



European Cooperative Programme for Plant Genetic Resources (ECPGR)

Phase X (2019–2023)

**Annual Progress Report
January-December 2019**

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ECPGR IN 2019 – HIGHLIGHTS

Launch of Phase X

Following the approval in May 2018 of Phase X of ECPGR (2019-2023) by the Steering Committee, with a starting budget of € 2 668 250, Phase X was launched. 31 countries joined ECPGR and/or contributed funds during 2019. Highlights of Phase X are the following:

- Revised ECPGR Objectives ([see here](#))
- Two new Working Groups have been approved: Berries WG and Maize WG
- Working Groups can organize meetings in a flexible way – see Mode of Operation ([here](#))
- Working Groups can apply for funding through the ECPGR Grant Scheme – see Mode of Operation
- Two WG Chairs meetings are foreseen prior to the Steering Committee meetings
- ECPGR contributes to the H2020 project '[GenRes Bridge: Genetic resources for a food-secure and forested Europe](#)'

Voluntary contributions from Germany and Hungary

Voluntary contributions for Phase X from Germany were incremented in 2019, reaching a total additional pledged contribution of € 1 032 155 to the budget of Phase X. These funds were earmarked to support various ECPGR meetings, workshops and public awareness activities, with a larger component dedicated to the development and implementation of the European Evaluation Network. Also Hungary volunteered an additional contribution of € 12 000.

European Evaluation Network (EVA)

After the preparatory Private Public Partnership workshops sponsored by Germany in 2018 (Berlin, Germany) and 2019 (Durrës, Albania) for the establishment of a European Evaluation Network (EVA), a new related project for the “Implementation of EVA on wheat and barley and vegetable crops (carrot, lettuce and pepper)” and with the addition of a Maize component was approved for funding until November 2022, with a budget of ca. € 900 000. The project applies a public-private partnership approach involving genebank managers and public and private breeders, in order to foster partnerships and strengthen the link between conservation and use of PGRFA. As of December 2019, Letters of Commitment to participate in the EVA project have been signed by 27 partners from 14 countries in the case of wheat and barley, and from 26 partners from 12 countries in the case of Vegetables. The first batches of winter wheat and winter barley accessions for planting in time for the winter season 2019/2020 were provided by genebanks from Austria, Bulgaria, Czech Republic, Italy, Nordic Countries, Portugal, Romania, Slovakia, Spain, Switzerland and the UK to multipliers in Denmark, Italy and Germany.

Activity Grant Scheme

Three new activities were selected by the Executive Committee in 2019:

- AEG-VIT-IS (*Vitis* WG)
- Inclusion of Crop Wild Relative (CWR) sites in European *in situ* network (Wild Species Conservation in Genetic Reserves)
- UMORPHEAS (*Avena* WG)

EURISCO

- **An extension for crop-specific passport data** was developed to support several Crop WGs which have expressed the need to provide additional information not included in the Multi Crop Passport Data (MCPD) standard.
- **A Digital Object Identifier (DOI) service** was implemented in close collaboration with the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture. For this service, EURISCO acts as a mediator in the DOI registration process for germplasm accessions and hands over the issued DOIs to the respective genebanks.
- **Crop portal for forages.** A prototype for a new crop portal dedicated to forages was developed. This portal allows users to search over different genera of forage crops. Separate data management by the ECPGR Forages WG will no longer be necessary, since data displayed in this portal is provided directly by EURISCO and is automatically updated.
- **The taxonomy extensions of EURISCO** have been published in a short communication article in Plant Genetic Resources. DOI: <https://doi.org/10.1017/S1479262119000339>.

AEGIS

- The **European Collection** increased by 9769 accessions in 2019, reaching a total of 56 818 accessions from 18 contributors by the end of 2019. One new country, Italy, contributed for the first time in 2019.
- A **Checklist** for the implementation of the AEGIS Memorandum of Understanding (MoU) at national level, with step by step flow diagram, was prepared and published [here](#), detailing the simplified flagging procedure.
- The section on AEGIS membership on the **website** has been enhanced. Each Associate Member now has an individual page (accessible from [here](#)), providing general information about the Member Institute, direct access to existing relevant documents (operational genebank manuals, peer review reports), and full list of accessions included in the European Collection.
- The recommended **genebank "peer review"** proof of concept was tested with a first cycle of mutual visits involving three genebanks (COMAV, Spain, CGN, the Netherlands, and IHAR-PIB, Poland). The three individual genebank reports are available [here](#).

Horizon 2020 GenResBridge project

- **GenRes Bridge** - a Coordination and Support Action on '[Joining forces for genetic resources and biodiversity management](#)' started in January 2019. The '[Sharing perspectives workshop](#)', 28-30 October 2019, Tuusula (Helsinki), Finland, involved experts, stakeholders and end-users in the field of management of crop, forest and animal genetic resources and prepared the ground to develop recommendations for a European Strategy on Genetic Resources.

New Staff at the Secretariat

- In November 2019, **Sandra Goritschnig** joined the Secretariat as Scientific Assistant. She will manage the European Evaluation Network (EVA) and the new journal 'Genetic Resources'.
- **Sonja Ensslin** completed a three-months internship at the ECPGR Secretariat between October and December 2019.

1. ECPGR STRUCTURE AND MODE OF OPERATION IN PHASE X

1.1. MEMBERSHIP AND CONTRIBUTIONS

Following up from the decision made at the Fifteenth Steering Committee meeting in Thessaloniki, Greece (May 2018), invitations to join Phase X of ECPGR (2019-2023) were sent to all the National Coordinators of countries eligible to be members of ECPGR in 2018. By the end of December 2019, 28 countries signed the LoA for Phase X membership. The list of signatory member countries is available online ([Membership webpage](#)).

Three additional countries (Belgium, Czech Republic, and Slovakia) contributed funds for Phase X, even though they did not sign the LoA yet¹.

Voluntary contributions related to Phase X expenditures had been provided by the German Federal Ministry of Food and Agriculture (BMEL) already during Phase IX. These were incremented with additional voluntary pledges, reaching a total additional pledged contribution of € 1 032 155 to the budget of Phase X. These funds were earmarked to support various ECPGR meetings, workshops and public awareness activities, with a larger component dedicated to the development and implementation of the European Evaluation Network (see 2019 Financial Report for details). Carry-over funds from Phase IX, as well as a voluntary contribution of € 12 000 received from Hungary, further incremented the ECPGR budget for Phase X, which was raised from the original € 2 688 250 (agreed in May 2018 in Thessaloniki) to € 3 937 809 at the end of 2019.

1.2. RENEWAL OF MEMBERSHIP IN ECPGR WORKING GROUPS

Working Group members

National Coordinators provided updates and nominations of new WG members throughout the year. The [lists of WG members](#), including their respective categories of expertise, are available online and are constantly being updated. Membership lists are also available per country ([here](#)).

