

ECPGR Secretariat evaluation of progress in the implementation of the PGR Strategy targets and the corresponding ECPGR priorities (April 2026)

Introduction

This document evaluates progress on activities proposed for the ECPGR Phase XI workplan, prepared for the Mid-Term Steering Committee meeting (June 2026). Activities were prioritized as P1 (high), P2 (medium), and P3 (low), with expected funding from the ECPGR Grant Scheme, EC projects, or other donors.

All activities support the 2030 targets of the *Plant Genetic Resources Strategy for Europe* (PGR Strategy) and its six objectives, which align with Phase XI. This report is structured around those six objectives. For each objective, a summary of main achievements is provided, along with a table showing implementation status per target.

The evaluation draws on progress reports from Working Group Chairs, as well as information from EC projects and ECPGR activities. No specific indicators or systematic monitoring were in place, so the general evaluation is necessarily subjective and partial. ECPGR is only one of several contributors to the PGR Strategy, and comprehensive monitoring of the Strategy lies beyond its current capacity.

By contrast, the evaluation of individual priority activities is more robust, as these were specific actions led or partnered by ECPGR.

Purpose of this document

To provide a basis for assessing progress and identifying gaps in Phase XI implementation. This will inform adjustments to priorities for the remainder of Phase XI (2027–2028) and guide the planning of Phase XII activities.

1. Expanding *in situ* conservation of crop wild relatives (CWR) and wild food plants (WFP)

During 2024/25 there was significant progress made in expanding *in situ* conservation of crop wild relatives (CWR) in Europe. Notable among these actions were:

- The ECPGR CWR Working Group (WG) saw the fruit of long-term lobbying of the EU and helped secure **€15M funding for CWR conservation and use in Europe** within Horizon Europe. They also helped prepare the Call text on behalf of the EU in 2024, which supported three projects with a budget of € ≈5M each selected for funding:
 - **COUSIN** (Christian Schöb, University Rey Juan Carlos, Madrid, Spain): 5-year project focuses on wheat, barley, pea, lettuce and brassicas with a consortium of 26 partners (<https://cousinproject.eu/>)
 - **FRUITDIV** (Véronique Decroocq, INRAE, Villenave d'Ornon, France): 4-year project focusing on *Malus*, *Pyrus* and *Prunus* species with 26 partners from 14 countries (www.fruitdiv.eu).
 - **PRO-WILD** (Jacques Le-Gouis, INRAE Clermont-Ferrand, France): 5-year project focuses on wheat, sugar beet, and oilseed rape with 18 institutions from 11 countries (www.pro-wild.eu).
- There is a growing evidence base concerning CWR diversity, conservation and use, with **over half of European countries now with CWR checklists and inventories**.
- In Europe, Germany was the first country to have **officially designated genetic reserves** for selected wild *Apium* CWR, and the UK was the first to have a multi-crop gene reserve on the Lizard in Cornwall.

PGR Strategy for Europe (PGRSE) Target 2030 Status

PGRSE Target	Status
1. All countries in Europe have included CWR and WFP conservation in national PGR programmes and actions.	<i>Partially achieved:</i> for CWR, but not achieved for WFP.
2. All countries in Europe have identified CWR priority taxa and populations – including those in protected areas – forming the basis of their national and a European <i>in situ</i> network of CWR.	<i>Partially achieved:</i> the majority of European countries now have CWR checklists and inventories
3. Europe has a coherent, comprehensive, coordinated and centralized documentation of CWR and WFP <i>in situ</i> diversity.	<i>Partially achieved:</i> for either CWR or WFP, some steps forward made by countries recording <i>in situ</i> CWR passport data, expanding EURISCO to hold this data and its inclusion.
4. CWR priority populations within the European network of CWR are managed and monitored following agreed guidelines for the <i>in situ</i> management of CWR populations.	<i>Not achieved:</i> formally recognized European CWR Network not discussed but national CWR <i>in situ</i> networks are operating in Germany, Spain, the UK and the Nordic region.
5. <i>In situ</i> conserved CWR populations are safely backed up in <i>ex situ</i> collections and made available to users.	<i>Partially achieved:</i> small proportion of <i>in situ</i> populations are backed up in a designated Genetic Resource Centre.

Progress in the implementation of ECPGR Priority Actions:

TARGET 1 - All countries in Europe have included CWR and WFP conservation in national PGR programmes and actions

P1 - Disseminate methodologies and support documents and organize webinars on how to do diversity and gap analysis and how to develop National CWR strategies.

