

ECPGR PHASE X MID-TERM REPORT

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Alnarp, Sweden,7 June 2022





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A glance back to Phase IX (2014–2018)

- Hosting agreement with Bioversity International
- New mode of operation 21 WGs with open membership and Grant Scheme with country quotas
- Transfer of EURISCO to IPK + EURISCO Advisory Committee
- 6 Calls for proposals: 31 granted activities
- Concepts developed: in situ CWR and on-farm
- German funds: establishment of EVA Network
- H2020 Preparation and approval of GenRes Bridge
- MoUs with FAO Treaty and ESA
- AEGIS Workshop in Madrid



Approval of Phase X (2019–2023) in Thessaloniki 2018:

- Five revised objectives
- Simplified mode of operation (inputs from WG Chairs)
 - Budget line Grant scheme
 - Budget line meetings (country quota)
- 23 Working Groups (new: Berries and Maize)
- Budget set at €2.7M for 36 countries



Significant events in Phase X

- Several projects funded by Germany (EVA Network and others)
- Approval of two H2020 projects (GenRes Bridge + AGENT) (started in 2019 and 2020)
- COVID-19 (online meetings + working from home) (2020–22)
- New ExCo Chair (Sep 2019)
- Change of staff at ECPGR Secretariat (2020–21)
- 'Bioversity International' becomes 'The Alliance of Bioversity International and CIAT' and moves from Maccarese to Rome (2020–21)

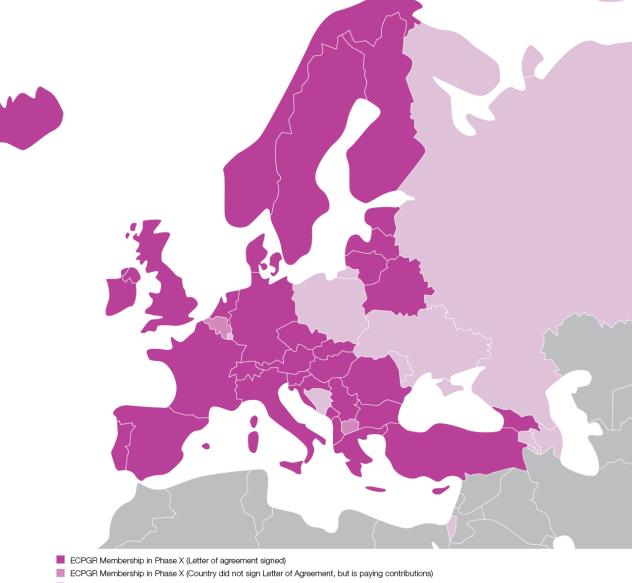


Implementation of Phase X

Letters of Agreement from 33 countries

+ 2 paying (BEL, MKD)

BiH did not join this Phase



Countries eligible to join Phase X



Implementation of Phase X

- WG Chairs initially all reconfirmed (then a few replacements)
- Grant Scheme (five Calls launched)
- WG meetings (two requests received)
- ExCo: Eight meetings
- Steering Committee: online ad hoc meeting (GenRes Bridge) Nov 2020
- EURISCO Advisory Committee: online meeting July 2020
- WG Chairs: online meeting April 2022
- Task Forces in operation:
 - Jubilee Video (2019–21)
 - Drafting Team for PGR Strategy (2020–21)
 - European Coordination and Information Centre (ECIC) (2022)
 - Ukraine support group (2022)



Highlights ECPGR 2019

- Launch of Phase X revised objectives & mode of operation
- Voluntary contributions (Hungary & Germany)
- EVA Network
 - Preparatory workshops (Berlin and Durres)
 - 900k project approved (wheat, barley, maize, carrot, pepper, lettuce)
 - Sandra Goritschnig comes on board (Nov 2019)

EURISCO

- Extension for crop-specific passport data
- DOI Service
- Crop portal for forages



Highlights ECPGR 2019 (continued)

AEGIS

- Checklist for implementation of MoU
- Enhanced info on website
- First round of genebank peer reviews
- GenRes Bridge (H2020 project)
 - Sharing perspectives workshop Tuusula, Nov 2019



Highlights ECPGR 2020

- MoU with Crop Trust signed in Svalbard (Feb 2020)
- EVA Network → 91 partners from 28 countries
- H2020 AGENT project starts
 - Extending EVA activities
 - Extending genebank peer reviews and trainings (CGN)
- H2020 GenRes Bridge
 - Preparation of genetic resources strategies
 - Launch of Genetic Resources journal
- New staff
 - EURISCO: Pragna Kotni; Suman Kumar
 - ECPGR Secretariat: Vanessa Bryant (Aug 2020); Loredana Maria (Oct 2020)



Highlights ECPGR 2021

- Launch of 'Jubilee Video' (March 2021)
- EVA Network in full swing
 - 92 partners / 28 countries / 70 evaluation sites
 - Multiplication / evaluation / genotyping cycles
 - Involvement of farmer's Network (AGENT)
 - EURISCO-EVA Intranet (embargoed data)
- Farmer's Pride (H2020) concluded online (July 2021)
 - Several products on ECPGR website



Highlights ECPGR 2021 (continued)

- GenRes Bridge concluded in Bruxelles (Nov 2021)
 - Launch of Genetic Resources Strategies
- German-funded project on in situ CWR in EURISCO
 - Ca. 250k for three years 8 pilot countries
- New staff: Nora Capozio (Nov 2021)



Highlights ECPGR 2022

- New Working Group on Cryopreservation established (Jan 2022)
- Agreed principles for inclusion of in situ CWR populations in EURISCO (May 2022)
- EURISCO
 - New Data Sharing Agreement
 - Launch of new website interface



Highlights ECPGR 2022 (continued)

- WG Chairs meeting (Apr 2022)
- Submitted project proposal PRO-GRACE (Research infrastructure concept development) (Apr 2022)
- Support to Ukraine donations (May 2022)
- Follow-up to Strategies launch (French event June 2022)
- 16th (Mid-Term) Steering Committee meeting in Sweden (June 2022)



Implementation of the Activity Grant Scheme



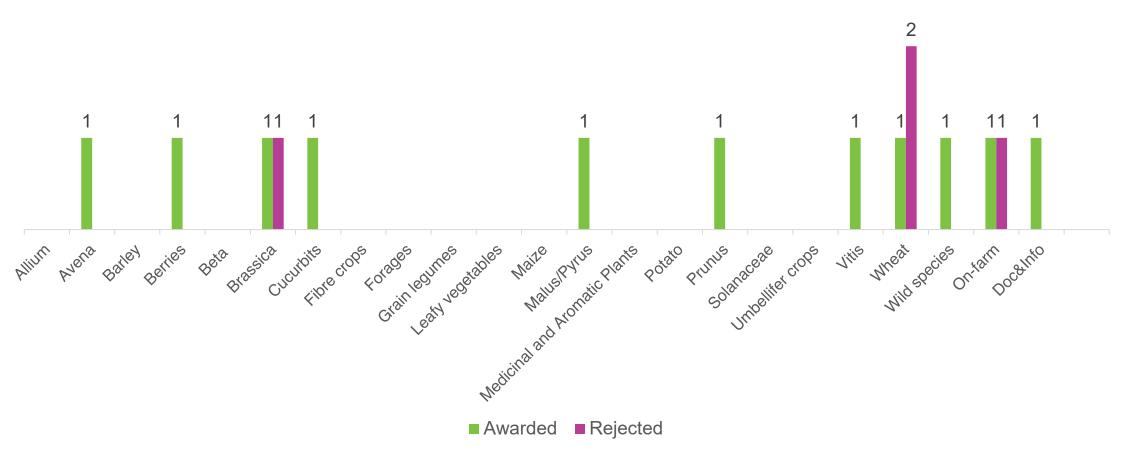
Grant Scheme proposals received, and budget awarded (Phases IX and X)

