

# EURISCO Coordinator Report 2004 – 2008

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## ECPGR Phase VII

### 2004

In 2004 the ECPGR budget included a contribution of 50,000 euro for the maintenance and development of the EURISCO Catalogue in 2004-2008 including: training for National Focal Points (NFPs); improving the uploading mechanism; and improving the web interface and user-friendliness of the catalogue.

A Memorandum of Understanding (MoU) regarding collaboration on the development of EURISCO between IPGRI (now Bioversity International), on behalf of the ECPGR Secretariat, and the NFPs of the National Plant Genetic Resources Inventories (NIs) was signed by all 41 countries participating in EURISCO for the period 2004-2009. Of all the countries expected to participate in the EURISCO initiative, only Belarus and Bosnia and Herzegovina had not yet identified an NFP.

A joint meeting of the EURISCO Advisory Group and the ECPGR Documentation and Information Network Coordinating Group was held in Wageningen, The Netherlands with the objective of setting the scene for preparation of a new project proposal to further develop EURISCO and the European PGR documentation system.

During this year, the ECPGR central crop databases had progressively adopted the EURISCO Multi-crop Passport Descriptors. Some of these databases were created with data downloaded from the EURISCO Catalogue.

In addition, the EURISCO Catalogue was further developed. Its intranet was updated and incoming NIs were made available online. The help-desk mechanism was used to: assist the new NFPs in accurately and effectively using the upload mechanism; respond to information requests (various dataset compilations were edited and provided upon request); and compile a list of features to be implemented in the near future.

Maintenance of the Catalogue included ancillary data synchronized throughout the year (the FAO institute code table needed to be manually downloaded, cleaned and loaded into the system). A series of predefined views were developed to address specialized dataset download requests. The upload procedure was also revised to make the process faster and more reliable. This process was changed from an 'online session' to a 'batch session' in order to allow interaction with users without being hindered by the import procedure. All batch procedures were converted to system scripts to allow transparent scheduling of activities. Import-checking procedures were revised to correct errors, extract more information and allow more flexibility in providing data. A new backup

mechanism was implemented to ensure that data could be restored in a short time if some system or hardware malfunction occurred; and other routine testing and maintenance was undertaken.

During this year, the following activities were planned for future implementation: improvement of the upload mechanism; improvement of the web interface and user-friendliness of the catalogue; options for searching and viewing; and training to NFPs.

After Brigitte Laliberté left her position at the Regional Office for Europe in early 2004, Bioversity hired and funded new staff to support the maintenance and development of EURISCO. Since December 2004, Sónia Dias has been dedicating 50% of her time to EURISCO.

## 2005

In 2005, EURISCO provided access to passport information on over 900,000 plant genetic resources accessions maintained *ex situ* in 25 European countries. The second joint meeting of the EURISCO Advisory Group and the Network Coordinating Group was held in Bonn, on 11 April 2005.

Following the recommendations of the EURISCO Advisory Group, several actions were accomplished, including help-desk support, technical development, maintenance and public-awareness activities.

Help-desk support is a continuing service responding to various requests, from clarifications on the use of EURISCO, to providing specific datasets to NFPs, ECCDB managers and other users. The coordination and management of the EURISCO Catalogue consisted of maintaining close contacts with NFPs and increasing the contribution of data, as well as ensuring data quality. The number of accessions documented in EURISCO increased to over 970,000 and two new NIs (Greece and Poland) joined.

Technical development and maintenance of EURISCO were undertaken as follows: site maintenance was performed by doing data integrity checks, system libraries updates, backup and periodic checks of the software. System development included improvement of data-check procedures. Minor syntax errors that used to be flagged as "errors", are now automatically corrected and only flagged as "warnings". Periodic updates of the FAO institutes table were made, and the download format of the institutes table was improved in coordination with Stefano Diulgheroff of FAO. The dataset-download procedure also underwent revision and improvement.

