

Inclusion of Material in the Multilateral System: The German and European Information Management System on PGRFA

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*Inclusion of Material in the Multilateral System:
The German and European Information Management
System on PGRFA*

- Information Requirements under the Treaty
- Inclusion of Material in Germany
- Existing information infrastructure in Germany
- Existing information infrastructure in Europe
- Conclusions

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Information requirements under the Treaty

Contracting Parties' responsibilities

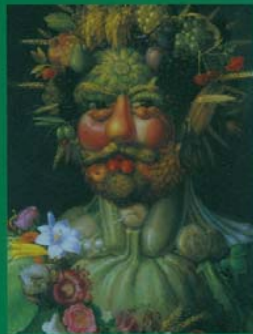
- Art 13.2(a): Exchange of information¹ as part of the BS in the MLS
 - ⇒ catalogues & inventories of PGRFA
 - ⇒ information on technologies, technical, scientific & socio-economic research
 - ⇒ characterization & evaluation & utilization - data



such information shall be made available through
Article 17 Global Information System

¹where non-confidential, subject to applicable law and in accordance with national capabilities

THE INTERNATIONAL TREATY
ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE



Information requirements under the Treaty

Contracting Parties' responsibilities

- Art 17: all PGRFA
 - ⇒ global information system on PGRFA in cooperation with CHM of CBD
 - ⇒ incl. early warning component
 - ⇒ serve update of SWPGR and Global Plan of Action (GPA)



not yet existing...but to be developed based on **existing** information systems

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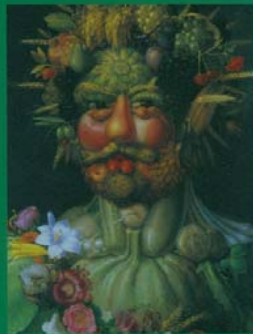


Information requirements under the SMTA of the Treaty

Providers and Recipients' responsibilities

- Provider reports to Governing Body
 - ⇒ Art 5(e): periodic reports on SMTA from Provider to Governing Body
- Recipient reports to Multilateral System
 - ⇒ Art 6.9: information on R&D-data from recipient to MLS via Art. 17 info system
 - ⇒ no direct reporting back from Recipient to Provider
- Third Party Beneficiary (FAO) needs information
 - ⇒ Art 4.4: TPB right to request appropriate information 5(e), 6.5(c), 8.3, Annex 2.3

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Inclusion of Material in Germany



Infrastructure for ex-situ conservation

- Genebank for Agricultural and Horticultural Crops, *Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)*
- German Genebank for Fruit Crops, *network coordinated by Julius Kuehn Institute (JKI)*
- Tobacco Genebank, *Agricultural Technology Centre*
- German Genebank for Ornamentals, *network under development*
- German Genebank for Grapevine, *network under development*
- German Genebank for Crop Wild Relatives, *in planning*

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Coverage of the MLS: Annex 1 crops

- *...governments include material under their management and control and in the public domain...(Art 11.2)*
- *... governments invite all others to include their material...(Art 11.2)*
- *... governments take appropriate measures to encourage others to include their material ...(Art 11.3)*



Inclusion of Material in Germany

Implementation steps

1. Information of relevant stakeholders
2. Introduction of the SMTA
3. Inclusion of Material in the MLS at genebank level
4. Inclusion of Material in the MLS by the Contracting Party



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1. Information of relevant stakeholders

- Courtesy translation of the SMTA (agreed with Switzerland and Austria)
- Information of competent authorities and relevant public institutions as well as the private sector
 - by letters (December 2006)
 - through the National Programme / Committee
- Compilation of explanatory notes on the main elements of the SMTA (obligations, BS, TPB etc.)
- Website with above mentioned information and FAQs
- BLE & BMELV acted as contact points to provide information to all stakeholders, answering questions and / or giving support and advice

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2. Introduction of the SMTA

- It has to be distinguished between PGRFA of Annex I species, that are under the direct control of the Contracting Parties (Art 11.2) and between PGRFA included in the MLS by natural and legal persons under the jurisdiction of the Contracting Parties (Art 11.3)
 - Collection holders under the direct control of the Federal Ministry were instructed to introduce the SMTA
 - Collection holders under the control of the *Laender* and / or local authorities were requested to introduce the SMTA
 - All other collection holders (mixed, private) were invited to use the SMTA as appropriate

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2. Introduction of the SMTA



- The German Genebank for Fruit Crops, coordinated by JKI, introduced the SMTA for its *Malus* and *Fragaria* collections
- The genebank of the IPK introduced the SMTA for all Annex I species
 - Amendment of the IPK Genebank Statutes
 - Amendment of the Genebank Information System GBIS/I (SMTA, „click-wrap“ option etc.)

