

# PGRFA documentation landscape - focus on *in situ* and on farm

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on behalf of

ECPGR Documentation and  
Information Network

## *PGRFA documentation landscape (focus on in situ and on farm)*

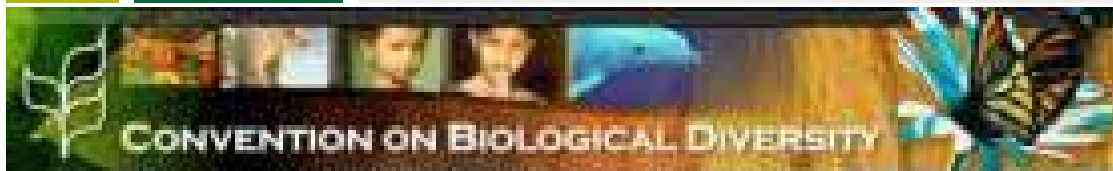
### Outline

- Introduction
  - Policy framework, documentation requirements arising from international, regional, national level
- Current state of European PGRFA *ex situ* documentation
- *In situ* / on farm activities
- Recommendation / Vision

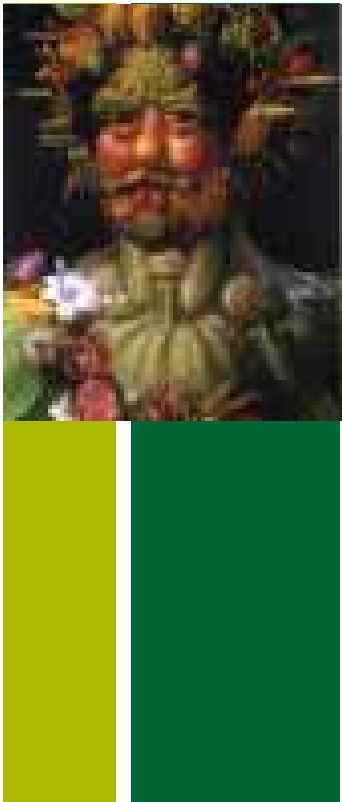
## *Introduction:* **Policy framework**

### The Convention on Biological Diversity (CBD)

- The conservation of biological diversity
- The sustainable use of the components of biological diversity
- The fair and equitable sharing of the benefits arising out of the utilization of genetic resources



## *Introduction:* **Policy framework**



### International Treaty on Plant Genetic Resources for Food and Agriculture

- 125 Contracting Parties incl. European Union (as of August 2010)
- Calls for the conservation and sustainable use of plant genetic resources
- Contracting Parties agreed to establish an efficient, effective and transparent Multilateral System to facilitate access to plant genetic resources for food and agriculture

## *Introduction:* **Obligations**

Countries (ratifying CBD and/or Treaty) agreed upon the need for the conservation (*ex situ* and *in situ*) and sustainable use of PGRFA.

Documentation is one of the keys to promote conservation and use

- National obligations
  - Special needs / requirements (e.g. scope, quality)
- Regional / international coordination

## *Introduction:* **Policy framework**

### EU regulations related to PGR

- COUNCIL REGULATION (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD)
  - Article 39 Agri-environment payments
    - 5. Support may be provided for the conservation of genetic resources in agriculture for operations not covered by the provisions under paragraphs 1 to 4

*...support may relate to...preserve **plant genetic resources** naturally **adapted to local and regional conditions** and **under threat of genetic erosion.***

## *Introduction:* **Policy framework**

### EU regulations related to PGR

- COMMISSION DIRECTIVE 2008/62/EC providing for certain derogations for acceptance of agricultural landraces and varieties which are naturally adapted to the local and regional conditions and threatened by genetic erosion and for marketing of seed and seed potatoes of those landraces and varieties
  - ....acceptance for inclusion in the national catalogues of varieties of agricultural plant species, ...., of landraces and varieties which are naturally **adapted to the local and regional conditions** and **threatened by genetic erosion**

*.....conservation varieties.....*

## *Introduction:* **Policy framework**

### EU regulations related to PGR

- COMMISSION DIRECTIVE 2009/145/EC providing for certain derogations, for acceptance of **vegetable landraces and varieties** which have been traditionally grown in particular localities and regions and are threatened by genetic erosion and of **vegetable varieties with no intrinsic value for commercial crop production** but developed for growing under particular conditions and for marketing of seed of those landraces and varieties
  - .....*conservation varieties*.....
  - .....**varieties developed for growing under particular conditions**.....

