

Annex 3 - Tables 1 to 6: Objectives and targets of PGR Strategy for Europe and associated priorities for ECPGR Phase XI

Tables correspond to the objectives as identified in section 2 (Conserving and sustainably using plant genetic resources) of the PGR strategy.

Priorities indicated in the last column are as reported from the subregional group discussions during SC 16, with comments included where relevant: E, East; N, North; S, South; W, West.

Priorities are color coded for ease of viewing: P1 – high; P2 – medium; P3 - low

Table 1: Expanding *in situ* conservation of crop wild relatives and wild food plants

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Priority level for ECPGR: P1: high P2: medium P3: lower
By 2030, Europe has significantly increased its CWR and WFP inventories to enable a more comprehensive view of available CWR and WFP genetic diversity, to better understand how this diversity is distributed across the region and its neighbouring countries, and to identify which are the priority populations to actively conserve. By 2030, the European countries have elaborated and approved National CWR and WFP conservation strategies , and set up and manage a network for <i>in situ</i> management of priority CWR populations as part of an	1. All countries in Europe have included CWR and WFP conservation in national PGR programmes and actions	National	Support of Wild relatives WG	EC project or external donor	N-P1
	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	National	Support of Wild relatives WG	EC project or external donor	N-P1
	3. Europe has a coherent, comprehensive, coordinated and centralized documentation of CWR and WFP <i>in situ</i> diversity.	EURISCO/ Doc&Info WG/Wild relatives WG	Implement extension of EURISCO	EURISCO budget	N-P2
	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.	National and Wild relatives WG	Agree on demographic and monitoring techniques. Monitoring as proof of concept	ECPGR Grant	N-P3
	5. <i>In situ</i> conserved CWR populations are safely backed-up in <i>ex situ</i> collections and	National	Coordination/monitoring by Wild relatives WG	ECPGR Grant	N-P3

integrated CWR conservation strategy for Europe, in which active and sustainable long-term <i>in situ</i> conservation actions are implemented at national level.	made available to users.				All - P2
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Table 2: On-farm plant genetic resources conservation and management.

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Priority level for ECPGR: P1: high P2: medium P3: lower
By 2030, an inventory of on-farm landraces has been made in Europe, based on national inventories, compiled in close collaboration with local actors and organizations and with periodic updating. By 2030, valuable landraces' identified diversity is comprehensively conserved on-farm, complemented with ex situ back-ups, and is made available for sustainable use.	1. All countries in Europe include on-farm PGR conservation and management in national programmes and actions.	National	Support of On-farm WG	EC project or external donor	N-P1 E-P1
	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.	EURISCO/ Doc&Info WG/On-farm WG	Design extension of EURISCO and implement it	EURISCO budget	E-P3
	3. All landraces recorded in the European Inventory have ex situ backup in national genebanks.	National	Coordination/monitoring by On-farm WG	ECPGR Grant	N-P3
	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.	National and On-farm WG	Coordination/monitoring by On-Farm WG	ECPGR Grant	N-P1 E-P2

Table 3: Consolidating and sustaining ex situ conservation.

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/ responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Priority level for ECPGR: P1: high P2: medium P3: lower
<p>By 2030, the GR diversity in European genebanks is conserved reliably and made accessible for sustainable use, by improving the efficiency and efficacy of the European genebank infrastructure. Thus, the European <i>ex situ</i> conservation system will be raised to a level of excellence in terms of i) long-term quality (conservation management, viability, genetic integrity and phytosanitary protection), and ii) accessibility of conserved material to users, thereby positioning Europe as a primary contributor to the global PGR conservation and use effort.</p>	<p>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.</p>	<p>Task Force / Steering Committee</p>	<p>Develop the Certification System</p>	<p>External donor / ECPGR budget</p>	<p>N-P1 W-P1</p>
	<p>2. Up to one third of European genebanks have been AEGIS-certified (100 – 150, including all those with more than 1000 accessions), relying when needed on a capacity-building and support system to facilitate their upgrading to reach the AEGIS certification level.</p>	<p>National/Task Force/ Crop and Cryo WGs/ Secretariat</p>	<p>Implement Certif. System and capacity building services, including cryo, phytosanitary and duplication</p>	<p>External donor/ ECPGR budget</p>	<p>W-P1 (Need to clarify some wording as it will concern all genebanks and not only AEGIS) E-P3 (genebank upgrading to AEGIS through capacity building and support)</p>
<p>By 2030 European genebanks ensure the long-term conservation of PGR and provide access to appropriate samples of the genetic diversity that has occurred and/or is still occurring in European agriculture and in-nature. This covers the diversity needed for direct use, research and plant breeding that contributes to the continuous adaptation of European agriculture to current and future</p>	<p>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 (see section 2.3.1) 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</p>	<p>National/Genebanks EURISCO</p>	<p>Implement genebank review system</p>	<p>Genebanks / ECPGR budget / EURISCO budget</p>	<p>N-P1 W-P1 E-P1 (European collection maintained, membership increased) E-P2 (implementation of AQUAS)</p>

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/ responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Priority level for ECPGR: P1: high P2: medium P3: lower
needs.	the Svalbard Seed Vault and/or at one of the CGIAR Centres				
	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.	National and regional (Crop WGs)	Crop by crop assessment	External donor / ECPGR budget	W-P3
	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	National and regional (Crop WGs)	Crop by crop assessment	External donor / ECPGR budget	N-P2 (points i, iii) N-P3 (points ii, iv) W-P3