PHASE IX	1st Call	2nd Call	3rd Call	4th Call	5th Call	6th Call	Total
Number of eligible proposals received	11	10	8	8	3	5	45
Number of proposals awarded	8	6	7	5	2	3	31
Total budget awarded (in €)	119,650	86,350	104,350	118,500	44,000	44,988	517,838

PHASE X	1st Call	2nd Call	3rd Call	4th Call	5th Call	Total
Number of eligible proposals received	3	2	3	3	3	14
Number of proposals awarded	2	1	2	2	2	9
Total budget awarded (in €)	27,000	15,000	38,450	39,800	62,437	182,687

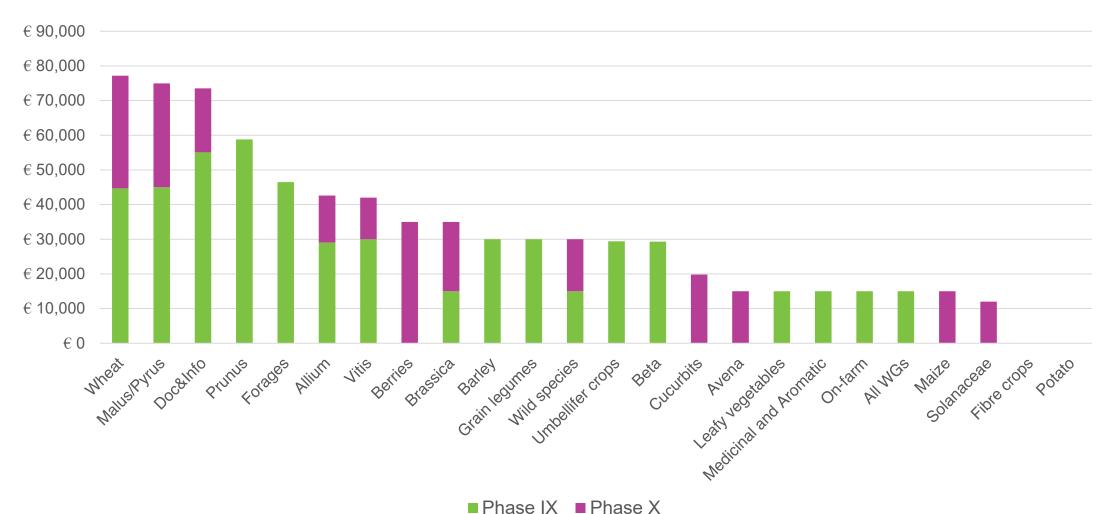


Activities awarded for each Working Group (Phase X)





Total funds allocated for each WG (2014–2022) [Grant Scheme + meetings]





Awarded Activities in Phase X

1) Avena WG: UMORPHEAS – March 2020–February 2022 (€15,000). Coordinator: Andreas Katsiotis, Cyprus

Delayed - Plans to update the IBPGR Oat descriptors, involving the widest possible global community. FAO-Treaty involved

2) *Brassica* WG: EUBRASWILD – October 2020–August 2023 (€ 20,000). Coordinator: Smiljana Goreta Ban, Croatia

Ongoing - Collecting activities and field characterization of *Brassica* wild relatives in eastern and south-eastern Europe

3) Berries WG: EUROPE.BERRIES – January 2021–June 2022 (€20,000). Coordinator: Monika Höfer, Germany

Ongoing - Inventory *ex situ* berry genetic resources in EURISCO, develop technical guidelines for genebank management and select proposed accessions for AEGIS



Awarded Activities in Phase X (continued)

4) Cucurbits WG: Cucurbitlocal – February 2021–January 2023 (€19,800). Coordinator: Maria Raffaella Ercolano, Italy

Ongoing - Improve the inventory of local *Cucurbita*, characterize and regenerate a set of accessions and test performance in low-input management systems

5) Documentation and Information WG: GRIN-Global II – September 2020– February 2021 (€19,200). Coordinator: Ludmilla Papoušková, Czech Republic

Delayed to October 2022 - Training workshop on GRIN-Global, with expert trainer from USDA

6) *Malus/Pyrus* and *Prunus* WG: FRUITTREEDATA– January 2022–December 2023 (€29,975). Coordinator: Matthew Ordidge, United Kingdom

Starting in 2022 - Improve data in EURISCO, increase phenotypic information within EURISCO and try to identify same material held in different countries. Basis to develop the AEGIS concept for the fruit tree field collections



Awarded Activities in Phase X (continued)

7) On-farm conservation and management and Wheat WGs: Bidifferent – January 2022–December 2023 (€37,180). Coordinator: Rudolf Vögel, Germany.

Starting in 2022 – Focused on Binkel landraces (*Triticum aestivum* subsp. *compactum*) in the Alpine region. Establish identity, evaluate in different environments and genotype for disease resistance and abiotic stress. Promote use.

8) *Vitis* WG: AEG-VIT-IS – January 2020–December 2020 (€12,000). Coordinator: Gregorio Muñoz, Spain

Completed. Molecular profiling to verify identity and uniqueness. Lists of 75 candidates for AEGIS. Safety duplication and genebank manuals

9) Wild species in genetic reserves WG: Inclusion of CWR sites in European *in situ* Network – September 2019–March 2021 (€15,000). Coordinator: Juozas Labokas, Lithuania

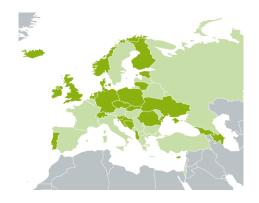
Completed. Participation of ten WG members in the meetings of the EC-funded project Farmer's Pride



AEGIS and the European Collection



AEGIS Membership



2010 (25 countries)19 Associate Member(AM) Agreements



2016 (34 countries)66 AM Agreements



2022 (35 countries)68 AM Agreements

+ Serbia (2019)

France: Declaration of Intent? Spain: Possible membership?



