

The European Story: ECCO and Initiatives from MINE to EMbaRC

Dagmar Fritze, ICC-12, Florianopolis, Brazil, 2010





ECCO - European Culture Collections' Organisation (since 1982)

- to foster cooperation across political borders
- to support science and to develop services for bio- and medical technologies
- to serve as a platform to provide the necessary continuity
- to form an incubator and umbrella for individual projects

1982 Göttingen, Germany

1983 Paris, France

1984 Norwich, UK

1985 Brno, Czech Republic

1986 London, UK

1987 Budapest, Hungary

1988 Baarn, Netherlands

1989 Pushchino, Russia

1990 Braunschweig, Germany

1991 Valencia, Spain

1992 Göteborg, Sweden

1993 Istanbul, Turkey

1994 Louvain-L-N, Belgium

1995 Gozd Martuljek, Slovenia

1996 Veldhoven, Netherlands

1997 Cascais, Portugal

1998 Espoo, Finland

1999 Sestri Levante, Italy

2000 Paris, France

2001 Crete, Greece

2002 Krakow, Poland

2003 Braga, Portugal

2004 South Mimms, UK

2005 Riga, Latvia

2006 Budapest, Hungary

2007 Goslar, Germany

2008 Gent, Belgium

2009 Göteborg, Sweden

2010 Istanbul, Turkey

2011 Utrecht, Netherlands



MINE - MICROBIAL INFORMATION NETWORK EUROPE (‘86-’89, ‘90-’93)

- **harmonisation and digitisation of data of ~150.000 microbial strains**
- establishment of an integrated catalogue
- taxonomy based data structure
- user driven data selection (collections, taxonomists, academic and industrial applications)
- agreed fields and field contents



ICECC - Information Centre For European Culture Collections ('89-'93)

Initiated Publications:

- regular Newsletters
- Shipping brochure
- Nomenclature up-to-date
(taxonomic name list; continually curated to date)

http://www.dsmz.de/microorganisms/main.php?contentleft_id=14



CABRI - Common Access To Biological Resources and Information ('96- '99); carried on by partners on own funds; www.cabri.org

Built on Foundation laid by MINE with Emphasis on Data Management and Quality Management of Related Material

- Internet accessible data base of individual catalogues; searching options through selected and all catalogues

Agreement on and Compilation of Guidelines on

- catalogue production (internet, print)
 - agreements of fields and contents of fields
 - agreements on Minimal Data Sets and Recommended Data Sets for biological material (at least this amount of information should accompany cultures to be listed in catalogues)
- handling (accession, authentication, maintenance, storage, supply) of bacteria, archaea, fungi, yeasts, animal, human and plant cells, genomic material
 - compilation of model in-house procedures

MOSAICC ('97-'99) + MOSAICS – DEVELOPMENT OF A SYSTEM FOR APPROPRIATE MANAGEMENT OF ACCESS TO AND TRANSFER OF MICROBIOLOGICAL RESOURCES <http://bccm.belspo.be/projects/>

- to facilitate access to microbial genetic resources (MGRs)
- to help partners to make appropriate agreements when transferring MGRs
- subject to legislation including the provisions of the CBD (namely: prior informed consent; mutually agreed terms on transfer of MGRs)
- combining the need to facilitate access to MGRs and the need to monitor the transfer of MGRs

EBRCN - EUROPEAN BIOLOGICAL RESOURCE CENTRES' NETWORK ('01-'04) - Information Documents on

- Classification of Microorganisms on the Basis of Risk
- Quarantine Regulations
- Convention on Biological Diversity (CBD)
- Intellectual Property Rights
- Safety Information Sheet for Recipients of Microorganisms
- Regulations governing Packaging and Shipping
- Control of Distribution of Possibly Dangerous Microorganisms
- Health and Safety Requirements



ECCO – MTA (2009): Material Transfer Agreement for the Supply of Cultures

To reflect the common position of the ECCO membership with respect to the key items: **Traceability, Fair and Equitable Benefit Sharing, Intellectual Property Rights, Quality, Safety & Security.**

- a **core** agreement establishing the least common denominator, addressing requirements deemed **central and imperative** for all service culture collections
- leaving room to **add** collection's **own additional (non-contradictory)** terms of delivery applicable in their particular environment
- a common approach to **facilitate access to ex-situ** held biological material in a scientifically and legally sound environment, including the exchange between culture collections



Two Global Initiatives in Which Some ECCO Members are Involved



The Global Biodiversity Information Facility – GBIF

- interoperable, distributed network of scientific biodiversity databases
- initially focussing on species- and specimen – level data
- to link into existing molecular, genetic and ecosystem level data

Mainly zoological and botanical; few microbiological; Portugal, Germany, ..?

Within



DSMZ is NODE for PROKARYA AND VIRUSES





GBRCN Demonstration Project ('08-'11)

- following up work of the OECD-BRC Initiative to enhance collection management and networking
- initially focussing on microorganisms
- underpinning the role of collections of laboratory held living biological material (microorganisms and cultured cells) in providing resources and technology in the spirit of the CBD
- leading to a future GBRCN
- embracing both: biological material and related data
- supporting research and biotechnology as a platform for a knowledge-based bio-economy

WWW.GBRCN.ORG



EMbaRC – European Microbial Resources Centres ('09 – '12)

- supports the European input to GBRCN
- improving the coordination and validation of microbial resources delivery
- improving protocols for authentication and preservation
- combines the additional aspects of training and research activities
 - preservation and characterisation techniques
 - compliance with regulatory requirements; Biosecurity Code and Information resource
 - DNA banking and Enzyme screening

MIRRI ?

A very recent joint proposal, including all European microbial collections has gone to ESFRI (European Strategy Forum For Research Infrastructures) for a:

MICROBIAL RESOURCES RESEARCH INFRASTRUCTURE

The advantage of this type of initiative is, that it not only allows for but expressly invites non-European partners !

All of these initiatives had and have one common goal:

that the enormous amount and range of both,

➔ the **data** pertaining to living biological material,

➔ and the **biological material** itself,

are placed at the rapid and reliable disposal of researchers in academia and industry

➔ curated in a pure and authentic form

➔ in an up-to-date scientific and technically sound environment

➔ under full legal compliance

THANK YOU !

