

MID-TERM REPORT ON ECPGR PHASE X

January 2019-April 2022

Prepared for the 16th Steering Committee meeting 6–9 June 2022, Alnarp and Malmö, Sweden



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1. Introduction

Phase X of ECPGR (2019–2023) was launched at the <u>15th Steering Committee meeting</u>, held in Thessaloniki, Greece, in May 2018.

This report, prepared for the 16th (Mid-Term) Steering Committee (SC) meeting, is intended to summarize and complement the information provided with the ECPGR Annual reports for the years 2019–2021. Decisions taken in Thessaloniki concerned a new set of ECPGR objectives and some adjustments to the mode of operation and Working Groups' (WG) structure, which were finalized before the end of Phase IX. In particular, the mode of operation was simplified, still maintaining the principle of two budget lines for WG activities ('meetings' and 'other activities'). The country quota for meetings was also maintained.

Regarding the WG structure, no major re-structuring was eventually decided, but two new WGs (Berries and Maize) were accepted and various proposals for improvement, raised by the WG Chairs during their joint meeting in Ljubljana, Slovenia, in October 2017, were also taken on board.

Additionally, the Thessaloniki meeting proposed the organization of a workshop on AEGIS and endorsed the <u>European Evaluation Network</u> (EVA). The <u>AEGIS workshop</u> was held in December 2018 in Madrid, Spain, while EVA became an important initiative during Phase X, as accounted for in this report.

The <u>ECPGR Communication and Public Relations strategy</u>, developed by a specific Task Force was extensively discussed in Thessaloniki and was eventually finalized and approved by the SC in January 2020.

A total budget amounting to €2.7 million was agreed upon for Phase X, with the envisaged participation of 36 countries, divided into 11 categories of contribution. This starting budget was increased in the subsequent three years, reaching €4.3 million at the end of 2021, thanks to carryover from past phases and voluntary contributions from Germany and Hungary, as detailed in the ECPGR 2021 Financial Report.

Also, the successful participation of the ECPGR Secretariat in two Horizon 2020 projects (GenRes Bridge and AGENT), enabled savings in a few ECPGR budget lines (especially staff costs), as some costs were covered by the European Commission (EC) funds.

This report gives an account of the implementation of Phase X in its first three years. These were characterized by areas of considerable activity and progress (especially through the EC and Germanfunded projects), while the activities of the WGs have suffered partly due to the effects of the COVID-19 pandemic, and partly to continuing limitations of the mode of operation.

Progress made towards the ECPGR objectives, to the best knowledge of the Secretariat, is given through an account of the outputs' indicators, in the table of the ECPGR Objectives for Phase X – Activities and indicators (see Background documents).

2. Implementation of Phase X

2.1 Participation of countries/memberships

Out of the 36 countries that were expected to participate in and contribute to Phase X, only Bosnia and Herzegovina was so far not able to contribute as a member to this Phase. Among the potential participating countries, Liechtenstein and Poland have expressed a possible interest to join in the future. Identified Focal Points of potential member countries are included in the 'steering listserver' and thus receive all the information circulated to the Steering Committee members.

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2.2 Mode of operation and network structure in Phase X

The <u>Mode of operation</u> for Phase X, defining rules and guidelines for the use of the budget lines 'Meetings' and 'Other activities' was finalized in October 2018, including the table of country quotas, applicable for participation in WG meetings. The mode of operation was much simplified, compared to the previous Phase. WGs were given the opportunity to request meetings with simple justifications, to be approved by the Executive Committee within four weeks from submission. Other activities remained possible through the submission of proposals under Grant Scheme Calls. Rules for the preparation of the proposals were simplified (no limitations in the number of participants, no need to use country quota, freedom to apply for either meetings or actions).

Amendments to the Network structure were also agreed upon in October 2018, with the establishment of two new Working Groups. Working Groups were maintained open to an unlimited number of members nominated by the National Coordinators, with the invitation to define a contact person in case more than one member per country was nominated. As no requests for changes were raised by the National Coordinators, all the Chairs that had concluded Phase IX were re-appointed by the Executive Committee (ExCo) for Phase X. Owing to the retirement of a few former Chairs, new Chairs were appointed in the Fibre Crops (Nov 2019), Wheat (Jun 2020), Documentation and Information (Nov 2021) and Vitis (Mar 2022) WGs.

A request to create a Working Group on cryopreservation was submitted by a group of experts including scientists from Bioversity International. The SC agreed in February 2022 on the importance to formalize this new WG (here). This will focus on increasing collaboration and advancing cryopreservation science for the long-term conservation of European plant genetic resources. Several members of the group were nominated by National Coordinators and one expression of interest to become Chair of the WG was received. This will need to be evaluated after the SC will have discussed the role of international organizations in this WG.A new budget line established the opportunity to hold meetings of all the Chairs twice per Phase and in advance of the Steering Committee meetings, to facilitate inter-group coordination and discuss items for the attention of the Steering Committee. A meeting of the WG Chairs and the Executive Committee was held online in April 2022, following the compilation by the Chairs of a questionnaire. This gave some indications about the weaknesses of the mode of operation and suggestions for improvement are listed as points of agreement for the attention of the SC (see Background Document 'Minutes of the Meeting of the Working Groups' Chairs and the Executive Committee (5–6 April 2022)').

2.3 Operation of the ExCo

Between 2019–2021, the Executive Committee (ExCo) formally met seven times (either in person or online). Regular rotations took place for the members representing the region South (Portugal replacing Italy in 2019), the region West (Switzerland replacing Belgium in 2020), the region North (Denmark replacing Estonia in 2021) and the region East (pending replacement of the Czech Republic in 2022). A new Chair (Marianne Lefort) was also appointed by the Steering Committee in 2019 when Eva Thörn decided to retire from this position.

