

European Cooperative Programme for Plant Genetic Resources (ECPGR)

Phase IX (2014-2018)

Annual Progress Report January-December 2017



CONTENTS

ECPGR IN 2017 - HIGHLIGHTS		
1. ECPGR STRUCTURE AND MODE OF OPERATION IN PHASE IX	3	
1.1. Membership and contributions	3	
1.2. Renewal of membership in ECPGR Working Groups		
1.3. Preparation of the Fifteenth (end-of-Phase) Meeting of the Steering Committee	3	
1.4. Activities of the Executive Committee (ExCo)	4	
2. ACTIVITIES CARRIED OUT IN 2017	5	
2.1. ECPGR Activity Grant Scheme	5	
2.2. AEGIS	14	
2.3. EURISCO	15	
2.4. Public Private Partnerships (PPP) project	18	
3. LINKS WITH OTHER NETWORKS AND INITIATIVES	18	
3.1. European Commission	18	
3.2. FAO International Treaty	19	
3.3. Other initiatives involving Working Group Members	20	
4. PUBLICATIONS AND PUBLIC AWARENESS	20	
4.1. Publications produced in 2017	20	
4.2. Participation in international meetings	22	
5. MEETINGS HELD IN 2017	23	
5.1. Grant Scheme Activities	23	
5.2. Meetings of ECPGR Bodies	23	
5.3. Meetings of the Private Public Partnerships (PPP) project	23	
6. COORDINATING SECRETARIAT	24	

ECPGR IN 2017 – HIGHLIGHTS

Private Public Partnerships (PPP) project

The overall objective of this project, supported by the German Federal Ministry of Food and Agriculture (BMEL), is to work towards the establishment of Private Public Partnerships on the use of PGRFA across and for the benefit of the European region. 0

During the first phase of the project (January-July 2017) a PPP <u>knowledge base</u> has been developed and a <u>workshop</u> took place in June 2017.

The second phase (August 2017–March 2018) aims to prepare a framework for a European Evaluation Network. Activities focus on the preparation of framework documents, the identification of standards and protocols that would need to be harmonized, and the development of criteria for prioritizing crops for kick-starting the implementation of the network. Recommendations will also be drafted for discussion at the ECPGR Steering Committee meeting in May 2018. The <u>first workshop of Phase II took place 12-13 October 2017</u> in Maccarese, Italy.

Networking among Working Groups for discussing and coordinating the implementation of ECPGR objectives (ECPGR Networking)

This Activity, submitted jointly by all Working Group Chairs, was funded under the Fourth Call of the ECPGR Grant Scheme. Its purpose was to allow the Chairs to meet and discuss their activities and the mode of operation of ECPGR in Phase IX.

The meeting took place 16-18 October 2017 in Ljubljana, Slovenia, attended by 31 participants (Working Group Chairs, members of the ECPGR Executive Committee and the Secretariat and observers).

The Chairs presented their achievements and difficulties in the implementation of the ECPGR objectives, in particular related to AEGIS and EURISCO, and discussed solutions for improvement. The meeting came up with a set of recommendations to the Executive Committee who were meeting the next days. ExCo replies to the recommendations are included in the ExCo meeting's report.

EURISCO

- The third training workshop (<u>EURISCO National Focal Points Regional Training Workshop 2017</u>)
 was held 12-14 September 2017 in Gatersleben, Germany. This workshop, selected under the
 Third Call of the ECPGR Activity Grant Scheme and sponsored by the German Federal Ministry of
 Food and Agriculture (BMEL), focussed on Central Europe.
- Inclusion of characterization and evaluation (C&E) data in EURISCO

An additional procedure for uploading C&E data to EURISCO was fully implemented and tested. This procedure provides an additional option of uploading C&E data by enabling data provider institutions to directly submit data to EURISCO.

The number of C&E data records rose by 197 361, reaching a total of 624 963. By end 2017, C&E data were provided by six countries.

Implementation of the multi-crop passport descriptors (MCPD) v2

In 2017, the EURISCO infrastructure was updated to fully support the MCPD v2.1. The final changeover took place in December 2017. Henceforward, EURISCO will only accept data in the MCPD v2.1 format plus four EURISCO-specific descriptors.

AEGIS

The European Collection increased by 4442 accessions in 2017, reaching a total of 33 343 accessions from 15 countries by end 2017.

One new country (Lithuania) contributed to the European Collection in 2017.

Activity Grant Scheme

A total of eight Activities were completed during 2017:

- Second Call: three out of six
- Third Call: three out of seven
- Fourth Call: two out of five.

Two new Calls were launched in 2017:

- Fifth Call (June 2017): two new proposals were approved: BETANET (*Beta* Working Group), starting in December 2017, and Prunus Alignment (*Prunus* WG), to start in February 2018.
- Sixth Call (November 2017): deadline for submission of proposals is 31 March 2018.

Overall, 28 Activities have been mobilized by the Activity Grant Scheme so far during Phase IX.

Horizon 2020 proposal GenResBridge

The ECPGR Secretariat participated in the preparation of "GenRes Bridge – Joining forces for genetic resources and biodiversity management", a joint proposal of the three European networks for plant, animal and forest genetic resources (ECPGR, ERFP and EUFORGEN). The proposal is coordinated by the EUFORGEN Secretariat, which will be hosted as of January 2018 by the Finland-headquartered European Forest Institute, at its office located in Bonn, Germany.

The project aims at developing and implementing integrated strategies for conservation and use of crop, forest and animal genetic resources as well as for wider agro-biodiversity. The respective networks' roadmaps should also be advanced, therefore benefiting the entire networks' communities, beyond the project partners. The project was submitted in February 2018.

Upcoming 15th (end-of-Phase) Steering Committee Meeting

The <u>meeting</u> is organized in collaboration with the Hellenic Agricultural Organization-DEMETER (HAO-DEMETER), and will take place 15-17 May 2018 in Thessaloniki.

The ExCo will hold a one-day meeting on 14 May 2018.



Voluntary contribution from Germany

In 2017, the German Federal Ministry of Food and Agriculture (BMEL) made a voluntary contribution of € 218 654. These funds sponsored the Private Public Partnerships project, the EURISCO Taxonomy project, and four Grant Scheme Activities (EURISCO Training 2017, GRIN-Global, CarrotDiverse and Pomefruit C&E).



1. ECPGR STRUCTURE AND MODE OF OPERATION IN PHASE IX

1.1. MEMBERSHIP AND CONTRIBUTIONS

By the end of December 2017, 33 countries had signed the Letter of Agreement (LoA) for Phase IX membership (no change since last year). The list of member countries with respective dates of signature is available online (Membership webpage).

Contributions for 2017 were received from all signatory member countries with the exception of Azerbaijan, Italy, Portugal and Spain.

With respect to the list of members foreseen for Phase IX, two countries had not signed the LoA, but had already sent their contributions for 2014-2017 (Belgium and Macedonia FYR). Additionally, Bosnia and Herzegovina contributed in kind for 2014-2015 (expenses for the hosting of the Steering Committee meeting in 2016), while Israel paid the contribution for 2014, but was no longer able to contribute since then. Finally, Poland neither signed the LoA nor paid their contributions.

In 2017, the German Federal Ministry of Food and Agriculture (BMEL) made a voluntary contribution of € 218 654. These funds sponsored the Private Public Partnerships project, the EURISCO Taxonomy project, and four Grant Scheme Activities (EURISCO Training 2017, GRIN-Global, CarrotDiverse and Pomefruit C&E). Additional funds received for the Grant Scheme corresponded to an overall increment of the total country quota. These were raised from 757 to 905 and redistributed to the countries, following the agreed procedure in the ECPGR Terms of Reference.