Working Group Chairs

Two new Working Groups were established at the beginning of Phase X and their Chairs nominated by the Executive Committee, on the basis of received expressions of interest, as follows:

- **Maize WG:** Violeta Andjelkovic, Serbia, on 4 February 2019
- **Berries WG:** Monika Höfer, Germany, on 1 March 2019

One other change of Chair occurred in 2019 in the existing Working Groups: the retiring Chair of the **Fibre Crops (Flax and Hemp) WG** Martin Pavelek, Czech Republic, was replaced by Miroslava Vrbová – Prokopová, Czech Republic, as of 19 November 2019. This nomination was also made by the Executive Committee, on the basis of received expressions of interest.

See full list of [ECPGR Working Group Chairs during Phase X](#).

¹ Portugal, Slovakia and Spain signed the LoA in the first part of 2020

1.3. NEW STAFF AT THE SECRETARIAT

Internship

Sonja Ensslin, student of Geography at the Rheinische Friederich-Wilhelms Universität, Bonn, Germany, joined the Secretariat for a three-months internship from 1 October to 20 December 2019. Sonja contributed to successful public awareness products such as the roll-ups of ECPGR and AEGIS used for the GenRes Bridge sharing perspectives meeting in Tuusula, Finland (see below), and to documents such as the AEGIS Flow Diagram. She also contributed to other networking activities.

New Scientific Assistant

On 27 November 2019, Sandra Goritschnig joined the Secretariat as Scientific Assistant with a three-year contract. Sandra, an Austrian national, will manage the German-funded project for the development of a European Evaluation Network (EVA). She will also establish and develop the online journal 'Genetic Resources', as part of the EU-funded GenRes Bridge project. This journal will be inspired by the late IPGRI/FAO PGR Newsletter, but with the scope extended to include also animal and forest genetic resources. The journal will be accepting submissions from early 2020.

1.4. ACTIVITIES OF THE EXECUTIVE COMMITTEE (ExCo)

At the end of 2019, the ExCo was composed of Marianne Lefort (Chair as of 1 September 2019, replacing Eva Thörn), Vojtech Holubec, Külli Annamaa, Benvindo Martins Maças (replacing Roberto De Salvador as of 1 January 2019), Marc Lateur and Lorenzo Maggioni (*ex officio*).

The ExCo held two meetings in 2019:

- Thirteenth meeting, 18-19 June 2019, Bioversity International, Maccarese, Rome, Italy.
- Fourteenth meeting, 28 October 2019 in Tuusula, Helsinki, Finland (back-to-back to the GenRes Bridge workshop on "Sharing perspectives").

During 2019, the main activities of the ExCo were related to the following items:

- **Evaluation, selection and awarding of proposals submitted under the ECPGR Grant Scheme**
Proposals for the First and Second Calls of Phase X were selected and awarded (see details below).
- **Decision about the re-appointment of Chairs for Phase X.**
By the end of 2019, all Chairs of existing Working Groups had been reconfirmed or replaced. The Chairs of the new Maize and Berries WGs were nominated as indicated above.
- **Participation of ExCo Chair in technical and public awareness meetings**
 - GenRes Bridge workshop on "Sharing perspectives", 28-31 October 2019, Tuusula (Helsinki), Finland
- **Finalization of the ECPGR Communication Strategy**

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 web site in January 2020 ([here](#)). The ExCo also agreed that a Task Force (TF) should be set up to help in the preparation of a video on ECPGR, to celebrate 40 years of ECPGR activity ('Jubilee Video'). The TF was set up and started its operations, 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 external expert.

2. ACTIVITIES CARRIED OUT IN 2019

2.1. ECPGR ACTIVITY GRANT SCHEME

Note: for all Activities, details on the implementation and all available documents (interim and final reports, complementary data, references etc.) can be found on the respective Activity webpages. The available final reports can also be found [here](#).

Three calls for proposals were launched in 2019, as below:

The **First Call** was launched 15 February 2019 with deadline 26 May 2019. Three proposals were submitted and two of them were approved by the ExCo at its thirteenth meeting (18-19 June 2019) (see Table below, and more details on the webpage [Outcomes of the First Call](#)).

Table 1. Proposals approved by the ExCo under the First Call of Phase X

Acronym	Title	Working Group(s)	Activity Coordinator	Budget in Euro
AEG-VIT-IS	Enhancing quality and quantity of <i>Vitis</i> genetic resources in AEGIS	<i>Vitis</i>	Gregorio Muñoz Organero	€ 9000
Inclusion of CWR sites in European in situ network	Identification, preparation of applications and approval of sites to join the European <i>in situ</i> PGRFA conservation network	Wild Species Conservation in Genetic Reserves	Juozas Labokas	€15000

The **Second Call** was launched 10 July 2019 with deadline 18 October 2019. Two proposals were submitted and one was approved by the ExCo at its fourteenth meeting (27 October 2019) (see Table below, and more details on the webpage [Outcomes of the Second Call](#)).

Table 2. Proposal approved by the ExCo under the Second Call of Phase X

Acronym	Title	Working Group(s)	Activity Coordinator	Budget in Euro
UMORPHEAS	Updated MORPHological dEscriptors for Avena Species	<i>Avena</i>	Andreas Katsiotis	€ 15 000

The **Third Call** was launched 6 December 2019 with deadline 14 February 2020.

Overall, 31 Activities have been granted during Phase IX. By the end of 2019, 20 have been concluded with an Activity report and 6 were concluded, but their final reports were still overdue. The remaining 5 Activities were still ongoing. The Secretariat is aware that a number of Activity Coordinators do not manage to provide the final reports within a reasonable time, and this reflects a weakness of the ECPGR Grant Scheme.

The three activities granted during the first year of Phase X were in their first stage of implementation, or planned to start in 2020.

In 2019, the following outcomes can be reported from ongoing Grant Scheme Activities:

- **Allium Working Group**

[Safeguarding of potato onion \(*Allium cepa* L. *Aggregatum* group\) and garlic \(*Allium sativum* L.\) crop diversity in North Europe - Baltic region \(SafeAlliDiv\)](#) – Fourth Call Phase IX

Duration: 24 months (June 2017-May 2019). The Activity was granted an extension until October 2019 to complete morphological descriptions, as a very atypical vegetation season occurred in 2018.

The Activity was concluded successfully, providing a sub-regional strategy for on-farm conservation of potato onion and garlic in the Baltic area. Genetic diversity of 264 potato onion (*Allium cepa* L. *Aggregatum* group) accessions from 8 countries was investigated by SSR markers at the Latvian State Forest Research Institute. The DNA analysis identified 184 accessions with unique genotypes. Morphological descriptions were also carried out to complement the molecular data. A manuscript was in preparation for submission to a scientific journal. Public awareness publications for farmers' magazines were completed and published in local language in Czech Republic, Finland, Latvia and Lithuania.

The Activity Report was finalised and published online in January 2020.

- **Avena Working Group**

[Updated MORPHological dEscriptors for Avena Species \(UMORPHEAS\)](#) – Second Call Phase X

Duration: 24 months– effective start date January 2021, end date December 2022)

This Activity aims to update and replace the 1985 IBPGR Oat descriptors publication, delivering standardized protocols for all descriptors included. The team will grow a set of accessions in multiple environments and test the stability/plasticity of various traits. A short list of most appropriate descriptors will also be developed. The deliverable of this project can become an indispensable tool for phenotyping cultivated oats. The work will be coordinated with the PGRFA-Treaty Secretariat to develop and promote crop descriptor lists (see below).