The main activities of the ExCo were related to:

- Launch Grant Scheme Calls for proposals and evaluation of the submitted proposals
- Contribution to the GenRes Bridge project and its immediate follow-up, with an advisory
 role on behalf of ECPGR during the development of the *Genetic Resources Strategy for Europe*and later as members of a drafting team for the development of the *Plant Genetic Resources*Strategy for Europe
- Finalization of the ECPGR Communication and Public Relations Strategy and involvement in the preparation of a video on ECPGR
- Appointment of WG Chairs



- Preparation of the Mid-Term Steering Committee meeting
- Preparation of WG Chairs' meeting
- Preparation of the Memorandum of Understanding for enhanced cooperation with the Crop Trust for further agreement of SC members
- Preparation of an ECPGR position statement on Farmer's Pride for further agreement of SC members

(See also Report from the ExCo on its activities during Phase X)

2.4 Operation of the Steering Committee

Between November 2020 and November 2021, the Steering Committee has been involved in supporting, commenting and eventually endorsing the *Genetic Resources Strategy for Europe* (GRSE) and the domain-specific *Plant Genetic Resources Strategy for Europe* (PGR Strategy). Specifically, a drafting team composed of the ExCo members and other six National Coordinators were heavily involved in drafting the PGR Strategy. A key event has been the online feedback workshop on the GRSE on 24–26 November 2020, organized within the framework of the GenRes Bridge project, where first drafts of the key commitments of the strategy were commented on and discussed, together with the steering committees of the other domains' networks and other stakeholders. The finalized strategies were eventually presented to the EC and genetic resources stakeholders during a hybrid in-person and online launch event on 30 November 2021 in Brussels, Belgium. A follow-up process to raise the strategies to the attention of policymakers has been planned in 2022 under the French Presidency of the European Union, with the intention to continue under the next presidencies of the Czech Republic and Sweden.

The Steering Committee provided comments and eventually its endorsement to two documents prepared by the ExCo and the Secretariat: 1) the Terms of Reference for the position of Working Group Chair of the Documentation and Information WG (endorsed in April 2021): the tasks of the Chair of the Documentation and Information WG were separated from those of the Chair of the EURISCO Advisory Committee, to make the position lighter and more manageable; 2) the statement in preparation for the final meeting of the EC project Farmer's Pride, held in June 2021. The statement acknowledged the achievements of the project towards implementing the ECPGR objectives but was critical regarding the establishment of one single network of actors working on *in situ* crop wild relatives (CWR) and on-farm conservation outside the framework of ECPGR. Based on the experience and the advancements made within the framework of Farmer's Pride, the SC would welcome a proposal defining the long-term network objectives, structure, mode of operation, governance and funding, to be submitted by the Chair of the WG on wild species conservation in genetic reserves and a similar proposal to be submitted by the Chair of the On-farm conservation and management WG, for the enhancement of collaboration towards preservation, management and use of landraces hotspots in Europe.

2.5 Secretariat staff changes and hosting arrangements

During the first part of Phase X, the Secretariat underwent several staff changes. In addition, in June 2020, the office moved from Maccarese to the new building of the hosting institute, the Alliance of Bioversity International and CIAT, in the centre of Rome, near FAO. Due to a lack of storage space in the new premises, the ECPGR archive (paper documents, publications, etc.) was partly disposed of and partly packed and deposited into a rented external storage space. Due to the COVID-19 pandemics, a lockdown with working from home arrangements started in March 2020 and only limited access to the office was allowed, until the present day. Consequently, the Secretariat has largely operated in smartworking mode, working from home as of March 2020. Specifically, the ECPGR Secretary eventually decided to permanently relocate and work from his home in northern Italy. The development of new platforms for video conferencing allows easy daily interactions among the staff members, who also



regularly meet online every week for a Secretariat Coordination meeting, together with the EURISCO Coordinator.

In November 2019, Sandra Goritschnig joined the Secretariat as Scientific Officer, with the task to manage the German-funded project for the development of a European Evaluation Network (EVA), as well as establishing and developing the online *Genetic Resources* journal, as part of the EU-funded GenRes Bridge project.

In August 2020, Lidwina Koop left her position as Programme Assistant after more than 20 years, reaching for a new position with the European Forest Institute in Barcelona, Spain. Lidwina was replaced in October 2020 by Loredana Maria, an Associate providing administrative, secretarial and logistical support to the ECPGR Secretariat and team.

Between September 2020 and December 2021, Vanessa Bryant offered temporary administrative support to the ECPGR Secretariat and the EVA project.

In March 2021, after more than 25 years as a Scientific Assistant with ECPGR, Elinor Lipman decided to take early retirement. A new Editing and Communications Specialist, Nora Capozio, then joined the team in November 2021 to provide editorial and web publishing support to ECPGR, as well as to deal with ECPGR communication activities such as website management and communication strategy development.

Other inputs were offered between October and December 2019 by **Sonja Ensslin**, a student of Geography at the Rheinische Friederich-Wilhelms Universitat, Bonn, Germany, who joined the Secretariat for a three-month internship, helping with communication, reporting and website maintenance and receiving training on PGR networking in Europe.

Finally, Jan Engels, Honorary Fellow of the Alliance of Bioversity International and CIAT, was hired to dedicate a very small part of his time during 2021 and 2022 to help the Secretariat with AEGIS-related tasks

Within the evolving organigram of the Alliance of Bioversity International and CIAT, the ECPGR Secretariat is classified as a 'hosted organization'. The hosting agreement is simply based on an exchange of letters with the former director Ann Tutwiler and the approval of the Phase X budget of ECPGR by the Finance Director. In practice, the 'hosted' status means that the Secretariat maintains a high level of independence in decision-making and notably, the supervisory role over the ECPGR Secretary is assigned to an external person, i.e. the Chair of the Executive Committee, currently Marianne Lefort.

2.6 WG Activities – meetings

The two new Working Groups, Berries and Maize, started the Phase with their first meetings. These were sponsored through project GenR 2019-5, funded by the German Federal Ministry for Food and Agriculture.

The First meeting of the Maize Working Group was organized on 2-3 December 2019 in Belgrade, Serbia, in collaboration with the Maize Research Institute Zemun Polje, Belgrade, and involved 20 WG members and five observers. Participants presented the status of maize genetic resources in their countries and then the group agreed to work on the expansion of the Maize Core Collection, the adaptation of crop-specific conservation standards based on the FAO Genebank standards and the use of existing key descriptors for common minimum descriptors, the promotion of the AEGIS procedure for the identification of suitable accessions for inclusion in the AEGIS European Collection and surveying redundant accessions. The report of the meeting is available here.

The first meeting of the Berries Working Group was held on 14-15 January 2020 in Dresden, Germany, organized in collaboration with the Julius Kühn-Institut (JKI). Twenty-three participants from 17 countries reported on the status of berries' genetic resources in their collections and their main focuses, challenges and opportunities. The Group agreed to start their activity with an inventory of all

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existing berry germplasm that is maintained in Europe. These data should then find their way into the EURISCO catalogue and set the basis for priority characterization, evaluation and molecular analysis, as well as to select the most important and unique accessions for inclusion into the European Collection. The report of the meeting is available here.