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3. Inclusion of Material in the MLS at genebank level

- a) Identification of accessions of Annex I species in the taxonomic part of the respective genebank documentation systems
- b) Identification of accessions of Annex I species in the respective collections that are in the public domain

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3. Inclusion of Material in the MLS at genebank level

- a) Identification of accessions of Annex I species in the taxonomic part of the respective genebank documentation systems
- Annex I follows in general the broad genepool concept by defining a crop through the respective genus or genera
 - all species of the crop genepool and their infraspecific taxa marked with an "Annex I flag"
 - Taking into account the specific exceptions, where certain species were excluded (e.g. *Musa textilis*) or only one species is included (e.g. *Manihot esculenta*)
 - Taking into account synonyms (n:m!) and other available taxonomic information

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3. Inclusion of Material in the MLS at genebank level

- b) Identification of accessions of Annex I species in the respective collections that are in the public domain
- Check of possible restrictions (e.g. black-box-arrangement)
 - Varieties with existing variety protection were not included in the MLS (such varieties are available for further research and breeding from the respective protection holders of these varieties)
 - Marking of all public domain accessions

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3. Inclusion of Material in the MLS at genebank level

- The processes of step a) and step b) had been added to the standard genebank routines, to guarantee, that these procedures will be applied to new material entering the genebank or in cases the taxonomy of material is re-determined
- In a last step MLS Material then could be easily determined by matching the information gained by these two steps ("Annex I flag" and "Public domain") and flagged as MLS material in the genebank documentation systems such as GBIS/I in the case of IPK

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4. Inclusion of Material the MLS by the Contracting Party

- Amendment of the data structure and the exchange format at national level
- Flag for MLS material in the National Inventory PGRDEU (April 2008)
- Through written communication, the Secretary of the Treaty was informed about the German contribution to the MLS (July 2008)

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Lessons learnt at national level (I)

- Early and comprehensive information of the relevant stakeholders on the national implementation of the MLS and the SMTA by the respective authorities is important
- Existing “infrastructure” for cooperation such as a National Programme for PGRFA with a National Coordination Committee and a National Inventory (documentation system) should be used as much as possible

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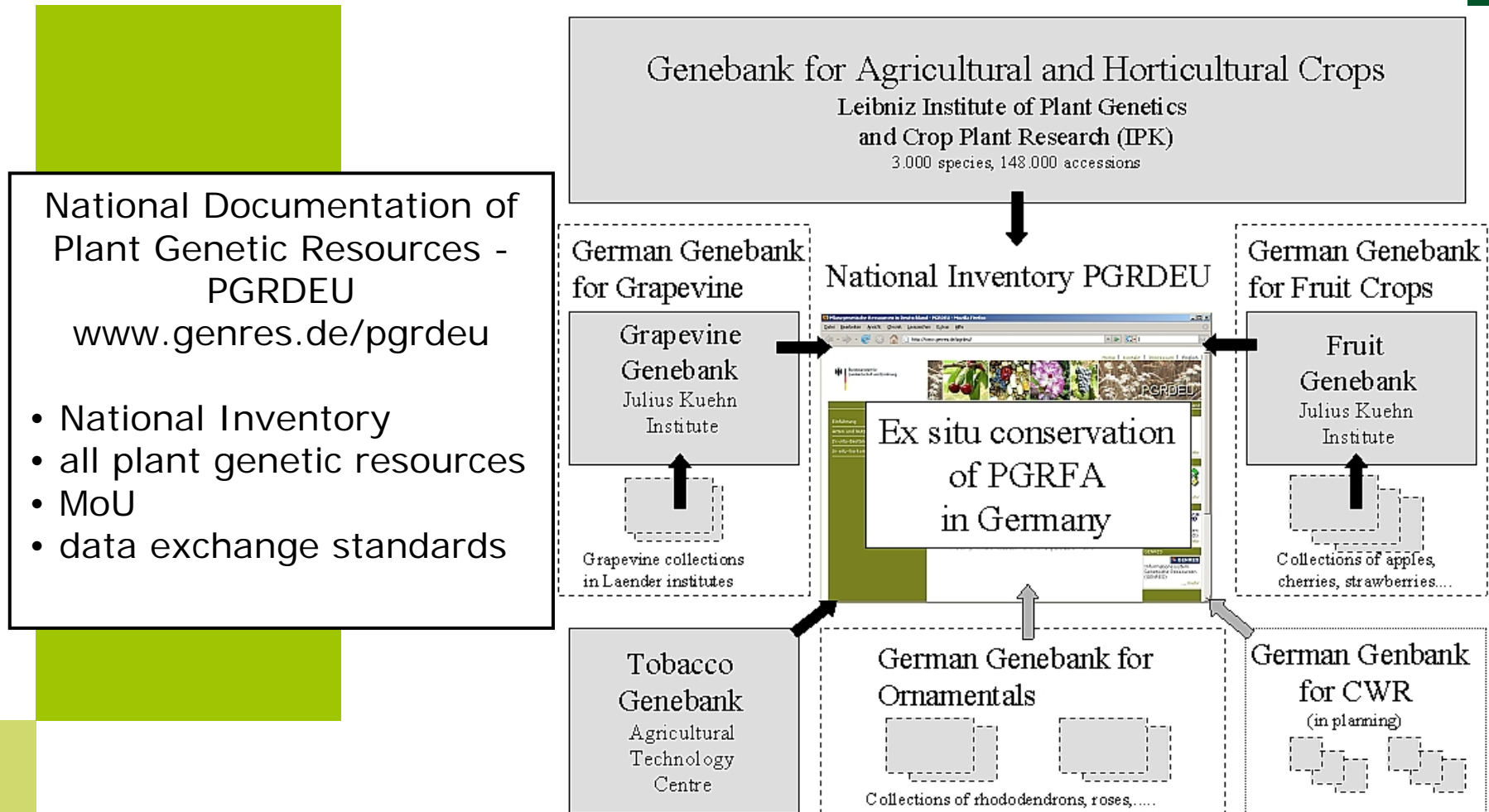
Lessons learnt at national level (II)