The meeting originally planned 19-20 March 2020 in Birmingham, UK, was cancelled due to the global sanitary situation. The starting date of the Activity has been postponed to January 2021.

- **Beta Working Group**

[Improving a cooperation network between actors involved in conservation and utilization of Beta genetic resources \(BETANET\)](#) – Fifth Call Phase IX

Duration: 12 months (1 December 2017-30 November 2018)

The Secretariat did not receive update on progress after the meeting of 19-20 June 2018.

- **Forages Working Group and Documentation and Information Working Group**

[Facilitating use on the European perennial ryegrass collection: improving access to genetic resources and C&E data \(ImprovLoliumCol\)](#) – Sixth Call Phase IX

Duration: 36 months (1 September 2018–31 August 2021)

This activity aims to promote the registration into AEGIS of accessions studied in the GrassLandscape project (438 genebank accessions of perennial ryegrass and related species and 42 newly collected perennial ryegrass populations). Related passport and C&E data are planned to be uploaded into EURISCO.

The mid-term meeting and data training workshop was held on 17 September 2019 at IPK Gatersleben, Germany. 94% of the perennial ryegrass accessions used in the project are now

uploaded to EURISCO and 46% are flagged as AEGIS. The prototype of the new forage species portal was presented as well as a proposal for adding descriptors not covered by the MCPDs. The final list of C&E data from GrassLandscape to be uploaded to EURISCO was agreed on. A set of climate and soil data to deliver as descriptors to the forage portal was also agreed on. A third meeting was planned in September 2020 to set up several levels of core-collections with accessions from the natural diversity of perennial ryegrass.

- **Grain Legumes Working Group**

[Efficient management of resources for smart legumes utilization \(SMARTLEG\)](#) – Third Call Phase IX

Duration: 12 months (January 2017-December 2017)

The Final Activity report was submitted in April 2018 and summarized in the last annual report. Clarifications were requested by the ECPGR Secretary and by the end of 2019 the report was still under revision by the Activity Coordinator. A scientific paper is being prepared for publication by the Activity team.

- **Grain Legumes Working Group**

[Lathyrus diversity: available resources with relevance to crop improvement – progress reviews and relationship with AEGIS \(EUGrainLeg\)](#) – Sixth Call Phase IX

Duration: 17 months (1 August 2018–31 December 2019) – the Activity was extended until March 2021.

This Activity aims to better characterize *Lathyrus* accessions in European genebanks and contribute data to EURISCO and accessions to AEGIS.

The status of national *Lathyrus* collections presented at the meeting (Bulgaria, Greece, Portugal, Romania, Serbia and Slovenia) was reviewed. The group discussed the establishment of working collections and planning of morphological evaluations in the experimental fields of all project members' countries. The methodology for morphological evaluations and the reference genotypes were agreed upon and field evaluations started in 2019, but many partners wished to repeat the field investigation in 2020 (at their own cost) to obtain more solid data.

- **Malus/Pyrus Working Group**

[Building and promoting a European Pyrus collection - a case study \(EcoHisPy\)](#) – First Call Phase IX

Duration: 12 months (January 2015-December 2016)

By the end of 2019, the final report was still expected.

[Common ECPGR protocols and tools available for Characterization & Evaluation of Malus/Pyrus genetic resources \(Pomefruit – C&E\)](#) – Fifth Call Phase IX

Duration: 24 months (February 2017-January 2019)

The Activity was granted an extension till September 2019. **This Activity was supported by the German Federal Ministry of Food and Agriculture.**

This Activity 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. These should become shortly available on the ECPGR web site and remain the basis for future harmonized characterization and provision of apple and pear data to EURISCO.

The compilation and harmonization of very large sets of existing and newly produced SSR data for over 1300 apple and nearly 5000 pear accessions has also been completed. Data analysis allowed to identify ca. 2000 unique pear genotypes and to provide the methodology to distinguish new from duplicate genotypes in future analysis.

A poster on the Activity was presented at the XV EUCARPIA Fruit Breeding and Genetics Symposium, 3-7 June 2019, Prague – Suchdol, Czech Republic: [Denancé C et al. 2019](#). Molecular characterization of a very large set of European pear accessions with SSR markers.

More data and results were expected to be provided through scientific publications in preparation. The final Activity Report was expected to be completed in the year 2020.

- **Medicinal and Aromatic Plants Working Group**

- [Promoting the implementation and the establishment of the European MAP Collection \(MAP EUROCOLLECTION\)](#) – Third Call Phase IX

- Duration: originally 12 months (September 2016-September 2017). The duration of the Activity was extended until December 2019, with a budget revision for field activities.

- Activities related to collecting, multiplication and inclusion into AEGIS of medicinal and aromatic plants were carried out by Bulgaria, Germany, Portugal and Romania.

- In Germany, 42 accessions from 11 species were grown for multiplication and safety-duplication. Over 7000 medicinal and aromatic plant accessions were also identified as candidates to be flagged as part of AEGIS in 2020. Romania collected 30 accessions from 17 species and multiplied 81 accessions from 27 species. The 111 accessions were included in EURISCO and into AEGIS.

- The final Activity Report was expected to be completed in the year 2020.

- **Prunus Working Group**

- [Collaborative action for updating, documenting and communicating the cherry patrimonial richness in EU \(EU.CHERRY\)](#) – Second Call Phase IX

- Duration: 12 months (March 2016-February 2017) – extended to end April 2017

- The Final Activity Report was finalised and published in September 2019. It is available online [here](#).

- The Activity was conducted in collaboration with the [COST ACTION FA1104](#) ‘Sustainable production of high-quality cherries for the European market’.

- The activity partners agreed on a [list of priority descriptors for cherry](#) and carried out phenotypic and genotypic evaluation on respectively 187 and 324 accessions. A list of suitable SSR markers was validated. It was possible to identify 192 unique genotypes and additional 39 different groups of accessions. Genotypic and phenotypic data were used to propose a list of 56 sweet cherry accessions that would be most appropriate for inclusion into AEGIS. All data were prepared for inclusion into EURISCO by the respective Focal Points. Scientific publications were in preparation for submission.

- [Testing, Use and Alignment of genetic data to distinguish unique and characterized accessions \(Prunus Alignment\)](#) – Sixth Call Phase IX

- Duration: 24 months (1 February 2018–31 January 2020) - the meeting originally planned for September/October 2019 had to be postponed to February 2020 and the activity was extended until April 2020.

- Following up from previous efforts to understand the ECPGR *Prunus* germplasm and further improve the representation of *Prunus* within AEGIS and data within EURISCO, Prunus Alignment proceeded with characterization of plum and cherry accessions, including with SSR and also testing a new High Resolution Melting (HMR) analysis method as an opportunity to approach the genetic distinction of accessions in a more efficient manner.