1.2. RENEWAL OF MEMBERSHIP IN ECPGR WORKING GROUPS

Working Group members

National Coordinators provided updates and new nominations throughout the year. The <u>lists of WG members</u>, including their respective categories of expertise, are available online and are constantly being updated.

Working Group Chairs

The **Potato Working Group** Chair, Anca Baciu, from Romania, resigned in January 2017 and was replaced in March 2017 by Veli-Matti Rokka, from Finland.

The full list of New Chairs for ECPGR Working Groups during Phase IX is available online.

1.3. Preparation of the Fifteenth (end-of-Phase) Meeting of the Steering Committee

According to the decisions of the ExCo at its ninth meeting in December 2016, the following activities were carried out:

• Identification of venue and date

The 15th (end-of-Phase) ECPGR Steering Committee meeting will take place 15-17 May 2018 in Thermi-Thessaloniki (Greece).

• Preparation of background documents

- Draft revised and updated objectives of ECPGR

The Secretariat prepared a preliminary revised list of outcomes/outputs and circulated it in May 2017 to obtain comments from both the SC and the WG Chairs (and the WGs' membership). Based on comments received, the Secretariat prepared a second draft which was discussed at the "ECPGR Networking" meeting held in October 2017. The final draft was included among the background documents to be discussed at the 15th SC meeting in May 2018.

- Proposed Mode of Operation for Phase X

The Secretariat prepared a preliminary draft presented at the "ECPGR Networking" meeting for discussion and comments. This document was received positively. The final draft will be presented at the 15th SC meeting.

- Online surveys

In December 20107, the Secretariat launched the online surveys directed at the National Coordinators regarding progress in the implementation of the ECPGR Objectives. Specific surveys were also sent to the Chair of the Documentation and Information WG, EURISCO Coordinator, and Chair of Wild Species Conservation in Genetic Reserves WG. Replies were requested by 15 February 2018. Results will be synthetized in a background document for the SC meeting.

- WG Chairs' reports

The Secretariat prepared the templates to harmonize the Chairs' reports on activities carried out during Phase IX. The templates are pre-compiled with information and data available to the Secretariat.

- Communication Strategy

A Task Force composed of G. Đurić, Jens Weibull, Szonja Csörgö and Marc Lateur prepared a first draft "Communication and public relations strategy", which was appreciated and commented by the ExCo. A final draft will be prepared by the Task Force and included as a background document for discussion.

- Technical and Financial reports about Phase IX

The Secretariat will prepare these reports early 2018.

1.4. ACTIVITIES OF THE EXECUTIVE COMMITTEE (EXCO)

At the end of 2017, the ExCo was composed of Eva Thörn (Chair), Gordana Đjurić, Flavio Roberto De Salvador, Külli Annamaa, Marc Lateur and Lorenzo Maggioni (*ex officio*).

The ExCo held one meeting in 2017:

- Tenth meeting, 19-20 October 2017, Ljubljana, Slovenia (back-to-back with the ECPGR Networking meeting).

During 2017, the main activities of the ExCo were related to the following items:

- Selection and appointment of the Potato WG Chair See above, 1.2, p. 3.
- Evaluation, selection and awarding of proposals submitted under the ECPGR Grant Scheme Proposals for the Fifth Call were selected and awarded (see details below, p. 13). The Sixth Call for proposals was proposed and subsequently launched in November 2017 (see below, p. 14).
- Participation of ExCo Chair in technical and public awareness meetings
 - EUCARPIA Genetic Resources 2017. Crop diversification in a changing world: Mobilizing the green gold of plant genetic resources. 8–11 May 2017, Montpellier, France
 - Horizon2020 Coordination and Support Action SFS-28-2018. Joining forces for GenRes and biodiversity management, 6-8 November 2017, Rome, Italy
 - Hearing on "Genetic diversity, conservation and crop wild relatives", 7 December 2017, Brussels, Belgium.

2. ACTIVITIES CARRIED OUT IN 2017

2.1. ECPGR ACTIVITY GRANT SCHEME

Note: for all Activities, details on the implementation and reports can be found on the respective webpages.

2.1.1. First Call

Eight Activities had been selected in December 2014 (see Outcomes of the First Call).

By the end of 2016, all Activities were completed and two final reports were expected.

The status at end 2017 is given below. More details on the implementation and reports can be found on the respective Activity webpages.

• Genetic diversity of Patellifolia species (GeDiPa)

Working Group: Beta

Duration: 24 months (January 2015-December 2016)

The interim Activity report (February-December 2015) had been published in January 2016 (see annual report 2016). The final Activity report was finalized and published in July 2017.

Partners in Spain, Portugal and Germany jointly analysed the patterns of genetic diversity of the genus *Patellifolia*, a crop wild relative of cultivated beets. The action aimed at the identification of collection gaps and the identification of Most Appropriate Accessions (MAAs) and Most Appropriate Wild Populations (MAWPs) on an informed basis. To this end, a set of polymorphic SSR markers for *Patellifolia* was developed and used to study the geographic distribution of genetic diversity within the species as well as the genetic differentiation between occurrences sampled in the distribution area on site. The results were published online in the final Activity report as well as in two open access papers available from the Activity webpage. The final report includes a list of proposed sites for genetic reserves in Portugal and Spain. A list of 21 candidate accessions for inclusion into AEGIS is also given. These are conserved *ex situ* in Germany (5), Portugal (3) and

UK (8) or should be collected from *in situ* populations in Portugal (2) and Spain (3). The respective NCs are recommended to take steps for actual inclusion of these accessions into the AEGIS European Collection.

• <u>Building and promoting a European Pyrus collection - a case study (EcoHisPy)</u>
No further information was received. The final report is still expected.

2.1.2. Second Call

Six Activities had been selected in 2016 for funding (more details from the webpage <u>Outcomes of the Second Call</u>).

By the **end of 2017**, three Activities were completed (EURISCO Training 2016, CWR Conservation strategies and InWiGrape) and three were slightly extended to allow processing of results and preparation of the final reports (EU.CHERRY, Barley C&E Data and ForageDataAccess.)

Summaries of the implementation status at end 2017 are given below. More details on the implementation and reports can be found on the respective Activity webpages.

EURISCO National Focal Point regional training workshop 2016 (EURISCO Training 2016))

Working Group: Documentation and Information

Duration: 0.5 month (workshop)

The report of the workshop held 12–14 October 2016 in Angers, France (see annual report 2016) was finalized and published online in March 2017.

• Promoting implementation of national and regional crop wild relative (CWR) conservation strategies through sharing of knowledge and experience to create an integrated European strategy for CWR conservation (CWR Conservation Strategies)

Working Group: Wild Species Conservation in Genetic Reserves

Duration: 12 months (January-December 2016)

The Proceedings of the Joint Nordic/ECPGR Workshop on "Crop wild relative conservation strategies" held 19–22 September 2016 in Vilnius, Lithuania (see annual report 2016) and the Final Activity report were finalized and published online in April 2017.

• Increasing the efficiency of conservation of wild grapevine genetic resources in Europe (InWiGrape)

Working Group: Vitis

Duration: 12 months (January-December 2016) – extended to March 2017

InWiGrape aimed to harmonize protocols referring to genetic resources of wild grapevine (*Vitis vinifera* subsp. *sylvestris*). The various aspects of conservation including bibliographical references, identification in the wild, *in situ* and *ex situ* conservation were discussed. The distribution map of *Vitis vinifera* subsp. *sylvestris* populations in Europe became accessible online through the European *Vitis* Database. A research article about basic principles for *Vitis vinifera* subsp. *sylvestris* conservation was published in the Vitis Journal of Grapevine Research (Vol. 56, No 3). The descriptors and the map will assist different stakeholders working on biodiversity and ecosystems in more effective conservation of wild grapevine genetic resources.