Two Chairs (from the *Allium* and Solanaceae WG) submitted a request to organize their WG meetings using the ECPGR 'meetings' budget line. These were approved for funding by the ExCo, but they were continuously delayed and never held, owing to the COVID-19 pandemics.

2.7 WG Activities – other actions (implementation of the Grant Scheme)

Five Calls for proposals were launched between 2019 and 2021. Fourteen proposals were submitted and nine were awarded for a total of epsilon 188,155 involving 11 WGs. The maximum amount that the ExCo decided to assign per proposal was increased from epsilon 15,000 (first two Calls) to epsilon 20,000 (second two) and eventually epsilon 30,000 (last Call). However, this incentive did not seem to increase the interest of the WGs to submit proposals.

In comparison, during Phase IX, 45 proposals had been submitted in six Calls and 31 were approved. The uncertainties and difficulties of the COVID-19 pandemic may be one reason affecting the reduced activity of the WGs.

Successful proposals are listed below (the indicated timeframe often suffered delays due to the COVID-19 constraints):

- Avena WG: UMORPHEAS Updated MORPHological dEscriptors for Avena Species. March 2020

 February 2022 (€15,000). Coordinator: Andreas Katsiotis, Cyprus.
 Owing to the pandemic, this Activity did not start until an online kick-off meeting was held on 11 March 2022. Partners made plans to update the IBPGR Oat descriptors, involving the widest possible global community. A core set of descriptors will be tested in the field, starting from December 2022, with a selected number of diverse accessions. The FAO-ITPGRFA Secretariat also attended the meeting and is offering their expertise for this initiative.
- 2. Brassica WG: EUBRASWILD Capturing Brassica Wild Relatives Diversity in south-eastern Europe October 2020 August 2023 (Euro 20,000). Coordinator: Smiljana Goreta Ban, Croatia. This Activity, involving partners from seven countries, held two online meetings, in November 2020 and March 2021. The aim is to improve the knowledge of the presence, distribution and diversity status of Brassica wild relatives in eastern and south-eastern Europe as well as to fill the gaps of Brassicaceae wild relative populations in the European genebanks and AEGIS. Collecting activities and field characterization are ongoing.
- 3. **Berries WG**: EUROPE.BERRIES Collaborative action for updating the documenting about berry genetic resources in Europe January 2021 June 2022 (€20,000). Coordinator: Monika Höfer, Germany.
 - The Activity involves partners from 15 countries. Two online meetings were held in April and September 2021. The objective is to improve the data quality of the inventories of berry genetic resources conserved *ex situ* and upload these data in EURISCO, as well as to develop specific technical guidelines for genebank management and select eligible accessions to be proposed to become part of AEGIS.
- 4. Cucurbits WG: Cucurbitlocal Exploitation of *Cucurbita* local germplasm for sustainable agriculture February 2021 January 2023 (€19,800). Coordinator: Maria Raffaella Ercolano, Italy. The Activity involves four European countries and Tunisia. Two online meetings were held in February and October 2021. The aim is to improve the inventory of local genetic resources of *Cucurbita*, characterize and regenerate a set of accessions and test the agronomic performance of selected accessions in low-input management systems, and promote their use.



- 5. **Documentation and Information WG**: GRIN-Global II GRIN-Global Workshop 2021 for European Genebanks September 2020 February 2021 (€19,200). Coordinator: Ludmilla Papoušková, Czech Republic.
 - This Activity intends to organize a training workshop for trainees from 19 countries, inviting a GRIN-Global expert trainer from USDA. The workshop was delayed and is now scheduled for October 2022 in the Czech Republic.
- 6. *Malus/Pyrus* and *Prunus* WG: FRUITTREEDATA Improvement of Fruit Tree Data Inclusion in EURISCO January 2022 December 2023 (€29,975). Coordinator: Matthew Ordidge, United Kingdom.
 - This Activity should start in 2022, involving 11 countries, but is still open to more partners. It aims to increase and update the listing of available material within EURISCO and/or establish the reasons for the lack of inclusion of known material in national lists. It will also increase the phenotypic information within EURISCO and will try to identify clonal material held under different accession names within different countries. These objectives are pre-requisites for the decision-making process to develop the AEGIS concept for the fruit tree field collections.
- 7. On-farm conservation and management and Wheat WGs: Bidifferent Chances for the conservation and re-cultivation of central European Binkel (club wheat) through a nutritional and genetic differentiation towards other wheat species January 2022 December 2023 (€37,180). Coordinator: Rudolf Vögel, Germany.
 - The Activity, starting in 2002 and involving five countries from the Alpine region, aims to determine which landraces belong to the 'Echter Binkelweizen' (*Triticum aestivum* subsp. *compactum*) genepool. In fact, some accessions phenotypically look like Binkel but are currently counted to the common wheat. It also aims to find in which country/region the climatic and soil conditions are most favourable for Binkel's future cultivation. Genotypes with resistance to different fungal diseases and abiotic stress situations will be selected so that the region of cultivation can be extended. On-farm conservation will be promoted through the qualitative analysis of the ingredients and bakery qualities, which will encourage local stakeholders (farmers, millers, bakers) to re-introduce Binkel in their processes.
- 8. Vitis WG: AEG-VIT-IS Enhancing quality and quantity of Vitis genetic resources in AEGIS January 2020 December 2020 (€12,000). Coordinator: Gregorio Muñoz, Spain.

 The Activity was completed in December 2021. It involved 18 countries, holding an online meeting in November 2020. Guidelines were defined to select Vitis candidates for AEGIS. Lists of new candidates (ca. 75 in total) were prepared by a few countries. Partners agreed to work on the safety duplication of accessions and the preparation of genebank manuals. One manual was completed by JKI, Germany. Molecular profiles of 284 accessions from 11 countries were studied to verify identity and uniqueness. The analysis of the results is in progress.
- 9. **Wild species in genetic reserves WG**: Inclusion of CWR sites in European *in situ* Network Identification, preparation of applications and approval of sites to join the European *in situ* PGRFA conservation network September 2019 March 2021 (€15,000). Coordinator: Juozas Labokas, Lithuania.
 - The Activity allowed the participation of ten WG members in the meetings of the EC-funded project Farmer's Pride (Santorini, Greece, October 2019 and online, June/July 2021). Participants took part in the preparatory discussion to define the criteria and identify sites for the *in situ* network of CWR, as well as to identify the steps needed to ensure the establishment and the governance structure of the network.