Public-awareness and dissemination activities were carried out at several international *fora*, including demonstrations, PowerPoint presentations and a technical poster, fact sheet, bookmarks and stickers. EURISCO was also presented in a workshop organized by Bioversity's Regional Office for the Americas in Cali, Colombia (September 2005). On

this occasion, a demonstration was given of the adoption of the EURISCO model for implementation of an accession-level platform in the Americas region (AMERISCO). Articles on EURISCO and related activities can be found in Bioversity's Regional Newsletter for Europe (issues 30 and 31). During 2005, two monitoring surveys were undertaken targeting the EURISCO Catalogue and NIs. In addition, web logs were created for identification of users and analysis of their needs.

A project proposal on the "Establishment of a European Plant Genetic Resources Information Infra-Structure-2" (EPGRIS-2) was submitted for funding under the first call for proposals of EC Regulation 870/2004. All European countries contributing data to EURISCO were expected to benefit from the activities, infrastructure and training included in the proposed project.

Sónia Dias dedicated 50% of her time to EURISCO and documentation-related activities. Milko Skofic dedicated two months of his time to the maintenance of EURISCO.

## **2006**

At the beginning of 2006, the data made available in the EURISCO catalogue was already approaching one million accessions and the downloading option was implemented, allowing easier retrieval of data by the users. Regular contacts with the NFPs to encourage and support them and strengthen the links between NIs and EURISCO were very fruitful. At the end of 2006, the Catalogue held information on approximately 998,000 accessions, representing an increase of 8.5% since the beginning of the year. During the year, one more NI became part of the EURISCO network, raising the total of participating NIs to 34. The number of visitors doubled during 2006 and continued to rise as dramatically in subsequent years.

During 2006, a monitoring survey took place and a thorough analysis of the survey's results was made available in the first of two EURISCO e-bulletins (May 2006). As a result of this survey, the most visible change in the system was a re-shaping and improvement of the download mechanism, making it more user-friendly, thorough and functional.

During the year, a special emphasis was put on dissemination to make EURISCO more visible, known and used. In addition to continuing contacts with NFPs and help-desk support, other activities included: two dissemination articles published in the Newsletter for Europe and three oral presentations in scientific meetings; and two in-house presentations to demonstrate the platform to partners in on-going European projects.

Public-awareness materials included two fact sheets produced in English and widely distributed in scientific and technical meetings throughout Europe. These materials were translated into other European languages by the NFPs as an in-kind contribution to the

system. The electronic version of these materials was made available on the EURISCO website.

EURISCO also took an important step forward in its mission to promote the conservation and sustainable utilization of biodiversity by becoming a Global Biodiversity Information Facility (GBIF) data provider (see full article: Newsletter for Europe, No. 33 – November 2006, p. 7).

Unfortunately, the project proposals submitted for funding under the first and second calls of EC Regulation 870/2004 (AGRI GEN RES) for EPGRIS-2 were not successful.

EURISCO maintenance activities included: ancillary data updates and synchronization; a series of predefined views to address specialized dataset download requests; revision of the upload procedure to make the process faster and more reliable; and other routine testing and maintenance.

## **2007**

The EURISCO catalogue passed the threshold of making information available on one million accessions, and reached almost 1.1 million accessions by the end of the year. There was also an increase in the number of NIs – by 2007, representing 35 European countries.

In 2007, the main efforts in EURISCO development were dedicated to improving the web interface, making the search options more user-friendly and expanding the download options. A major effort was made to develop a completely new web site and search functionalities, although the effects of this work were only visible in 2008.

During 2007, EURISCO activities focused on: improving data quality and quantity, especially taxonomy and GIS data; translating the two fact sheets into nine languages; updating the EURISCO database technology; web site redesign and updating; and monitoring visitors/users. To enhance the data quality and quantity in the EURISCO Catalogue, analyses were undertaken on taxonomy and GIS. As a result of this exercise, taxonomy reports on 31 NIs were generated, representing 220 institutions. GIS reports on 16 NIs were also produced. These reports were sent to the NFPs for data verification/correction at data-source level and subsequent uploading of the revised data to EURISCO. It is intended to make this data-quality monitoring exercise a routine activity.