The final Activity Report and related data (InWiGrape bibliography) were finalized and published online in June 2017.

• Collaborative action for updating, documenting and communicating the cherry patrimonial richness in EU (EU.CHERRY))

Working Group: Prunus

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

The Activity continued with the involvement of partners from the <u>COST Action FA1104 on</u> "Sustainable production of high-quality cherries for the European market".

During spring 2017, SSR analysis of 324 cherry accessions from 19 countries was performed (EU.CHERRY and COST CHERRY partners): 192 of the samples appeared to be unique, and the 132 other samples were grouped as 39 unique genotypes. This result will be compared to the result of the analysis of the characterization and evaluation (C&E) data. C&E data from 187 accessions (EU.CHERRY partners only) were also compiled and curated. The analysis of those data is expected to identify the first core of European sweet cherry accessions candidates to entering AEGIS.

In 2018 the EU.CHERRY partners will complete the C&E dataset, especially data lacking for first priority descriptors. The completed and corrected dataset could then be uploaded to EURISCO and the European *Prunus* Database (EPDB).

The final Activity report is under way and expected to be submitted early 2018.

• Integration of barley characterization and evaluation into EURISCO, and development of specifications for a barley crop portal, with a focus to improve the AEGIS collection (Barley C&E Data)

Working Group: Barley

Duration: 15 months (September 2016-November 2017)

and

AEGIS progress and improved access to data on European Forage PGR (ForageDataAccess))

Working Group: Forages

Duration: 15 months (September 2016-November 2017)

Partners of the Barley C&E Data and ForageDataAccess Activities held their Joint Workshop 14-16 March 2017 in Malmö, Sweden. The focus of the meeting was on the new C&E module in EURISCO, AEGIS progress, future plans for the WGs including discussions about the possibility of European Crop Portals for forages and barley. The meeting produced a list of recommendations regarding how to progress with AEGIS, C&E data in EURISCO, quality of the data presented in EURISCO and visibility of European genetic resources, C&E data, EURISCO and ECPGR.

Both activities were extended and the final reports are expected by end of May 2018.

2.1.3. Third Call

Seven Activities had been selected in 2016 for funding (more details from the webpage <u>Outcomes of the Third Call</u>).

Three Activities were completed in 2017 (CCLEAFY, EURISCO Training 2017 and GrapeOnFarm). Two Activities were extended to allow for analysis of data (TRISECA and SMARTLEG).

Two Activities are still running and will end in 2018 (LINKAGES and MAPEUROCOLLECTION).

Summaries of the implementation status at end 2017 are given below. More details on the implementation and reports can be found on the respective Activity webpages.

• Consequences of climate change for conserving leafy vegetables CWRs in Europe (CCLEAFY))

Working Group: Leafy Vegetables

Duration: 10 months (September 2016-June 2017)

This study aimed to assess threat levels for the main leafy vegetable crop wild relatives (CWR) occurring in the European region and to provide recommendations for their conservation. An inventory was made of the genepools of 19 leafy vegetable crops, from which nearly 30 CWR that have their main distribution in the European region were selected for further analysis. None of the examined CWR are considered threatened in Europe by the IUCN Red List, but climate change is expected to reduce the future distribution of the majority of these species in the European region. The examined CWR are not actively conserved in situ and, with the exception of Lactuca serriola, are poorly conserved ex situ. Therefore, it was recommended to increase the number of accessions with MLS and AEGIS status to ensure both accessibility and proper conservation of samples. This will necessarily also involve more representative ex situ collections throughout the species range. Considering that climate change is expected to shift the distribution range of many species northwards, the expected effects of in situ conservation on the survival of species in southern regions need to be examined on a case-by-case basis. Climate change will increase the importance of north-western Europe as in situ conservation area because of its refuge function for migrating species. A high conservation priority should be given to species that have their main distribution in the southern part of the European region and that are not expected to migrate northwards, such as nearly all artichoke CWR and Asparagus maritimus.

The final Activity report and related appendices were finalized and published online in October 2017.

• EURISCO National Focal Points Regional Training Workshop 2017

Working Group: Documentation and Information

Duration: 0.5 month (workshop)

This activity was sponsored by the German Federal Ministry of Food and Agriculture (BMEL).

The workshop took place 12-14 September 2017 in Gatersleben, Germany, with main focus on National Inventory Focal Points from Central Europe. It brought together 14 participants. Besides providing the basic training elements, special attention was paid to increasing the volume of C&E data records in EURISCO.

Hands-on training was performed for ten National Inventory Focal Points (Albania, Belarus, Bulgaria, Finland, Germany, Hungary, Italy, Latvia, Romania and Slovakia), while two other Focal Points (Portugal and Spain) were invited but were unable to attend. Following from the meeting, three of the participating countries uploaded C&E data: Romania (11 420 records), Germany (5850 records) and Latvia (121 records). Considering that data preparation in the necessary format is time-consuming, it can be expected that additional data will be added by trained Focal Points in the near future.

The workshop report was finalized and published online in November 2017.

• Identification and updating data of eligible AEGIS accessions in both wheat and rye species (TRISECA)

Working Group: Wheat

Duration: 16 months (September 2016-December 2017)

The meeting of the Activity Partners took place 3-4 October 2017 in Radzików, Poland, attended by 11 participants. Partners presented the status of their AEGIS candidate accessions and the update of both passport and C&E data. The meeting discussed the representativity of the full AEGIS wheat and rye collection and studied carefully the possible gaps within passport data, C&E data and geographical origins of accessions. The management of this AEGIS collection and possible future activities of the Wheat Working Group were proposed and discussed.

Updated passport and C&E datasets for wheat and rye were compiled and sent in December 2017 to central database managers of both species for updating of the respective databases.

A total of 885 new accessions of both wheat and rye species have been defined as new candidate accessions and evaluated. Both passport and C&E data are planned to be added in EURISCO and flagged as AEGIS candidate accessions at the beginning of 2018.

Efficient management of resources for smart legumes utilization (SMARTLEG)

Working Group: Grain Legumes

Duration: 12 months (January 2017-December 2017)

The SMARTLEG project meeting was held 25-26 April 2017 in Ljubljana, Slovenia, attended by 20 participants. Planning of molecular analyses to be conducted at the genetic laboratory of the Agricultural Institute of Slovenia (AIS) and morphological evaluations in the experimental fields of all project members' countries were discussed and the methodology for morphological evaluations and the reference genotypes were agreed upon.

Morpho-numerical characterization was carried out for *P. coccineus* seeds characteristics, and each partner evaluated morphological characteristics of the selected accessions in the field. All selected accessions from different geographic origins (from participating and self-funded partner collections), were evaluated using SSR molecular marker analysis.

In addition, the strategy to obtain self-derived progeny from *P. coccineus* and DNA extraction method suited for genotyping by sequencing was devised. For that purpose, all 140 accessions were planted in the greenhouse at AIS and self-pollinated by hand.

Altogether 207 accessions were characterized from Austria (16), Bosnia and Herzegovina (18), Italy (7), Macedonia FYR (32), Romania (12), Serbia (12), Slovakia (57) and Slovenia (53). Multiple variable analysis was carried out for quantitative traits of seed from different geographic origins. More details are available on the Activity webpage.