Step-by-step flow diagram

https://www.ecpgr.cgiar.org/aegis/aegis-membership/becoming-an-aegis-member

STEP BY STEP FLOW DIAGRAM

1. Formalizing AEGIS membership COUNTRY SHOULD: Become or already be member of ECPGR Be Party to the International Treaty on Plant Genetic Resources for Food and Agriculture (or otherwise willing to make plant genetic resources for food and agriculture under its jurisdiction available under the conditions of the Treaty) Sign the MoU on an adequate level (the level should be able to carry the commitment of the Government for the establishment of AEGIS and the fulfilment of the responsibilities set out in the MoU) Return a true copy to Bioversity International (ECPGR Secretariat) (and/or the original can be signed at any time by a duly authorized official at the Headquarters of Bioversity International.) Extend the Mandate of the National Coordinator and provide appropriate support (ECPGR National Coordinator has to act also as National Coordinator for AEGIS at the national level) Country receives status as member of AEGIS National Coordinator identifies Associate Members within the country (possible Members: appropriate public, private and civil society institutions) Both National Coordinator and Associate Member institution sign the Associate Membership Agreement (in the form set out in the Annex to the MoU) A copy of each Agreement is sent to Bioversity International (ECPGR Secretariat)

Country can start idenfitying accessions for the European Collection

2. Identification and management of Accessions for the European Collection How to add Accessions to the European Collection: National Coordinator promotes and coordinates with the Associate Members the designation of European Accessions Accessions originating within Use of "Revised simplified procedure" for selection of_ the country (Check the old Accessions name of the country!) Accessions collected or received from collecting Associate Members propose to the National Coordinator missions outside the country selected Accessions for registration as European and considered unique (after Accessions verification that legal status allows distribution with SMTA) At the discretion of each National Coordinator ensures registration in EURISCO through the National Inventory System (This simply country is the option of considering additional criteria consists in flagging the descriptor "Part of AEGIS" with YES) a) Identified Accessions are free New AEGIS accessions are reflected on the map of the from any third-party **European Collection** obligations or registrations Identified Accessions meet the selection requirements adopted by the ECPGR Steering Committee Responsibilites of AEGIS Associate Members: Ensure long-term conservation of European Collection according to FAO and crop-specific agreed standards (as part of the AEGIS quality system - AQUAS) Ensure safety-duplication in agreed conditions (under black-box arrangements as appropriate and as appropirate for vegetatively propagated material, at another Associate Member genebank, possibly in a different country, and/or at the Svalbard Global Seed Vault. See saftey duplicate policy Record public domain accession-level information through the National Inventory System and EURISCO (including available non-confidential characterization and evaluation data) Facilitate access to and availability of European Accessions (with use of SMTA) Provide conservation-related services to other AEGIS members (optional) (e.g. regeneration/multiplication facilities, genotyping, taxonomic expertise, safety duplication

space, cryo-conservation, laboratory screening for diseases, etc.)





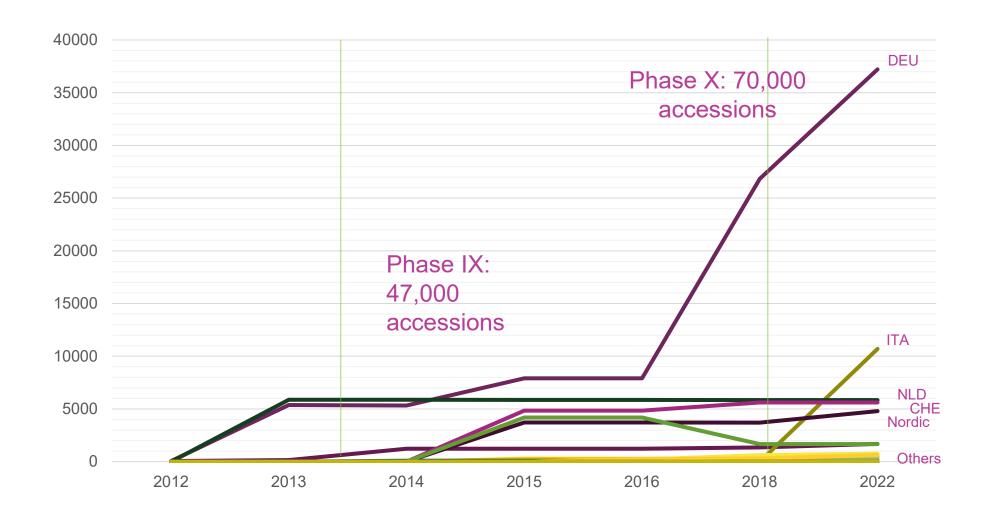
The European Collection

(April 2022)

Country	No of accessions
Albania	8
Belgium	2
Bosnia and Herzegovina	29
Bulgaria	391
Croatia	90
Czechia	1,682
Estonia	134
Germany	37,220
Italy	10,691
Latvia	27
Lithuania	45
Montenegro	31
Netherlands	5,841
Nordic Countries	4,785
Poland	443
Portugal	86
Romania	752
Slovakia	640
Slovenia	19
Switzerland	5,611
United Kingdom	1,659
Total	70 186



AEGIS - European Accessions growth



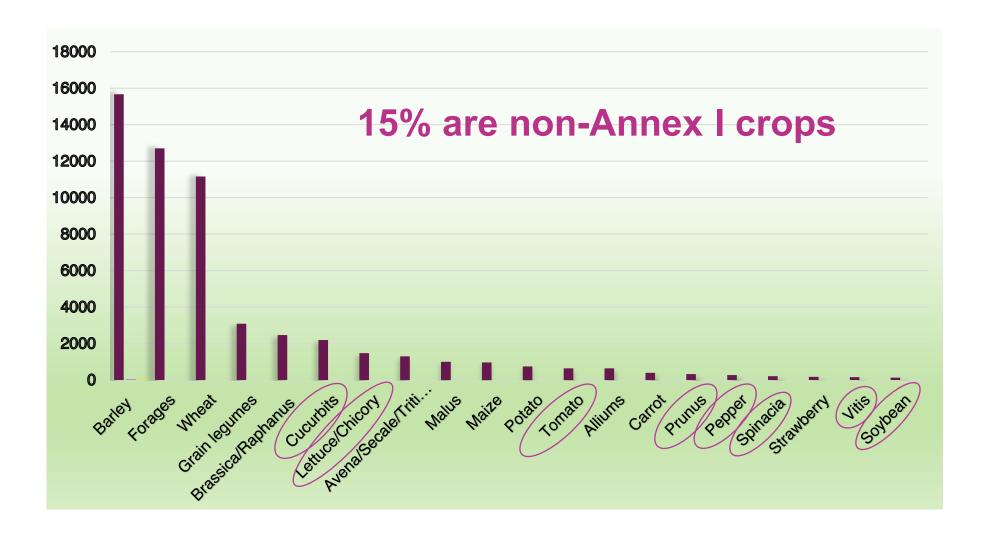


European collection statistics

	2016 – Mid-Term Phase IX	2022 – Mid-Term Phase X
Associate Members (AM)	54	68
Contributing to EURISCO	38 (70%)	45 (66%)
Contributing to AEGIS	15 (28%)	28 (41%)
Contributing to AEGIS – but not AM	3	2 BEL094; POL003
Total accessions held by AM	590,267	693,942
Total accessions in AEGIS	28,686 (5%)	70,188 (10%)



European Collection by crops



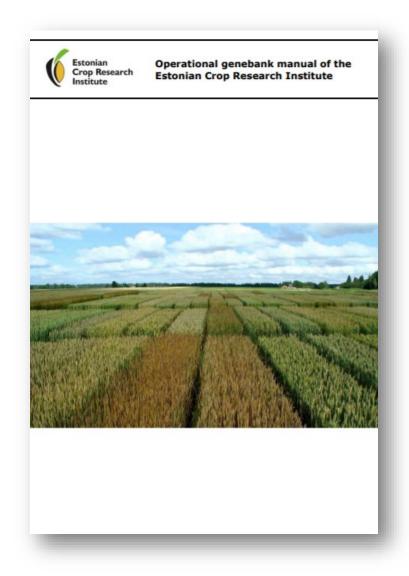


Grant Scheme Activities contributing to AEGIS

- AEG-VIT-IS: 75 Vitis candidates identified
- EUBRASWILD: ongoing
- CUCURBITLOCAL: ongoing
- EUROPE.BERRIES: ongoing
- Bidifferent: ongoing
- ImprovLoliumCol: ongoing
- EUROMAPCOLLECTION: 241 accessions proposed for inclusion