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

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/ responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Priority level for ECPGR: P1: high P2: medium P3: lower
<p>By 2030, the NFPs are supported in their activities to collect the passport data of all PGR genebanks in their countries and upload them to EURISCO. They are trained appropriately (e.g. on data standardization and quality), and feel part of a network that provides mutual support. The NFPs play an active role in supporting the genebanks in their country in improving the quality of the data, and support actors in the <i>in situ</i> community in providing access to their data. EURISCO grows to become a respected, well-known and well-used repository of European PGR passport data.</p>	<p>1. The EURISCO network of National Focal Points is optimally supported.</p>	<p>National / EURISCO</p>	<p>Training workshops</p>	<p>EURISCO budget</p>	<p>W-P1 E-P1 (All National Focal Points (NFPs) update national <i>ex situ</i> inventories effectively and timely) S-P2</p>
<p>By 2030, provide publicly available quality phenotypic data to EURISCO that is collected using standardized methods and in collaboration with various public and private partners. EURISCO acts as the phenotypic dataset's repository.</p> <p>By 2030, EURISCO comprehensively</p>	<p>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.</p>	<p>National</p>	<p>Training workshops</p>	<p>EURISCO budget</p>	<p>W-P1 S-P1 E-P2 (C&E data in EURISCO included, with high quality and wide coverage)</p>

<p>applies the FAIR principles, and the NFPs are trained to also adopt the principles for local data sources (see 2.5.1). EURISCO's data governance and management are improved to reach an acceptable high standard. As a result, EURISCO becomes a trusted European and Global open-access database repository.</p>	<p>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.</p>	National	Crop support for data gathering and transfer	WG and transfer	ECPGR Grant	<p>W-P1 S-P1 E-P3 (Inclusion of relevant in situ CWR data in EURISCO)</p>
	<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>	Genebanks	Training workshops		External donor / EURISCO budget	<p>W-P1 S-P2</p>
	<p>5. Both data in EURISCO and the associated IT infrastructure are compliant with the FAIR principles, allowing a better use of the data by a wide community of users across sectors and domains.</p>	EURISCO	EURISCO development		EURISCO budget	<p>W-P1 S-P2</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>	EURISCO	EURISCO development		EURISCO budget	<p>W-P1 S-P3</p>

Table 5: Promoting sustainable use of PGR.

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Indicate Priority level for ECPGR: P1: high P2: medium P3: lower
<p>By 2030, assure access to well-documented genetic diversity that is conserved ex situ and, where and as appropriate, in situ in Europe.</p> <p>By 2030, PGR crop portals for European crops have been established and maintained.</p> <p>By 2030, promote and secure commitment for targeted phenotypic and genotypic characterization and evaluation of European PGR and improve digitization, harmonization, availability and exchange of existing and newly-generated PGR characterization and evaluation data for private and public actors.</p> <p>By 2030, achieve a coordinated and systematic use of CWR genetic diversity in research and crop improvement.</p>	<p>1. Collections of PGR in Europe are increasingly characterized and evaluated under standard conditions, as well as genotyped with suitable sets of molecular markers.</p>	<p>EVA Network</p>	<p>Implement public-private partnerships</p>	<p>EVA budget (ECPGR) / External donor</p>	<p>W-P1 (integrate other projects) S-P1</p>
	<p>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.</p>	<p>National Research Centres</p>	<p>Support of Crop WGs</p>	<p>External donor / ECPGR grant</p>	<p>W-P3 (following progress in point 1) S-P1</p>
	<p>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.</p>	<p>Research consortia</p>	<p>Support of Crop WGs</p>	<p>External donor</p>	<p>W-P3 (for direct use work also with 2.2) S-P2</p>

<p>By 2030, farmers and civil society actors are better enabled to add value to European landraces through participatory breeding methodologies such as evolutionary breeding, thus contributing to crop diversity in landscapes and over time.</p> <p>By 2030, more diversified European agricultural and horticultural production systems are established for the benefit of sustainable food production, entrepreneurial development, and long-term management of PGR.</p>	<p>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</p>	<p>Task Force involving crop and thematic WGs</p>	<p>Carry out analysis</p>	<p>External donor / ECPGR funds</p>	<p>W-P2 (ECPGR note on the impact of new regulations on PGR conservation and sustainable use - comms)</p> <p>S-P3</p>
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Table 6: Developing a system to monitor European conservation and sustainable use of PGR (Monitoring).

PGR Strategy for Europe Objectives	PGR Strategy for Europe Targets	Responsibility (main level/responsible bodies)	Type of action that ECPGR could undertake	Potential sources of funding to cover the ECPGR action	Indicate Priority level for ECPGR: P1: high P2: medium P3: lower
<p>By 2030, sets of indicators of genetic resource conservation and use are developed/adapted and agreed by all stakeholders involved, and integrated and deployed within monitoring strategies to ensure that genetic diversity is maintained or increased in Europe</p> <p>By 2030:</p> <p>i) The proposed European coordination and information centre for conservation and sustainable use of agricultural genetic resources becomes the hub to gather and publish PGR conservation and use data provided by local and national networks under the guidance of ECPGR National Coordinators.</p> <p>ii) Trends in the conservation and sustainable use of PGR are assessed, analysed and published every 5 years and necessary corrective measures are proposed.</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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, policy-makers and the wider public.</p> <p>3. Europe is actively and efficiently contributing to international reports on monitoring of conservation and use of genetic resources.</p>	<p>Task Force and WGs</p> <p>Next Phase XII</p> <p>Next Phase XII</p>	<p>Define and reach agreement on indicators</p>	<p>ECPGR budget</p>	<p>S-P1</p> <p>S-P2</p> <p>S-P3</p> <p>S-P3</p> <p>S-P3</p>