Results of the Activity are expected to contribute new data to EURISCO and new bean accessions to AEGIS.

The final report is expected to be completed by the end of March 2018.

• Assessing linkages between genebanks and direct users (LINKAGES)

Working Group: On-farm Conservation and Management; Documentation and Information Duration: 18 months (January 2017-June 2018)

The kick-off meeting was held on 12 January 2017 at Bioversity International, Maccarese, Italy. Its purpose was to agree on survey instruments that would be used in the project to assess the extent to which genebank materials are accessible to direct users such as on-farm conservation communities. Further to the meeting, the two survey instruments were developed, to gather information from *ex situ* and on-farm communities respectively. The surveys asked each stakeholder group to describe their experience with requesting and distributing germplasm for direct use purposes.

The link to the online *ex situ* survey was sent on 25 September 2017 to ECPGR National Coordinators for distribution to European genebank curators; by end 2017, 43 responses had been received from genebank curators in 21 countries.

The on-farm survey will be translated into five languages (English, French, German, Italian and Spanish) and distributed early 2018 to seed network partners in Europe for circulation to their communities of practice. These networks will include Rete Semi Rurali (Italy), Réseau Semences Paysannes (France), Red de Semillas (Spain), Arche Noah (Austria), Pro Specie Rara (Switzerland and Germany) and possibly others.

The results of both surveys will be analysed during March 2018 and discussed at the final workshop, organized in collaboration with the Diversifood project (www.diversifood.eu) planned to be held in June in Italy.

• Promoting the implementation and the establishment of the European MAP Collection (MAP EUROCOLLECTION)

Working Group: Medicinal and Aromatic Plants

Duration: 12 months (original dates postponed and extended to April 2017-end 2018)

The MAP EUROCOLLECTION meeting was held 27-28 April 2017 in Braga, Portugal. The Activity partners from nine countries presented updates of their national collections, and discussed and agreed criteria for inclusion of accessions in the AEGIS European Collection. They also revised the crop-specific standards to be used for orthodox seeds as part of the AEGIS Quality System and decided to start a revision and update process, including the finalization of missing descriptors for *Achillea millefolium*, *Artemisia absinthium* and *Gentiana lutea*.

Project members are preparing for multiplication of candidate AEGIS accessions in 2018 and for their inclusion in the European Collection.

Romania already flagged 54 MAP accessions as part of AEGIS.

The Activity is expected to be completed by autumn 2018.

• On-farm inventory of minor grape varieties in the European Vitis Database (GrapeOnFarm)

Working Group: Vitis

Duration: 12 months (January 2017-December 2017)

The GrapeOnFarm partners met in Geilweilerhof, Germany on 10 October 2017 to discuss project activities.

With the intention to establish an inventory of growers of minor grape cultivars, a short and simple text in different languages was elaborated to reach wine grape growers and then disseminated via professional press media. The GrapeOnFarm initiative was also presented at diverse occasions (meetings of wine grape growers associations, conferences, etc.). In spite of the efforts, there was almost no feedback from wine grape growers, with exceptions from Albania, Montenegro and Serbia. Reasons for the lack of interest by grape growers were discussed, e.g. additional work, too many descriptors, no benefit for the grower to be listed on the European level, fear of control, some of the varieties are not on the national list.

Agreed on-farm descriptors were slightly modified, including four categories: grower, variety preserved, vineyard description and commitments. The GrapeOnFarm Descriptor data provided to the Activity Coordinator will be made available through publication in the European *Vitis* Database.

The workshop discussed and summarized criteria to determine vulnerability of rare historical varieties. Considering that it is urgent to advance the process for legal inclusion of rare historical varieties in national variety catalogues, a survey was carried out by the GrapeOnFarm group, revealing a large heterogeneity and disparity between the countries' legislations. To assist governments in finding a solution and involving the European Commission, the experts of the GrapeOnFarm group made a proposition on the ideal preconditions for national registration. A table summarizing the countries' national procedures and suggestions for adapting legislation to achieve the safeguard of rare historical varieties was compiled and made available online.

2.1.4. Fourth Call

Five Activities had been selected in 2016 for funding (more details from the webpage <u>Outcomes of the Fourth Call</u>).

Three Activities were sponsored by the German Federal Ministry of Food and Agriculture (BMEL): GRIN-Global, Pomefruit C&E and CarrotDiverse.

By the **end of 2017**, two Activities were completed (GRIN-Global and ECPGR Networking). The others will run through 2019.

Summaries of the implementation status at end 2017 are given below. More details on the implementation and reports can be found on the respective Activity webpages.

• GRIN-Global Workshop 2017 for European Genebanks (GRIN-Global)

Working Group: Documentation and Information

Duration: 0.5 months (workshop)

The workshop took place 29-31 August 2017 at the Crop Research Institute (CRI) in Prague, Czech Republic. This Activity was sponsored by the German Federal Ministry of Food and Agriculture (BMEL) and it was organized in collaboration with the Crop Trust who covered the costs of the trainer and also funded a few additional participants from other countries. The workshop's purpose was to present and familiarize genebanks with the GRIN-Global documentation system (the first version, 1.0.7, was released in December 2011 in a joint effort by the Global Crop Diversity Trust, Bioversity International, and the Agricultural Research Service of the USDA). Twenty-five participants had the opportunity to try GRIN-Global in a test environment installed on the CRI server under the guidance of specialized trainers. Knowledge about GRIN-Global was therefore passed to PGR actors from several European countries (Albania, Armenia, Austria, Belarus, Bosnia and Herzegovina, Greece, Lithuania, The Netherlands, Poland, Romania, Serbia, Slovenia, Ukraine and United Kingdom), as well as from other regions (Egypt, Ethiopia, Oman, Sudan and Tunisia). Most participants expressed satisfaction with the given information and several of the participating genebank curators' countries are reflecting on the opportunity to eventually adopt GRIN-Global. The workshop report was finalized and published online in December 2017.

• Networking among Working Groups for discussing and coordinating the implementation of ECPGR objectives (ECPGR Networking)

Working Group: All

Duration: 11 months (February 2017-December 2017)

The purpose of this Activity, submitted jointly by all Working Group Chairs, was to allow the Chairs to meet and discuss their activities and the mode of operation of ECPGR in Phase IX.

The "ECPGR Networking" meeting took place 16-18 October 2017 in Ljubljana, Slovenia. It was attended by 31 participants, including 19 out of 21 Working Group Chairs and two ex-Chairs, members of the ECPGR Executive Committee, the Secretariat and other observers.

The Chairs presented their achievements and difficulties in the implementation of the ECPGR objectives, in particular related to AEGIS and EURISCO, and discussed solutions for improvement. The meeting came up with a set of recommendations to the Executive Committee for discussion at their back-to-back meeting, 19-20 October. The recommendations addressed, among others, the WG membership and representation, communication within and between WGs, WG Chairs work and meetings, AEGIS- and EURISCO-related activities. ExCo replies to the recommendations are included in the ExCo meeting's report. Some of the proposed changes will need to be discussed at the 15th (end-of-phase) SC meeting in May 2018.

The ECPGR Networking meeting report is in preparation.

• Safeguarding of potato onion (Allium cepa L. Aggregatum group) and garlic (Allium sativum L.) crop diversity in North Europe - Baltic region (SafeAlliDiv)

Working Group: Allium

Duration: 24 months (June 2017-May 2019)

The project aims to complement the existing molecular marker analysis of Nordic potato onions that was recently carried out in Sweden, with analysis of additional material from partner countries, in order to reach a better understanding of existing genetic diversity in collections and in the fields.