- A poster on the Activity was presented at the XV EUCARPIA Fruit Breeding and Genetics Symposium, 3-7 June 2019, Prague – Suchdol, Czech Republic: [Ordidge M. et al. 2019](#). [Prunus Alignment – integrating data for European plum and cherry germplasm](#).

- A manuscript describing the findings from analysis of the data (alongside the data from the previous ECPGR PRUNDOC project) was submitted for publication (subsequently accepted in 2020:

Gaši F, Sehic J, Grahic J et al. 2020. Genetic assessment of the pomological classification of plum *Prunus domestica* L. accessions sampled across Europe. Genetic Resources and Crop Evolution. <https://doi.org/10.1007/s10722-020-00901-y>.

The generation of data within the project, and the analysis carried out was deemed to form a valuable basis on which to make a recommendation within ECPGR of a standard set of markers and reference accessions for the genotyping of plums by conventional SSR. Most appropriate accessions recommended for inclusion into AEGIS were also expected as a result of the Activity. The final Activity Report was expected to be completed in the year 2020.

- **Umbellifer Crops Working Group**

- [Improving the characterization and conservation of umbellifer crop wild relatives in Europe \(CarrotDiverse\)](#) – Fourth Call Phase IX

- Duration: 24 months (February 2017-January 2019). The Activity was granted an extension until September 2019. **This Activity was supported by the German Federal Ministry of Food and Agriculture.**

- The Activity focused on wild carrot accessions from France, Germany, Portugal, Nordic countries and the UK. Data from field tests carried out in three locations at different latitudes still needed to be thoroughly analysed in order to provide recommendations on the most useful descriptors and methodologies for characterization. Phenotypic data will also be matched with genotypic, biochemical and bio-assay disease resistance data obtained in the laboratory. Genetic data have shown clear clustering of the 96 analysed accessions into groups of common geographic or taxonomic origin. The bioassays for disease resistance detected promising accessions affected by lower disease severity compared to the controls. The concept of a potential global conservation plan was discussed among the project partners and preliminary data on global holdings of *Daucus* CWR in *ex situ* collections indicated that European genebanks conserve a significant proportion of total wild *Daucus* accessions. 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. The final Activity Report was expected to be completed in the year 2020.

- **Vitis Working Group**

- [Enhancing quality and quantity of Vitis genetic resources in AEGIS \(AEG-VIT-IS\)](#) - First Call Phase X

- Duration: 12 months (1 January 2020-31 December 2020)

- This Activity aims at 1) increasing the number of *Vitis* candidates to AEGIS by identifying and selecting unique genotypes; 2) improving the quality system by implementing operational genebank manuals in *Vitis* repositories; and (3) improving the conservation of AEGIS accessions by the implementation of safety duplicates, particularly of the most threatened genotypes. The Activity has started in January 2020.

- **Wheat Working Group**

- [Training on identification of botanical varieties in Triticum species \(Training in Triticum species: TTS\)](#) – Sixth Call Phase IX

- Duration: 15 months (1 July 2018–30 September 2019)

- The workshop “Training on identification of botanical varieties in *Triticum* species” was held 17-19 September 2019 at the Research Institute of Plant Production, National Agricultural and Food Centre in Piešťany, Slovakia.

- Genebank curators and other wheat researchers from 12 countries were trained by experts K. Marhold (Slovak Academy of Science, Bratislava), M. van Slageren (Royal Botanic Gardens, Kew) and E. Zuev (Vavilov Institute of Plant Genetic Resources, St. Petersburg).

Training focused on the International Code of Botanical Nomenclature, the taxonomy of wheat and the practical recognition of the main wheat taxa, including *Aegilops* and the diploid, tetraploid and hexaploid *Triticum* species. Trainers were advised that a new taxonomic revision of wheats is in preparation by van Slageren and was expected to be published in 2020. The workshop promoted a wider adherence by genebank and database managers to correct and accepted denominations of wheats, aiming at improving data quality in EURISCO.

The final Activity Report was expected to be completed in the year 2020.

- **Wild Species Conservation in Genetic Reserves**

[Identification, preparation of applications and approval of sites to join the European in situ PGRFA conservation network \(Inclusion of CWR sites in European in situ network\) - First Call Phase X](#)

Duration: 18 months (1 September 2019 – 1 March 2021)

A Joint workshop with the [Farmer's Pride Project](#) took place 8-10 October 2019 in Santorini, Greece, focusing on standards and procedures for Crop Wild Relative (CWR) and Landraces (LR) sites/populations and on Network governance, policy, advocacy and communications. The ECPGR component of this workshop was **funded by the German Ministry of Food and Agriculture**. A wide spectrum of questions was covered during the discussions – from inclusion criteria and management standards for CWR and LR sites/populations to communication requirements to engage Network stakeholders. Draft recommendations were developed to facilitate Network creation.

After the meeting, the discussion continued on how many sites/populations per country should be nominated to the European *in situ* network and on what major criteria this selection should depend on (e.g. geographic location and/or size of a country). A suggestion to nominate at least 10 CWR and 10 LR sites/populations per country was agreed.

Baltic countries (Latvia, Lithuania and Estonia) started a discussion on establishing of a sub-regional network, similar to what exists in the Nordic Countries. In this way, countries with similar climatic conditions and strong historical traditions of collaboration may develop their common approach to CWR conservation planning, further facilitating the establishment and management of the wider European network.

2.2. AEGIS

2.2.1. AEGIS membership

During 2019 one new country, Serbia, signed the AEGIS Memorandum of Understanding (MoU). The current 35 members are listed in the box below. The number in brackets following the member country names indicates the respective number of Associate Member institutions.

The following changes occurred in 2019, bringing the total number of Associate Members to 68:

- Three new Associate Membership Agreements were received:
 - Italy: National Research Council - Department of Biology, Agriculture and Food, Rome
 - Lithuania: Nature Research Centre, Vilnius
 - Portugal: University of Madeira (through ISOPlexis)
- One Agreement was cancelled:
 - The Netherlands, Radboud University.

AEGIS member countries and number of Associate Member Agreements

Albania (2), Austria (2), Azerbaijan (2), Belarus (9), Belgium (1), Bosnia and Herzegovina (2), Bulgaria (1), Croatia (2), Cyprus (1), Czech Republic (9), Denmark (1), Estonia (2), Finland (1), Georgia (1), Germany (3), Hungary (1), Iceland (1), Ireland (0), Italy (3), Latvia (3), Lithuania (2), Montenegro (0), the Netherlands (1), Norway (1), Poland (1), Portugal (2), Romania (1), Serbia (0), Slovakia (1), Slovenia (5), Sweden (2), Switzerland (1), Turkey (1), Ukraine (0) and the United Kingdom (3).

The membership status is kept updated online (see the respective webpages [AEGIS membership](#) and [Associate Member Agreements](#)).

2.2.2. Status of the European Collection

By the end of December 2019, a total of 56 818 accessions from 18 contributors were part of the European Collection.

In 2019, the European Collection has increased by 9769 accessions. One new country contributed for the first time (Italy). The changes in the composition of the European Collection over 2019 are shown in Table 3 below.

