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This report describes the activities carried out by IPK in 2015 for hosting and maintaining the European search catalogue for plant genetic resources (EURISCO), and for coordinating the EURISCO network.

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1 EURISCO development

In 2015, EURISCO was further developed in accordance with its work plan. The following activities were carried out:

1.1 Extension of EURISCO for C&E data

During the year 2015, EURISCO was extended for characterisation & evaluation (C&E) data. For this purpose, a data exchange format comprising five simple MS Excel templates was discussed within the ECPGR Documentation and Information Working Group (Doc&Info WG). For this format, the respective proposals by Theo van Hintum (CGN)¹ and Jonas Nordling (NordGen)² were used.

The EURISCO database schema (both the EURISCO staging area and the EURISCO web schema) was extended to allow for storing C&E data. Tools for parsing and uploading C&E data as well as all necessary data integrity checks were implemented and tested. Two large test datasets from CGN and IPK were imported (for testing and for demonstrating the benefits of C&E data in EURISCO).

A prototype extension of the EURISCO user interface for searching and filtering C&E data was developed and is currently being tested. After successful tests, the new C&E feature will be published at the beginning of 2016.

¹ Inclusion of C&E data in EURISCO – analysis and options

² <u>C&E data: the EURISCO standard</u>



Activity report EURISCO 2015, v1.1



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Fig. 1: Screenshot from the prototype web interface for searching C&E data

1.2 Extension of the upload mechanism for National Inventories

In order to improve the user-friendliness of the data import as well as to reduce encoding errors, which often occur during the preparation of tab-separated text files in EURISCO passport data format, a Java-based tool was developed for importing MS Excel files. Therefore, a SAX parser with very low resource requirements was used. The development of the importer already started in 2014 and was finished in 2015.

The data quality/integrity checks, which are performed during passport data imports, were improved (to be continued in 2016).

In close connection with the extension of EURISCO for C&E data, a Java-based tool for the import of C&E data was developed too.

The web interface of the EURISCO intranet was extended for C&E data. The new version will be made publicly available soon.





1.3 Extension of functionality of the public EURISCO application

The EURISCO web interface was extended by a statistics section in order to enable a fast overview about the accessions listed in the database. This comprises for example information about the respective National Inventories, the taxonomic composition of the whole collection or the type of germplasm storage.

Several improvements of the search functionality were performed (additional fields for filtering, more details for displaying etc.). A download option for selected passport data was implemented.

Finally, several bugs were fixed and a variety of adjustments "under the hood" were made. Extensive cleansing of legacy data was performed.

However, there are still requirements existing which could not be implemented yet due to time constraints. They will be scheduled for implementation in 2016.

1.4 Extension of functionality for the EURISCO intranet application

In order to enable following the AEGIS status of an accession, an automatic tracking mechanism was developed. In case of adding/removing of AEGIS accessions or in case of changing the AEGIS status of existing accessions, the ECPGR Secretariat is informed automatically and the information is also immediately accessible via the webpage of the European Collection under http://www.ecpgr.cgiar.org/aegis/european-collection/.

Due to the switch of the EURISCO update mechanism from full replacement to incremental updates, National Inventory Focal Points explicitly have to name accessions which should be deleted. In order to support this process, a procedure was implemented which runs during the import and which automatically compares a new dataset with the existing dataset of the respective National Inventory. The system then provides a report containing the identifiers of accessions, which no longer exist in the new dataset, grouped by holding institution. However, this list can only be a hint, which accessions could be candidates for deletion from EURISCO, and needs to be checked by the user.

2 EURISCO coordination

In 2015, the main focus of the activities was still on the development of the technical basis of EURISCO. However, a number of activities regarding the EURISCO coordination were performed, which are described in the following:

Starting in 2015, the series of regional EURISCO training workshops was revived. The first workshop, funded by the ECPGR Activity Grant Scheme (First Call, 2014), focussed on South-Eastern Europe, especially on the SEEDNet member countries, and was held 19–21 May 2015 in Tirana, Albania.

The workshop, organised in collaboration with the Agricultural University of Tirana, Department of Plant Sciences and Technology, brought together 20 participants, including 16 National Focal Points and/or National Coordinators. In order to run the training, all necessary training materials as well as a test environment for a hands-on training were developed.

The report and the presentations given during the workshop can be found under <u>http://www.ecpgr.cgiar.org/working-groups/documentation-information/eurisco2015/</u>.





A proposal for a second training workshop was approved for funding by the Second Call of the ECPGR Activity Grant Scheme (2015). The workshop will be held in 2016 in France. The workshop date will be announced in a timely manner.

In 2015, a presentation on EURISCO was given at the workshop: "Genetic resources: conservation and trait improvement" (workshop of the GPZ [German Society of Plant Breeding] working group Plant Genetic Resources, 10–11 December 2015, Gatersleben, Germany).

A poster on EURISCO was presented at the TDWG (Biodiversity Information Standards) 2015 Annual Conference "Applications, Standards and Capacity Building for Sustaining Global Biodiversity", 28 September – 1 October 2015, Nairobi, Kenya, and a poster "Plant Genetic Resources from the Balkan Peninsula in the World's Genebanks" using EURISCO data along with FAO WIEWS and Genesys, was presented at the 2nd International Symposium for Agriculture and Food, 7–9 October 2015, Ohrid, Macedonia (FYR).

The C&E data exchange format developed for EURISCO was presented at the workshop "Metadata standards for linking characterisation & evaluation data to genebank accessions registered in Genesys", 23 November 2015, Amsterdam-Schiphol, The Netherlands.

Furthermore, the first EURISCO newsletter from the new host was sent around in December 2015. This is considered very important for providing feedback to the EURISCO users.

The EURISCO coordination provided substantial legwork to the preparation of project proposals (Horizon2020 and others) aiming at acquiring additional funding for developing certain aspects of EURISCO.

Much effort was invested into providing a helpdesk "behind the scenes". Direct, personal communication took place with National Inventory Focal Points and National Coordinators (e.g. support for updates, provision of specific database queries and special data export formats, discussion about future developments).

In 2015, 28 productive updates of National Inventory datasets were performed, either completely or in parts. Within the last 12 months, the number of accessions increased by 722,373, reaching a total of 1,837,368 accessions from 43 National Inventories and 375 individual holding institutions by 23 December 2015. These accessions represent 6,234 unique genera and 41,642 species, respectively.