The first SafeAlliDiv project meeting was held 11-12 July 2017 in Tallinn, Estonia. Partners presented the situation about *Allium* crop cultivation and conservation in their respective countries, with particular emphasis on potato onion/shallot (*Allium cepa* L., Aggregatum group) and garlic (*Allium sativum* L.), and agreed on criteria to select and acquire accessions to be sent to the Latvian State Forest Research Institute for molecular analysis. The same material would also be characterized morphologically. The samples of potato onion (*Allium cepa* L. Aggregatum group) were sent in autumn 2017 to Latvia by partners from Croatia, Czechia, Estonia, Finland, Latvia, Lithuania, Norway and Sweden. DNA analyses are currently in progress.

Further to the meeting, questionnaires were sent to partners to gather information about their *Allium* collections: type of collection, type of conservation (*in vitro*, cryoconservation), source of new accessions, description, chemical analyses, DNA analyses, safety duplication, cooperation with other genebanks, current projects, other activities related to genetic resources. The replies were compiled and the summary sent to all Activity partners.

Based on the project results, the group will be able to promote inclusion of unique accessions into the AEGIS European Collection, as well as systematically implement safety duplication measures.

The project also intends to compile a guidebook on potato onion cultivation practices.

The second SafeAlliDiv meeting will be held 17-19 April 2018 in Olomouc, Czech Republic.

• Common ECPGR protocols and tools available for Characterization & Evaluation of Malus/Pyrus genetic resources (Pomefruit – C&E)

Working Group: Malus/Pyrus

Duration: 24 months (February 2017-January 2019)

This Activity was sponsored by the German Federal Ministry of Food and Agriculture (BMEL). The Pomefruit C&E expert meeting was held 26-27 April 2017 in Gembloux, Belgium, with 15 participants from 12 countries. A joint methodology for characterization and evaluation was planned for studying the applicability/reproducibility of agreed priority descriptors across a range of reference cultivars.

For pear, a total of 12 traits and 18 descriptors were agreed to be scored in each collection on a common set of 9 reference cultivars. For apple, the same exercise was agreed to be implemented on 14 traits with 20 descriptors on 11 reference cultivars.

Informal agreements for sharing SSR data were concluded between the partners as well as between the project and USDA institutions (Geneva for apple and Corvallis for pear). SSR data were received from USDA and preliminary alignment was performed, although the number of common markers is limited. Pear DNA for ca. 600 accessions was also received from Corvallis and some additional genotyping might be performed, based on budget availability.

In the case of pear, data alignment and data harmonization is ongoing for a total of 4766 pear accessions representing 11 collections from 8 countries, for which SSR data including at least 12 common ECPGR SSR markers are available. This high number of already collected data is a good surprise because it is much higher than what was foreseen at the time of project writing. Analysis of already harmonized data started for seven collections with the view to track putative synonyms, duplicates and/or errors.

In the case of apple, duplicate-tracking work has been completed for the German collection and is still ongoing for two other collections.

Preparation of a scientific paper is planned towards the end of the project.

• <u>Improving the characterization and conservation of umbellifer crop wild relatives in Europe (CarrotDiverse)</u>

Working Group: Umbellifer Crops

Duration: 24 months (February 2017-January 2019)

This Activity was sponsored by the German Federal Ministry of Food and Agriculture (BMEL). The first meeting of the CarrotDiverse partners was held 4-5 July 2017 in Braga, Portugal. The minutes of the meeting are available online.

The activity focuses on characterization and replicated trials of wild carrot accessions at different latitudes. During 2017, a first batch of 30 accessions (15 from France and 15 from UK) was tested in France, Portugal and Sweden. Analysis of the data from the three trials is in progress. These will give indications about latitudinal adaptation of the tested accessions, as well as regarding the effect of environment on descriptors and therefore will help in the choice of descriptors that are environment-independent.

Wild carrot accessions from France, Germany, Portugal, Nordic countries and the UK are being prepared for testing their resistance to Alternaria diseases. In 2018, resistance tests will be carried out at JKI, Quedlinburg, followed by genotyping by sequencing (GBS).

The second expert meeting will be held in 2018 in Zaragoza, Spain, to assess the characterization approach and prioritize samples for GBS. Requirements for global conservation of *Daucus* accessions will also be addressed.

The definition of a panel of key *Daucus* CWR accessions from European genebanks for inclusion in the European Collection is the expected outcome after completion of the characterization exercise.

2.1.5. Fifth Call

The Fifth Call was launched on 30 June 2017, with deadline 1 October 2017. Two new proposals were submitted, and the BETANET proposal originally submitted under the Fourth Call was re-submitted as requested. The ExCo selected **two proposals** for funding (see Table below, and more details from the webpage Outcomes of the Fifth Call).

Table 1. Proposals approved under the Fifth Call by the ExCo (October 2017)

Acronym	Title	Working Group(s)	Activity Coordinator	Budget in Euro
Prunus Alignment	Testing, Use and Alignment of genetic data to distinguish unique and characterized accessions in <i>Prunus</i>	Prunus	Matthew Ordidge	29 000
BETANET	Improving a cooperation network between actors involved in conservation and utilization of Beta genetic resources	Beta	Piergiorgio Stevanato	15 000

• <u>BETANET</u>

Working Group: Beta

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

The BETANET meeting will take place 19-20 June 2018 at San Servolo, Venice, Italy.

This meeting offers the opportunity to different stakeholders to collaborate and exchange opinions regarding the conservation, evaluation and utilization of *Beta* and *Patellifolia* germplasm, above all as regards the genetic resistance to biotic and abiotic stress. Participation is open to all persons interested.

• Prunus Alignment

Working Group: Prunus

Duration: 24 months (1 February 2018–31 January 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 will proceed with characterization of plum and cherry accessions, including with SSR and also testing new High Resolution Melting (HMR) analysis method as an opportunity to approach the genetic distinction of accessions in a more efficient manner. A meeting will be held in September 2019 in Thessaloniki, Greece.

Updates on the implementation will be posted on the respective Activity webpages.

2.1.6. Sixth Call

The Sixth Call was launched 24 November 2017, with deadline 31 March 2018. The ExCo will evaluate the proposals during its meeting in May 2018, at the occasion of the Fifteenth Steering Committee meeting.

2.2. AEGIS

2.2.1. AEGIS membership

During 2017 no new country signed the AEGIS Memorandum of Understanding (MoU). The current 34 members are listed below. The number in brackets following the member country names indicates the respective number of Associate Member institutions. One additional AEGIS Associate Membership Agreement was signed in 2017 by the University of Pavia, Italy, bringing the total number of Associate Members to 61.

Albania (2), Austria (2), Azerbaijan (2), Belarus (9), Belgium (1), Bosnia and Herzegovina (0), Bulgaria (1), Croatia (2), Cyprus (1), Czech Republic (8), Denmark (1), Estonia (2), Finland (1), Georgia (1), Germany (3), Hungary (1), Iceland (1), Ireland (0), Italy (2), Latvia (3), Lithuania (0), Montenegro (0), the Netherlands (2), Norway (1), Poland (1), Portugal (1), Romania (1), Slovakia (1), Slovenia (5), Sweden (1), Switzerland (1), Turkey (1), Ukraine (0) and the United Kingdom (3).

The membership status is kept updated online (see the respective webpages <u>AEGIS membership</u> and <u>Associate Member Institutions</u>).

2.2.2. Status of the European Collection

By end December 2017, a total of 33 343 accessions from 15 countries were included in the European Collection.