Table 3. The European Collection: breakdown by contributor at end 2019

Contributor	No. of accessions flagged as AEGIS	
	by end 2018	by end 2019
1. Albania	8	8
2. Bosnia and Herzegovina	22	22
3. Bulgaria	341	341
4. Croatia	90	90
5. Czech Republic	1341	1636
6. Estonia	126	129
7. Germany	26841	26757
8. Italy	-	8132
9. Latvia	27	27
10. Lithuania	36	45
11. Montenegro	31	31
12. The Netherlands	5845	5845
13. Nordic Countries	3706	4779
14. Poland	443	443
15. Romania	623	623
16. Slovakia	299	640
17. Switzerland	5611	5611
18. United Kingdom	1659	1659
Total	47049	56818

2.2.3. Follow-up to the AEGIS Workshop “Assessing current practices and procedures to strengthen AEGIS”

The Action Points agreed during the workshop held 10-12 December 2018 in San Fernando de Henares, Madrid, Spain were published as a [standalone document](#) on the ECPGR web site. These were followed up in part, as described below.

- **Improving functioning and understanding of AEGIS**

A Checklist for the implementation of the AEGIS Memorandum of Understanding (MoU) at national level - with a step by step flow diagram was prepared and published [here](#), detailing the procedure to be followed to implement the MoU at national level. The simplified flagging procedure agreed in Madrid is explained in this document.

The section on AEGIS membership on the website has been enhanced. Each Associate Member now has an individual page (accessible from [here](#)), providing 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 Ministry of Food and Agriculture**.

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

- **AQUAS – The AEGIS Quality System**

The recommended genebank "peer review" proof of concept was tested under the coordination of CGN. The concept consists of visiting and reviewing each other's genebanks as a way of improving the quality in 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 (Theo van Hintum, María José Díez, José Vicente Valcárcel and Wieslaw Podyma) and the three individual genebank reports are available [here](#).

See also news issued by GenRes Bridge: [European genebanks start to review each other](#).

In the framework of this exercise, COMAV finalised its operational genebank manual. It is available online [here](#) (*Spain is not yet member of AEGIS*).

2.3. EURISCO

The Workplan for 2019 and the Activity report for 2018 were made available online on the [EURISCO website](#) in January and February 2019 respectively (section Statistics and documents, Plans/reports).

2.3.1. EURISCO coverage

In 2019, the number of accessions documented in EURISCO increased by 36 028, reaching a total of 2 019 404 accessions from 43 National Inventories and 398 individual holding institutions by 31 December 2019. These accessions represent 6392 unique genera and 43 223 species.

The number of characterization and evaluation (C&E) data records rose by 189 133, reaching a total of 2 482 274. C&E data are currently available for 86 500 accessions and were provided by eight countries so far (Czech Republic, Estonia, Germany, Latvia, The Netherlands, Poland, Romania and the United Kingdom).

2.3.2. EURISCO development

- **Intranet support mechanisms for National Inventories**

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.

This was first introduced to the participants of the ECPGR Grant Scheme Activity "ImprovLoliumCol". The approach allows the WG Chair to define additional descriptors to the MCPD standard, which was not modified.

As proposed in 2018, a Digital Object Identifier (**DOI**) service was implemented in close collaboration with the International Treaty on Plant Genetic Resources for Food and Agriculture. For this service, EURISCO acts as a mediator in the DOI registration process for germplasm accessions and hands over the issued DOIs to the respective genebanks. This is made possible by the fact that EURISCO has all necessary passport data (including regular updates). This service was first used by

the National Inventory Focal Point of Azerbaijan: 8387 accessions of AZE015 were registered for a DOI in October 2019.

The possibility of **adding SSR data to EURISCO** was explored and an extension was considered feasible. Work will continue in 2020.

- **Extension of functionality of the public EURISCO application and implementation of improvements**

A number of **functionalities of the web interface** were (further) developed. These developments will be continued in the future.

The **taxonomic search** already implemented in 2018 was extended in 2019. This ensures that even typing errors etc. lead to usable hits. The new taxonomic search functionality has also been implemented for the Advanced Search.

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>).

The infrastructure for managing **crop-specific passport data** in addition to the MCPD attributes was developed. The visualisation of those data was implemented in the new prototype crop portal for forages (see below). If this extension is accepted by the community, it can also be used for other crop portals and/or the EURISCO web interface.

- **Crop portal for forages**

In the frame of the ECPGR Grant Scheme Activity "ImprovLoliumCol", a prototype for a new crop portal dedicated to forages was developed. 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. It is planned to enable a combined search across both data domains in the future.

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 are automatically updated.

(For more details, see the Activity report for 2019 on the EURISCO [website](#)).

2.3.3 Information on EURISCO provided at national and international meetings

- A presentation on EURISCO was given at the ECPGR Workshop for the establishment of a European Evaluation Network (EVA) on Vegetables, 2–3 April 2019, Durrës, Albania.
- The EURISCO Coordinator co-organized the workshop of the ECPGR Grant Scheme Activity "ImprovLoliumCol", which took place 17 September 2019 in Gatersleben, Germany. In addition to several other topics, the newly developed prototype of the ECPGR Forage Portal was presented. Additional use cases were discussed, the feasibility of which will be verified.
- Another talk was given at the workshop "Breathing New Life into the Global Crop Conservation Strategies: Providing an Evidence Base for the Global System of *Ex Situ* Conservation of Crop Diversity", Global Crop Diversity Trust, Bonn, Germany, 14–15 October 2019.
- EURISCO was also presented at the workshop "Enhancing and Linking Information Systems", 30–31 October 2019, Tuusula (Helsinki), Finland.
- A presentation was given at the First Meeting of the ECPGR Maize Working Group, Belgrade, Serbia, 2–3 December 2019.

2.3.4. EURISCO Newsletter

The bi-annual Newsletter was sent in September and December 2019, respectively, and is available online from the EURISCO website (section Statistics and documents, EURISCO documents). This is considered very important for providing feedback to the EURISCO users.

2.3.5. Participation in project proposals

The EURISCO Coordinator provided substantial legwork to the preparation of project proposals (Horizon 2020 and others) aiming at acquiring additional funding for developing certain aspects of EURISCO.

The EURISCO coordination participated in three project proposals, which were submitted to the Horizon 2020 call “Adding value to plant Genetic Resources” (SFS-28-2019 B). One of them, Activated Genebank NeTwork (AGENT), was approved for funding in December 2019. The EURISCO coordination continues to participate in the ongoing Horizon 2020 projects “EUCLEG”, “Farmer’s Pride” and “GenRes Bridge” (see below, section on H2020 projects).

The EURISCO coordination supports the ECPGR European Evaluation Network (EVA) funded in 2018 (see below, section on EVA) and participated in two EVA workshops in 2019. Initial financing for the support of EURISCO to the network was provided by the German government. The activities of EURISCO will start in 2020.

The Coordinator will continue to actively participate in the preparation of further project proposals aiming at acquiring additional funding for developing certain aspects of EURISCO. Two further Horizon 2020 proposals with participation of EURISCO were under preparation for submission in January 2020.