- Various documents have been prepared, including methodologies to develop National CWR strategies:
 - [Principles for the inclusion of CWR data in EURISCO](#) (German-funded project 'In situ CWR in EURISCO'). This document sets out the principles for inclusion of *in situ* CWR population data in EURISCO, clarifying the scope of the CWR-National Inventory (NI) relative to the CWR *in situ* extension of EURISCO. It suggests descriptors for compiling CWR national inventories and establishes a descriptor list for the *in situ* extension of EURISCO.
 - **PRO-GRACE D2.3:** [Methods and minimum quality standards for *in situ* management of PGR](#). This project deliverable describes the essential data types required to effectively document *in situ* conservation of PGR, focusing on their conservation planning and implementation, population management and monitoring, and promoting conserved resource availability.
 - **PRO-GRACE D2.5.** [A blueprint for constructing national inventories of *in situ* resources](#). This document presents a set of blueprints for the development of a CWR-NI, describing essential components such as inclusion criteria, data sources, prioritization steps, recommended descriptors, verification protocols, and links with international platforms such as EURISCO. Guidance is provided to plan and implement active *in situ* and *ex situ* conservation of CWR at national level, using the Interactive Toolkit for Crop Wild Relative Conservation Planning.
- Based on the results of the 'In situ CWR in EURISCO' project and the survey results reported in document D2.5 above, it appears that most European countries have taken action towards the conservation of CWR. Many have made significant advancements in compiling national checklists, setting conservation priorities, and, in some cases, developing and publishing CWR-NIs. However, fewer countries have progressed to the population level, with only a minority reporting completed or validated CWR-POP-NIs.

P1 - Develop or improve an ECPGR CWR Portal compiling links to existing national checklists and inventories and the respective diversity and gap analysis to determine priority CWR populations.

- No activities were undertaken under this priority. However, groundwork was carried out during the preparation of PRO-GRACE deliverable D2.5. A list of 26 countries that have developed checklists and CWR-NIs was compiled. A low-cost activity involving the Secretariat and the CWR Working Group could easily set up a portal offering access to country pages with the respective national checklists and inventories.

P2 - Work towards the preparation of an online map of European hotspots.

- No activities were undertaken under this priority.

P3 - CWR Working Group to develop Wild Food Plants conservation guidelines.

- No specific activity was undertaken. PRO-GRACE deliverable D2.5 also takes WFP into account, indicating that they often overlap with CWR. However, the integration of WFP into national strategies remains partial, though growing.

TARGET 2 - All countries in Europe have identified CWR priority taxa and populations – including those in protected areas – forming the basis of their national and a European *in situ* network of CWR

P1 - Extend the list of countries that prepare (or have already prepared) national inventories or lists for CWR priority taxa and provide *in situ* population data to EURISCO.

- Through the extension of the German-funded project '*In situ* CWR in EURISCO', countries were encouraged to prepare national inventories and provide *in situ* population data to EURISCO; the initial group of seven pilot countries was expanded to 17, of which 14 had provided data by the end of the project (June 2025).

TARGET 3 – Europe has a coherent, comprehensive, coordinated and centralized documentation of CWR and WFP *in situ* diversity

P1 - Extension of EURISCO is being implemented through German-funded ECPGR project.

- This has been implemented

P2 - Manage and update continuously the CWR *in situ* section in EURISCO

- This work has been ongoing throughout the '*In situ* CWR in EURISCO' project and will continue as part of the regular EURISCO workplan (database and public interface maintenance), while the Secretariat will encourage updates and the upload of new country datasets.

TARGET 4 – CWR priority populations within the European network of CWR are managed and monitored following agreed guidelines for the *in situ* management of CWR populations.

P2 - Working Group to obtain an ECPGR agreement on minimum quality standards for *in situ* management of PGR, and develop a monitoring and reporting system.

- No formal ECPGR agreement was pursued. However, PRO-GRACE deliverable D1.3 System for describing, managing and accessing *in situ* conserved populations and interfacing them with EURISCO, outlines conservation strategies and techniques and includes a horizon scanning of future *in situ* conservation priorities. The components that constitute *in situ* genetic reserves and on-farm conservation are summarized, from the creation of checklists and inventories, through conservation planning, target population management and monitoring, to phenotypic and genotypic resource description, and utilization by farmers, breeders and other end-users.

P3 - *Implement the above-mentioned monitoring and reporting system*

- No action was undertaken

TARGET 5 - *In situ* conserved CWR populations are safely backed up in *ex situ* collections and made available to users.

P2 - *Working Group to cooperate and advise the countries to implement the necessary safety back-up for a number of populations with the support of genebanks' network.*

- The concept is outlined in several documents (ECPGR Concept for CWR *in situ* conservation; PRO-GRACE D1.3) and promoted by relevant EC projects. However, no systematic action has been undertaken at ECPGR level.

2. On-farm plant genetic resources conservation and management

During 2024–25, notable activities and success stories related to on-farm conservation and management included the following:

- The EU Common Agricultural Policy (CAP) 2023–2027 is a funding instrument that can pay farmers for biodiversity-related practices, such as maintaining and valorizing diverse genetic resources on farms through eco-schemes and agri-environment-climate measures.
- The new EU Regulation on Plant Reproductive Material is under negotiation. It has the potential to increase diversity of cultivated crops on the market and in the field by offering a greater choice to all types of farmers and other users (e.g. amateur gardeners). It would also facilitate conservation through simplified rules for conservation varieties and heterogeneous material, as well as through specific derogations for seed conservation networks and the in-kind exchange of seeds between farmers.
- The ECPGR Grant Scheme Activity '[INWHEATORY](#)' developed an inventory of wheat landrace cultivation sites in Europe. Recommendations for the optimal on-farm management of wheat landraces were developed into a *Guide to Good Practices for On-Farm Conservation and Sustainable Use of Wheat Landraces* ([Annex 1 of the INWHEATORY Activity report](#)).
- The ECPGR Grant Scheme Activity '[ABC Mediterranean landraces](#)' began developing a European Inventory of landraces, with a component in EURISCO, linking on-farm and *ex situ* data.
- The PRO-GRACE project developed relevant documents about the methods and minimum quality standards for *in situ* description, management, monitoring and accessing plant genetic resources, as well as a blueprint for constructing national inventories of *in situ* resources.