2.8 EURISCO

2.8.1 EURISCO coverage

Between January 2019 and April 2022, the number of accessions documented in EURISCO increased by 92,796, reaching 2,076,172 from 43 National Inventories and 401 institutions. In addition, phenotypic data for 8,829 new accessions were imported, reaching a total of 90,598 characterized accessions from 17 countries.

	Progress between 1 January 2019 and 30 April 2022	Countries that contributed to the progress
Documented accessions	+92,796	Several countries. In addition, passport data updates of > 470,000 accessions
Phenotypic data records	+389,760	Azerbaijan, Czech Republic, Estonia, France, Germany, Greece, Italy, Latvia, The Netherlands, Nordic Countries, Poland, Portugal, Romania, Slovenia, Spain, The United Kingdom
DOI/PUIDs	+196,579	Armenia, Azerbaijan, France, Germany, Italy, The Netherlands, Romania, Slovenia

2.8.2. EURISCO development

In order to support several Crop WGs having expressed the need to provide additional information not included in the MCPD standard, an **extension for crop-specific passport data** was developed in 2019. The visualization of those data was implemented in the new prototype crop portal for forages (see below). The approach allows the WG Chair to define additional descriptors to the MCPD standard, which was not modified.

Starting in 2019, EURISCO offered to serve as a mediator in the Digital Object Identifier (**DOI**) **registration process**, in close collaboration with the International Treaty on Plant Genetic Resources for Food and Agriculture, handing over the issued DOIs to the respective genebanks. So far, this service was used by the National Inventory Focal Points of Armenia, Azerbaijan, Romania and Slovenia.

The **taxonomic search function**, already implemented in 2018 was extended in 2019. This ensured that even typing errors lead to usable hits. The taxonomy extensions of EURISCO have been published in a short communication article in *Plant Genetic Resources* ('Advancement of taxonomic searches in the European search catalogue for plant genetic resources'

DOI: https://doi.org/10.1017/S1479262119000339).

In the frame of the ECPGR Grant Scheme Activity 'ImprovLoliumCol', a prototype for a new **forages crop portal** was developed in 2019. This portal allows users to search over different genera of forage crops. A search using passport data as well as phenotypic (C&E) data is possible. In addition to the classic search, it is also possible to search for accessions by selecting them on a map. Furthermore, various statistical information is offered. Separate data management by the ECPGR Forages WG is no longer necessary since the data displayed in this portal are provided directly by EURISCO in the background and automatically updated.

The upload and update mechanism for passport data for National Focal Points (NFPs) had to be revised and a PL/SQL implementation was chosen and implemented in 2020. The intranet interface was revised in 2021, making it more visually appealing and allowing a purely web browser-based upload of passport data.



A general revision of the **public EURISCO web application** took place with necessary technological updates and evaluation of useful functionalities based on users' feedback (e.g. combined searches of passport and phenotypic data, map-based selection, faceted search). The new web application was made publicly available in spring 2022.

The development of the **EURISCO-EVA intranet** was accomplished in 2021. This database was designed to provide network partners access to all relevant experiment metadata and collected phenotypic data, facilitating analyses and compatibility with the EURISCO database, which should host the phenotypic data after the end of the project's embargo period (see below).

2.8.3 EURISCO training

The 2020 EURISCO training workshop had to be cancelled due to the COVID-19 pandemic. Since the situation did not improve much in 2021, a purely online training workshop was organized from 10–12 November 2021, with similar satisfaction of the participants as previously experienced in physical meetings.

2.8.4. Public awareness about EURISCO

The EURISCO Coordination has made various efforts to raise awareness of EURISCO in the community through several presentations at various national and international meetings, webinars and publications. Full lists are available from the ECPGR Annual reports. The EURISCO Newsletter was also regularly distributed and is available online from the EURISCO website (https://eurisco.ipk-gatersleben.de/apex/eurisco_ws/r/eurisco/newsletter).

2.8.5 EURISCO Advisory Committee

The third EURISCO Advisory Committee meeting was held online on 7 July 2021 (minutes here). The discussion focused on two data domains that are currently not included in EURISCO but deserve attention in the near future, i.e. data related to *in situ* material and material under development (e.g. lines within accessions, often with their own DOI). The recommendation to follow up with a proposal for the extension of EURISCO to host *in situ* data was then pursued, leading to a proposal for funding (see below, Section 3.6). Regarding information related to Single Seed Descent (SSD) lines and other derived material, it will be necessary to further explore the various options and develop possible scenarios to be evaluated before making a recommendation, such as in the framework of the AGENT project.

The EURISCO Advisory Committee gathered again for an online meeting on 1 April 2022, within the framework of the German-funded project for the inclusion of *in situ* CWR data in EURISCO. The Committee was involved in commenting on the document 'Principles for the inclusion of CWR data in EURISCO', which was eventually endorsed.

2.8.6 EURISCO Data Sharing Agreement

The original EURISCO Data Sharing Agreement (DSA) expired in December 2020. A new DSA, renewing the formal agreement for data sharing between the Alliance of Bioversity International and CIAT and the countries contributing data to EURISCO was approved by the Alliance legal office and sent for signature to all the EURISCO National Inventory Focal Points. By April 2022, 17 out of 43 countries had sent back their signed copy.

2.8.7 Participation in project consortia

The EURISCO coordination participated in four successful Horizon 2020 projects, aiming at acquiring additional funding for developing certain aspects of EURISCO: EUCLEG, Farmer's Pride, GenRes Bridge and AGENT (mainly involved in work packages aiming at the development of guidelines and

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data standards, and at the development of the infrastructure for managing and analyzing genotypic and phenotypic data).

Within the framework of the European Evaluation Network (EVA), thanks to a grant from the German Federal Ministry of Food and Agriculture, the EURISCO Coordination acquired a developer position through which the extensions to the EURISCO infrastructure necessary for EVA could be made.

2.9 AEGIS

2.9.1. AEGIS membership and status of the European Collection

In April 2022, a total of 70,186 accessions from 21 contributors were part of the European Collection.

During the first part of Phase X, the European Collection has increased by 23,137 accessions (a 50% increase compared to the end of Phase IX). During this period, four countries contributed for the first time (Belgium, Italy, Portugal and Slovenia). One new country (Serbia) joined in 2019, bringing the number of member countries to 35, while the associate member institutes' agreements increased to 68, with the addition of three institutes from Italy, Lithuania and Portugal. The changes in the composition of the European Collection over 2018 are shown in Table 3 below.