AEGIS Quality System (AQUAS)



- 12 operational genebank manuals published
- 9 Crop-specific standards completed by WGs
- Safety duplication no coordinated activity
- Peer review
 - GenRes Bridge: 3 genebanks (2019)
 - AGENT: 10 genebanks (2022–23)



Critical paper in *Plants* (2021)





Opinion

AEGIS, the Virtual European Genebank: Why It Is Such a Good Idea, Why It Is Not Working and How It Could Be Improved

Theo van Hintum 1,*, Johannes M. M. Engels 20 and Lorenzo Maggioni 2,30

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- Alliance of Bioversity International and CIAT, Via di S. Domenico, 1-00153 Rome, Italy; j.engels@cgiar.org (J.M.M.E.); l.maggioni@cgiar.org (L.M.)
- ³ European Cooperative Programme for Plant Genetic Resources (ECPGR), Via di S. Domenico, 1-00153 Rome, Italy
- * Correspondence: theo.vanhintum@wur.nl

Abstract: Europe is very active in terms of conserving plant genetic resources, with hundreds of genebanks and thousands of dedicated people involved. However, the resulting infrastructure is, along with being very expensive, far from efficient and not very reliable. In this opinion paper, the authors describe how this situation arose, and why the European Cooperative Programme for Plant Genetic Resources (ECPGR), the collaborative umbrella organization of the European countries involved, has not been able to improve this situation so far significantly. The principles of the decentralized virtual genebank (AEGIS) are described, and an analysis is made of the reasons for its lack of success. Possible changes for making AEGIS a success, or at least steps in the right direction, are proposed. These changes center around the creation of a system of certified genebanks with proper quality management, guaranteeing the long-term conservation of, and immediate access to the plant genetic resources conserved in it.

Keywords: PGRFA; ECPGR; virtual European genebank; AEGIS; EURISCO; genebank quality management



Citation: Hintum, T.v.; Engels, J.M.M.; Maggioni, L. AEGIS, the Virtual European Genebank: Why It Is Such a Good Idea, Why It Is Not Working and How It Could Be







Stephan Weise



EURISCO progress report **ECPGR** phase X

16th Meeting of the ECPGR Steering Committee 7–9 June 2022, Malmö/Alnarp, Sweden

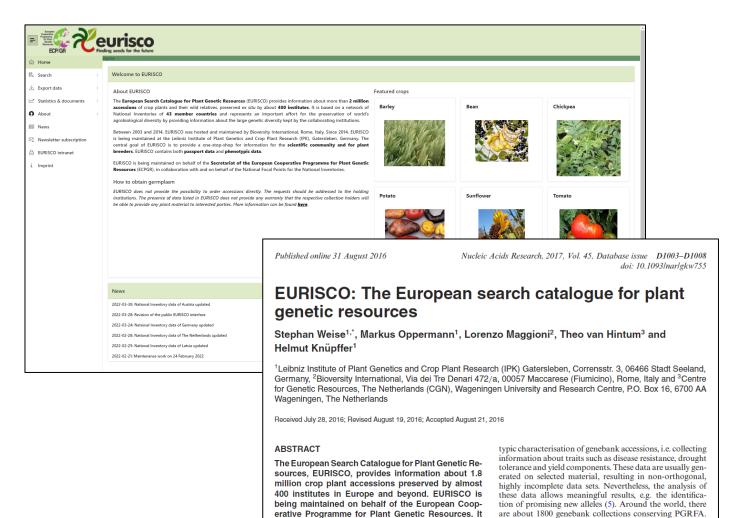




Contents of EURISCO

- 43 member countries
- **2,076,170** accessions
- **6,736** genera
- **45,171** species names
- **426,734** MLS accessions
- 70,188 AEGIS accessions
- 229,228 DOIs

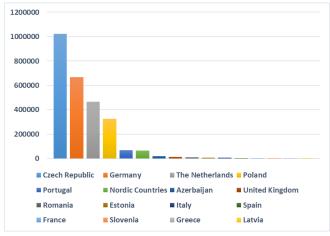
as of 2022-05-17

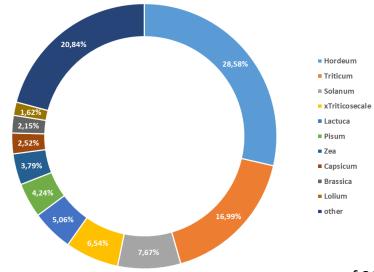




- Extension available since 2016
- Currently, 2,683,740 records of data from sixteen countries
- 71 phenotypic datasets with 3,867 experiments
- 90,633 accs. with phenotypic data





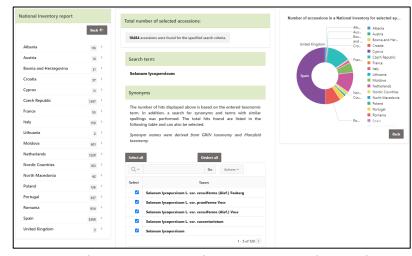


as of 2022-05-17





- EURISCO intranet
 - Extension for crop-specific passport data to handle additional information not included in MCPD
 - Frequently requested by various ECPGR Crop WGs
 - Simple and general extension following EAV approach → first used in 2022 only
 - Implementation of DOI registration service in close collaboration with ITPGRFA
- Public EURISCO application
 - Implementation of general improvements
 - API for linking to EURISCO passport data from external information systems (e.g. Commonwealth Potato Collection, JHI)
 - Improved taxonomy feature for advanced search
 - Thorough performance tuning for phenotypic data searches
 - Implementation of download option for complete phenotypic experiments in MS Excel format
 - Crop portal for forages in the frame of the ECPGR Grant Scheme Activity "ImprovLoliumCol"



Taxonomy feature: Screenshot from new web interface as of 2022





Outcomes 2020

No EURISCO developer between February and November

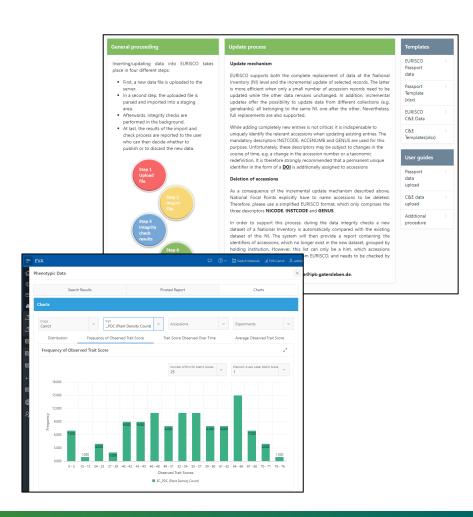
- EURISCO intranet
 - Rework of update mechanism for National Focal Points started (native PL/SQL implementation)
- ECPGR-EVA
 - Development of two exchange formats for phenotypic data (a simplified one, a more fine-grained one)
 - Recording of basic database requirements of the EVA infrastructure





- **EURISCO** intranet
 - Final tests of reworked update mechanism for National Focal Points
 - Implementation of new intranet interface
- Public EURISCO application
 - Full reengineering of the web interface