PGR Strategy for Europe (PGRSE) Target 2030 Status

PGRSE Target	Status
1. All countries in Europe include on-farm PGR conservation and management in national programmes and actions.	<i>Partially achieved:</i> Several countries have started to develop national inventories of landraces. Very few management plans established.
2. A European Inventory of on-farm genetic diversity is formally established; a minimum set of passport and characterization descriptors for data exchange is defined.	<i>In progress:</i> a prototype inventory with an EURISCO component is being established by the Grant Scheme Activity ' ABC Mediterranean landraces '
3. All landraces recorded in the European Inventory have <i>ex situ</i> backup in national genebanks.	<i>In progress:</i> European Inventory under development will enable gap analysis of <i>ex situ</i> backup.

4. Conservation and management guidelines for on-farm landraces have been defined in the context of the European collaborative programme and are implemented at local level.

Partially achieved: Voluntary guidelines are available:

- [Maxted et al. 2013](#). Resource Book for the Preparation of National Plans for Conservation of Crop Wild Relatives and Landraces. FAO, Rome, Italy.
- [FAO 2015](#). National level conservation and use of landraces. Draft technical guidelines. Commission of Genetic Resources for Food and Agriculture.
- [ECPGR. 2017](#). ECPGR Concept for on-farm conservation and management of plant genetic resources for food and agriculture. European Cooperative Programme for Plant Genetic Resources, Rome, Italy.

Progress in the implementation of ECPGR Priority actions:

TARGET 1 - All countries in Europe include on-farm PGR conservation and management in national programmes

P1 - Develop or improve an ECPGR Portal compiling links to existing national on-farm conservation and management strategies, programmes and initiatives.

- No activities were undertaken under this priority. However, groundwork was carried out during the preparation of PRO-GRACE deliverable D2.5. The results show that while many countries have begun developing National Conservation and Use Strategy Plans, relatively few have advanced beyond the initial stages. Specifically, 22 countries reported having at least partially developed a national landrace (LR) checklist. This is followed by 15 countries that have undertaken LR prioritization and 16 countries that report having at least partially developed a national LR inventory (LR-NI). Eleven countries have identified threats to LR diversity, 9 have carried out some form of genetic analysis, 6 have conducted a gap analysis, and only 6 countries report progress in developing a national LR management plan. Most countries have made progress on foundational steps such as listing and prioritization, while implementation-oriented steps – particularly gap analysis and management planning – remain less common.

P1 – Carry out a survey to identify and describe ongoing on-farm PGR conservation and use examples at national and regional levels.

- No systematic activity was carried out in this direction. However, a first inventory of landraces grown across Europe was obtained in 2022 by Raggi et al. They identified 19,335 Landrace Cultivation Sites (LCS) from 14 European countries representing 189 different crop species. More recently, in the INWHEATORY Activity, 'Inventorying wheat on-farm diversity', records of wheat landraces cultivation sites were inventoried and case studies on wheat landraces were prepared, contributing to a '[Guide for good practices for on-farm conservation and sustainable use of wheat landraces](#)'.

TARGET 2 - A European Inventory of on-farm genetic diversity is formally established; a minimum set of passport and characterization descriptors for data exchange is defined.

P2 - Set up a task force (TF) involving EURISCO/ Doc&Info WG/On-farm WG to design the structure and requirements for a European Inventory of on-farm landraces (also based on methods and standards developed by PRO-GRACE for inventorying in situ maintained PGR) – Expertise on all types of crops should be present in the TF.

- The Doc&Info WG discussed this topic at their September 2024 meeting in Tallinn, Estonia. They suggested that instead of compiling a full inventory of all European landrace populations, the On-farm WG should prioritize creating a European landrace inventory using nationally prepared datasets. In this framework, each landrace would be identified by genus and species, with associated information defined by a set of proposed descriptors. Countries would select their own landraces based on local priorities. The European list of names could link to EURISCO, with each name providing a ‘hot link’ to related genebank accessions. This virtual link would help monitor *ex situ* conservation of on-farm material and support gap analysis for securing material in genebanks. The Grant Scheme Activity ‘ABC Mediterranean landraces’ (2025–2027) adopted this approach. This 8-country initiative aims to improve knowledge of on-farm diversity through landrace inventories. These lists will support national monitoring and management, and will be featured in a dedicated EURISCO section to raise awareness and improve access. Linking each landrace name to conserved genebank accessions will enable monitoring of *ex situ* conservation and gap analysis to identify landraces needing secure storage. Establishing minimum descriptors for these inventories will help create a European regional catalogue.
- PRO-GRACE deliverable D2.5 provides a blueprint for the development of Landrace National Inventories. It also indicates that the number of national inventories of on-farm conserved landraces is very limited and only a few have been published so far and possibly none are comprehensive. In many cases, these inventories are compilations of names of landraces derived either from farmer interviews, genebanks or seed catalogues or from historical documents that do not document the current on-farm situation.