- The text of the SMTA is not self-explanatory, especially for users not speaking UN languages. There is a need for assistance through experts giving guidance and / or a courtesy translation in the national language. Explanatory notes, FAQs etc. are useful in order to facilitate the implementation of the MLS and the SMTA at national level
- General guidelines on how to include material in the MLS at the collection level (e.g. identification of public domain accessions) could be helpful

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Existing information infrastructure in Germany



Existing information infrastructure in Germany

National Inventory PGRDEU

DEU included
108,000
accession in the
MLS

The screenshot shows the website for 'Plantgenetic Resources in Germany' in a Mozilla Firefox browser. The page features a navigation bar with links for 'Datei', 'Bearbeiten', 'Ansicht', 'Chronik', 'Lesezeichen', 'Extras', and 'Hilfe'. A secondary navigation bar includes 'Home', 'Contact', 'Imprint', and 'Deutsch'. The main content area is titled 'PGRDEU' and includes a search section with the following fields:

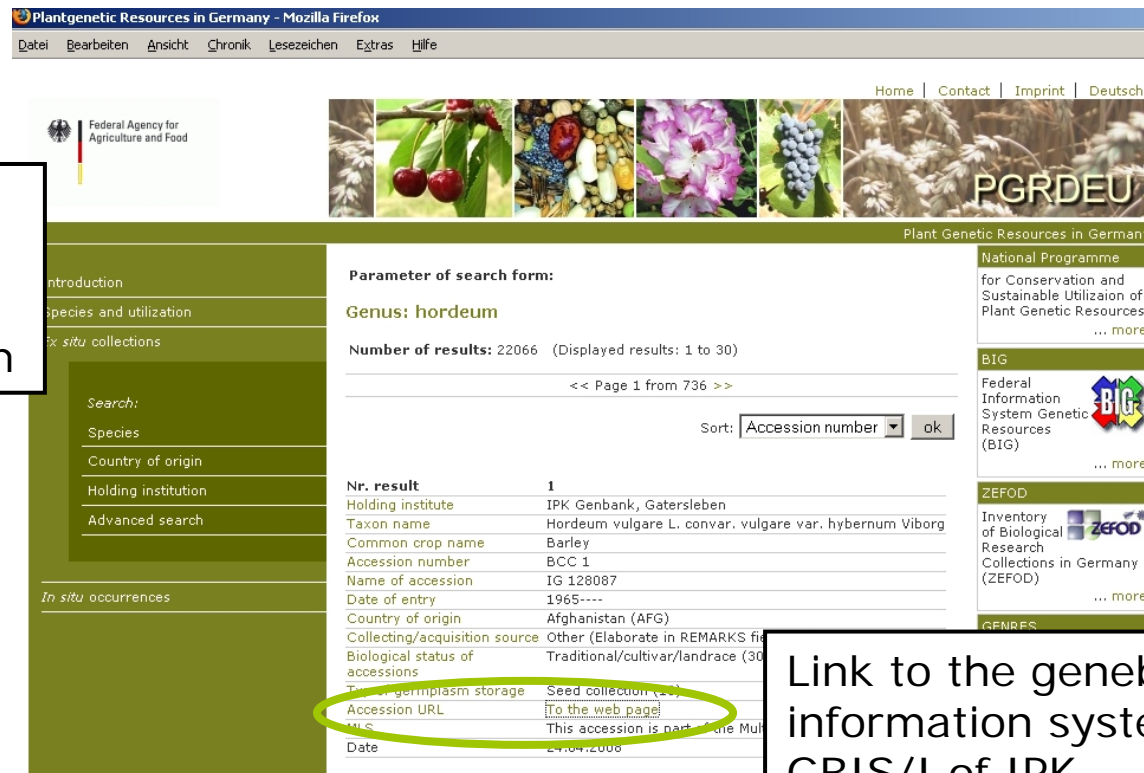
- Advanced search**
- Multilateral System (MLS)**: A dropdown menu with options 'Please select' and 'Yes - is part of the MLS' (highlighted).
- Institute code**: A text input field with 'Please select'.
- Country of origin**: A dropdown menu with 'Please select'.
- Taxonomy**: Fields for **Genus**, **Species**, and **Subtaxa**.
- Accession number**: A text input field.
- Accession name**: A text input field.
- Other number associated with accession**: A text input field.
- Search**: A button.

On the right side, there are several informational boxes: 'National Programme for Conservation and Sustainable Utilizaion of Plant Genetic Resources', 'BIG (Federal Information System Genetic Resources)', 'ZEFOD (Inventory of Biological Research Collections in Germany)', and 'GENRES (Information System Genetic Resources)'.