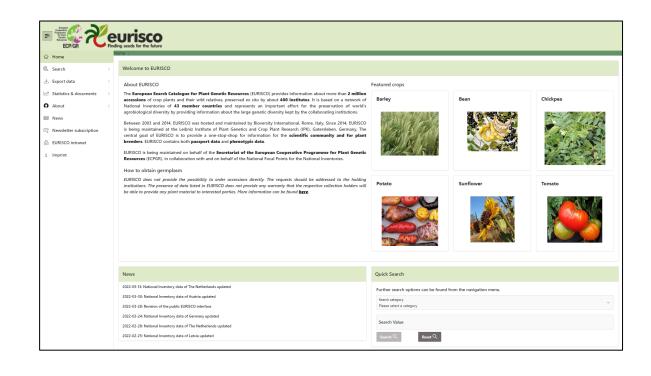
 - Regular technical revison Responsive design with clearer layout Critical review of functionalities Introduction of new functionalities
 - RESTful services as additional means of access to FURISCO data
- **ECPGR-EVA**
 - Specification document compiled
 - EVA database infrastructure designed + implemented
 - Web interface developed → prototype in autumn 2021
 - Import of production data started in December 2021





Outcomes 2022 (ongoing)

- ECPGR-EVA
 - Continuous improvements + data imports (ongoing)
- Public EURISCO application
 - Implementation of additional features based on feedback of powerusers
 - Bugfixing
 - Comprehensive performance tuning
 - Release of new version in March 2022

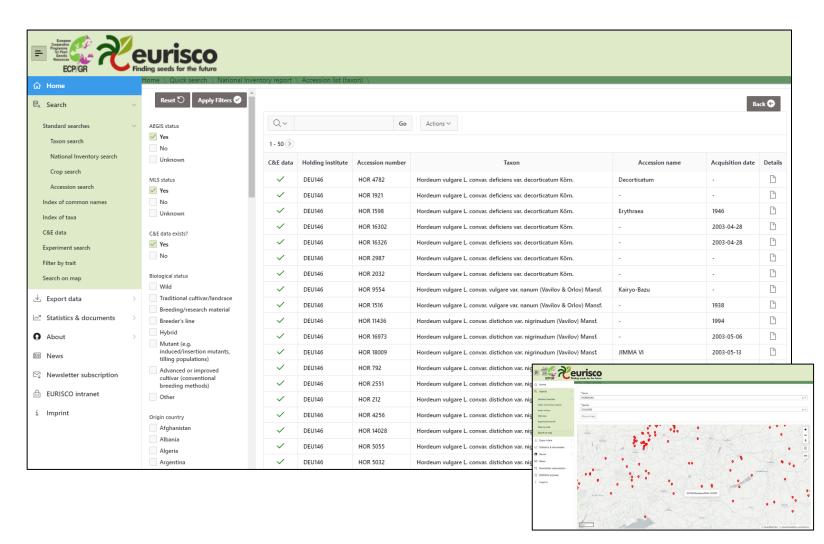






Passport data search in EURISCO

- Four standard searches:
 - Taxon search (incl. synonyms)
 - National Inventory search
 - Crop search
 - Accession search
- Index of common names
- Index of taxa
- Map-based search
- Various data export features



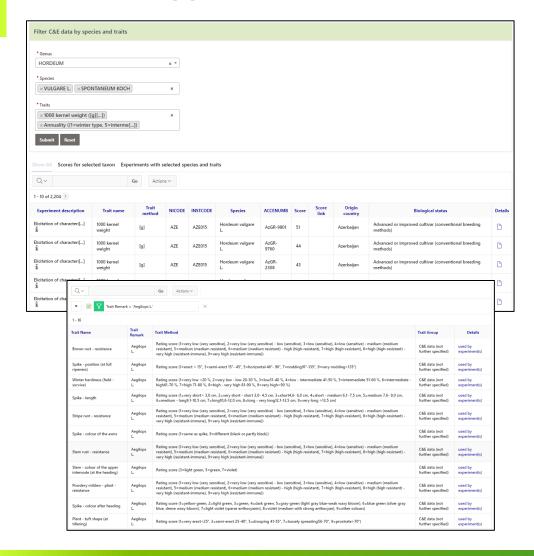


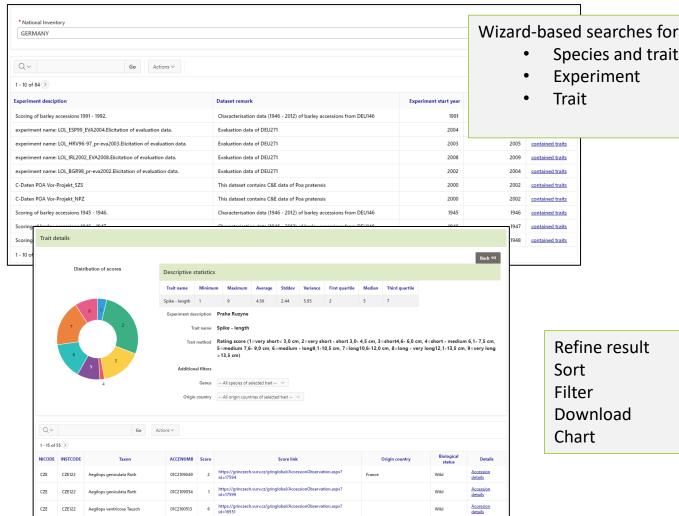
Species and trait

Experiment

Trait

Phenotypic data search in EURISCO





Refine result

Sort

Filter

Chart

Download





v1.0.0

- Oct. 2014
- First public version
- v1.0.1 v1.0.6 continuous improvements

v1.1.0

- Nov. 2014
- New export functionality + download of full dump
- v1.1.1 v1.1.17
 (2015 2016)
 continuous
 improvements

v1.2.0

- Jun. 2016
- C&E data extension; new export functionalities; new advanced search; lots of small improvements
- v1.2.1 v1.2.7 (2016 – 2017) continuous improvements

v1.3.0

- Dec. 2017
- Migration to MCPD2; increased usability; lots of small improvements
- v1.3.1 v1.3.5 (2018) continuous improvements

v1.4.0

- Jun. 2018
- Taxonomy search simple completely reworked
- v1.4.1 v1.4.9 (2018 – 2019) continuous improvements

v1.5.0

- Sep. 2019
- Taxonomy search advanced completely reworked
- v1.5.1 v1.5.4
 (2019 2020)
 continuous
 improvements

v2.0.0

- Mar. 2022
- Fully reengineered web interface (new technological basis, additional functionalities)
- v2.0.1 v2.0.5 (2022) contunious improvements

A total of 66 versions and sub-versions of the public EURISCO web interface have been completed since 2014, 22 of which since 2019.