P3 - Implement the necessary platform to receive on-farm data.

- A prototype platform is being developed under the Grant Scheme Activity ‘ABC Mediterranean landraces’ (2025–2027)

P2 - Provide training workshops on the existing methodologies and criteria for identifying material to be inventoried.

- No action was undertaken

P3 - Support on-farm inventory compilation in pilot countries and provision of data to the centralized platform.

- Support is provided as part of the Grant Scheme Activity 'ABC Mediterranean landraces' (2025–2027).

TARGET 3 - All landraces recorded in the European Inventory have *ex situ* backup in national genebanks.

P3 - Working Group to coordinate the necessary safety back-up for a number of pilot countries and selected on-farm landraces.

- No systematic activity was undertaken by the Working Group. However, both the 'INWHEATORY' and 'ABC Mediterranean landraces' Grant Scheme Activities offer opportunities to survey the status of *ex situ* conservation of on-farm landraces.

TARGET 4 - Conservation and management guidelines for on-farm landraces have been defined in the context of the European collaborative programme and are implemented at local level.

P1 - Working Group to advise and support the implementation of conservation and management guidelines in a number of countries for selected crops.

- In the frame of the Grant Scheme Activity INWHEATORY, a *Guide for good practices for on-farm conservation and sustainable use of wheat landraces* was prepared.

3. Consolidating and sustaining *ex situ* conservation

The *ex situ* conservation system was consolidated in Europe between 2024 and 2026 through the establishment of the Genebank Managers Network, which facilitates regular contact among over 70 genebank managers from more than 30 countries. This network ensures the exchange of information, training, and joint initiatives. Additionally, two German-funded projects, coordinated by the ECPGR Secretariat, have strengthened the AEGIS system, which is composed of 35 member countries and around 70 associate member institutes. The AEGIS European collection covers more than 120,000 accessions, estimated to be approximately 26% of Europe's unique accessions. The safety-duplication level of these accessions stands at around 54%. Steps toward quality management improvement have included support for the publication of operational genebank manuals (30 are available) and standard operational procedures (published by four countries), reciprocal peer reviews (30 genebanks have been reviewed), safety-duplication (ongoing), and the development, testing, and training for a genebank metrics tool, as well as training workshops on genebank procedures.

Relevant deliverables were produced by PRO-GRACE, as follows:

D2.1 [Minimum quality standards for genebank operations](#)

D2.2 [Blueprint for a genebank quality certification system](#)

D2.4 [A blueprint for a capacity building programme for genebanks and *in situ*/on farm conservation networks](#)

PGR Strategy for Europe (PGRSE) Target 2030 Status

PGRSE Target	Status
1. The AEGIS Certification System, guaranteeing the quality of genebank operations, has been developed and is widely recognized and implemented in Europe through a decentralized network of AEGIS-certified genebanks.	<i>Partially achieved:</i> a blueprint for a certification system has been developed in PRO-GRACE (D2.2) and a feasibility study is underway
2. Up to one third of European genebanks have been AEGIS-certified (100–150, including all those with more than 1,000 accessions), relying when needed on a capacity-building and support system to facilitate their upgrading to reach the AEGIS certification level.	<i>Partially achieved:</i> ca. 30 genebanks have been peer reviewed. A regional capacity-building and support system is not in place, apart from occasional support. However, PRO-GRACE developed D2.4 - A blueprint for a capacity building programme for genebanks and <i>in situ</i> /on farm conservation networks
3. The coordinated European collection (i.e. the combined collections of AEGIS-certified genebanks) contains a substantial part of the accessions conserved in European genebanks. All these accessions are conserved to AQUAS standards and fully available from the AEGIS-certified genebanks via a request system through EURISCO. All AEGIS material is safety-duplicated, possibly in another European country and/or in the Svalbard Seed Vault and/or at one of the CGIAR Centres.	<i>Partially achieved:</i> an estimated 26% of unique accessions are part of AEGIS (40% of unique accessions of AEGIS members). The certification system and ordering system are conceptually defined. Availability under the SMTA is mostly satisfied. The level of safety duplication of AEGIS accessions is approximately 54%.

4. A comprehensive assessment of European plant genetic resources and diversity required by users for present and future needs in food and agriculture and the corresponding gaps in the conservation system has been completed and is regularly updated.	<i>Not Achieved</i>
5. The genetic diversity maintained in European AEGIS-certified genebanks includes: i) the vast majority of the European landraces; ii) a wide range of CWR diversity of crops grown in Europe; iii) a representative selection of developed varieties, and iv) other relevant material related to crops grown in Europe, including WFP	<i>Partially achieved:</i> AEGIS maintains approximately 26% of unique accessions. A comprehensive analysis of the genetic diversity maintained by AEGIS – or overall – would first require complete inventories of European landraces, CWRs, and developed varieties grown in Europe.