Existing information infrastructure in Germany

National Inventory PGRDEU

Query for
MLS = yes
&
Genus = Hordeum



Plantgenetic Resources in Germany - Mozilla Firefox

Home | Contact | Imprint | Deutsch

Federal Agency for Agriculture and Food

Parameter of search form:
Genus: hordeum

Number of results: 22066 (Displayed results: 1 to 30)

<< Page 1 from 736 >>

Sort: Accession number ok

Nr. result	1
Holding institute	IPK Genbank, Gatersleben
Taxon name	Hordeum vulgare L. convar. vulgare var. hybernum Viborg
Common crop name	Barley
Accession number	BCC 1
Name of accession	IG 128087
Date of entry	1965----
Country of origin	Afghanistan (AFG)
Collecting/acquisition source	Other (Elaborate in REMARKS field)
Biological status of accessions	Traditional/cultivar/landrace (30)
Temporary germplasm storage	Seed collection (24)
Accession URL	[Go to the web page]
MLS	This accession is part of one Multi-Accession
Date	24.04.2008

National Programme
for Conservation and Sustainable Utilization of Plant Genetic Resources
... more

BIG
Federal Information System Genetic Resources (BIG)
... more

ZEFOD
Inventory of Biological Research Collections in Germany (ZEFOD)
... more

GENRES

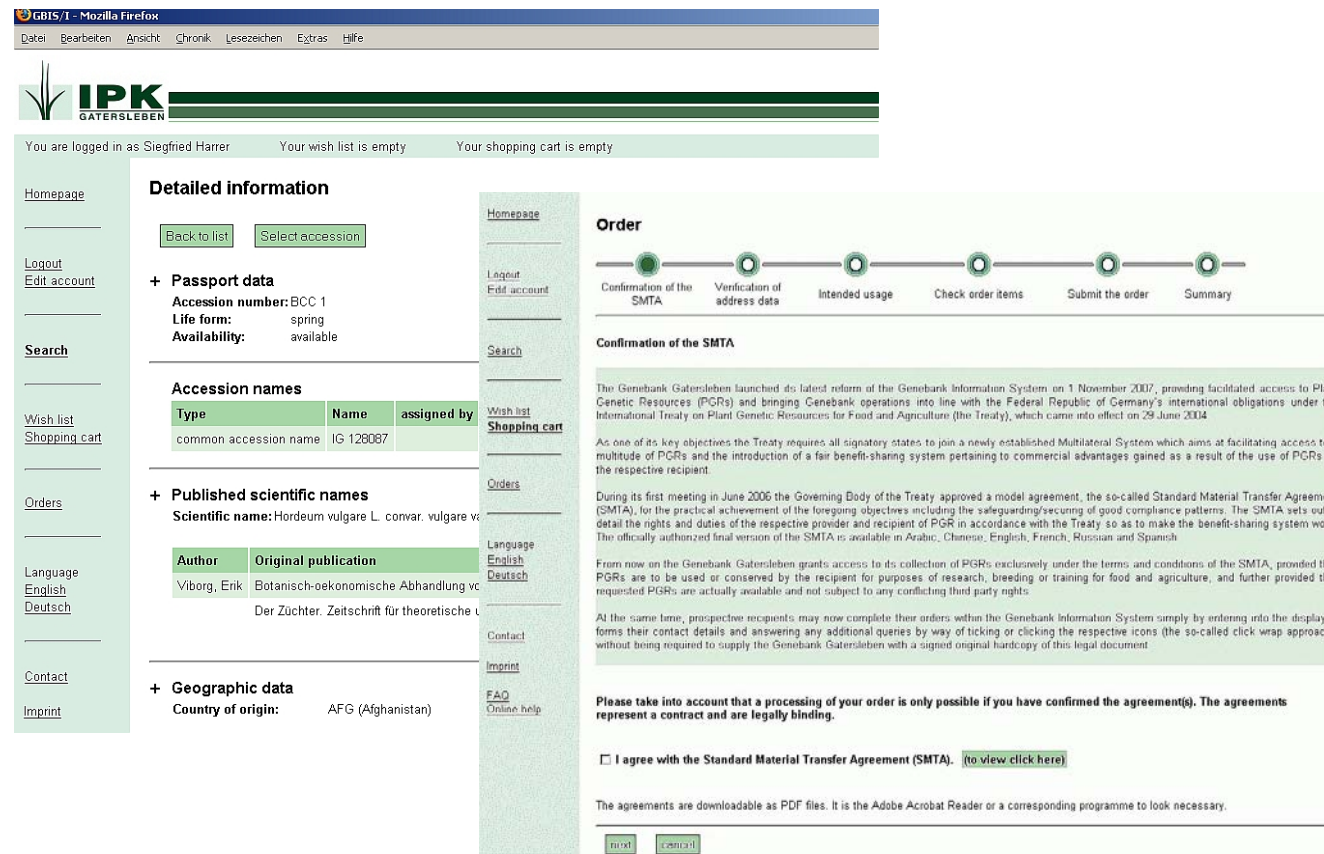
Link to the genebank
information system
GBIS/I of IPK

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Existing information infrastructure in Germany

IPK Genebank Information System GBIS/I



The screenshot shows the GBIS/I web interface in a Mozilla Firefox browser. The page is titled "IPK GÄTERLEBEN" and shows a user logged in as Siegfried Harrer. The main content area is divided into several sections:

- Detailed information:**
 - Buttons: [Back to list](#), [Select accession](#)
 - + Passport data:**
 - Accession number: BCC 1
 - Life form: spring
 - Availability: available
 - Accession names:**

Type	Name	assigned by
common accession name	IG-128087	
 - + Published scientific names:**
 - Scientific name: *Hordeum vulgare* L. convar. vulgare var.
 - Author:** Viborg, Erik
 - Original publication:** Botanisch-ökonomische Abhandlung von Der Züchter. Zeitschrift für theoretische u
 - + Geographic data:**
 - Country of origin: AFG (Afghanistan)
- Order:**
 - Progress bar: Confirmation of the SMTA (checked), Verification of address data, Intended usage, Check order items, Submit the order, Summary.
 - Confirmation of the SMTA:**

The Genebank Gatersleben launched its latest reform of the Genebank Information System on 1 November 2007, providing facilitated access to Plant Genetic Resources (PGRs) and bringing Genebank operations into line with the Federal Republic of Germany's international obligations under the International Treaty on Plant Genetic Resources for Food and Agriculture (the Treaty), which came into effect on 29 June 2004.

As one of its key objectives the Treaty requires all signatory states to join a newly established Multilateral System which aims at facilitating access to a multitude of PGRs and the introduction of a fair benefit-sharing system pertaining to commercial advantages gained as a result of the use of PGRs by the respective recipient.

During its first meeting in June 2006 the Governing Body of the Treaty approved a model agreement, the so-called Standard Material Transfer Agreement (SMTA), for the practical achievement of the foregoing objectives including the safeguarding/securing of good compliance patterns. The SMTA sets out in detail the rights and duties of the respective provider and recipient of PGR in accordance with the Treaty so as to make the benefit-sharing system work. The officially authorized final version of the SMTA is available in Arabic, Chinese, English, French, Russian and Spanish.

From now on the Genebank Gatersleben grants access to its collection of PGRs exclusively under the terms and conditions of the SMTA, provided that PGRs are to be used or conserved by the recipient for purposes of research, breeding or training for food and agriculture, and further provided that requested PGRs are actually available and not subject to any conflicting third party rights.

At the same time, prospective recipients may now complete their orders within the Genebank Information System simply by entering into the displayed forms their contact details and answering any additional queries by way of ticking or clicking the respective icons (the so-called click-wrap approach), without being required to supply the Genebank Gatersleben with a signed original hardcopy of this legal document.
 - Please take into account that a processing of your order is only possible if you have confirmed the agreement(s). The agreements represent a contract and are legally binding.**
 - I agree with the Standard Material Transfer Agreement (SMTA). [\(to view click here\)](#)
 - The agreements are downloadable as PDF files. It is the Adobe Acrobat Reader or a corresponding programme to look necessary.
 - Buttons: [Go](#), [Cancel](#)

Existing information infrastructure

- FAO/WIEWS, CGIAR/SINGER, US/GRIN, EU/EURISCO and other regional systems
- CBD/CHM: Clearing House Mechanism (Techn. Transfer)
- Global Biodiversity Information Facility (Standards)



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Existing information infrastructure in EUROPE

European Plant Genetic Resources Search Catalogue EURISCO

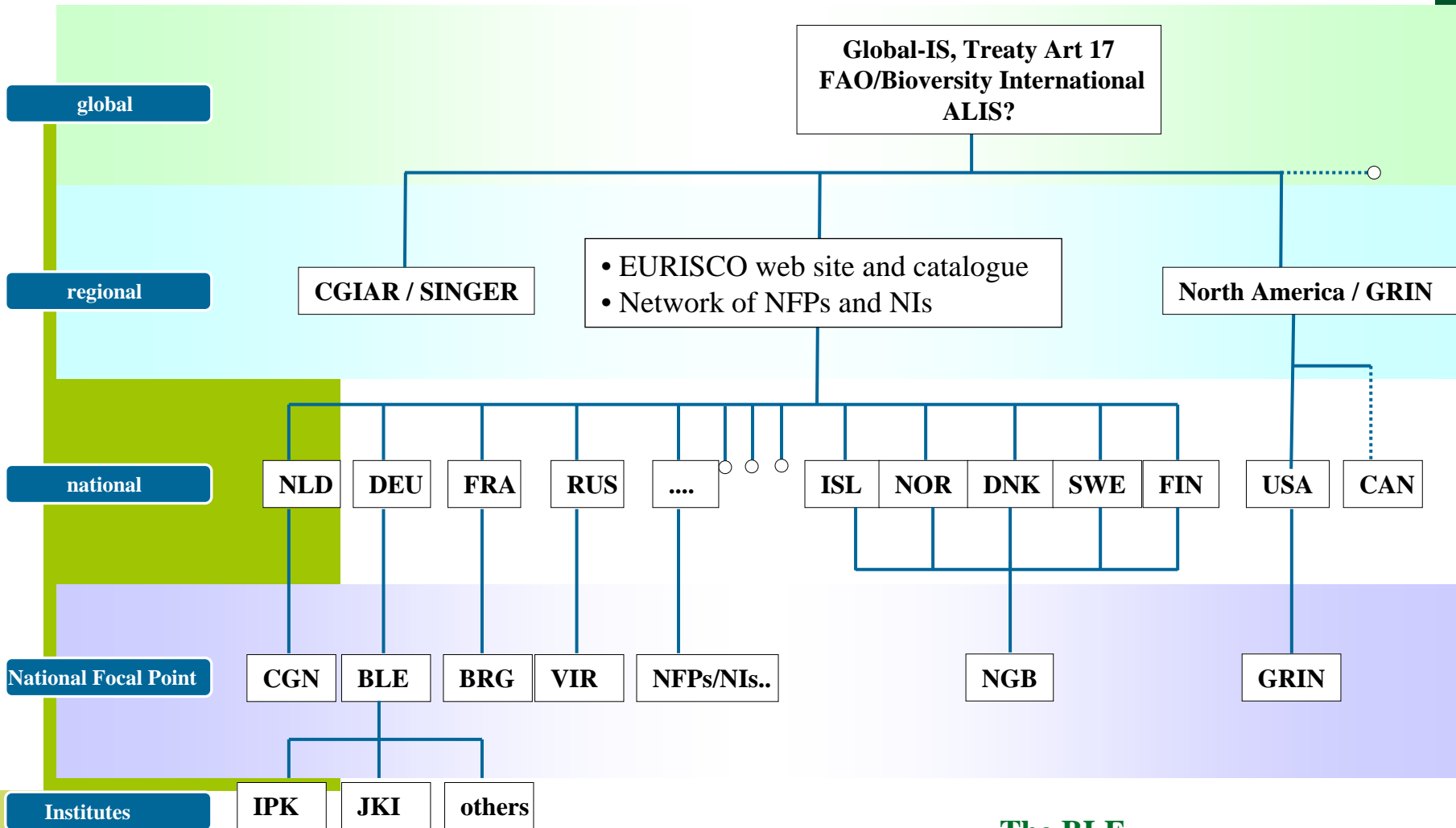
- web-based catalogue
- provides information about ex situ plant collections maintained in Europe
- based on a European network of *ex situ* National Inventories (NIs)
- current content: passport data on > 1.1 million samples from 1,450 genera and 8,665 species from 38 countries