In 2017, the European Collection has increased by 4442 accessions. One new country contributed for the first time (Lithuania). The changes in the composition of the European Collection over 2017 are shown in Table 2 below.

Table 2. The European Collection: breakdown by contributing country at end 2017 (shaded green, new contributing country in 2017)

Country	No. of accessions flagged as AEGIS		
Country	by end 2016	by end 2017	
1. Albania	8	8	
Bulgaria	261	341	
3. Croatia	90	90	
4. Czech Republic	1222	1285	
5. Estonia	15	89	
6. Germany	7904	14183	
7. Latvia	21	27	
8. Lithuania	0	36	
The Netherlands	5853	5853	
Nordic Countries	3708	3708	
11. Poland	303	303	
12. Romania	196	623	
13. Slovakia	299	299	
14. Switzerland	4838	4839	
15. United Kingdom*	4183	1659	
Total	28901	33343	

^{*} The decrease is due to de-flagging of 2524 accessions from IBERS (GBR016), pending signature of the Associate Membership agreement.

2.2.3. AQUAS (AEGIS Quality System)

Crop-specific standards

The following standards were finalized in 2017: *Allium* crop-specific standards for *in vitro* culture and cryopreservation.

Several other WGs are engaged in this process.

The agreed standards are available from their respective WG's webpages and from AEGIS webpages (all together here).

The finalized standards will be sent to the Steering Committee for endorsement.

Genebank operational manuals

The Operational genebank manual of the Estonian Crop Research Institute (ECRI) was finalized and published online in October 2017.

All manuals finalized by Associate Member Institutes are available here.

2.3. EURISCO

The Activity report for 2016 and the Workplan for 2017 were made available online on the EURISCO website in January 2017 (section Statistics and documents, Plans/reports).

2.3.1. EURISCO coverage

In 2017, the update frequency of National Inventory datasets increased significantly. A total of 60 productive updates of National Inventory datasets were performed, either completely or in parts.

The number of accessions increased by 121 523, reaching a total of 1 964 062 accessions from 43 National Inventories and 380 individual holding institutions by 31 December 2017. These accessions represent 6317 unique genera and 42 974 species.

The number of characterization and evaluation (C&E) data records rose by 197 361, reaching a total of 624 963. So far, C&E data were provided by six countries – Germany, Latvia, The Netherlands, Poland, Romania and the United Kingdom.

2.3.2. EURISCO development

- Extension of intranet support mechanisms for National Inventories (ongoing activity)
- Improvement of AEGIS support: procedures for checking the AEGIS status in case of an accession removal and/or de-flagging were embedded into the EURISCO intranet. The AEGIS status of accessions is now being checked automatically and in case of de-flagging National Inventory Focal Points (NFPs) are asked to justify it.
- Improvement of the quality of taxonomic data: the German Federal Ministry of Food and Agriculture (BMEL) funded a one-year project focusing on the improvement of the taxonomic backbone as well as the user interface of EURISCO (May 2017–April 2018). The necessary database structures as well as procedures for mapping taxonomic terms from EURISCO onto taxonomic repositories, such as GRIN and Mansfeld, were developed. Once completed, during each data upload to EURISCO a taxonomy mapping will be performed automatically, thus providing suggestions in case of unclear taxonomic terms. In addition, the taxonomy mappings will also be used for improving the web search functionality in order to enable users to search material on taxa via synonyms, including similarity search. Presently, a prototype of an improved web search functionality is being developed.
- **How-to documents** (handbooks) for both passport and C&E data uploads by NFPs have been developed comprising step-by-step instructions as well as assistance for troubleshooting. These documents are available at the EURISCO intranet only.
- An additional procedure for uploading C&E data to EURISCO, which was developed for and approved by the ECPGR Steering Committee in August 2017, was fully implemented and tested. This procedure provides an additional option of uploading C&E data by enabling data provider institutions to directly submit data to EURISCO.
- Extension of functionality of the public EURISCO application (permanent activity)
- **Gathering of user feedback:** a user survey was conducted among the National Inventory Focal Points/National Coordinators in order to gather structured feedback and to collect new requirements for the public EURISCO web application. Feedback was received from 17 persons, whereby the overall response was quite positive.
- **Implementation of improvements:** first improvements of the filter possibilities (e.g. case insensitive searches) were already implemented; more improvements of the search interface are being implemented in the frame of the "EURISCO taxonomy" project (see above). As requested by the EURISCO Advisory Committee, the date of last update of passport data as well as instructions for obtaining material from the holding genebanks were added to the web interface. Further feature requests are being evaluated for feasibility and will be included into the workplan for 2018.

• Implementation of the multi-crop passport descriptors (MCPD) v2

This task was one of the main activities of the EURISCO development in 2017. Until then, the EURISCO passport data exchange format was still based on MCPD v1 (2001), including some extra fields. A new MCPD version (v2.1) was published end of 2015 and includes several additional descriptors. At the 2016 Advisory Committee meeting in Angers, France, it was decided to implement MCPD v2 for EURISCO (including additional descriptors).

In 2017, the EURISCO infrastructure was updated to fully support the MCPD version 2.1. This included changes of the database schema, upload and check procedures as well as the public web interface. After finishing the necessary tests and consultations with FAO with regard to the harmonization of the MCPD and EURISCO format, the final changeover took place in December 2017. Henceforward, EURISCO will only accept data in the MCPD v2.1 format plus four EURISCO-specific descriptors.

For more details, see the Activity report for 2017 on the EURISCO website.

2.3.3. EURISCO Training Workshop 2017

The third workshop selected for funding under the Third Call of the Grant Scheme was the <u>EURISCO</u> <u>National Focal Points Regional Training Workshop 2017</u> (see above, page 8).

This Activity was sponsored by the German Federal Ministry of Food and Agriculture (BMEL).

The workshop was held 12-14 September in Gatersleben, Germany.

The report of the workshop is available online.

2.3.4 Information on EURISCO at national and international meetings

- A poster on EURISCO was shown at the EUCARPIA Conference in Montpellier, France, 8–11 May 2017.
- EURISCO was presented by a talk at the workshop "Private Public Partnerships for the use of Plant Genetic Resources for Food and Agriculture", Bonn, Germany, 7–9 June 2017.
- A poster on EURISCO was presented at the 8th International Triticeae Symposium in Wernigerode, Germany, 12–16 June 2017.
- A talk on EURISCO was given at the 13th International Symposium on Integrative Bioinformatics, 22–23 June 2017, Odense, Denmark, in order to strengthen the connection with the bioinformatics community.
- The applicability of EURISCO in the context of phenotypic data of *Lolium perenne* was presented at the conference "Breeding Grasses and Protein Crops in the Era of Genomics", Vilnius, Lithuania, 11–14 September 2017.

2.3.5. EURISCO Newsletter

The bi-annual Newsletter was sent in August and December 2017, 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.

2.3.6. Participation in project proposals

The EURISCO coordination participated in the Horizon2020 proposal "Farmer's Pride", which was approved and officially started in November 2017. This project, coordinated by the University of Birmingham, focusses on the development of a network of *in situ* sites and stakeholders. The task of the EURISCO coordination will be the development of a concept for the extension of EURISCO for *in situ* data. Therefore, in 2018 an inventory of *in situ* data types to be integrated into EURISCO will be compiled.

In addition, the EURISCO coordination is involved in the ongoing projects "EURISCO taxonomy" (see above, page 16) and "EUCLEG" (see 2016 activity report).

Further proposals are still under development/evaluation.

