

# DOCUMENTATION AND INFORMATION WG REPORT FOR PHASE X (2019-2023)

Submitted to the 17th Steering Committee Meeting, Oeiras, Portugal, May/June 2023 by: Stephan Weise (chair since 2021), Külli Annamaa (vice-chair), Theo van Hintum (chair until 2021)

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# 1. CONTRIBUTION TO ECPGR OBJECTIVES

#### 1.1. Achievements and success stories

Output 2.1 All National Focal Points (NFPs) update national ex situ inventories effectively and timely

The Documentation and Information Working Group supports the National Focal Points (NFPs) as extensively as possible, e.g. with the assignment of DOIs. For this purpose, a pipeline was developed in close cooperation between EURISCO and the ITPGRFA, which enables EURISCO to carry out DOI registrations for PGR accessions on behalf of the NFPs. This significantly reduces the workload for the NFPs. The NFPs only need to designate the accessions to be registered. EURISCO compiles the metadata required for registration and carries out the registration itself. If metadata changes later, these changes are also carried out by EURISCO in the form of updates. DOI landing pages are created and operated by the ITPGRFA. Taxonomic information is another example of how data can be improved. Taxonomic data are automatically checked against various reference repositories each time they are uploaded to the EURISCO catalogue and reports are generated for the data providers. These offer the possibility to successively improve taxonomic data of the European germplasm collections, e.g. by eliminating incorrect spellings or by replacing them with accepted instead of synonymous terms.

The WG has organized two regional EURISCO training workshops: in Gatersleben, Germany in 2018 and online in 2021. The two meetings had 13 and 24 participants, respectively. The first workshop is listed here because it was not yet included in the last Documentation and Information WG Chair's report (in addition, a meeting of the EURISCO Advisory Committee was held directly afterwards). The second workshop should have taken place in Sadovo, Bulgaria, in 2020. Due to the COVID-19 pandemic, it had to be postponed several times and was finally cancelled. Due to the importance of regular training opportunities, the experiment of conducting a purely online training was ventured instead at the end of 2021. The feedback on the online workshop was highly positive. Nevertheless, there is a clear preference for inperson training workshops to provide participants with more opportunities for exchange with each other on various aspects of cooperation outside of the training agenda. The next inperson training will be organized and conducted in the course of 2023. In addition, two online-only training sessions (2021 and 2023) were conducted for specific user groups. A helpdesk is additionally available to the National Focal Points at any time.

To coordinate the EURISCO-related activities, the Documentation and Information Working Group 2021 organized a EURISCO Advisory Committee meeting. Due to the pandemic, this



took place within the framework of an online meeting, in the course of which the previous EURISCO activities were presented and current and future developments were discussed. It should be noted at this point that until 2021, the chair of the WG also served as chair of the EURISCO Advisory Committee. This is no longer the case since 2021, as the new chair of the WG, Stephan Weise, is the coordinator of EURISCO. The EURISCO Advisory Committee will continue to be chaired by the former chair of the WG, Theo van Hintum.

In addition, a workshop was organized in 2022 to demonstrate the functionalities of the GRIN-Global genebank information system to representatives of European genebanks and to discuss existing experiences. The meeting was organizfed by the hosting institution, the Crop Research Institute (CRI) in Prague (Ludmila Papoušková) together with the Global Crop Diversity Trust. The workshop brought together 41 participants, 17 in-person and 24 online.

#### Output 2.2 C&E data in EURISCO included, with high quality and wide coverage

The extension of EURISCO to include C&E data has existed since 2016. In ECPGR Phase X, the volume of data has grown by 435,709 records. Since C&E data must be manually curated beforehand in most cases, this is a considerable increase. C&E data are now provided by 21 countries.

As in the case of passport data, the integration of C&E data into EURISCO requires appropriate training activities. These took place within the framework of the workshops described above and led to a significant increase in the number of C&E data records in EURISCO.

In addition, the C&E data of two previous Central Crop Databases were integrated into EURISCO. This concerns the ECPGR International *Lactuca* Database and the ECPGR *Brassica* Database. In addition, the ECPGR provided funding within the framework of the European Evaluation Network (EVA), which enabled various partners to compile C&E data previously collected in projects and make them available for integration into EURISCO. This was done in each case with the involvement of the responsible NFPs.