## *Introduction:* **Policy framework**

### European Cooperative Programme for Plant Genetic Resources (ECPGR)

- Infrastructure for pgrfa (focus on *ex situ*)
  - AEGIS (A European Genebank Integrated System)
  - EURISCO
- External Review
  - Recommendation to include both *in situ* crop relatives' populations and on farm managed landraces in AEGIS/EURISCO

## *Introduction:*

# Implementation at national level

Addressing documentation requirements at the national level (German example)

- Agri-environment programs, e.g. based on EU 1698/2005 (-> **list of eligible varieties, landraces**)
- Directives for the implementation of the EU seed directives for conservation varieties and varieties developed for growing under particular conditions..... (-> **catalogue of conservation varieties, ...**)
- Reference Lists with pgrfa adapted to the local and regional conditions and threatened by genetic erosion (-> **Red Lists e.g. Red List of Endangered Indigenous Domesticated Plants in Germany**)
- *In situ* documentation of pgrfa (-> e.g. **Reporting and monitoring in-situ-conservation of CWR in Brandenburg**)

All included in the German National Inventory PGRDEU !

## Conclusions part I

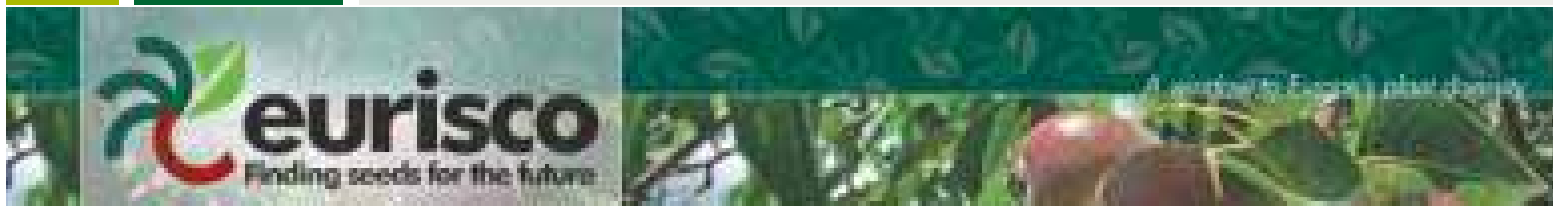
- A system for documentation of PGRFA *in situ* and on farm must be able to serve documentation requirements arising from
  - international,
  - regional, and
  - national level.

## Current state of European pgrfa documentation – *ex situ*

European Plant Genetic Resources Search Catalogue

EURISCO (<http://eurisco.ecpgr.org>)

- web-based catalogue, provides information about *ex situ* plant collections maintained in Europe
- current content: passport data on > 1 million samples from 5,393 genera and 34,473 species from 41 countries



## Current state of European PGRFA documentation – ex situ

European Plant Genetic Resources Search Catalogue  
EURISCO (<http://eurisco.ecpgr.org>)