	Table 3.	The European	Collection:	breakdown	by contributors
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	No. of accession		
Contributor	by end 2018	by April 2022	Difference
1. Albania	8	8	-
2. Belgium	0	2	+2
3. Bosnia and Herzegovina	22	29	+7
4. Bulgaria	341	391	+50
5. Croatia	90	90	-
6. Czech Republic	1,341	1,682	+341
7. Estonia	126	134	+8
8. Germany	26,841	37,220	+10,379
9. Italy	0	10,691	+10,691
10. Latvia	27	27	-
11. Lithuania	36	45	+9
12. Montenegro	31	31	-
13. The Netherlands	5,845	5,841	-4
14. Nordic Countries	3,706	4,785	+1,079
15. Poland	443	443	-
16. Portugal	0	86	+86
17. Romania	623	752	+129
18. Slovakia	299	640	+341
19. Slovenia	0	19	+19
20. Switzerland	5,611	5,611	-
21. United Kingdom	1,659	1,659	-
Total	47,049	70,186	+23,137

2.9.2. Follow-up to the AEGIS Workshop Assessing current practices and procedures to strengthen AEGIS

A list of Action Points was agreed upon during the workshop held from 10-12 December 2018 in San Fernando de Henares, Madrid, Spain (published as a standalone document on the ECPGR website here). These were followed up as described below:

Improving functioning and understanding of AEGIS

A Checklist for the implementation of the AEGIS Memorandum of Understanding (MoU) at the national level with a step-by-step flow diagram was prepared and published <u>here</u>, detailing the



procedure to be followed. The simplified flagging procedure agreed upon in Madrid was explained in this document.

The section on AEGIS membership on the website was improved, providing an individual page to each Associate Member (accessible from here), with general information about the Member Institute, direct access to existing relevant documents (operational genebank manuals, peer-review reports etc.), and a full list of accessions included in the European Collection. This improvement was enabled thanks to funds provided by the German Federal Ministry of Food and Agriculture.

A table for estimation of genebank operation costs was provided to all Associate Members.

An opinion paper on AEGIS was published in the journal *Plants*:

Van Hintum T, Engels JMM, Maggioni L (2021). AEGIS, the Virtual European Genebank: Why it is such a good idea, why it is not working and how it could be improved. *Plants* 10, 2165. https://doi.org/10.3390/plants10102165

AQUAS - The AEGIS Quality System

The recommended genebank 'peer review' proof of concept was tested under the coordination of CGN, The Netherlands. The concept consists of visiting and reviewing each other's genebanks as a way of improving the quality of genebanks. After each visit, a report is written with observations and recommendations. The first cycle of mutual visits involving three genebanks (COMAV, Spain; CGN, the Netherlands and IHAR-PIB, Poland) took place as part of the GenRes Bridge project in early 2019. The general report from reviewers and the three individual genebank reports were made available on the AEGIS website. An additional cycle of peer-review visits was planned as part of the AGENT project, involving ten genebanks. However, these were delayed due to the COVID-19 pandemic and are expected to resume in summer 2022.

Vegetatively propagated crops

Within the framework of the Horizon 2020 project GenRes Bridge, the ECPGR Secretariat organized an online workshop on *Phytosanitary barriers for genetic resources* in February 2021, to raise awareness among genetic resources stakeholders and initiate a discussion on phytosanitary issues relevant to genetic resources conservation and sustainable use. The topic is particularly relevant, considering that quarantine pests and diseases prevent the exchange of AEGIS material. Potential collaborative actions were identified to move towards increased safety with appropriate and ideally harmonized protocols. The results of the workshop were communicated to the regulatory agencies for further cooperation.

Legal matters

At the Madrid workshop in 2018, France had announced that they could join AEGIS through a Declaration of Intent (DoI), rather than the standard Memorandum of Understanding. This process made progress with the drafting of a DoI, whereby France would be joining AEGIS as a Cooperative Member and the eligible institutions signing the annex would join as Cooperating Associate Members. As of April 2022, this draft DoI was under internal validation, involving the Ministry of foreign affairs, with the expectation that the document could soon be shared with the Steering Committee for consideration.

Funding AEGIS

The main action was dedicated to including AEGIS as the *ex situ* pillar within the PGR Strategy, developed within the framework of the GenRes Bridge project. The expectation is that the co-funding could be sought when the value of the system will be acknowledged by the EC.

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2.10 Communication and public awareness

During 2019, the ExCo worked towards the finalization of the ECPGR Communication and Public Relations Strategy, including 'Vision' and 'Mission' statements, for which a contest was organized among the National Coordinators to suggest better wording. The strategy was eventually approved and published on the ECPGR website in January 2020 (here.

A task force (TF) was then set up to help in the preparation of a video on ECPGR, to celebrate 40 years of ECPGR activity ('Jubilee Video'). The TF was coordinated by Marianne Lefort with inputs from the Secretariat and including Marc Lateur, Pavol and René Hauptvogel, and Jens Weibull. Ewa Hermanowicz (communication officer of EUFORGEN) also kindly joined the TF as an external expert. The UK company Duckrabbit was selected for the production after a competitive bidding process, and Lina Weibull was contracted as a consultant to serve as an intermediary between Duckrabbit and the Task Force/ECPGR Secretariat. Marc Lateur was selected from four candidates as the main character/narrator of the public awareness story and the video was recorded in Belgium in September 2020. The video was released in March 2021 (watch here). It recorded nearly 1,000 visualizations in one year and it was shown at the event of the launch of the Genetic Resources Strategy for Europe, 29-30 November 2021, Brussels, Belgium.

Roll-up banners on AEGIS, ECPGR, EVA and *Genetic Resources* journal have been prepared and brought to relevant events. The layouts have been made available for download should any national programme wish to print the same for use at local events.

As part of the package accompanying the launch of the Plant Genetic Resources Strategy for Europe, a webinar was organized, presenting the Strategy to the ECPGR Steering Committee, and is available here. A policy brief was also prepared: *Plant genetic resources conservation and sustainable use – What should Europe urgently do?* [link]

The development of ECPGR brand guidelines and a refresh of the ECPGR branding products (letters, reports, documents and presentations), with a new and fresh style in line with the original colours and logos, were carried out.

3. German-funded projects

The German Federal Ministry of Food and Agriculture (BMEL) provided several voluntary contributions, in the form of bilateral agreements with Bioversity International, on behalf of the ECPGR Secretariat. These were conducive to advancing various aspects of the ECPGR objectives. A few agreements were already running during the previous Phase IX and were completed in Phase X. Others were newly established during Phase X. All these agreements are briefly listed and summarized below, including their achievements and current status.