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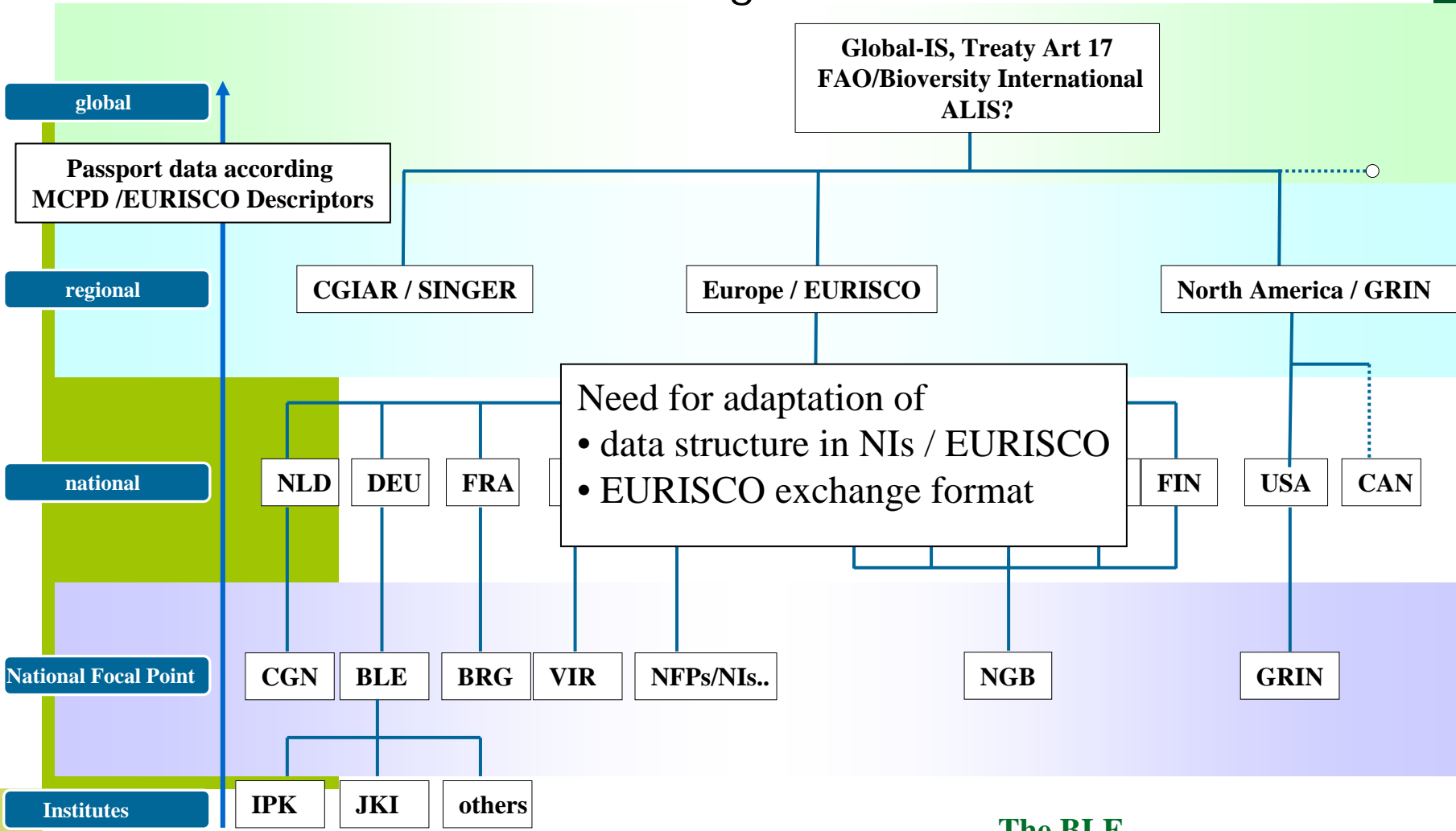
Existing information infrastructure