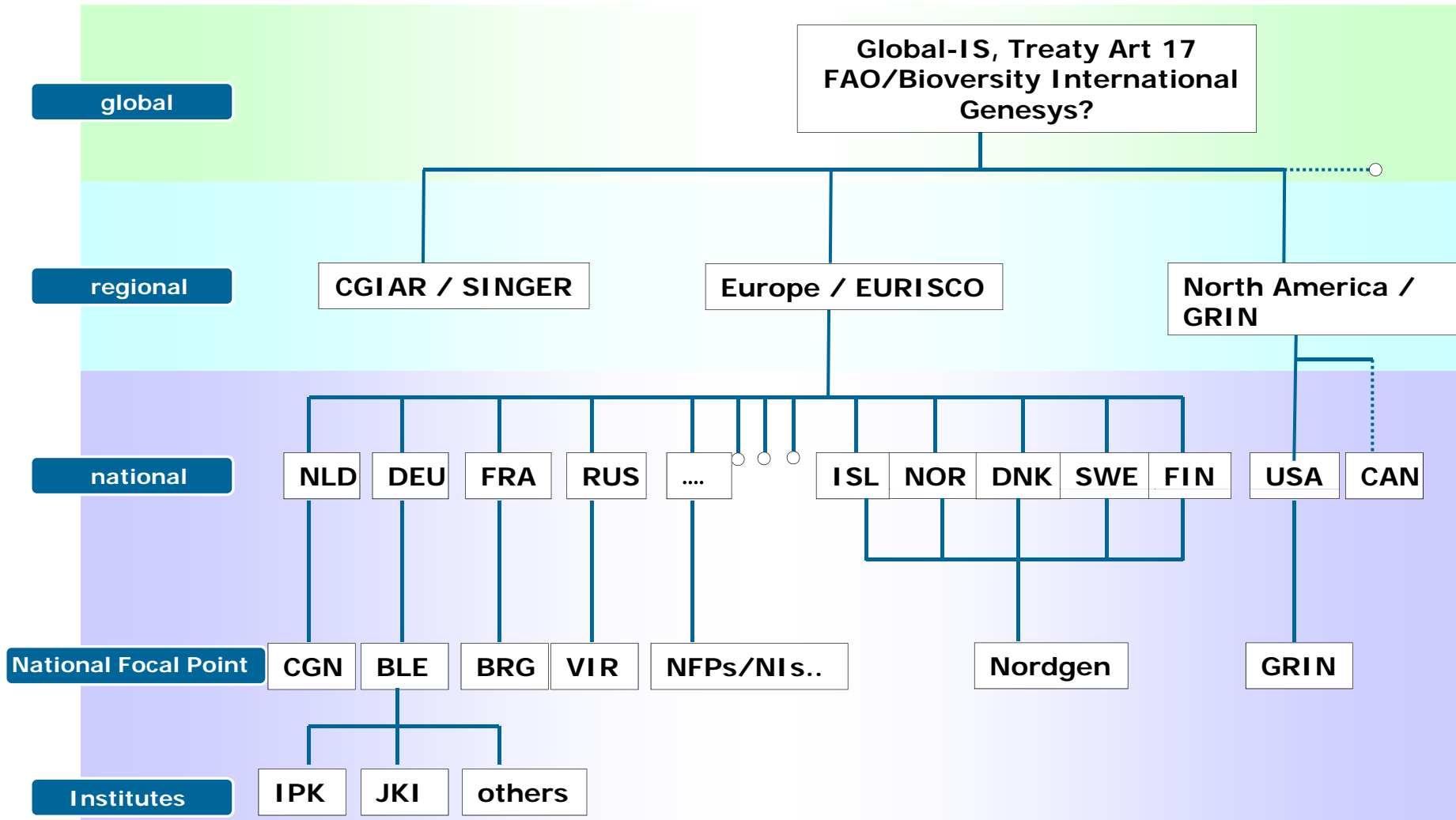
- based on a European network of *ex situ* National Inventories (NIs) / National Focal Points (NFPs)
- standards for data exchange (EURISCO Descriptor List)

key elements



EUROPEAN PLANT GENETIC RESOURCES SEARCH CATALOGUE	
<b>1. National Inventory code</b>	<b>(NINCODE)</b>
Code identifying the National Inventory, the code of the country (according to the National Inventory) if available and optional. If omitted EURISCO will be used.	
Example: 012	
<b>2. Institute code</b>	<b>(INFICODE)</b>
FACIL Institute Code of the institute where the inventory is maintained.	
Example: 01001	
<b>3. Accession number</b>	<b>(ACCNUM)</b>
The accession number as a unique identifier for accession within a particular collection, and it is assumed that a sample is linked to the particular collection.	
Example: 000101014	
<b>4. Collecting number</b>	<b>(COLLNUM)</b>
Unique number assigned by the collector of the sample, normally composed of the name of the collector followed by a number. This format is recommended, although optional, for all accessions.	
Example: F1001014	
<b>5. Collecting institution code</b>	<b>(COLLINST)</b>
Code of the collecting institution/collector. If the collecting institution has adopted the national inventory code (NINCODE) it should be the same as the National Inventory code (NINCODE).	
Example: 01001	
<b>6. Origin</b>	<b>(ORIGIN)</b>
Global codes for origin, in some instances national codes are used.	
Example: 011001	
<b>7. Species</b>	<b>(SPECIES)</b>
Name of the species of the sample, using the international botanical nomenclature. Priority should be given to the name of the species.	
Example: Triticum aestivum	

# Existing *ex situ* information infrastructure



## Conclusions part II

- EPGRIS (*European Plant Genetic Resources Information Infra-Structure*) proved to be successful
  - Bottom up
    - Data provider – NI / NFPs – EURISCO
  - Standards for data exchange (EURISCO Descriptors)

## In situ / on farm activities

- ECPGR Priorities for Phase VIII (2009-2013)
  - ....
  - (3) *In situ* and on farm conservation and management
  - (4) Documentation and information



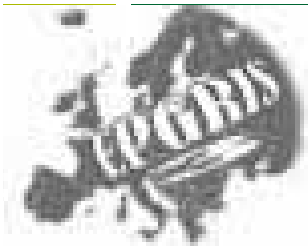
## In situ / on farm activities

- ECPGR On farm Conservation and Management Working Group
  - ....
  - **Minimum descriptors list** for the documentation of on farm conservation and management activities (38 descriptors)

The image shows a screenshot of a spreadsheet or data table. It has several columns and rows, with some text visible in the header and body. The text is somewhat blurry but appears to be a list of descriptors or data points. The table is organized into columns, with some headers in bold or larger font. The overall appearance is that of a digital document or software interface used for data collection or management.