The English version of the EURISCO fact sheets was updated in September 2007 and translated into nine other languages. Again, translations were offered as an in-kind input by the NFPs, while Bioversity provided layout and printing. The fact sheets are now available on the EURISCO web site in: Azerbaijani, Croatian, Czech, Danish, German, Norwegian, Romanian, Slovak and Turkish. Printed copies were distributed at scientific and technical meetings throughout Europe. The EURISCO poster was also

updated and distributed for further use. One EURISCO e-bulletin was produced and circulated in December 2007. Two dissemination articles were published in the Newsletter for Europe and four presentations were made in scientific meetings.

Considerable progress was made on the web site re-design and updating the database technology. The release of the new web site was planned for the end of 2007, but was rescheduled for 2008 due to technical constraints.

Monitoring of visitors to the EURISCO web site showed a marked increase in 2007. There was also an increase in the number of repeated users and general interest in the Catalogue is expanding geographically, having been visited from 125 countries compared to 68 countries in 2006.

Year	# Hits	# Page Viewed	# Visitors	Size
2005	31,225	11,498	599	441.32 MB
2006	79,903	36,703	2,401	937.76 MB
2007	111,730	54,378	5,229	1.54 GB
<b>Total</b>	<b>222,858</b>	<b>102,579</b>	<b>8,229</b>	-

Routine maintenance and updating was carried out for indexing EURISCO to GBIF as a data provider. EURISCO was also tested as a concept to be used for the global accession-level information system ("ALIS") on plant genetic resources.

A EURISCO external assessment: "Needs and Recommendations for Setting a Roadmap" was initiated in December 2007 with the support of Bioversity, and Iva Faberová of the Czech Republic was selected as the external evaluator.

A joint Meeting of the Documentation and Information (D&I) Network Coordinating Group and the EURISCO Advisory Group was held on 2-3 April 2007 at Bioversity's headquarters in Maccarese, Rome, Italy. This meeting was organized upon consideration that a recent EU proposal for a European PGR Information Infrastructure (EPGRIS2), and other proposals for projects contributing to an improved documentation infrastructure (AEGIS and EGRISI), were regrettably not approved for funding. The meeting concluded that a new initiative should be launched by the ECPGR D&I Network, consisting of a self-funded initiative called EPGRIS3. The objective of this initiative is to coordinate ongoing, self-funded voluntary actions proposed by European partners for the improvement of the European plant genetic resources information infrastructure. EPGRIS3 specifically aims to achieve a number of work-plan elements, related to: the vision and scope of EURISCO; data quality and quantity in EURISCO; the upload mechanism; user interfaces; and networking of national focal points.

The meeting also concluded that EURISCO will need to be developed as the entry point for access to all information on European PGR at the accession level.

## 2008 (until May)

One of EURISCO's main objectives is to promote the conservation and facilitate the sustainable utilization of PGR for the benefit of the present and future generations. This mission goes hand in hand with that of making information and associated germplasm data, widely and freely available to users through the Internet.

EURISCO now contains information on more than 1.1 million accessions. This has only been possible due to the frequent updating of the NIs data and the establishment of new NIs.

The first attempt to improve data quality was made in 2007 with the taxonomy and GIS reports to NFPs; these and other activities have been carried out during 2008 with the objective of following up and improving the data available through the NIs to EURISCO. To date, not all NIs are available: Albania, Belgium, Croatia, Malta, Moldova and Turkey are either building their NIs or are finalizing them and have not yet uploaded them to the Catalogue. Beginning in 2008 and for the next five years, EURISCO will turn a new page, focusing on the future road map for development, deployment and sustainable support to the network.

In order to address these needs and bridge the gap between capacities at all levels, an external assessment of the overall EURISCO operation was conducted. The main objective of this assessment was to develop a strategic document evaluating the strengths and weaknesses of the Catalogue and recommending further developments for the next five years. The assessment was conducted in consultation with all NFPs and end users, with support from Bioversity; it began in December 2007 and lasted until April 2008. The final report and the EURISCO road map for the next five years will be publicly available when finalized.