In this context, the ECPGR Grant Scheme Activity 'ImprovLoliumCol' (approved in Phase IX, but continued during Phase X) should be mentioned, which took place in cooperation between the Forages Working Group and the Documentation and Information Working Group, and in the course of which additional C&E data was integrated into EURISCO. Furthermore, a Crop Portal for forages (<u>https://eurisco.ipk-gatersleben.de/apex/f?p=forage</u>) was developed, which is automatically fed with up-to-date information from EURISCO. This can serve as a blueprint for other crop working groups, as it allows the groups to focus on crop-specific content, while the bulk of the data (passport and C&E data) is automatically provided in the background by EURISCO.

#### Output 2.3 Inclusion of relevant in situ CWR data in EURISCO realized

The extension of EURISCO to include *in situ* CWR data was initiated by the project 'Extension of EURISCO for Crop Wild Relatives (CWR) *in situ* data and preparation of pilot countries' data sets' (<u>https://www.ecpgr.cgiar.org/working-groups/crop-wild-relatives/cwr-in-eurisco</u>), which is funded by the German Federal Ministry of Food and Agriculture. In addition to the Crop Wild Relatives Working Group, the Documentation and Information Working Group is also involved. Based on various preliminary work and discussions within the pilot group, the principles for the inclusion of CWR data in EURISCO were defined with the participation of the WG. Based on this, the data standard for the exchange of *in situ* CWR data between *in situ* National



Inventories and EURISCO was developed. Since October 2022, the technically necessary extensions of the EURISCO infrastructure have been carried out (database schema extensions, upload capabilities, check and update procedures, extension of the EURISCO web interface), which should be completed by the end of 2023.

#### Output 5.1 European Evaluation Network for PGRFA developed

Members of the WG are involved in the activities to develop the European Evaluation Network (EVA). As an extension of EURISCO, the technical infrastructure of the EVA intranet was developed. This enables the upload and management of evaluation data from the different EVA consortia as well as various reports and visualizations based on this data.

#### **1.2. Gaps or constraints identified**

Activities associated with output 2.4 (Users' expectations explored and functionalities of EURISCO increased) are not yet systematically implemented. Rather, feedback has so far been obtained primarily during the regular EURISCO training workshops or via the EURISCO Advisory Committee. In addition, there have been more or less ad hoc user surveys. Here, it would make sense to aim for an annual and structured feedback survey.

Evaluation data from the various EVA consortia has not yet been made available in EURISCO. This will only be done once the respective embargo periods have expired.

## 2. GRANT SCHEME ACTIVITIES, WG MEETINGS AND EVA ACTIVITIES

- Grant Scheme proposals (submitted:3; approved:2 (November 2021 and December 2022))
  - <u>Garli CCS Genotyping-by-sequencing of the European garlic collection to develop a</u> <u>sustainable ex situ conservation strategy</u> (in collaboration with the *Allium* and the Cryopreservation WGs; 6<sup>th</sup> call)
  - o <u>GRIN-Global Workshop 2021 for European Genebanks (GRIN-Global II)</u> (3<sup>rd</sup> call)
- Total number of partners involved: 21 from 19 countries
  - ECPGR-funded: 15 from 14 countries
  - Self-funded: 6 from 5 countries
- Meetings held
  - GRIN-Global Workshop 2021 for European Genebanks (GRIN-Global II), 18-21 October 2022, Prague, Czech Republic
  - EURISCO Training Workshop for National Focal Points, 10-12 November 2021, online
- Reports and related data
  - Report of the EURISCO Training Workshop 2021 (2021)
  - Report of the ImprovLoliumCol activity (2018-2022) (2022)
- Funds mobilised [shared with Allium and Cryopreservation WGs]
  - ECPGR granted funds: € 79,197
  - o Inputs in-kind declared in Grant activities: € 78,620



# 3. OTHER ACTIVITIES (CROSS-WORKING GROUP ACTIVITIES, LINKS WITH OTHER NETWORKS, INTERNATIONAL PROJECTS AND INITIATIVES)