In the frame of two ECPGR Grant Scheme (second call) Activities, the European Central Crop Databases (ECCDBs) managed by the ECPGR Forages and Barley Working Groups, respectively, were used to identify potential gaps in EURISCO. The concerned National Inventory Focal Points (NFPs) were informed about the results and asked for checking as well as for providing the missing information. So far, 19 NFPs responded. There are different reasons why those accessions were missing from EURISCO, e.g. accessions already contained in EURISCO but with changed identifiers; accessions not available anymore; really missing accessions. Emerging from these activities, several new datasets were provided and will be provided to EURISCO.

2.4. PUBLIC PRIVATE PARTNERSHIPS (PPP) PROJECT

This project is supported by the German Federal Ministry of Food and Agriculture (BMEL). The overall objective was to increase the opportunities for the establishment of Private Public Partnerships (PPPs) on the use of plant genetic resources for food and agriculture (PGRFA) across and for the benefit of the European region.

During the first phase of the project (January-July 2017), the following activities were carried out:

- <u>Dedicated webpages</u> were developed on the ECPGR website
- A survey of PPPs on use of PGRFA in Europe was carried out and provided the data to develop the knowledge base on PPP projects, made available on the ECPGR website.
- A <u>workshop on PPPs</u> was held 7-9 June 2017 in Bonn, Germany, involving 48 participants from genebanks and the private and public sectors, from 18 European countries, and the <u>workshop report</u> was published. The main objectives of the workshop were to share experiences with PPPs in Europe and to discuss options to enhance use of PGRFA through European-wide private public partnership collaboration in characterization and evaluation of PGRFA. The potential for a European Evaluation Programme was discussed and the workshop agreed on recommendations for next steps on how to prepare a framework for a European Evaluation Programme.

A European Evaluation Network was considered of strategic importance for Europe as it would present an opportunity to position PGRFA at a more strategic level within Europe. The Network would play a critical role in facilitating adaptation of European agriculture to climate change and would also contribute towards achievement of related Sustainable Development Goals. The importance of an Evaluation Network was seen as not only related to increase the use of genetic diversity in plant breeding, but also to increase the diversity of stakeholders in plant breeding, including private and public sectors, small and medium enterprises (SMEs) and participatory plant breeding actions.

An extended phase of the project was granted in July 2017 to contribute to implement the workshop recommendations. This **second phase (August 2017–March 2018)** aims to prepare a framework for a European Evaluation Network. Activities focus on the preparation of framework documents, the identification of standards and protocols that would need to be harmonized, and the development of criteria for prioritizing crops for kick-starting the implementation of the network. Recommendations will also be drafted for discussion at the ECPGR Steering Committee meeting in May 2018.

- The <u>first project workshop of phase II</u> was held 12-13 October 2017 in Maccarese, Italy, involving 18 participants. The <u>report</u> is available online.
- The **final workshop** is planned to be held in Maccarese, 27-28 March 2018.

3. LINKS WITH OTHER NETWORKS AND INITIATIVES

3.1. EUROPEAN COMMISSION

 Following up from the letters jointly sent at the end of 2016 by the European genetic resources networks' Secretariats to the European Commission, an outline Horizon 2020 work programme 2018-2020 filtered out of the EC in March 2017 with draft actions on Genetic Resources and Pre-breeding communities, to be open for calls for proposals in November 2017. The Secretariats of ECPGR, EUFORGEN and ERFP decided early on to join forces to prepare a proposal to respond to action SFS28 A. [2018]: Joining forces for GenRes and biodiversity management. Parallel consultations were started, involving the respective Steering Committees, with the aim to select a small group of representative partners from each network. Partners involved for the crop domain were: INRA, France, BLE and IPK, Germany, CGN, the Netherlands, Pro Specie Rara, Switzerland, Botanic Gardens Conservation International and University of Birmingham, United Kingdom. Under the leadership of the EUFORGEN Secretariat (which will be hosted as of January 2018 by the Finland-headquartered European Forest Institute, at its office located in Bonn, Germany), the proposal "GenRes Bridge – Joining forces for genetic resources and biodiversity management", was prepared with the help of a partner's meeting in Rome in November 2017. The project aims at developing and implementing integrated strategies for conservation and use of crop, forest and animal genetic resources as well as for wider agro-biodiversity. The respective networks' roadmaps should also be advanced, therefore benefiting the entire networks' communities, beyond the project partners. The project was submitted in February 2018.

Collaboration with COST Actions

- The *Prunus* WG continued collaboration with the <u>COST Action FA1104</u> 'Sustainable <u>production of high-quality cherries for the European market'</u> in the framework of the EU.CHERRY Activity (see above, p. 7). Partners of the COST Action provided samples of cultivars originally from 11 additional countries (Croatia, Hungary, Iran, Lithuania, Russian Federation, Slovakia, Spain, Sweden, Switzerland and Ukraine).
- Collaboration with ERA-CAPS project BEAN_ADAPT "Evolution in a changing environment: the genetic architecture of adaptation outside centers of domestication of Phaseolus vulgaris and P. coccineus" continued in the framework of the Grain Legumes WG Activity "Efficient management of resources for smart legumes utilization (SMARTLEG)" funded by the ECPGR Grant Scheme (Third Call).
- Collaboration with Horizon 2020 project <u>DYNAVERSITY</u> (Conserving Diversity *in situ* in agriculture and in the food chain), coordinated by Daniel Traon, ARCADIA: Lorenzo Maggioni accepted invitation to be a member of the project's Sharing Knowledge and Experience Platform (SKEP), which aims at facilitating collaboration and networking between *in situ* actors and stakeholders. The kick-off meeting was held in January 2018 in Leuven, Belgium.
- Collaboration with Horizon 2020 project Farmer's Pride (Networking, partnerships and tools to enhance *in situ* conservation of European plant genetic resources), coordinated by Nigel Maxted, University of Birmingham: Eva Thörn was invited to be a member of the Advisory Group. The kick-off meeting was held in January 2018 in Ancona, Italy.

3.2. FAO INTERNATIONAL TREATY

• The ECPGR Secretary on behalf of ECPGR, as well as National Coordinators from Germany and The Netherlands, on behalf of the European Region, attended the Second meeting of the Scientific Advisory Committee (SAC) on Article 17 (GLIS) of the International Treaty on Plant Genetic Resources for Food and Agriculture, 13-14 June 2017, FAO Headquarters, Rome. Highlights of the meeting were the "Review of the Guidelines for Digital Object Identifiers (DOIs)" and "Access and use of PGRFA information through the Global Information System (GLIS)". The report of the meeting is available here.

- An FAO Treaty Secretariat's representative was invited to participate in the Advisory Group for the second phase of the PPP project (see p. 18).
- The FAO Treaty Secretariat was invited to be a member of the External Advisory Board of the project "GenRes Bridge" (see p. 18) and the Secretary provided a letter of support for the project.

3.3. OTHER INITIATIVES INVOLVING WORKING GROUP MEMBERS

Beta Working Group

Beta nana project: results of joint collaboration with USDA-ARS allowed to reveal the population structure of *Beta nana*, endemic wild relative of beet, and to identify the most suitable area for the establishment of a genetic reserve. More details can be found <u>here</u>.

Forages Working Group

As previously reported, some members of the Forages Working Group are involved in the project GrassLandscape - Bridging landscape genomics and quantitative genetics for a regional adaptation of European grasslands to climate change (FACCE-JPI ERA-NET Plus action 'Climate Smart Agriculture: Adaptation of agricultural systems in Europe'). The main objective of the project is to detect genomic markers of climatic adaptation in the natural diversity of perennial ryegrass and to use this information to adapt this species to the anthropogenic climate change foreseen to happen in next decades (see here).