In the remainder of 2008, further efforts will be undertaken to consolidate the Catalogue as the "one-stop shop" for information on *ex situ* plant collections that enables users to search and access information on crops, forages, wild and weedy species, farmers' varieties and breeding lines maintained in European collections. The strengthening of its content, improvement of data quality, and update of technology for both data providers and for the database are the top priorities. All these activities will be undertaken in consultation with the NFPs who provide data to EURISCO.

The re-design and update of the EURISCO web site are the major objectives for 2008, building on past efforts to make the site more user-friendly, useful and attractive.

The new EURISCO web site is in its final stage of preparation. A test version will be circulated for comments and suggestions among EAG members and a group of selected users, after which the revised final product will be made publicly available.

Currently, EURISCO offers researchers around the world a single entry point to plant diversity held by European countries, representing more than 1.1 million accessions across the European continent maintained in more than 239 European institutes, holding information on roughly 19% of total worldwide holdings and more than half of the accessions maintained in Europe. It is therefore time to rethink the overall approach and ensure that all NIs and NFPs are able to contribute to the Catalogue in a sustainable and consistent manner.

The greater objective for EURISCO is to reach 2 million – the estimated total number of accessions held in European collections. However, the quality of the data being made available is a major concern and a major challenge for EURISCO data providers.

Another objective is to discuss the possibility of making EURISCO the reporting mechanism for European countries to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). This would help countries to identify and flag their Multilateral System (MLS) material, and support “A Strategic Framework for the Implementation of a European Genebank Integrated System” (AEGIS); identifying Annex I materials would assist countries in meeting their obligations under the ITPGRFA as ratified by European countries. The possibility of including EURISCO in the global accession-level information system (“ALIS”) could also be seen as a key contribution to implementing a coherent global information system in the framework of the ITPGRFA.

The fourth meeting of the EURISCO Advisory Group was held on 12 March 2008, with the participation of EAG members and the ECPGR and EURISCO coordinators. The meeting was organized by the Central Office of the Federal Agency for Agriculture and Food (BLE) in Bonn, Germany. The meeting’s objectives were to analyze the status of EURISCO and to make plans for its technical and organizational progress.

The EAG agreed that the EURISCO 2008 work plan should focus on: continuing support to NIs and NFPs; integrating additional mechanisms in support of the ITPGRFA, including Standard Material Transfer Agreement (SMTA)-reporting procedure and the registration procedure for the MLS; improving the intranet-uploading mechanism; enhancing access to accurate information in EURISCO; and further improving website management and search components (highest priority).

### **Changes in the EURISCO Advisory Group**

Given that there was a large overlap between the members of the Documentation and Information NCG and the EAG, a proposal was made to reduce duplication of coordinating bodies along with a suggestion to incorporate all the tasks in the NCG, including the advisory role to EURISCO. The composition of the NCG will be enlarged, maintaining a balanced number of Central Crop Database Managers and NFPs, including NordGen and SEEDNet representatives as well as four *ex officio* standing guests (*in situ* and on-farm Network Coordinator, EURISCO Coordinator, ECPGR Coordinator, and IT representative of the institute hosting EURISCO). In this way, the EAG functions were transferred to the Documentation & Information NCG, which will also continue to operate as the EURISCO Advisory Group.

### **Insights:**

The significance of the EURISCO Catalogue will grow considerably in the near future with the implementation of the ITPGRFA and with AEGIS. The external EURISCO assessment was carried out during the first four months of 2008 in order to develop recommendations for improving EURISCO by assessing its functionalities from users' perspectives after five years of operation. The evaluation report highlights the strengths and weaknesses of the Catalogue and summarizes recommendations for further developments in the next phase of activities. The report describes the current status of EURISCO, analyses the survey results and includes a set of recommendations and annexes.

For the survey, two sets of detailed questionnaires were prepared: one addressed to NFPs and the second addressed to Central Crop Database Managers (CCDB). A third more limited set of questions regarding the utilization of EURISCO was posed to the participants of the Cereals Network Group meeting held at Foça, Turkey, 22-24 April 2008.

The assessment shows that skilled users (NFPs and CCDB Managers) reported very positive experiences with the current EURISCO platform and functionalities. The views of common users represented by the Cereal Network Group members were also important in the evaluation.