Progress in the implementation of ECPGR Priority actions:

TARGET 1. The AEGIS Certification System, guaranteeing the quality of genebank operations, has been developed and is widely recognized and implemented in Europe through a decentralized network of AEGIS-certified genebanks.

P1 - A blueprint for a genebank quality certification system will be a deliverable of PRO-GRACE project

- PRO-GRACE deliverable D2.1 [Blueprint for a genebank quality certification system](#) proposes a robust certification system incorporating a Quality Management System, minimum standards, performance indicators, and independent auditing and certification to enhance operational quality and transparency in genebank operations. This blueprint is being taken forward by the Crop Trust in a feasibility study.

TARGET 2 - Up to one third of European genebanks have been AEGIS-certified (100–150, including all those with more than 1,000 accessions), relying, when needed, on a capacity-building and support system to facilitate their upgrading to reach the AEGIS certification level.

P1 - Certification system to be implemented, based on agreed mechanism delivered by PRO-GRACE

- An official certification system has not yet been implemented. However, reciprocal peer reviews have been organized as part of the EC-funded project AGENT and the German-funded ECPGR projects New AEGIS and AEGIS Plus, with visits to over 30 genebanks completed by the end of 2026.

P1 - Capacity building services to be organized within the framework of the genebank managers' network, also based on the blueprint provided by PRO-GRACE

- PRO-GRACE deliverable on capacity building was developed: D2.4: [A blueprint for a capacity building programme for genebanks and in situ/on farm conservation networks](#).
- The ECPGR Project AEGIS Plus enacted a capacity-building effort dedicated to AEGIS Associate Members, offering training workshops on genebank documentation and management aspects, as well as providing support for safety duplication.

- The Genebank Managers Network organized six meetings (online and in person) between 2024 and 2026, providing capacity-building seminars and discussions on quality management systems, cryoconservation, legal matters, cybersecurity, and more.

TARGET 3. - The coordinated European collection (i.e. the combined collections of AEGIS-certified genebanks) contains a substantial part of the accessions conserved in European genebanks. All these accessions are conserved to AQUAS standards and fully available from the AEGIS-certified genebanks via a request system through EURISCO. All AEGIS material is safety-duplicated possibly in another European country and/or in the Svalbard Seed Vault and/or at one of the CGIAR Centres.

P1 - Support to countries to identify and include material into AEGIS, including regeneration and safety-duplication.

- Several Grant Scheme Activities have included among their objectives the identification of accessions as part of AEGIS (EuroPepLand, MALANIRS, Cryoconnect, BerryTraits, Europotatoes, ExploDiv, ForEVA, Garli-CCS, FruitTreeData, etc.).
- Specific support for multiplication and safety-duplication was offered by the AEGIS Plus project.

P1 - Implementation of genebank review system by the network of genebank managers, taking into account the Crop Trust certification experience and global strategies.

- Within the AGENT project, the genebank peer reviews were formalized, with improved procedures and general recommendations of the peer visits summarized in a publication in *Genetic Resources* (<https://doi.org/10.46265/genresj.OADZ7911>).
- A blueprint for a genebank certification system has been prepared as part of PRO-GRACE. Reciprocal genebank visits have taken place under ECPGR coordination through repeated cycles, involving over 30 genebanks by the end of 2026.

P2 - Extension of EURISCO to include a centralized genebank ordering system

- The topic was discussed in September 2024 by the Documentation & Information WG and the EURISCO Advisory Committee. It was recommended that the EURISCO team begin implementing the ordering system with genebanks already equipped with an autonomous system that could be connected via API to requests generated through EURISCO.

TARGET 4. A comprehensive assessment of European plant genetic resources and diversity required by users for present and future needs in food and agriculture and the corresponding gaps in the conservation system has been completed and is regularly updated.

P2 - Crop Working Groups to develop methodology to assess crop diversity required and gaps in the conservation system in cooperation with users, as a dynamic process, for current and future needs.

- No activity was undertaken under this priority

TARGET 5. The genetic diversity maintained in European AEGIS-certified genebanks includes: i) the vast majority of the European landraces; ii) a wide range of CWR diversity of crops grown in Europe; iii) a representative selection of developed varieties, and iv) other relevant material related to crops grown in Europe, including WFP

P2 - Crop WGs, in collaboration with CWR and On-farm WGs, assess and remedy to gaps in ex situ genebanks, including through collecting missions.

- No activity was undertaken as a collaborative action at regional level

P2 - An exhaustive inventory of the genetic diversity conserved in all national or local genebanks maintaining and characterizing GR – outside the network of AEGIS certified genebanks – is made to enlarge the potential of European genetic diversity to be conserved in a long-term perspective.

- Within PRO-GRACE deliverable D1.5, [Inventory of PGR information not yet represented in EURISCO and unified strategy for the interfacing of different information systems with EURISCO](#), a gap analysis was conducted for PGR documentation across member countries. Filling the coverage gaps in EURISCO could contribute to creating a more comprehensive overview of PGR conservation in Europe.