2.3.6. Participation in ECPGR Grant Scheme Activities

In 2019, the EURISCO coordination was involved in one ECPGR Grant Scheme Activity, ImprovLoliumCol (details above).

2.4. EUROPEAN EVALUATION NETWORK (EVA)

<https://www.ecpgr.cgiar.org/european-evaluation-network-eva>

Background information

The framework for EVA, a European Network for the Evaluation of Plant Genetic Resources for Food and Agriculture (PGRFA), was established by the ECPGR Steering Committee during its 15th Meeting in Thessaloniki, Greece, in 2018.

Inter alia, EVA aims to:

1. Promote the establishment of European Private Public Partnerships to carry out targeted evaluation of PGRFA
2. Promote and improve the digitization, harmonization, availability and exchange of existing and newly generated evaluation data of PGRFA
3. Improve the evaluation of PGRFA through coordinated and collaborative efforts, using harmonized methods and standard protocols and the development of best practices, guidelines and tools

Preparatory steps

The establishment of the European Evaluation Network (EVA) by the Steering Committee had been facilitated by preparatory steps enabled by the Germany-funded project GenR 2016-2, with the organization of an ECPGR Workshop on Private Public Partnerships for the Use of PGRFA in 2018. A

second Germany-funded project between September 2018 and April 2019 (GenR 2018-3) went a step further, promoting the establishment of two ECPGR-driven European Evaluation Networks (EVA), one on wheat and barley and one on vegetable crops. During two workshops (Berlin, Germany, November 2018 on wheat and barley and Durrës, Albania, March 2019 on vegetables), the Evaluation Network concept demonstrated to be sufficiently appealing to convince the attending private breeders and genebank managers to set up a project in which breeding companies confirmed their availability to undertake field evaluations at their own cost (or even in a few cases greenhouse multiplication and lab screening for diseases).

Implementation of EVA Networks

A third related project submitted by the ECPGR Secretariat to the German Ministry of Food and Agriculture for the “Implementation of the ECPGR European Evaluation Network (EVA) on wheat and barley and vegetable crops (carrot, lettuce and pepper)” (GenR 2019-2) was approved for three years of funding (July 2019-June 2022) and subsequently extended until November 2022, with the addition of a Maize component. The project applies a public-private partnership approach involving genebank managers and public and private breeders, in order to foster partnerships and strengthen the link between conservation and use of PGRFA. Overall, this project provides a budget of ca. Euro 900 000, dedicated to seed multiplication of genebank accessions, genotyping, laboratory or field testing (for public partners only), upgrade of EURISCO to host harmonized data under a specific intranet environment during an embargo period, and ECPGR Secretariat coordination costs. All private companies involved in the project agreed to carry out evaluations in multiple environments across Europe at their own cost. The available project funding for the EVA networks until 2022 is thus kickstarting several crop networks with the intention that these, if successful, should continue on a self-sustained rolling circle basis.

Activities related to the implementation of the EVA networks were started in July 2019, with promotion of the EVA concept aiming to extend the range of potential partners. A priority was also the quick selection and acquisition of the first batches of winter wheat and winter barley accessions for planting in time for the winter season 2019/2020. Accessions were provided by genebanks from Austria, Bulgaria, Czech Republic, Italy, Nordic Countries, Portugal, Romania, Slovakia, Spain, Switzerland and the UK to multipliers in Denmark, Italy and Germany. A position for a scientific assistant to coordinate EVA activities was opened and the selected candidate (Sandra Goritschnig) joined the ECPGR Secretariat in the end of November 2019.

As of December 2019, Letters of Commitment to participate in the EVA project have been signed by 27 partners from 14 countries in the case of wheat and barley, and from 26 partners from 12 countries in the case of Vegetables. Within the different networks each year a different batch of European genebank accessions will be multiplied and then evaluated in multiple locations for disease resistance and other traits. All accessions will be genotyped. All data will be provided to EURISCO and made widely available after an embargo period, to incentivize the collaboration of private breeders.

3. LINKS WITH OTHER NETWORKS AND INITIATIVES

3.1. EUROPEAN COMMISSION

3.1.1. H2020 projects

- [GenRes Bridge](#) - a Coordination and Support Action on ‘[Joining forces for genetic resources and biodiversity management](#)’

The project, coordinated by the European Forest Institute and involving the three European networks on crop, forest and animal genetic resources (ECPGR, EUFORGEN [European Forest Genetic Resources Programme] and ERFP [European Regional Focal Point for Animal Genetic Resources]), started in January 2019 with a kick-off meeting held 15-17 January in Rome, Italy.

The main event that occurred during the reporting period was the "[Sharing perspectives workshop](#)", 28-30 October 2019 in Tuusula (Helsinki), Finland. The objective of this workshop was to build bridges between different genetic resources communities by bringing together a range of experts, stakeholders and end-users in the field of management of crop, forest and animal genetic resources. The main goal was to prepare recommendations for the development of a European Strategy on Genetic Resources. Synergies, controversies, overlaps, gaps, bottlenecks and opportunities in and between sectors were identified and discussed as well as existing roadmaps and recommendations towards a common Strategy.

A specific project task under the responsibility of the ECPGR Secretariat is the development of a journal inspired by the example of the Plant Genetic Resources Newsletter, jointly published by FAO and Bioversity International (IPGRI), which was discontinued in 2009, but extending the scope also to forest and animal GenRes and their relationship with wider (agro-) biodiversity management. The journal intends to offer free publishing and free online access. Initially, a survey was prepared to define the scope and features of the journal, based on the real needs of the community. A report analysing the results was made available, indicating an existing interest for a new journal on genetic resources (91% of respondents). Among the gaps the journal should cover, *ex situ* (72%) and *in situ* (68%) conservation, together with evaluation (68%), characterization (63%) and documentation (61%) of genetic resources were the most quoted fields of interest. The survey report can be found [here](#). Definition of an [Editorial Team](#) was completed in December 2019, including members of the plant and animal genetic resources community and a decision for a name of the journal was taken: "Genetic Resources". Preparation of a [web site](#) with definition of scope, style and the submission pipeline was started, to be implemented in 2020 with the launch of the first issues.

- [DYNAVERSITY](#) - Coordination and Support Action on "Conserving Diversity *in situ* in agriculture and in the food chain", coordinated by ARCADIA International.

The project analyses and describes the actors involved in plant genetic conservation for agriculture in order to suggest management and governance models and to construct new forms of networking.

It facilitates 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.

DYNAVERSITY analysed 21 experiences representing the different players and networks involved in *in situ* and on-farm conservation, and their interrelations. [Selected case studies](#) cover the different geographical regions of Europe, different crop types and species and different actor categories (gardeners, farmers and seed companies).

As member of the DYNAVERSITY Sharing Knowledge and Experience Platform (SKEP), with advisory function, the ECPGR Secretary contributed to commenting desk studies produced by the project.

- [Farmer's Pride](#) (Networking, partnerships and tools to enhance *in situ* conservation of European plant genetic resources), also a CSA responding to Call SFS-04-2017, is coordinated by the University of Birmingham. The ECPGR ExCo Chair was invited to be a member of the Advisory Group. The EURISCO Coordination is also involved in the project (task lead).