Network maintenance + development

- Contact with EURISCO stakeholders
- Definition of new services, e.g. with regard to DOIs
- Advancement of current and definition of new standards, e.g. with regards to phenotypic data
- Coordination with initiatives such as Genesys and GLIS
- Bilateral communication with regard to the coverage of EURISCO
- Cooperation with ECPGR Working Groups
- Preparation of work plans and reports
- Helpdesk behind the scenes (should not be underestimated ;-))





- EUCLEG (Horizon 2020), 2017–2021
- Farmer's Pride (Horizon 2020), 2018–2021
- GenRes Bridge (Horizon 2020), (2019–2021)
- ECPGR European Evaluation Network (initial funding BLE), 2019–2022
- AGENT (Horizon 2020), (2020–2025)
- Further project participations in preparation













IPK LEIBNIZ INSTITUTE

- Regularly short information in ECPGR bulletin
- EURISCO newsletter
- Journal articles and reports
- EURISCO talks and posters on several conferences
- Presentations on several ECPGR workshops
- ECPGR Grant Scheme activities









EURISCO training workshop

- 2018: Switch to bi-annual trainings
- 2020 training should take place in Bulgaria
 - Had to be postponed due to COVID-19 pandemic
 - Online-only event end of 2021
 - 22 participants + 2 trainers
- 2021 individual training for UK representatives
- → Continuous increase of data quality





Future

- Further development in close collaboration with ECPGR bodies
- Continuous improvement of functions and services
- Specific focus on:
 - In situ data
 - Extension of EURISCO will start in 2022
 - Data quality (e.g. completeness, reliability) → continuous task
- Participation in project consortia related to EURISCO (EVA, AGENT, ...)



M. Grau / IPK





Thank you for your attention

In situ
conservation
and use of crop
wild relatives





Many activities promoted through the H2020 Farmer's Pride project (2019–2021)

- National CWR checklists developed
- Regional CWR checklists and priorities in preparation [863 priority taxa]
- Preparatory documents towards a regional CWR strategy, based on analysis of diversity and gaps
- Designation of CWR genetic reserves (in Germany and soon in Lithuania, Spain and the UK)
- Intention to establish a European in situ conservation Network of sites and stakeholders (CWR and LRs) – ECPGR position statement



Extension of EURISCO for Crop Wild Relatives (CWR) in situ data

https://www.ecpgr.cgiar.org/working-groups/wild-species-conservation/cwr-in-eurisco





Principles for the Inclusion of CWR Data in EURISCO

Prepared by Theo van Hintum and José Iriondo, within the framework of the ECPGR project 'Extension of EURISCO for Crop Wild Relatives (CWR) in situ data and preparation of pilot countries' data sets' (CWR data in EURISCO), funded by the German Federal Ministry of Food and Agriculture.

Agreed by project partners and EURISCO Advisory Committee in May 2022

Introduction

Populations of crop wild relatives (CWR)¹ occurring in situ are potentially valuable resources for crop science and plant breeding. Therefore, they need to be conserved and made available to users. However, the current conservation of, and access to these CWR populations varies strongly. In situ conservation of CWRs is often in the hands of nature conservation organizations, who are sometimes not even aware that they are managing these resources. Other CWR populations occur in farmers' fields, roadsides and other locations, where they are not managed at all. Furthermore, information about the CWR populations, their occurrence and availability, is hardly available.

The issue of CWRs has recently received much attention, e.g. from EU-funded projects such as Farmer's Pride and from the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). The latter coordinated and led the publication of a descriptor list for CWRs conserved in situ (Alercia et al., 2021). For ECPGR and its database EURISCO, the issue of properly handling information about in situ CWRs has been on the table for a while, but for various reasons never resulted in substantial improvements.

- German-funded project (€250k)
- CWR in situ population data to enter EURISCO in 2023
- Eight pilot countries
- Principles agreed by project partners and EURISCO Advisory Committee and FAO Treaty
- CWR populations that can be made in principle available to users - Liaison institutions



Wild species conservation in genetic reserves Working Group

→ Name change to:

Crop Wild Relatives Working Group (CWR WG)

The scope intends to cover *in situ* and *ex situ* strategies and techniques, as well as Wild Food Plants



On-farm conservation and management





Many activities promoted through the H2020 Farmer's Pride project (2019–2021)

- Farmer's Pride data exchange format
- European inventory of in situ maintained landraces
 - 14 countries
 - 19,000 records of LR cultivation sites (1. ITA; 2. GRC; 3. AUT; 4. PRT)
 - 190 crop species (1. spelta; 2. bean; 3. apple; 4. tomato; 5. buckwheat)
- 100 landrace hotspots identified
- Best practice evidence-based database: 105 examples

www.ecpgr.cgiar.org/in-situ-landraces-best-practice-evidence-based-database



European Evaluation Network for PGRFA (EVA)

EVA

European Evaluation Network





PUBLIC-PRIVATE PARTNERSHIPS

Increasing ECPGR knowledge and opportunities on public—private partnerships for the use of plant genetic resources for food and agriculture.

Sandra Goritschnig

EVA coordinator

2017

2018

2019

2020 **-** 2021

2022

- PPP knowledgebase is developed
- Workshop to prepare proposal for European Evaluation network
- Two workshops to prepare EVA framework
- ECPGR Steering Committee approves EVA framework
- MoU with Euroseeds
- Two workshops to develop project proposals for wheat, barley and vegetables
- Germany grants project proposal for EVA Wheat and Barley and EVA vegetables for 2019–2021, starting in July 2019
- EVA coordinator joins ECPGR Secretariat
- EVA Maize network is added through amendment of project including extension to 2022
- EVA crop networks perform first cycles of regeneration/evaluation
- Project meetings held online due to COVID-19
- EVA crop networks present first results in international conferences
- First in person project meetings of EVA networks



The EVA Framework

PRIVATE PUBLIC PARTNERSHIPS

Increasing ECPGR knowledge and opportunities on Private Public Partnerships for the use of Plant Genetic Resources for Food and Agriculture



Crop-specific public-private partnerships

Joint phenotyping and genotyping

Evaluations in different European environments

Identification of climate-resilient breeding material

Enriched genebank inventories



Joint work on pre-competitive level provides benefits to all partners:

- Shared expertise and knowledge
- Large phenotypic datasets from multilocation trials
- Data embargo as incentive for private partners to contribute in-kind
- Results and materials will be publicly available (through EURISCO and SMTA)



Long-term Goals of EVA

 Promote, facilitate and improve the sustainable use of genetic diversity present in PGRFA in Europe for crop improvement.



- Facilitate adaptation of European agriculture to climate change and contribute towards achieving related Sustainable Development Goals
- Increase the diversity of stakeholders involved in plant breeding through implementation of long-term public-private partnerships (PPP)
- Create self-sustaining networks that evaluate available PGRFA in continuous evaluation cycles



More than 90 EVA partners

Public partners:

- Genebanks
- Universities and research institutes

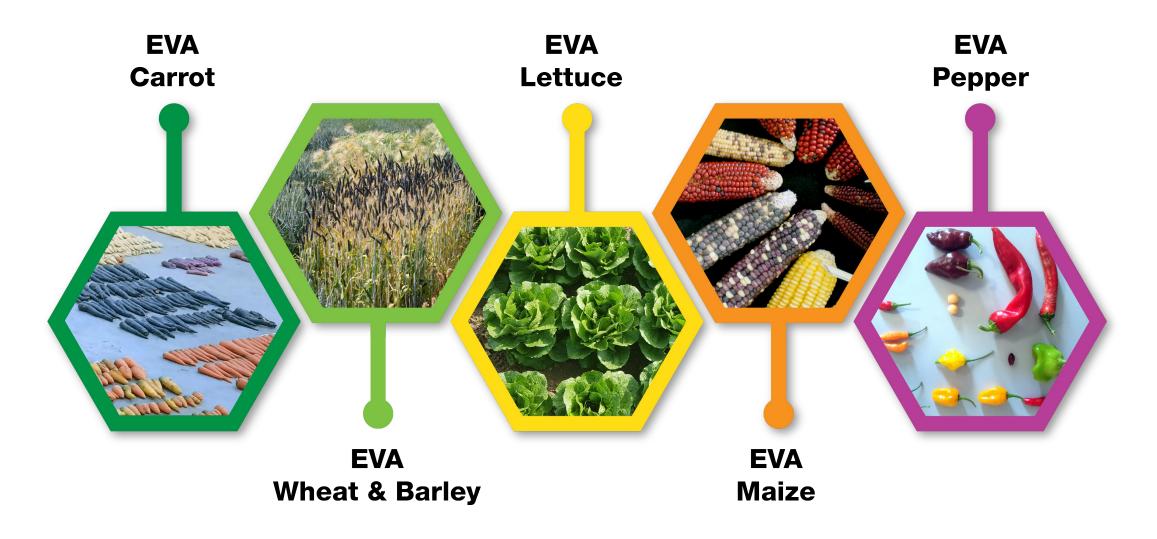
Private partners

- Multinational breeding companies
- SME breeding companies
- Organic breeding companies
- Breeding and farming cooperatives



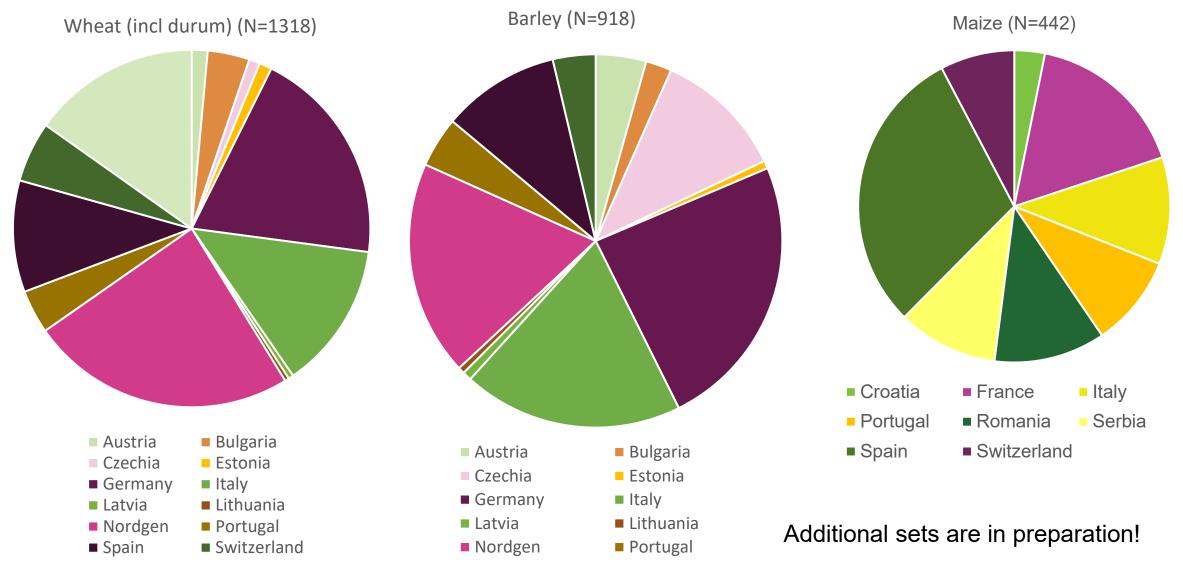


Five crop-specific EVA networks



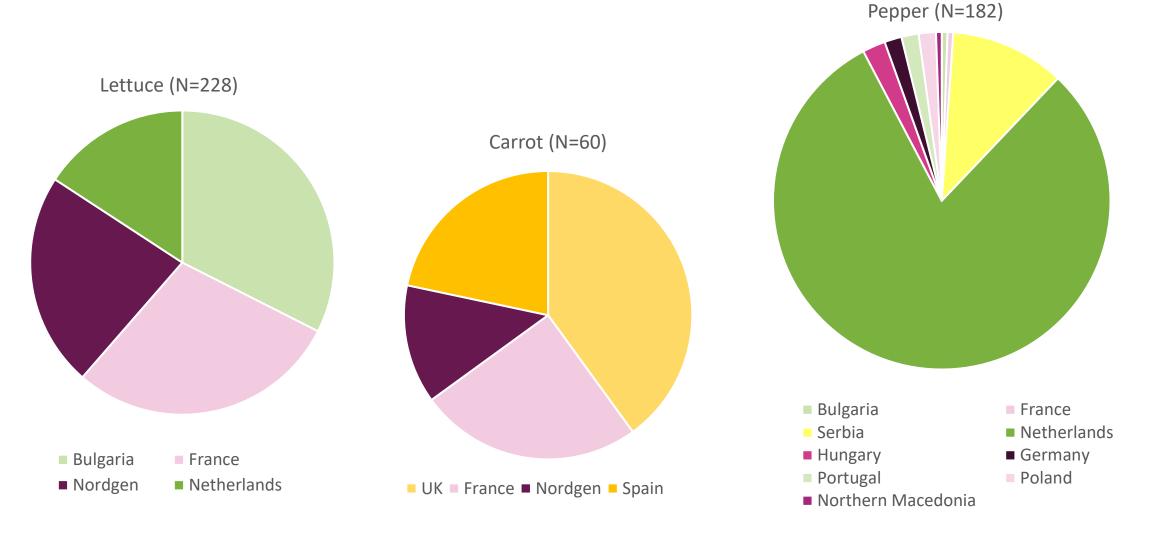


EVA Accessions Field crops (2020-2022)





EVA Accessions vegetables





109 Evaluation trial sites across Europe



EVA wheat trial 2021, BASF (V. Spamer)



EVA lettuce trial 2022 *Sativa* Rheinau (C. Aichholz)



EVA pepper trial 2021, Semillas Fito (M. Fernandez)



EVA carrot trial 2021 Institut Agro Angers (E. Geoffriau)



EVA maize trial 2021, CREA-CI (C. Balconi)





Outlook until 2023 (end of current project)

- Finalize evaluations
- Data analysis
- Dissemination and outreach
 - Scientific publications
 - Conference presentations
- Discuss establishment of EVA Steering Committee (with representatives from ECPGR and public/private partners)
- Discuss options for continuation/extension of networks
- Explore options for establishment of new networks



Acknowledgements

EVA partners:



NPPC Slovakia

Funding:









Genetic Resources:

a NEW open-access journal for the GenRes community



Sandra Goritschnig
Journal Managing Editor

www.genresj.org

History

- FAO/IPGRI published periodicals on PGR and AnGR until 2009/2016
- Several attempts at filling this gap
- A new start in 2019 with H2020 project

GenRes Bridge Genetic resources for a food-secure and forested Europe









Genetic Resources

Journal!

www.genresj.org



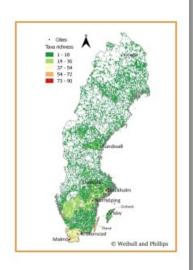




Genetic Resources (2020) Vol. 1, Issue 1 DOI: 10.46265/genresj.2020.1

www.genresj.org





Scope and Content

Within GenRes Bridge, *Genetic Resources* was established to provide an inclusive space for GR stakeholders of all domains to report on their work, to share global knowledge and tools and to present new approaches or methods that may not be suitable for purely scientific journals.