3.1 European Genetic Resources (GenR 2017-3)

This project ran between April 2017 and September 2019, with a total budget of €105,035. The project supported four ECPGR activities that were positively evaluated by the ExCo under the Third and Fourth Calls for proposals of the ECPGR Activity Grant Scheme, during Phase IX. The four Activities were the following: 'EURISCO Training 2017', 'GRINGlobal', 'Pomefruit C&E' and 'CarrotDiverse'. The ECPGR Documentation and Information WG carried out two EURISCO training courses involving National Inventory Focal Points from 19 countries, thus extending to more than half of the network's partners the updated skills for data provision to EURISCO. The training provided on GRIN, in collaboration with USDA and Crop Trust trainers, has widened the awareness of several genebanks about the possibility to adopt this internationally supported documentation management system. The Malus/Pyrus WG has been successful with testing, refinement and agreement on two new documents providing methods and descriptor lists for the characterization and evaluation of apple and pear



genetic resources. Compilation and harmonization of very large sets of existing and newly produced SSR data for over 1,300 apple and nearly 5,000 pear accessions were carried out. Data analysis identified ca. 2,000 unique pear genotypes and provided the methodology to distinguish new from duplicate genotypes in future analysis. The Umbellifer Crops WG focused on wild relatives with field tests carried out in three locations. Genetic data have shown clear clustering of the analyzed accessions into groups of common geographic or taxonomic origin. The bioassyas for disease resistance detected promising accessions affected by lower disease severity compared to the controls. New tests on germination protocols gave good indications on the possibility to improve germination of wild material, which is a key factor for the efficient long-term conservation of carrot wild relatives in genebanks and their use.

3.2 Strengthening the European Genebank Integrated System 'AEGIS' (GenR 2018-1)

This project ran between September 2018 and February 2019, with a total budget of €68,881, to implement the recommendation made by the ECPGR Steering Committee in its 15th meeting in Thessaloniki, Greece (May 2018) to organize a workshop dedicated to AEGIS. The purpose was to increase awareness among National Coordinators and other stakeholders, promote good examples of positive engagement, reflect on and find solutions for the slow progress, and facilitate AEGIS activities during Phase X. A simplification of the mechanism to define accessions for AEGIS was agreed and subsequently embedded in a flow diagram. France declared during the meeting that an appropriate solution (drafting of a letter of intent) would enable its membership in AEGIS, and Spain was considering following suit on the French steps. Serbia joined AEGIS a few months after the workshop. Regarding the implementation of AQUAS elements, the workshop promoted the testing of the proof of concept of a peer-review approach, which was then successfully tested within the framework of the EU-funded GenRes Bridge project. Recommendations for a better-structured and informative AEGIS website were implemented through this project, providing the means for better management and monitoring of the genebank system.

3.3 Organization of an ECPGR workshop for the establishment of a European Evaluation network (EVA) on wheat and barley and a vegetable crop (GenR 2018-3)

This project ran between September 2018 and April 2019, with a total budget of €39,580. Following up on the ECPGR Steering Committee agreement in May 2018 on the Establishment of the European PGRFA Evaluation Network (EVA), this project acted as a bridge between the preparatory phase for the establishment of the European Evaluation Network and a subsequent implementation phase in which specific networks could start operating. During the two workshops organized (for wheat and barley in Berlin, Germany, November 2018 and for vegetables in Durres, Albania, April 2019), the Evaluation Network concept demonstrated to be sufficiently appealing to convince most of the attending breeders and genebank managers that it would be worthwhile to set up a project in which private breeders confirmed their availability to undertake field evaluation at their own cost. A project proposal, based on the recommendations of the workshops was prepared for submission, leading to the approval of a new project (see below, GenR 2019-2).



3.4 Implementation of the ECPGR European Evaluation Network (EVA) on wheat and barley and vegetable crops (carrot, lettuce and pepper), with the addition of a maize component and improved access to existing barley, wheat and maize evaluation data (GenR 2019-2)

This project started in July 2019 and is due to terminate in November 2023, with a total budget of €903,262. The project is supporting the implementation of the European Evaluation Networks on wheat, barley, carrot, lettuce, pepper and maize and also helped to incorporate existing C&E data on wheat, barley and maize in EURISCO. The project applies a public-private partnership approach involving genebank managers, public and private breeders, in order to foster partnerships and strengthen the link between conservation and use of PGRFA. The evaluation network consortia were formalized through the signature of Letters of Commitment by the partners and specific Cooperation Agreements were finalized for each crop network. Genebank accessions are multiplied and then distributed to partners who carry out evaluations in multiple environments (field, greenhouse and lab), mostly at their own cost for two years. Jointly agreed evaluation protocols and data collection standards are used. All accessions are genotyped and the phenotypic and genotypic data are analyzed by the partners. Intranet platforms for each consortium are established within a dedicated EURISCO-EVA intranet environment where data are accessible only to partners for an embargo period of three years. During the project, the work plan foresees the evaluation of up to 1,700 wheat, 1,200 barley, 750 maize, 60 carrot, 150 lettuce and 200 pepper accessions. Overall, by April 2022, the number of active participants reached 92 partners from 28 countries. Of these, 46 are private breeding companies ranging in size from small cooperatives to medium and large multinationals. In total, partners in the various networks provided more than 165 different environments (field sites) for the evaluation of crop accessions. While a detailed analysis of the generated wealth of data has only been started, initial results from different networks already identified useful germplasm that may be introduced into breeding programmes to develop new varieties with improved characteristics and resilience to the effects of climate change. Data from extensive genotyping of genebank accessions also provided valuable information on the diversity of European germplasm. Furthermore, novel genotyping tools were developed to facilitate future evaluation projects for some crops.