- Cross-Working Group activities:
  - Joint proposals with
    - Forages WG <u>ImprovLoliumCol</u>
    - Allium WG & Cryopreservation WG Garli-CCS
  - Members of the Documentation and Information WG participate as self-funded partners in the joint activity <u>FRUITTREEDATA</u> of the *Malus/Pyrus* WG and the *Prunus* WG.
  - Participants in the training workshops included members from several WGs in their capacities of National Focal Points.
- Others:
  - Members of the WG participated in the project 'CWR data in EURISCO' (German Federal Ministry of Foof and Agriculture). Project runtime: December 2021 – December 2023
  - The EURISCO coordination as well as members of the Forage WG participated in the Horizon 2020 proposal 'EUCLEG' (call H2020-SFS-2016-2, Sustainable Food Security – Resilient and resource-efficient value chains), which focused on increasing EU's and China's protein self-sufficiency. Project runtime: September 2017 – December 2021
  - The EURISCO coordination as well as members of various ECPGR WGs participated in the Horizon 2020 proposal 'Farmer's Pride' (call H2020-SFS-2018-1, Sustainable Food Security – Genetic resources and pre-breeding communities), which focused on networking, partnerships and tools to enhance *in situ* conservation of European plant genetic resources. Project runtime: November 2017 – June 2021
  - The EURISCO coordination as well as members of various ECPGR WGs participated in the Horizon 2020 proposal 'GenRes Bridge' (call H2020-SFS-2018-1, Sustainable Food Security – Genetic resources and pre-breeding communities), which focused on joining forces for genetic resources and biodiversity management. Project runtime: January 2019 – December 2021.
  - The EURISCO coordination as well as members of the Maize WG participated in the Horizon 2020 proposal 'GREENBOOSTER' (call H2020-SFS-2018-2020, Sustainable Food Security). The proposal was not funded.
  - The EURISCO coordination as well as members of the Wheat WG participated in the Horizon 2020 proposal 'WiCaLOmix' (call H2020-SFS-2018-2020, Sustainable Food Security). The proposal was not funded.
  - The EURISCO coordination, the ECPGR Secretariat as well as members of the Doc&Info WG participated in the Horizon 2020 proposal 'AGENT' (call H2020-SFS-2018-2020, Sustainable Food Security). The project was funded and started in May 2020 (60 months).
  - The EURISCO coordination receives additional funding (June 2020 September 2021) in the frame of the European Evaluation Network (EVA) to develop the necessary intranet infrastructure for managing and visualizing the EVA data.
  - The previous WG chair (Theo van Hintum until the beginning of 2021) participated in various platforms related to PGR documentation: the EURISCO Advisory Committee, the Genesys Advisory Committee and the Scientific Advisory Committee (SAC) of the Global Information System of the International Treaty on PGRFA (GLIS).



 The new WG chair (Stephan Weise since November 2021) participated in various platforms related to PGR documentation: EURISCO coordination, Genesys Advisory Committee.

#### 4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

P. Kotni, T. van Hintum, L. Maggioni, M. Oppermann and S. Weise (2023) **EURISCO update 2023: the European Search Catalogue for Plant Genetic Resources, a pillar for documentation of genebank material.** *Nucleic Acids Research*, 51(D1):D1465–D1469. DOI: <u>10.1093/nar/gkac852</u>

EURISCO (2022) **Descriptors for uploading** *in situ* **CWR passport data to EURISCO**. European Cooperative Programme for Plant Genetic Resources (ECPGR), 6pp. [link]

T. van Hintum and J. Iriondo (2022) **Principles for the Inclusion of CWR Data in EURISCO.** European Cooperative Programme for Plant Genetic Resources (ECPGR), 30pp. [link]

A.-F. Adam-Blondon, M. Boichard, M. Bozzano, S. Goritschnig, S. Sharrock, E. Sturaro, T. van Hintum, S. Weise and M. Westergren (2021) **Strategy and priorities for delivering information services to end users.** GenRes Bridge – Joining forces for genetic resources and biodiversity management, H2020 project no. 817580, European Commission, 32pp. DOI: 10.5281/zenodo.5141212

S. Weise, S. Kreide and N. Maxted (2020) **Concept for a possible extension of EURISCO for** *in situ* **crop wild relative and on-farm landrace data.** Technical report Farmer's Pride project, 23pp. [link]

S. Kreide, M. Oppermann and S. Weise (2019) Advancement of taxonomic searches in the European Search Catalogue for Plant Genetic Resources. *Plant Genetic Resources: Characterization and Utilization*, 17(6):559–561. DOI: <u>10.1017/S1479262119000339</u>

### 5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES THAT COULD CONTRIBUTE TO THE IMPLEMENTATION OF THE **PGR** STRATEGY FOR EUROPE

It is expected that the EURISCO regional training workshops will continue in the future. This will require funding to be made available and local hosts to be found. Already in autumn 2023, the next training workshop for National Focal Points is envisaged; planning for this is already underway.

Furthermore, there are efforts to organize a meeting of the Documentation and Information Working Group. This will be used to discuss and plan the future direction of the WG in the context of the PGR Strategy for Europe.