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Inclusion procedure for European Material under the MLS of the ITPGR based on existing information infrastructure



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Inclusion procedure for European Material under the MLS of the ITPGR

New approved MLS status descriptor for EURISCO

34. MLS Status

(MLSSTAT)

The coded status of an accession with regard to the Multilateral System (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture. Provides the information on whether the accession is included in the MLS.

0 - not part of the MLS

1 - part of the MLS

If the MLS status is unknown, the field stays empty

Approved by the ECPGR Steering Committee in September 2008

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European MLS Material included in EURISCO



The screenshot shows the EURISCO website interface. At the top, there is a banner with the EURISCO logo and the tagline "Finding seeds for the future". Below the banner are navigation links: "About", "Search", "Meetings", "Releases", and "Links". A breadcrumb trail indicates "Home → Advanced Search".

On the left side, there is a "Quick Search" menu with options: "Taxonomy", "Accession", "Status", "Site", and "Advanced Search".

The main content area is titled "Advanced Search" and contains several filter sections:

- Institute holdings:** Holding institute, National inventory name
- Accession identifiers:** Accession number, Accession name(s), Common name
- Collecting site information:** Latitude, Longitude, Elevation (m), Collecting date, Location of collecting
- Donor information:** Donor name, Donor code

A summary box titled "Your selection (124903 Accessions)" is highlighted. It contains a section for "MLS status" with a text input field containing the word "Yes".

Below the summary box, there are more filter sections:

- Acquisition/Storage information:** Acquisition date, Collecting/acquisition source, Storage type, **MLS status**, AEGIS status
- Remarks:** Remarks, Decoded collecting institute, Decoded breeding institute, Decoded donor institute, Accession URL
- Collecting mission information:** Collecting number, Collecting institute code, Collection date

At the bottom right of the filter area, there are "Reset" and "Next" buttons.

European MLS Material included in EURISCO

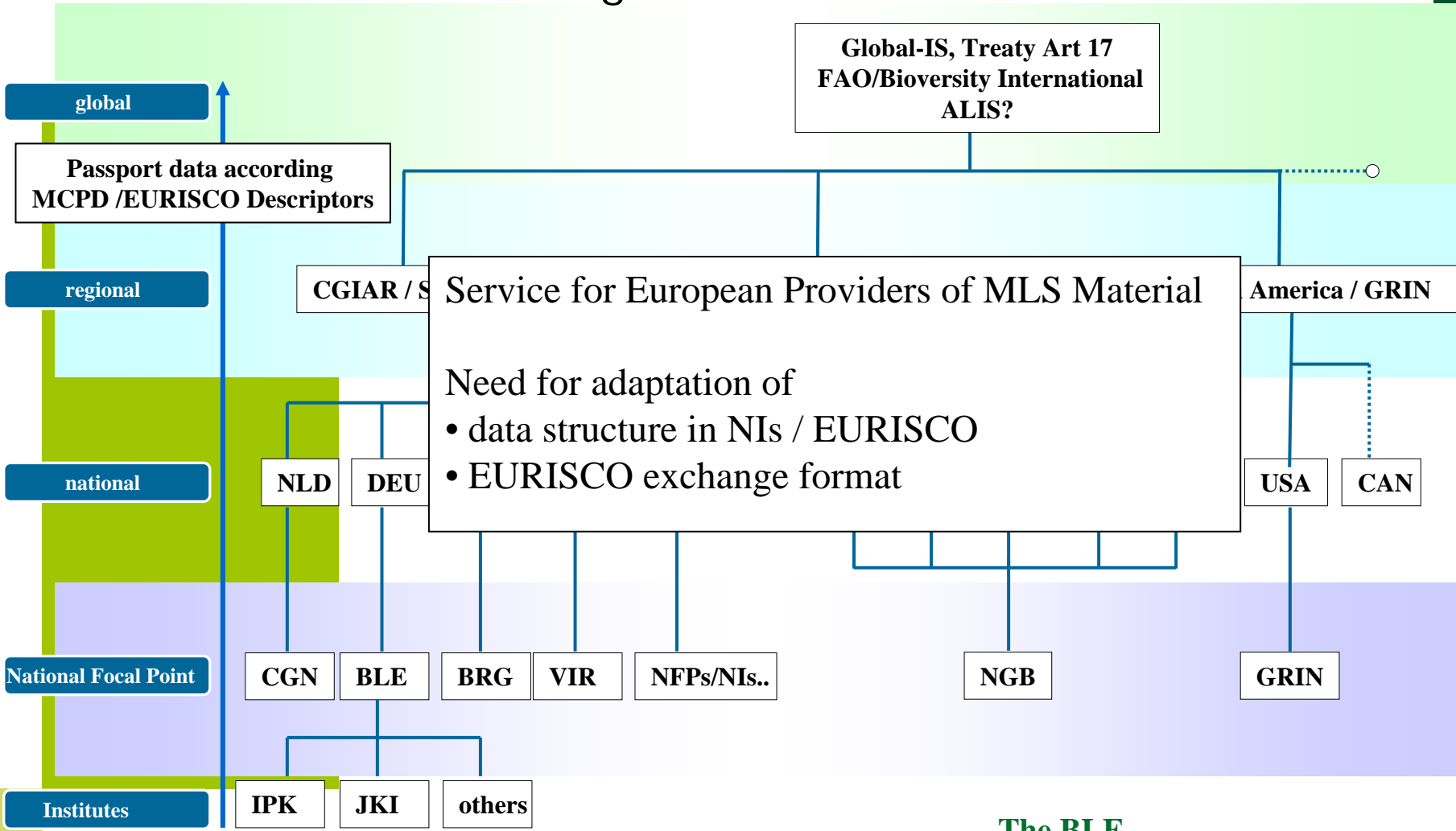
PASSPORT DATA	
INVENTORIES	
National Inventory Code	DEU
National Inventory	Germany
HOLDER INFORMATION	
Institute Code	DEU146
Institute Name	Genebank, Leibniz Institute of Plant Genetics and Crop Plant Research
Holder User Type	GOV/AUT
ACCESSION INFORMATION	
Accession Number	BCC 1
Accession Names	IG 128087
Accession Common Crop Names	BARLEY
Biological Status	Traditional cultivar / Landrace
Country of Origin	Afghanistan
MLS Status	Yes
AEGIS Status	N/A
TAXONOMY INFORMATION	
Genus	<i>Hordeum</i>
Species	<i>vulgare</i>
Species Author	L.
Subtaxon	<i>convar. vulgare var. hybernum</i>
Subtaxon Author	Viborg
Taxon	<i>Hordeum vulgare</i> L. <i>convar. vulgare var. hybernum</i> Viborg