A project workshop was held 8-10 October 2019 in Santorini, Greece, jointly with a workshop on 'Inclusion of CWR sites in European *in situ* network' with ECPGR participants funded through the Grant Scheme. The programme and list of participants are available on the ECPGR [Activity webpage](#). The joint workshop focused on two major topics: Standards and procedures for CWR and LR sites/populations and Network governance, policy, advocacy and communications.

- **BRESOV: Breeding for Resilient, Efficient and Sustainable Organic Vegetable Production**
BRESOV, coordinated by the University of Catania, Italy, aims to tackle the nutritional challenges of a growing world population and changing climatic conditions by enhancing productivity of different vegetable crops in an organic and sustainable farming infrastructure. BRESOV works on broccoli, snap bean and tomato.
- **ECOBREED: Increasing the efficiency and competitiveness of organic crop breeding**
ECOBREED, coordinated by the Agricultural Institute of Slovenia (KIS), aims to increase the availability of seeds and varieties for the organic and low-input sector, to identify traits and combinations of traits suited to organic and low-input production environments including high nutrient use efficiency and weed competitiveness/allelopathy, and to increase breeding activities for organic and low-input crop production.
- **EUCLEG - Breeding forage and grain legumes to increase EU's and China's protein self-sufficiency**
EUCLEG, Coordinated by INRA, France, aims to reduce Europe and China's dependency on protein imports by developing efficient breeding strategies for the legume crops of major economic importance in human food and animal feed. The objective is to improve diversification of crops, crop productivity, yield stability and protein quality of both forage (alfalfa and red clover) and grain (pea, faba bean and soybean) legumes.

The proposal for an **Activated Genebank NeTwork (AGENT)**, submitted under SFS-28-2019 B: Adding value to plant Genetic Resources (GenRes) has been accepted for funding.

The AGENT project, coordinated by the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany, is mainly focused on wheat and barley. It is a concerted effort to activate genebanks by making genetic resources more easily accessible to breeders and farmers through standardized protocols of data generation, documentation and provision to users. The ECPGR Secretariat will lead one Work Package to promote use, sharing resources, capacity building and communication and dissemination of results. More specifically, review of operations of European genebanks to guide their improvement will involve 10 genebanks in a system of reciprocal visits and support. Training courses will 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 will also support the further development of the ECPGR EVA Network on wheat and barley, enhancing the range of stakeholders and environments involved in producing evaluation data from value-added genotyped genetic material. A network of farmers will also be involved in the Evaluation Network and will be provided with genebank accessions suitable for testing in organic farming conditions.

3.2. EUROSEEDS

The Euroseeds (former European Seed Association) Secretariat was kept informed about the developments of the EVA Network during 2019 and it renewed its support to facilitate the connection between ECPGR and the Euroseeds associate private breeders. Szonja Csörgő (Euroseeds Director IP & Legal Affairs) has also accepted to join the External Advisory Board of the GenRes Bridge project (see above).

3.3. FAO INTERNATIONAL TREATY ON PGRFA

As a member of the Scientific Advisory Committee on the Global Information System of Article 17, the ECPGR Secretary had the following interactions with the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA-Treaty Secretariat) during 2019:

- The PGRFA-Treaty Secretariat sent the ECPGR Secretariat a request of information on “the current application of Digital Object Identifiers (DOIs) to crop germplasm in the Multilateral System of Access and Benefit-Sharing for which Digital Sequence Information/Genetic Sequence Data (DSI/GSD) are available in compatible information systems”. In May 2019 the ECPGR Secretariat sent a reply in consultation with the EURISCO Coordinator, Stephan Weise, and with the Chair of the Documentation and Information Working Group, Theo van Hintum. The reply indicated that the use of DOIs for germplasm accessions is increasingly accepted by genebanks. ECPGR is promoting and supporting the adoption of DOIs by the genebanks in Europe, by presenting the importance of the DOIs in documentation training workshops and other occasions. Furthermore, as of May 2019, EURISCO is offering a service aiming at supporting data providers with registering germplasm accessions for a DOI using GLIS (in collaboration with the PGRFA-Treaty Secretariat). In summary, ECPGR sees the importance of DOIs, promotes and facilitates its adoption, and is looking for ways to use them in the interfaces of EURISCO.
- In October 2019, the PGRFA-Treaty Secretariat provided a document presenting an overview and current status regarding the ‘Development and Promotion of Crop Descriptors Lists’, prepared under advice of the Third Meeting of the Scientific Advisory Committee on the Global Information System of Article 17. The document contained the list of the 42 Annex I crops lacking at the global level a strategic key set of characterization and evaluation descriptors to access information to increase utilization of PGRFA, and a second table containing the ‘Candidate crops’ for development or review, for consideration. The ECPGR Secretariat informed the PGRFA-Treaty Secretariat that the ECPGR *Avena* Working Group was planning to undertake a revision of the IBPGR Oat descriptors during the timeframe March 2020-February 2022, as part of an ECPGR Grant Scheme funded activity and that it would be useful to join efforts and plan together for the production of internationally agreed oats descriptors. The PGRFA-Treaty Secretariat and the Chair of the *Avena* WG were put in connection and started to jointly plan the next steps.

3.4. GLOBAL CROP DIVERSITY TRUST (CROP TRUST)

- On 6 March 2019 Eva Thörn (ExCo Chair) and Lorenzo Maggioni (ECPGR Secretary) visited the office of the Crop Trust in Bonn, Germany to discuss with Marie Haga (Crop Trust Director General) and other staff about possible collaboration. The German National Coordinator Frank Begemann and colleague Imke Thormann also attended the meeting. Among the identified topics for collaboration were the global crop strategies, involvement of the Crop Trust for joint lobbying with the European Commission (EC) and as advisor to the EC-funded GenRes Bridge project, and the possibility to support a list of non-EU countries for safety duplication of genebank material in Svalbard.
- Luigi Guarino (Director of Science at the Crop Trust) attended the ECPGR Executive Committee meeting in June 2019 (Maccarese, Italy) to explain the modalities of the Trust support to CGIAR genebanks and to strengthen collaboration with ECPGR.
- The ECPGR Secretary attended an expert consultation meeting on global conservation strategies, organized by the Crop Trust in Bonn, Germany, 14-15 October 2019. With support from the German government, and in partnership with the PGRFA-Treaty Secretariat, the Crop Trust started an effort to revise and update some of these strategies as well as to develop a number of new strategies for new sets of crops or crop groups. Vegetables, fruits and oil crops were prioritized for strategy development, including cucurbit crops, citrus crops, sunflowers, temperate forages, groundnuts and eggplant. Of the existing strategies, potato, sorghum, yams and vigna were selected for updates.
- The ECPGR Executive Committee decided to meet at the occasion of the Global Seed Vault (GSV) celebration in February 2020 in Svalbard, Norway, to acknowledge the importance of the GSV as a safety-duplication site for AEGIS material. At this occasion, it was planned to formalize future cooperation with the Crop Trust with the signature of a Memorandum of Cooperation to improve

conservation and documentation of Plant Genetic Resources for Food and Agriculture and to facilitate their use as a contribution to a global system of conservation and use.