P3 - Countries encourage the development of cooperative work between their national AEGIS-certified genebanks and other local or national genebanks to ensure that all original genetic diversity held in genebanks outside AEGIS-certified ones be conserved in a long-term perspective.

- No ECPGR activity was undertaken under this priority.

4. Strengthening a comprehensive information system for plant genetic resources for food and agriculture (Documentation)

The Documentation & Information WG continues to strive to provide the best possible support to the National Focal Point (NFP) network. In addition to a continuous helpdesk in the background, this also includes training activities. Ongoing support is provided for the provision of phenotypic data, and the data standard has been revised to better support providers of such data. EURISCO has been extended to provide CWR *in situ* data, and an extension to link with landraces' on-farm data is planned. Functionalities of the EURISCO web interface are being largely improved thanks to integration with Genesys technology. A direct ordering system from EURISCO is also being conceptualized. One of the goals of the PGR Strategy is to increase the compatibility of EURISCO and associated IT infrastructure with the FAIR principles (Findable, Accessible, Interoperable, Reusable). A study was conducted by PRO-GRACE to systematically evaluate the extent to which the FAIR principles can be applied to PGR data and to what extent this is actually expedient.

Relevant deliverables were produced by PRO-GRACE, as follows:

D1.1 [Standards for collecting and displaying phenotypic data and images](#)

D1.2 [Standards for collecting and displaying genetic data](#)

D1.4 [“Minimum Information about a Plant Genetic Resource” standard](#)

D1.5 [Inventory of PGR information not yet represented in EURISCO and unified strategy for the interfacing of different information systems with EURISCO](#)

D2.6 [A system for the unique identification of PGR based both on DOIs and DNA barcoding](#)

D4.4 [Interconnection of the different phenotype databases with the central EURISCO information system](#)

PGR Strategy for Europe (PGRSE) Target 2030 Status

PGRSE Target	Status
1. The EURISCO network of National Focal Points is optimally supported.	<i>Achieved:</i> the EURISCO coordination guarantees permanent support of the NFPs.
2. EURISCO contains high-quality passport data of all European <i>ex situ</i> collections, progressively extended to include actively-managed <i>in situ</i> CWR populations and appropriate on-farm landraces data.	<i>Partially achieved:</i> EURISCO contains increasing quality passport data of most European <i>ex situ</i> collections, progressively extended to <i>in situ</i> CWR populations.
3. NFPs assure access to all publicly available quality phenotypic data related to the conserved PGR, in collaboration with various public and private partners. Access is provided initially via inclusion in EURISCO.	<i>Partially achieved:</i> Quality phenotypic data increasingly provided to EURISCO. EVA networks involving public and private partners made phenotypic data available via EVA project. Data soon to be included in EURISCO.

<p>4. European genebanks and other PGR holders have improved (or can improve) their data management practices through access to, and use of facilitating tools, resources and services, having adopted (or allowing them to adopt) the FAIR principles and becoming part of the open data community.</p>	<p><i>Partially achieved:</i> ECPGR community of PGR holders is improving data management practices, starting with the introduction of a genebank metrics tool, demonstrated and supported on various occasions. Bioinformatic tools developed within the AGENT project can also facilitate PGR and data management. In the PRO-GRACE project, several deliverables describe and propose standards for documentation and data management.</p>
<p>5. Both data in EURISCO and the associated IT infrastructure are compliant with the FAIR principles, allowing better use of the data by a wide community of users across sectors and domains.</p>	<p><i>Partially achieved:</i> Current limitations depend on data legacy issues and insufficient metadata, reducing the potential for reuse. Phenotypic data require comprehensive metadata and documentation, good data quality and integrity. Genotypic data require (meta) data quality and completeness. Image data also require metadata completeness, standardization, format compatibility, quality assurance and preservation. The way forward requires the adoption of approaches for better description. This also applies to project or legacy data. Early involvement of data stewards is paramount.</p> <p>The Doc&Info WG is providing a platform and support to make local data in genebanks FAIR.</p>
<p>6. EURISCO becomes a trustable repository in the arena of European and global open-access databases with acceptably high governance and data-management standards.</p>	<p><i>Partially achieved:</i> EURISCO is the largest data provider to Genesys and GLIS, centralizing the European PGR inventories. Measures to improve its functionalities require developing EURISCO into an integrated European PGR information system, adding missing sources to the system, connecting additional domains, and promoting standards and protocols. This result can be obtained by remaining committed to project cooperation, spreading the word, raising awareness and expanding cooperation with bioinformatics hubs and data infrastructures.</p>

Progress in the implementation of ECPGR Priority actions:

TARGET 1. The EURISCO network of National Focal Points is optimally supported.

P1 - Training workshops for ex situ and in situ National Focal Points (NFPs).

- Collective and individual training sessions for *in situ* national focal points were held online in the framework of the 'In situ CWR in EURISCO' project. *Ex situ* National Focal Points have been trained on an individual basis when needed. A training workshop is planned in 2026 after the revisions to the EURISCO infrastructure are completed.

P3 - Training workshops for on-farm NFPs.

- No activities were undertaken, since a network of on-farm NFPs is not in place.

