on the rules of each call

# Horizon 2020 - SFS 28 2018

## GenRes Bridge

- ECPGR-related partners:
  - ECPGR Secretariat; BLE, Germany; WR, The Netherlands; BGCI, UK; INRA, France; Univ. Bham, UK; EURISCO, IPK, Germany; Pro Specie Rara, Switzerland
- ECPGR-related activities:
  - European GRFA integrated strategy
  - Peer-review system for conservation quality assurance
  - AEGIS: involving Botanic gardens; phytosanitary issues
  - EURISCO: Training workshops; linking information systems
  - GenRes Gateway
  - GenRes Journal





European  
Cooperative  
Programme  
for Plant  
Genetic  
Resources  
**ECP/GR**



Thank you for your attention