Thanks to this project and complementary funding from the AGENT project (see below), EVA has made considerable progress and made ECPGR for the first time very active in the area of use of genetic resources, strengthening collaboration with breeders and other users. The SC may wish to consider the creation of a specific budget line to ensure a longer continuation of the experience into Phase XI. Also, the establishment of an EVA 'Steering Unit', as foreseen in the establishment document, still needs to be implemented and might be useful.¹

3.5 ECPGR meetings and public awareness activities (GenR 2019-5)

This project ran between September 2019 and May 2020, with a total budget of €60,387. The project supported ECPGR meetings, particularly the first meetings of two new Working Groups, on Berries and Maize. This has enabled the new WGs to become active at the start of Phase X of ECPGR and agree on dedicated work plans. The Maize WG has particularly benefited from the timing of the meeting, which was conducive to submitting a successful proposal to the German donor for the addition of a maize component to the EVA Network, granted in December 2019 (see 3.4). Also, the Berries WG has used the ECPGR interaction to get organized towards submitting a project proposal ('Breeding Value') to Horizon 2020, eventually also successful. The opportunity to hold the 15th meeting of the ExCo in Svalbard offered a precious occasion to interact with the global PGR community and experience in

¹ "A Steering Unit of no more than 8 experts appointed by the Steering Committee of ECGPR in consultation with the private sector, which will provide overall policy guidance for EVA"

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person the physical and symbolic value of the Global Seed Vault, as well as to conclude a framework of cooperation with the signature of the MoU between ECPGR and the Crop Trust. A relevant input to the public awareness activities of ECPGR was the preparatory work enabled by this project for the production of the so-called 'Jubilee Video' of ECPGR.

3.6 Extension of EURISCO for Crop Wild Relatives (CWR) in situ data and preparation of pilot countries' data sets (GenR 2021-1)

This project started in November 2021 and is due to terminate in December 2023, with a total budget of €247,318. The project intends to endow the European region with a centralized, public and websearchable inventory of passport data for *in situ* CWR priority populations that can be made in principle accessible to users. A fine-tuned data flow mechanism using an internationally agreed exchange standard will also be developed, facilitating data transfer from National Inventories of *in situ* CWR populations to EURISCO. A proposal setting the principles for the inclusion of CWR Data in EURISCO was endorsed by the partners and the EURISCO Advisory Committee in April 2022. The list of partners includes Cyprus, the Czech Republic, Germany, Lithuania, the Netherlands, Portugal, Spain and the United Kingdom. Other countries will be encouraged to join the effort. The FAO-ITPGRFA Secretariat has also been involved in the early stages of the project to help in the definition of the data flow mechanism.

4. Participation in Horizon 2020 projects

The ECPGR Secretariat contributed as a partner to various consortia preparing project applications for funding under the Horizon 2020 work programme SFS-28-2018-2019-2020. In a few cases, the projects were not successful: 1) Greenbooster (Boosting Genetic Resources Approaches and Tools for Future Plant Pre-Breeding Needs); 2) WiCaLoMix (Unlocking Wild Cereal and Legume diversity) and 3) BerryValue (Adding value to berry genetic resources). Two projects were successful as listed below:

GenRes Bridge (Joining forces for GenRes and biodiversity management) (2019–2022) [ECPGR budget: €210,613]

This Coordination and Support Action approved for funding at the end of 2018, ran for three years (2019–2021). The project, coordinated by European Forest Institute, Finland, was jointly prepared by the three European networks on plant, forest and animal genetic resources - ECPGR, the European Forest Genetic Resources Programme (EUFORGEN) and the European Regional Focal Point for Animal Genetic Resources (ERFP) – to respond to the 2018 call on 'Joining forces for GenRes and biodiversity management' (SFS-28-2018-2020). The ECPGR Secretariat, with support especially from the ExCo Chair and the German national coordination office, contributed to the development and finalization of the Genetic Resources Strategy for Europe (GRSE). The Secretariat was also involved in the organization of stakeholders' meetings (namely the 'Sharing perspectives workshop', 28-30 October 2019 in Tuusula (Helsinki), Finland, and the online feedback workshop on the draft GRSE, 24-26 November 2020), as well as to several rounds of consultations and revisions resulting in a document endorsed by the Steering Committees of the three networks. The GRSE was complemented by three domain-specific strategies on animals, forests and plants. The Plant Genetic Resources Strategy for Europe was finalized as a joint effort of an ECPGR drafting team, composed of nine volunteers from National Coordination offices including ExCo members. The strategies were presented to the European Commission and genetic resources stakeholders during a hybrid in-person and online launch event on 30 November 2021 in Brussels, Belgium. Since the beginning of 2022, an initiative started under the French Presidency of the European Union, to raise policymakers' awareness of the need expressed by the strategies for urgent change action on genetic resources conservation and sustainable use (the ExCo Chair was very active, supported by the German National Coordination Office and the Secretariat.



The ECPGR Secretariat also organized an online workshop on <u>Phytosanitary barriers for genetic resources</u> in February 2021, to initiate a discussion on phytosanitary issues relevant to genetic resources conservation and sustainable use.

Finally, the ECPGR Secretariat was also leading the specific project task of developing the journal Genetic Resources (www.genresj.org), which was launched in 2020. The journal was inspired by the example of the Plant Genetic Resources Newsletter, jointly published by FAO and Bioversity International (IPGRI), and the Animal Genetic Resources journal, edited by FAO, discontinued in 2009 and 2016, respectively. The journal, which is published by Bioversity International on behalf of ECPGR, and is overseen by an international editorial team, intends to offer free publishing and free online access, disseminating global knowledge and tools used by the community of practitioners of plant and animal genetic resources involved in monitoring, collecting, maintaining, conserving, characterizing and using genetic resources for food, agriculture and forestry. The journal has a focus on the European region and welcomes contributions of wider interest from all world regions. The ECPGR Secretariat provides the editorial office. Genetic Resources published five regular issues between 2020 and 2022, including contributions from all three genetic resources domains and a special issue, the abstract book for the International Congress on the Breeding of Sheep and Goats (Bonn, Germany October 2020), which was edited in collaboration with the German Ministry of Food and Agriculture. After the end of the GenRes Bridge project, ECPGR and ERFP are ensuring their support for the continuation of the journal, at least until the end of Phase X of ECPGR. The respective Steering Committees will then need to decide on its longer-term future.

AGENT (Activated Genebank Network) (2020–2025)

[ECPGR budget: €276,825]

This five-year Research and Innovation Action, submitted under SFS-28-2019 B: Adding value to plant Genetic Resources (GenRes), was approved in 2019 and started its operation in May 2020. The project, coordinated by the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany, focused on wheat and barley, is a concerted effort to activate genebanks to make genetic resources more easily accessible to breeders and farmers through standardized protocols of data generation, documentation and provision to users. The ECPGR Secretariat is leading one Work Package to promote use, sharing of resources, capacity building, and communication and dissemination of results. More specifically, reviews of operations of European genebanks to guide their improvement are planned to involve ten partner genebanks in a system of reciprocal visits and support. Training courses are scheduled to bring genebank managers up to the state-of-the-art regarding all innovative aspects of genebank management, including genomics and data management. This Work Package also supports the development of the ECPGR EVA Network, enhancing the range of stakeholders and environments involved in producing evaluation data from value-added genotyped genetic material. A network of Italian farmers (Rete Semi Rurali) is also involved in the Evaluation Network and will be provided with genebank accessions suitable for testing in organic farming conditions. Thanks to AGENT, the EVA Wheat and Barley network will further extend its activities until 2024, with a third set of accessions provided by AGENT partners that will undergo multiplication and multi-environment evaluation through the EVA public-private partnerships.