TARGET 2. EURISCO contains high-quality passport data of all European *ex situ* collections, progressively extended to include actively-managed *in situ* CWR populations and appropriate on-farm landraces data.

P1 - Training workshops for ex situ and in situ NFPs.

- See activities under Target 1 above.

TARGET 3. NFPs assure access to all publicly available quality phenotypic data related to the conserved PGR, in collaboration with various public and private partners. Access is provided initially via inclusion in EURISCO.

P1 - Compilation and transfer of existing Characterization and Evaluation data to EURISCO

- A large number of phenotypic data sets were validated, in cooperation with the data providers, and have been or will be imported into EURISCO.
- This activity is systematically encouraged and implemented within all the EVA networks. It has been specifically supported under the New AEGIS project (phenotypic data provided to EURISCO for ca. 2,500 accessions from six countries). It is also an objective of several Grant Scheme activities: EuroPepLand, MALANIRS, ValoResWB, BerryTraits, etc.

TARGET 4. European genebanks and other PGR holders have improved (or can improve) their data management practices through access to, and use of facilitating tools, resources and services, having adopted (or allowing them to adopt) the FAIR principles and becoming part of the open data community.

P1 – Training workshops for genebank information system officers and ex situ/in situ NFPs to foster cooperation, and based on consultation with WG Chairs and the assessments of local needs reported by the NFPs.

- See activity under Target 1 above.
- A [webinar series](#) organized within AGENT presented the bioinformatics tools developed in the project and available to improve genebank data management.
- Deliverables developed in the PRO-GRACE project describe standards for better documentation of PGR, including phenotypic and genotypic data, images and *in situ* populations, outlining also actionable steps for implementation.

TARGET 5. Both data in EURISCO and the associated IT infrastructure are compliant with the FAIR principles, allowing better use of the data by a wide community of users across sectors and domains.

P2 - Development of EURISCO, based on EURISCO work plans.

- After the EURISCO Advisory Committee meeting held in September 2024, closer cooperation started to be established between EURISCO and Genesys to achieve synergistic effects, particularly at the technological level. The infrastructure for the EURISCO public web application was completely overhauled. Further development and

maintenance activities were carried out regarding the EVA infrastructure and the EURISCO intranet.

- A new standard was developed for the submission of phenotypic data to EURISCO, simplifying the recording of actual observation values. An Excel template has also been created.
- An approach for handling single-seed descent (SSD) lines derived from original genebank accessions was developed. The concept needs to be specified in more detail. The necessary extensions to the database schema will then be carried out, and the development of the software for importing and checking such data will begin.
- A complete overhaul of the public EURISCO web application started in 2025, focusing on the basic framework and the search and visualization options for *ex situ* and *in situ* CWR passport data. This will soon be completed with extensions to display photos at the accession level and the plant family name.
- Automation of passport data synchronization with Genesys is pending.
- A separate module for searching and visualizing *in situ* CWR passport data was developed in 2025 and has been largely completed.
- A search interface for phenotypic data is planned, enabling filtering of existing data sets according to various criteria.
- A concept for the implementation of an ordering system is under implementation.

TARGET 6 – EURISCO becomes a trustable repository in the arena of European and global open-access databases with acceptably high governance and data-management standards

P1 – Development of EURISCO, based on EURISCO work plans.

- See activities for Target 5 above.

5. Promoting sustainable use of PGR

During 2024–2026, significant progress was made within ECPGR through the consolidation and expansion of the EVA Networks, promoting public–private partnerships among genebanks, universities, research institutes, public and private breeding companies, and farming cooperatives across 34 countries. This effort has generated hundreds of thousands of evaluation data points for thousands of crop accessions. The framework and principles coordinated by ECPGR have proven to be attractive to several crop networks. The mechanism ensures a centralized repository and the accessibility of increasingly standardized data through EURISCO. Many EC-funded projects are also oriented toward the sustainable use of PGR, and the challenge remains of interconnecting and maintaining easy access to all public data generated within the region.

PGR Strategy for Europe (PGRSE) Target 2030 Status

PGRSE Target	Status
1. Collections of PGR in Europe are increasingly characterized and evaluated under standard conditions, as well as genotyped with suitable sets of molecular markers.	<i>Partially achieved:</i> Several EU projects have pursued this objective (e.g. AGENT, G2PSol, BRESOV, BrasExplor, etc.). EVA Networks have made this activity systematic, widespread and centrally coordinated, ensuring standard conditions and centralized data repository in EURISCO
2. Data and accessions in the public domain, including those with relevant agronomic and quality traits identified at molecular level, are available to users through open centralized information systems, including Crop Portals.	<i>Partially achieved:</i> EURISCO is the prominent collector of traits data, with the EURISCO-EVA portal collecting data at EVA Network level. Interconnections with molecular data repositories and various crop portals still need to be developed as part of an integrated European PGR information system.
3. A wider use of pre-breeding of CWR and participatory-breeding on landraces on-farm generates added value to the unique diversity of these materials.	<i>Partially achieved:</i> Pre-breeding of CWR is increasingly approached in EC projects. Participatory breeding of landraces on-farm is increasingly promoted by NGOs working with farmers' networks.
4. All elements of existing relevant legislation have been reviewed, and elements of previously developed disincentives for (small-scale) producers of diversified plant propagation material, are eliminated, where appropriate	<i>Partially achieved:</i> PRO-GRACE developed studies on methods and services for phytosanitary surveillance and an analysis of the ethical, social and regulatory aspects of the present PGR system.