The NFPs expressed the need for capacity building and all users stressed the necessity of raising awareness of the EURISCO Catalogue. The importance of the Catalogue was acknowledged and all participants expressed a strong willingness to further improve data quality and support further development of EURISCO.

Future directions for EURISCO, recommendations and road map have been elaborated for activities from 2008 to 2013, covering: EURISCO outreach; data quantity and quality; upload mechanism; web services and user interface; NFPs; promoting the use of EURISCO; EURISCO in the global system; and priority setting.

Over the past several years, Bioversity has provided funding for the half-time EURISCO Coordinator and documentation-related activities in Europe, as well as technical inputs to the maintenance and development of EURISCO. Other Bioversity staff from the Biodiversity Informatics project that contributed to today's achievements includes Samy Gaiji, Milko Skofic and Raj Sood.

## Summary

The EURISCO Catalogue contains information from the National Inventories (NIs) of 35 European countries and is available online. The information provided by the Catalogue is based on agreed information exchange standards and in 2008 surpassed 1.1 million accessions maintained in more than 235 European institutions. The flow of information made available to users is assured in a simple and straightforward way, through each country's National Focal Point (NFP). All documentation and standardization work has been provided by the institutions/genebanks and NFPs, and has proven to be mutually beneficial – to the individual participating countries and to the network.

The sustainable use of genetic material is determined by the information available about that material, and the more accurate that information is, the more users will find and use the material. In addition, interest in these materials is raised by value added to them by associated information. Despite all the efforts already made however, more must be done in order to meet the very diverse and growing needs of germplasm users.

For these reasons, EURISCO has been through constant review, modification and improvement. The re-design of the web site and database began in 2007, along with an external independent assessment commissioned by Bioversity to evaluate the Catalogue, identify strengths and weaknesses, and make recommendations for upcoming activities. The new website will have a novel design, a new database, and improved search functionalities as requested by the user community. This will include simple/advanced and multiple searches; easy downloads; a view of passport data; new public-awareness materials available for download; and several links to other important sources of information.

The EURISCO website and network will continue to grow in order to meet all users' needs for information on PGR. But for this to happen, constant updating and support is needed at the institutional, national and EURISCO levels. Requests have also been made for increased attention to implementation and to make available tools for improving data quality and quantity. Other activities that need to be taken forward include: help-desk support and visits to NFPs and other users; improving the upload mechanism; continuing the improvement of the website and interface; and public awareness and dissemination activities. For other activities such as the MLS registration, the SMTA reporting mechanism and the AEGIS flag, additional funding needs to be sought from existing networks or other sources. A germplasm ordering toolkit should also be implemented in EURISCO.

The inclusion of characterization data in EURISCO should be strongly considered and implemented whenever possible. The revision of the EURISCO descriptors, including the need for clarification and addition of new fields, is another urgent activity, especially if EURISCO is to be an important element of a global information system. In 2009, it will be necessary to revise and renew the EURISCO MoU, which would permit its entry into force on 1 January

2010. It will also be important to empower NFPs by establishing a “NFP working group” in which all relevant issues can be discussed and decisions made, with advice from the D&I NCG in its role as EURISCO Advisory Group. This will also provide an opportunity for NFPs to meet and exchange experiences and knowledge.

Bioversity has been providing funding for the half-time EURISCO Coordinator and documentation-related activities in Europe, as well as technical inputs into the maintenance and development of EURISCO. Other Bioversity staff that contributed to EURISCO’s achievements includes Samy Gaiji, Milko Skofic and Raj Sood.

# EURISCO

## Proposal for budget allocation in ECPGR Phase VIII

Budget allocation: 45 000 euro

by ECPGR Secretariat  
by Sónia Dias

**Table 1. Specific ECPGR budget line “EURISCO“ - EURISCO Budget proposal**

Date	Activity	ECPGR contribution (euro)
	<b>EURISCO</b>	
	Maintenance (such as: database, website and interface), helpdesk-network support (such as: visiting NFPs, and EURISCO network data providers, improvement of uploading mechanism) and development activities (such as: database, infrastructure, and dissemination) for EURISCO	45000