The ECPGR Secretariat has also been involved in other Horizon 2020 project, as a member of the Scientific Advisory Committee, as follows:

Farmer's Pride – 'Networking, partnerships and tools to enhance *in situ* conservation of European plant genetic resources' (2017–2021)

A Coordination and Support Action coordinated by the University of Birmingham, UK. The ECPGR ExCo Chair (Eva Thörn) was a member of the Advisory Group. The project involved both Chairs of the



WGs on 'Wild species conservation in genetic reserves', Nigel Maxted, and on 'On-farm conservation and management', Valeria Negri.

A number of Farmers' Pride achievements were made accessible from the ECPGR On-farm Conservation and Management WG website (here), including guidelines for *in situ* landrace propagation, management and access, a best practice evidence-based database on *in situ* landraces and other products and reports. The project's final conference *Ensuring Diversity for Food and Agriculture – Plant genetic resources in nature and on-farm* was organized in association with EUCARPIA – Genetic Resources Section, and ECPGR, and held from 28 June–1 July 2021, online.

BRESOV – 'Breeding for Resilient, Efficient and Sustainable Organic Vegetable Production' (2018–2023)

Coordinated by the University of Catania, Italy, the project aims to tackle the nutritional challenges of a growing world population and changing climatic conditions by enhancing the productivity of different vegetable crops in an organic and sustainable farming infrastructure. BRESOV works on broccoli, snap bean and tomato. The ECPGR Secretariat is represented on the scientific advisory board by the EVA Coordinator, Sandra Goritschnig.

Dynaversity - 'Conserving Diversity in situ in agriculture and in the food chain' (2019–2021)

A Coordination and Support Action coordinated by ARCADIA International, Belgium. The project analyzed and described the actors involved in plant genetic conservation for agriculture to suggest management and governance models and construct new forms of networking. It facilitated exchange and integration of scientific as well as practical knowledge on how to best manage diversity in agriculture and in the entire food chain, restoring evolutionary and adaptation processes. As member of the Sharing Knowledge and Experience Platform (SKEP), with advisory function, the ECPGR Secretary, Lorenzo Maggioni contributed to commenting desk studies produced by the project.

BrasExplor – Wide exploration of genetic diversity in *Brassica* species for sustainable crop production (2020–2023)

The project, coordinated by INRAE, France, aims to identify relevant material of *Brassica rapa* and *Brassica oleracea* and their adaptive traits to face upcoming climate change in the Mediterranean area, and contribute to biodiversity-based agriculture. The ECPGR Secretary, L. Maggioni, was invited to be part of the Advisory Board.

Breeding Value – Pre-breeding strategies for obtaining new resilient and added value berries (2021–2024)

This project, coordinated by the Università Politecnica delle Marche, Italy, focuses on berries (strawberry, raspberry and blueberry) to identify conserved germplasm appropriate for sustainable berry production throughout the EU. It will apply the latest genotyping and phenotyping tools for the characterization of local varieties. The ECPGR Secretary, L. Maggioni, was invited to be part of the Advisory Board.

Finally, the ECPGR Secretariat is involved as a partner in the project proposal **PRO-GRACE** (**Promoting a Plant Genetic Resource Community for Europe**) (2022–2024) which has recently been submitted under the Call HORIZON-INFRA-2022-DEV-01-01 (Research infrastructure concept development), coordinated by ENEA, Italy.

5. Liaising with partner organizations

5.1 Euroseeds

After the signature in May 2018 of a Memorandum of Understanding for enhanced cooperation with the European Seed Association (now Euroseeds), support from the Euroseeds Secretariat continued to facilitate participation of private breeders in the EVA Networks, as well as to help finalize the cooperation agreements with the EVA partners. Szonja Csörgő (Euroseeds Director IP & Legal Affairs) has also been member of the External Advisory Board of the GenRes Bridge project.

5.2 ITPGRFA Secretariat

Within the framework of the Memorandum of Understanding of December 2016, the ECPGR Secretariat had several interactions with the ITPGRFA (Treaty) Secretariat. In particular, ECPGR participated in the meetings of the Scientific Advisory Committee on the Global Information System of Article 17, dealing with the Global Information System on PGRFA. ECPGR also promoted and supported the adoption of DOIs by genebanks in Europe, by presenting the importance of the DOIs in documentation training workshops and other occasions. Furthermore, as of May 2019, EURISCO started offering a service aiming at supporting data providers with registering germplasm accessions for a DOI using GLIS (in collaboration with the Treaty Secretariat). Circulation by the Treaty Secretariat in October 2019 of a document regarding the 'Development and Promotion of Crop Descriptors Lists', triggered collaboration with the ECPGR *Avena* Working Group for a revision of the IBPGR Oat descriptors. More recently, the Treaty Secretariat has been invited as an observer to the EURISCO Advisory Committee meeting in 2021 and coordination was established for future work on crop wild relative data in EURISCO. Future collaboration is also envisaged within the framework of the new Cryopreservation WG, considering the interest expressed by the Treaty Secretariat to support development in this field.

5.3 Crop Trust

In February 2020, on the occasion of the Global Seed Vault (GSV) celebration in Svalbard, Norway, a Memorandum of Understanding for an Enhanced Cooperation was signed with the Crop Trust to formalize future cooperation to improve the conservation and documentation of PGRFA and to facilitate their use as a contribution to a global system of conservation and use. Interactions with Crop Trust staff have been regular and directed to exchange information. In October 2019, the ECPGR Secretary participated in an expert consultation meeting on global conservation strategies, organized by the Crop Trust, and subsequently contributed to identifying European contacts for the sunflower strategy. Collaboration is currently ongoing to support the Ukrainian genebank affected by the war.



6. ECPGR Objectives – status of implementation

See in Background Documents: Table of ECPGR objectives, with annotated activities and indicators

7. Financial situation

See in Background Documents: ECPGR Financial report 2021

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(with inputs from Nora Capozio, Sandra Goritschnig, Marianne Lefort and Stephan Weise)
Rome, 9 May 2022
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