Progress in the implementation of ECPGR Priority actions:

TARGET 1. Collections of PGR in Europe are increasingly characterized and evaluated under standard conditions, as well as genotyped with suitable sets of molecular markers.

P1 - Continuation of existing EVA Networks.

- EVA Networks existing in 2024 have all continued: Carrot, Legumes, Lettuce, Maize, Pepper, Perennials, Wheat and Barley. The EVA Boost project supports the implementation of EVA Legumes, while other networks continue their activities after the end of the first EVA project via Grant Scheme Activities, in-kind contributions or exploring other funding sources.

P1 - Support for the creation of other crops' public–private partnerships, including attention to the possibility of adapting the EVA concept to perennial plants such as fruit trees.

- Support was offered to create other Networks on Legumes and Perennials (including fruit trees), thanks to a German-funded project (EVA Boost). A [roadmap](#) has been developed and some activities are ongoing to move this further via Horizon proposals.

TARGET 2. Data and accessions in the public domain, including those with relevant agronomic and quality traits identified at molecular level, are available to users through open centralized information systems, including Crop Portals

P2 - Based on crop-specific WG proposals, set up Crop Portals to facilitate access to information about PGR targeted to specific user groups.

- No action was undertaken under this priority.

P2 - Infrastructure for data provisioning of the Crop Portals from EURISCO.

- The EURISCO-EVA intranet, developed as a project portal for management of multilocation phenotypic data, has served as a template for other project data portals (AGENT, INCREASE), facilitating public availability of project data.
- PRO-GRACE developed a relevant deliverable: D4.4 - [Interconnection of the different phenotype databases with the central EURISCO information system](#). This report outlines the conceptual basis and technical infrastructure requirements for connecting distributed data with EURISCO, providing, as a case study, an API link between the INRAE wheat database and EURISCO. It also lists recommendations for interconnecting phenotypic databases with EURISCO.

TARGET 3. A wider use of pre-breeding of CWR and participatory-breeding on landraces on-farm generates added value to the unique diversity of these materials.

P2 - Promote participatory use and evaluation of PGR, especially climate-resilient and low-input, underutilized crops.

- All the EVA networks have promoted participatory use and evaluation of PGR producing 640k datapoints on over 5,700 crop accessions. Private companies of small, medium and large size have been involved, together with research institutes and farmers' networks. Extension of EVA activities to include pre-breeding is being considered within the EVA Wheat and Barley Network as part of the Grant Scheme Activity ValoResWB.

TARGET 4 - All elements of existing relevant legislation have been reviewed, and elements of previously developed disincentives for (small-scale) producers of diversified plant propagation material, are eliminated, where appropriate.

P2 - Set up Task Force involving crop and thematic WGs, to carry out analysis of existing legislation, including access to PGR phytosanitary issues and other legal constraints and disincentives limiting conservation and use of PGR diversity.

- PRO-GRACE has developed two relevant deliverables:
 - D3.4 Demonstration of methods and services for *ex situ* and *in situ* phytosanitary surveillance and phytosanitation of contaminated unique material (not publicly available).
 - D5.6 [An analysis of the ethical, social and regulatory aspects of the transition of the present PGR system to an integrated pan-European Research Infrastructure.](#) This report surveyed the current regulatory framework for PGR, its implementation via EU and national legislation, surveying challenges, needs and opportunities. It identifies establishment of an RI as an opportunity to improve the management of ethical, legal and social issues on PGR.

6. Developing a system to monitor European conservation and sustainable use of PGR (Monitoring)

All possible ECPGR action under this section was postponed to Phase XII, with the exception of one P2 activity, for which no action has been taken so far.

Targets for defining and implementing relevant sets of indicators for monitoring genetic diversity conservation and sustainable use

Target 1. By 2025, sets of relevant indicators and associated baseline data to be collected for monitoring activities under this Strategy, have been consensually defined by all involved stakeholders.

P2 - Set up a Task Force involving different categories of users (breeders, farmers, NGOs, etc.), to define indicators and associated baseline data to be collected for monitoring activities under the PGR Strategy (avoiding overlap with existing monitoring mechanisms).

- No action was undertaken under this priority.

Target 2. By 2030, a sound system for the collection of all relevant baseline data has been set up and data are being actively collected and compiled, providing the baseline for further monitoring.

Targets for establishing a system to ensure the effective transfer and the analysis of relevant information from local to European levels

Target 1. Trends in the conservation and use of PGR in Europe are being monitored, and the information from local, national and regional levels is compiled and available via the European coordination and information centre for conservation and sustainable use of agricultural genetic resources.

Target 2. Information about trends in the conservation and use of PGR in Europe is readily available and regularly disseminated through different forms to PGR managers and users, policymakers and the wider public.

Target 3. Europe is actively and efficiently contributing to international reports on monitoring of conservation and use of genetic resources.