PASSPORT DATA	
INVENTORIES	
National Inventory Code	NLD
National Inventory	Netherlands
HOLDER INFORMATION	
Institute Code	NLD037
Institute Name	Centre for Genetic Resources, the Netherlands Plant Research International
Holder User Type	GOV
ACCESSION INFORMATION	
Accession Number	CGN00014
Accession Names	DELTA
Accession Common Crop Names	BARLEY
Biological Status	Advanced / Improved cultivar
Country of Origin	Netherlands
MLS Status	Yes
AEGIS Status	N/A
TAXONOMY INFORMATION	
Genus	<i>Hordeum</i>
Species	<i>vulgare</i>
Species Author	L.
Subtaxon	<i>subsp. vulgare</i>
Subtaxon Author	

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Reporting procedure under the SMTA of the MLS of the ITPGR for European Providers based on existing information infrastructure



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Interim procedure
approved by the
ECPGR Steering
Committee in
September 2008 for
additional and
voluntary reporting
on concluded SMTA.

SMTA reporting descriptors for EURISCO	
35. SMTA Institute Code	(SMTAINST)
FAO Institute Code [or another official code] for the institute acting as Provider. Example: DEU146	
36. SMTA Number	(SMTANUMB)
This number serves as a unique identifier for the SMTA contract within an institute, and is assigned by the institute acting as Provider. Example: IPK00724	
37. SMTA Date	(SMTADATE)
Exact date on which the SMTA contract was concluded as YYYYMMDD. No missing data (YYYY, MM or DD) allowed. Leading zeros are required. Example: 20020620	
38. SMTA Total Quantity of Accessions	(SMTACCE)
Total quantity of accessions transferred by the SMTA. Example: 345	
49. SMTA Quantity of Accessions per Genus	(SMTAGENUS)
The field is used to elaborate on the number of accession per genus transferred by the SMTA. Prefix genus name in Latin, initial uppercase letter required, and a colon followed by the number of transferred accessions for the genus without space. Separate entries referring to different genera by semicolons without space. Example: Allium:120;Beta:25;Hordeum:200	
40. SMTA Category of recipient	(SMTARECIP)
The coded category of the Recipient of the accessions transferred by the SMTA. 1 – genebank 2 – botanical garden 3 – public research institute 4 – private breeder 5 – private individual, non-profit association 6 – education 9 – other (Elaborate in REMARK field)	
41. SMTA Remarks	(SMTAREMARK)
The remarks field is used to add notes or to elaborate on descriptor(s) with value 9 (=Other). Prefix remarks with the field name they refer to and a colon. Separate remarks are separated by semicolons without space. Example: SMTARECIP:museum	

Conclusions

- Effective and efficient implementation of the MLS will be crucial for the success of the Treaty
- Implementation must imply information exchange and cooperation of stakeholders at national and international levels (e.g. in the framework of national programmes as well as in regional and international collaborative networks)
- With regard to documentation and reporting aspects, a regional system such as EURISCO could and should play a key role (cost-effective!)

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Thank you

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