## In situ / on farm activities



### ECPGR Documentation and information Network

- EPGRIS3 project - European Plant Genetic Resources Information Infra-Structure
  - Activity 3-04): Inclusion of *in situ* and on farm information in EURISCO (...no activities so far...)
- **Network of 25 ECPGR *in situ* / on farm National Inventory Focal Points** nominated by National Coordinators

European Cooperative Programme for Plant Genetic Resources

2014 - 25 ECPGR *in situ* / on farm National Inventory Focal Points

Country	Name	Address	Phone
Belgium	Dr. Ingrid Van Breda	Plant Genetic Resources Centre Kortrijk University Sint-Pietersnieuwstraat 33 B-8500 Kortrijk Belgium	+32 (0)3 821 35 11
Denmark	Dr. Søren Ege	Plant Genetic Resources Centre Danmarks Plantegenetiske Ressourcer København Denmark	+45 33 92 20 00
France	Dr. Sylvain Brabant	Plant Genetic Resources Centre INRA UR1213 1797 Route de Melle F-79100 Melle France	+33 (0)5 49 49 30 00
Germany	Dr. Ingrid Van Breda	Plant Genetic Resources Centre Kortrijk University Sint-Pietersnieuwstraat 33 B-8500 Kortrijk Belgium	+32 (0)3 821 35 11
Italy	Dr. Roberto Biondi	Plant Genetic Resources Centre INRA UR1213 1797 Route de Melle F-79100 Melle France	+33 (0)5 49 49 30 00
Spain	Dr. Roberto Biondi	Plant Genetic Resources Centre INRA UR1213 1797 Route de Melle F-79100 Melle France	+33 (0)5 49 49 30 00
Sweden	Dr. Søren Ege	Plant Genetic Resources Centre Danmarks Plantegenetiske Ressourcer København Denmark	+45 33 92 20 00
United Kingdom	Dr. Søren Ege	Plant Genetic Resources Centre Danmarks Plantegenetiske Ressourcer København Denmark	+45 33 92 20 00

## In situ / on farm activities

PGR Forum (European Crop Wild Relative Diversity Assessment and Conservation Forum)

[www.pgrforum.org](http://www.pgrforum.org)

- EC-funded project (2002-2005)
- 23 partners from 21 countries
- Crop Wild Relative Information System (CWRIS)
- **Methodologies for management of CWR data, with a particular emphasis on site and population data**



## In situ / on farm activities

Crop Wild Relatives Global Portal

[www.cropwildrelatives.org](http://www.cropwildrelatives.org)

- .....descriptors for CWR data...



## *Conclusions III:* **What is already available?**

- Networks
  - ECPGR Documentation and Information Network
    - Network of *in situ* / on farm 25 NFPs
    - EPGRIS3
  - ECPGR In situ and On-farm Conservation Network
- Information systems (but data?)
  - EURISCO (accession level, but no *in situ* / on farm data) yet
  - CWRIS PGR Forum Crop Wild Relative Information System (taxon level)
  - Crop Wild Relatives Global Portal
  - *Population / observation level data?*
- *Data standards*
  - *Some draft standards for exchange of in situ / on farm data (incl. e.g. Bioversity Descriptors for Traditional Knowledge)*

## Recommendations I

- Development and agreement of one standard for exchange of *in situ* and on farm data
  - draft by ECPGR (both networks)
  - agreement sought between ECPGR, Bioversity and FAO
- Development of NIs for *in situ* / on farm
  - create NIs (if not existing) and compile data
  - create interface for data exchange from NIs to EURISCO according to agreed standard
  - capacity building / training

## Recommendations II

- Include data structure for inclusion of in situ / on farm data into EURISCO
- Transfer mechanism of data from NIs to EURISCO

## Vision for a coherent documentation for PGRFA (*ex situ* & *in situ/on farm*)