4. Publications and public awareness

4.1. Publications produced in 2017

4.1.1. Administrative and operational documents

- ECPGR <u>Annual Progress Report 2016</u> and Financial Report 2016
- ECPGR Concept for on-farm conservation and management of plant genetic resources for food and agriculture (endorsed by the Steering Committee in January 2017)

4.1.2. Reports from ECPGR Bodies

- Minutes of the ninth meeting of the ECPGR Executive Committee, 14-16 December 2016, Maccarese, Italy
- Minutes of the tenth meeting of the ECPGR Executive Committee, 19-20 October 2017, Ljubljana, Slovenia

4.1.3. Grant Scheme Activity Reports and related data

First Call

Genetic diversity of Patellifolia species (GeDiPa) – Final Activity Report

Second Call

- Report of the EURISCO Training Workshop 2016 National Focal Points Regional Training Workshop for Western Europe, 12–14 October 2016, Angers, France
- <u>Crop wild relative conservation strategies Planning and implementing national and regional conservation strategies. Proceedings of a Joint Nordic/ECPGR Workshop, 19-22 September 2016, Vilnius, Lithuania</u>
- Promoting implementation of national and regional crop wild relative (CWR) conservation strategies through sharing of knowledge and experience to create an integrated European strategy for CWR conservation (CWR Conservation Strategies) – Activity report
- Increasing the efficiency of conservation of wild grapevine genetic resources in Europe (InWiGrape) Activity report
- InWIGrape Bibliography

Third Call

- Consequences of climate change for conserving leafy vegetable CWR in Europe (CCLEAFY) Activity report (main document)
- Consequences of climate change for conserving leafy vegetable CWR in Europe (CCLEAFY) -Activity report (appendices)
- Report of the EURISCO Training Workshop 2017. National Focal Points Regional Training Workshop for Central Europe, 12–14 September 2017, Gatersleben, Germany

Fourth Call

- Report of the GRIN-Global Workshop 2017 for European Genebanks 29-31 August 2017, Prague, Czech Republic
- Meeting Report of the ECPGR Activity "CarrotDiverse", 4-5 July 2017, Braga, Portugal

4.1.4. Private Public Partnerships (PPP) project

- Private Public Partnerships for the use of Plant Genetic Resources for Food and Agriculture. Report of a Workshop, 7-9 June 2017, Bonn, Germany
- Private Public Partnerships for the use of Plant Genetic Resources for Food and Agriculture Phase II. Report of the First workshop, 12-13 October 2017, Rome, Italy

4.1.5. ECPGR Information Bulletin

As of 2017, the bulletin will be issued three times a year. The bulletin was published in February (issue no. 10), June (no. 11) and October (no. 12).

The bulletin is distributed by email to all Steering Committee and WG members and is also available online.

4.1.6. External publications with contribution from Secretariat

- Hjeltnes SH, Giovannini D, Blouin M, Benedikova D, Drogoudi P, Höfer M, Lacis G, Ognjanov V, Lateur M, Engels JM, Maggioni L. 2017. PRUNDOC a project to define accessions for the European Collection. Acta Horticulturae 1175: 19-24. DOI: 10.17660/ActaHortic.2017.1175.5
- Maggioni L, von Bothmer R, Poulsen G, Lipman E. 2017. Domestication, diversity and use of *Brassica oleracea* L., based on ancient Greek and Latin texts. Genetic Resources and Crop Evolution 65(1):137-159
- Zdunić G, Maul E, Eiras Dias JEJ, Muñoz Organero G, Carka F, Maletić E, Savvides S, Jahnke GG, Nagy ZA, Nikolić D, Ivanišević D, Beleski K, Maraš V, Mugoša M, Kodzulovic V, Radić T, Hančević K, Mucalo A, Lukšić K, Butorac L, Maggioni L, Schneider A, Schreiber T, Lacombe T. 2017. Guiding principles for identification, evaluation and conservation of *Vitis vinifera* subsp. sylvestris. Vitis 56 (3):127–131.

4.2. Participation in international meetings

The Secretary, ExCo Chair and/or other ECPGR members represented ECPGR in the meetings listed below, offering presentations and/or contributing to project planning. The relevant presentations are available from the ECPGR website (here). Further details can be found in the Information Bulletins (available here).

 8–11 May 2017, Montpellier, France EUCARPIA Genetic Resources 2017

Crop diversification in a changing world: Mobilizing the green gold of plant genetic resources The conference was organized by the European Association for Research on Plant Breeding (EUCARPIA) Genetic Resources section, in association with ECPGR.

- 13-14 June 2017, FAO Headquarters, Rome
 Second meeting of the Scientific Advisory Committee (SAC) on Article 17 (GLIS) of the
 International Treaty on Plant Genetic Resources for Food and Agriculture
- 26-27 August 2017, Tallinn, Estonia 23rd meeting of the Assembly of European National Coordinators for Animal Genetic Resources.
- 13-14 September 2017, Meise, Belgium Annual Genebank Meeting of the CGIAR Genebank Platform
- 6-8 November 2017, Rome, Italy
 Horizon2020 Coordination and Support Action SFS-28-2018
 AgroForest Bridge Joining forces for GenRes and biodiversity management
- 7 December 2017, Brussels, Belgium
 Public hearing on "Genetic diversity, conservation and crop wild relatives" at the European
 Parliament (Agriculture and Rural Development Committee)

5. MEETINGS HELD IN 2017

5.1. GRANT SCHEME ACTIVITIES

(Meetings are listed below in chronological order)

- <u>LINKAGES</u> Assessing linkages between genebanks and direct users planning meeting, 12 January 2017, Maccarese, Italy
- Joint workshop of the <u>ForageDataAccess</u> and <u>Barley C&E Data</u> Activities, 14-16 March 2017, Malmö, Sweden
- SMARTLEG meeting, 25-26 April 2017, Ljubljana, Slovenia
- Pomefruit C&E meeting, 26-27 April 2017, Gembloux, Belgium
- MAPEUROCOLLECTION meeting, 27-28 April 2017, Braga, Portugal
- CarrotDiverse First meeting, 2017, 4-5 July 2017, Braga, Portugal
- SafeAlliDiv first meeting 2017, 11-12 July 2017, Tallinn, Estonia
- GRIN-Global workshop for European genebanks, 29-31 August 2017, Prague, Czechia
- <u>EURISCO National Focal Points Regional Training Workshop 2017</u>, 12-14 September 2017, Gatersleben, Germany
- TRISECA meeting, 3-4 October 2017, Radzików, Poland
- GrapeOnFarm meeting, 10 October 2017, Geilweilerhof, Germany
- ECPGR Networking, 17-18 October 2017, Ljubljana, Slovenia

5.2. MEETINGS OF ECPGR BODIES

• Tenth meeting of the ECPGR Executive Committee, 19-20 October 2017, Ljubljana, Slovenia

5.3. MEETINGS OF THE PRIVATE PUBLIC PARTNERSHIPS (PPP) PROJECT

- Private Public Partnerships Workshop, 7-9 June 2017, Bonn, Germany
- Private Public Partnerships Workshop Second Phase, 12-13 October 2017, Maccarese, Italy

6. COORDINATING SECRETARIAT

During 2017, 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) and Imke Thormann (part-time research assistant, in charge of the Private Public Partnerships project, January to November 2017). 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 Lidwina Koop, Elinor Lipman, Imke Thormann and Stephan Weise)

Rome, 09 April 2018

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