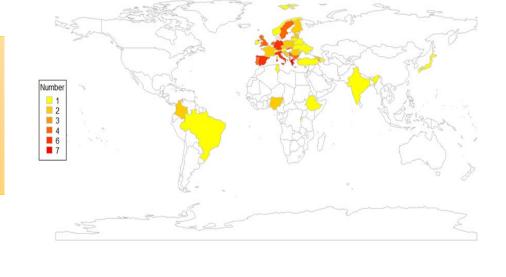
- Open access (free to publish, free to read)
- Focus on PGR and AnGR and on European region
- Consider submissions from all world regions
- Peer-reviewed (single-blind)
- Publication ethics
- Two regular **issues** annually, occasionally special issues
- Indexed in Scopus and DoAJ

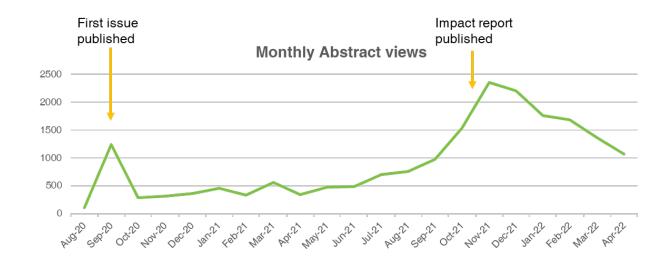


Journal Statistics

Survey on impact and uptake of journal confirms global readership and support of stakeholders for its continuation:

https://www.genresj.org/index.php/grj/impactreport2021





Submissions				
	received	accepted	published	
2020	22	12	12	
2021	26	11	11	
2022	9	10	6	
	57	33	29	



GenResJ: Timeline and outlook

2020–2021 GenRes Bridge 2022–2023
Bridge funding
ECPGR/ERFP

2024–? Phase XI ECPGR

MoU with ERFP on cost-sharing and joint publication of *Genetic Resources* in preparation

Budget estimate (based on publication of ~15 articles per year):

- ~ 3,000 € p.a. fixed costs (website, software etc)
- ~ 3 person months for editorial office (~ 20,000 € p.a.)

Total: ~23,000 € p.a.

Using an open-source platform we created a professional product that can be maintained at low running costs.

Submit your paper to www.genresj.org!



Acknowledgements

Editorial Team

Managing editor:

Sandra Goritschnig (ECPGR, Italy)

Plant Genetic Resources:

Joana Brehm (University of Birmingham, UK)

Igor Loskutov (Vavilov Institute of Plant Genetic Resources, Russia)

Lorenzo Maggioni (ECPGR, Italy)

Nigel Maxted (University of Birmingham, UK)

Jade Phillips (University of Birmingham, UK)

Alvaro Toledo (International Treaty on Plant Genetic Resources for Food and Agriculture, FAO, Italy)

Animal Genetic Resources:

Peer Berg (Norwegian University of Life Sciences, Norway)

Grégoire Leroy (Animal Genetics, FAO, Italy)

Enrico Sturaro (University of Padova, Italy)

Etienne Verrier (AgroParisTech, France)

Editorial office

Sandra Goritschnig: Journal manager

Nora Capozio: copyeditor and production editor

NewtVision: website design and support

Funding

GenRes Bridge Genetic resources for a food-secure and forested Europe



The GenRes Bridge project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817580.







^{*} Luigi Guarino and Odd Vangen ended their term on the editorial team by end of 2021.

Communication and public awareness





- 2020: Communication and Public Relations Strategy – Vision and Mission
- 2021: Jubilee Video, Roll-up banners
- 2022: PGR Strategy Policy brief, EVA information material, ECPGR brand refresh



Voluntary contributions from Germany – Phase X



- GenR 2017-3 (Apr 2017–Sep 2019) € 105,000 (supporting Grant Scheme activities)
- GenR 2018-1 (Sep 2018–Feb 2019) € 69,000 (AEGIS workshop)
- GenR 2018-3 (Sep 2018–Apr 2019) € 40,000 (EVA preparatory workshops)
- GenR 2019-2 (Jul 2019–Nov 2023) € 900,000 (EVA Networks)
- GenR 2019-5 (Sep 2019–May 2020) € 60,000 (Maize and Berries meetings and public awareness)
- GenR 2021-1 (Nov 2021–Dec 2023) € 250,000 (*In situ* CWR data in EURISCO)



Partnership of Secretariat in EU projects



Unsuccessful submissions: Greenbooster; WiCaLoMix; BerryValue

Successful:

GenRes Bridge (2019–2021) – ECPGR budget: €210,613

- Genetic Resources Strategies
- Workshop on Phytosanitary barriers for genetic resources
- Genetic Resources journal

AGENT (2020–2025) – ECPGR budget: €276,825

- One-year extension of EVA Network Wheat and Barley and involvement of farmer's network
- Genebank peer reviews and training



Financial status



Evolution of Phase X budget

	Euro
Total budget Phase X agreed in Thessaloniki 2018	<mark>2,688,250</mark>
Reduction for Bosnia and Herzegovina not joining Phase X	-15,750
New Total budget at 31.12.2021	2,672,500
Carryover from past Phases	324,154
Voluntary contribution (Hungary 2019)	12,000
GRAND TOTAL -1	3,008,654
Voluntary contributions (Germany 2019–21)	1,271,864
GRAND TOTAL budget at 31.12.2021	<mark>4,280,518</mark>



Financial status – contributions

Regular contributions received at 31.12.2021

Year	Contributions received in €	Number of contributing countries
2019	523,000	35
2020	534,500	35
2021	527,350	33
2022	8,600	1
Total	1,593,450	

Outstanding: €18,650

Voluntary contributions received at 31.12.2021

Year	Voluntary contributions received in €	Country
2019	12,000	Hungary
2019–2021	725,173	Germany
Total	737,173	



Financial status Cash balance at 31.12.2021

	Euro
Total regular contributions received (2014–2017)	1,593,450
Carry over funds past Phases	324,154
Voluntary contribution (Hungary 2019)	12,000
Voluntary contributions Germany Phase IX – funds balance	58,673
Voluntary contributions Germany Phase X	725,173
TOTAL received (at 31.12.2021)	2,713,450
Expenditures Phase X (2019–2021)	-1,752,712
Cash balance at 31.12.2021	960,738



Financial status – Outlook

• Staff costs – projected balance at end-of-phase: €229,000

Available funds for activities (€)					
	Total Budget	Expenditures 2019–21	Expenditures 2022	Committed	BALANCE
WG meetings	188,599	-	-	15,000	173,599
WG – other actions	188,599	7,875	-	132,095	48,629
Carryover	279,665	88,981	22,309	20,146	148,229
Voluntary unrestricted	10,359	-	-	-	10,359
BiH reduction	-13,255				-13,255
TOTAL	653,967	96,856	22,309	167,241	€367,561



Acknowledgments

Goodbye!



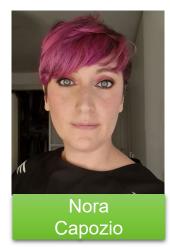




Welcome!











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- Internships: Sonja Ensslin, Fernando Luque
- Several Task Forces' members and other Alliance staff