3.5. OTHER INITIATIVES

- **Joint stakeholder statement on digital sequence information (DSI)**

An updated [Joint stakeholder statement on digital sequence information](#) was submitted in May 2019 by the International Chamber of Commerce (ICC) to the CBD Secretariat. As part of the context of the Nagoya Protocol on Access and Benefit-sharing, this statement has also been signed by ECPGR on behalf of 22 National Coordinators.

4. PUBLICATIONS AND PUBLIC AWARENESS

4.1. PUBLICATIONS PRODUCED IN 2019

4.1.1. Administrative and operational documents

- ECPGR [Annual Progress Report 2018](#) and Financial Report 2018

4.1.2. Reports from ECPGR Bodies

- [Minutes of the twelfth meeting of the ECPGR Executive Committee](#), 12 December 2018, San Fernando de Henares, Madrid, Spain
- [Minutes of the thirteenth meeting of the ECPGR Executive Committee](#), 18-19 June 2019, Maccarese, Italy
- [Minutes of the fourteenth meeting of the ECPGR Executive Committee](#), 27 October 2019, Tuusula, Finland

4.1.3. Grant Scheme Activity Reports and related data

- **Second Call**
 - [Collaborative action for updating, documenting and communicating the cherry patrimonial richness in EU \(EU.CHERRY\)](#)
 - [Integration of barley characterization and evaluation data into EURISCO, and development of specifications for a barley crop portal, with a focus to improve the AEGIS collection \(Barley C&E data\)](#)

4.1.4. European Evaluation Network (EVA)

- [Report of the ECPGR Workshop for the establishment of a European Evaluation Network \(EVA\) on wheat and barley, 27-28 November 2018, Berlin, Germany](#)

4.1.5. EURISCO

- [Report of the EURISCO Training Workshop 2018. National Focal Points Regional Training Workshop, 9-11 October 2018, Gatersleben, Germany](#)

4.1.6. AEGIS

- [Assessing current practices and procedures to strengthen AEGIS, the initiative for A European Genebank Integrated System. Report of a Workshop, 10-12 December 2018, San Fernando de Henares, Madrid, Spain](#)

4.1.7. ECPGR Information Bulletin

The bulletin was published in March (issue no. 16), July (no. 17), October (no. 18) and December (no. 19). The bulletin is distributed by email to all Steering Committee and WG members and is also available [online](#).

4.1.8. External publications with contribution from Secretariat

Maggioni L, Alessandrini A (2019) The occurrence of *Brassica montana* Pourr. (Brassicaceae) in the Italian regions of Emilia-Romagna and Marche, and in the Republic of San Marino. Italian Botanist 7: 1-16. <https://doi.org/10.3897/italianbotanist.7.31727>

Maul E, Schreiber T, Carka F, Cunha J, Eiras Dias JEJ, Gardiman M, Gazivoda A, Ivanišević D, **Koop L**, **Lipman E**, **Maggioni L**, Maletić E, Maras V, Martínez MC, Muñoz Organero G, Nikolić D, Regner F, Röckel F, Schneider A, Töpfer R, Zdunić G, Ziegler M, Lacombe T (2019). Preservation via utilization: minor grape cultivars on-farm. Acta Hort. 1248, 55-62. DOI: 10.17660/ActaHortic.2019.1248.8 <https://doi.org/10.17660/ActaHortic.2019.1248.8>

4.2. PARTICIPATION IN INTERNATIONAL MEETINGS

The Secretary and/or other ECPGR members represented ECPGR in the meetings listed below, offering presentations and/or contributing to project planning and/or attending as observers.

- 15-17 January, Rome, Italy
'GenRes Bridge' kick-off meeting
- 6 March 2019, Bonn, Germany
ECPGR meeting with Crop Trust
- 15 May 2019, Gatersleben, Germany
'AGENT' project preparatory meeting
- 17 May 2019, Brussels, Belgium
'GenRes Bridge' meeting with External Advisory Board
- 14-15 October 2019, Bonn, Germany
Crop Trust meeting "Breathing New Life into the Global Crop Conservation Strategies"
- 28-31 October 2019, Tuusula (Helsinki), Finland
GenRes Bridge workshop on "Sharing perspectives"

- 11-16 November 2019, Rome, Italy
International Treaty on Plant Genetic Resources for Food and Agriculture - Eighth Session of the Governing Body

5. ECPGR MEETINGS HELD IN 2019

5.1. GRANT SCHEME ACTIVITIES

(Meetings are listed below in chronological order)

- [Lathyrus diversity: available resources with relevance to crop improvement – progress reviews and relationship with AEGIS \(EUGrainLeg\)](#), 10-11 April 2019, Bucharest, Romania.
- [Facilitating use on the European perennial ryegrass collection \(ImprovLoliumCol\) - second meeting](#), 17 September 2019, IPK Gatersleben, Germany.
- [Training on identification of botanical varieties in Triticum species \(TTS\)](#), 17-19 September 2019, Piešťany, Slovakia.
- [Inclusion of CWR sites in European *in situ* network - Joint workshop with the Farmer's Pride Project](#), 8-10 October 2019, Santorini, Greece.

5.2. MEETINGS OF ECPGR BODIES

- [Thirteenth meeting of the ECPGR Executive Committee](#), 18-19 June 2019, Maccarese, Rome, Italy.
- [Fourteenth meeting of the ECPGR Executive Committee](#), 28 October 2019, Tuusula, Helsinki, Finland.

5.3. OTHERS

European Evaluation Network (EVA)

- [ECPGR Workshop for the establishment of a European Evaluation Network \(EVA\) on vegetables](#), 2-3 April 2019, Durrës, Albania (sponsored by the German Ministry of Food and Agriculture).

Working Group meetings

- [First meeting of the ECPGR Maize Working Group](#), 2-3 December 2019, Belgrade, Serbia (sponsored by the German Ministry of Food and Agriculture).

6. COORDINATING SECRETARIAT

During 2019, the following staff employed by Bioversity International have worked for the Coordinating Secretariat: Lidwina Koop (ECPGR Programme Assistant, assisting in all administrative and financial matters and website maintenance); Elinor Lipman (half-time Scientific Assistant, based in Montpellier, France, involved in the compilation and layout of ECPGR publications, website quality check and general support to the Secretariat activities); Lorenzo Maggioni (ECPGR Secretary). Sandra Goritschnig joined 27 November 2019 as Scientific Assistant (EVA coordination and editorial management of the 'Genetic Resources' journal). Sonja Ensslin completed an internship between 1 October and 20 December 2019. Stephan Weise (IPK, Gatersleben, Germany) acted as EURISCO Coordinator.

The scientific and technical contributions, as well as management and administrative support provided by other staff from Bioversity International and IPK to the work of ECPGR are duly acknowledged.

★★★

Lorenzo Maggioni
ECPGR Secretary

(with inputs from Sandra Goritschnig, Lidwina Koop, Elinor Lipman and Stephan Weise)

Rome, 20 August 2020

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