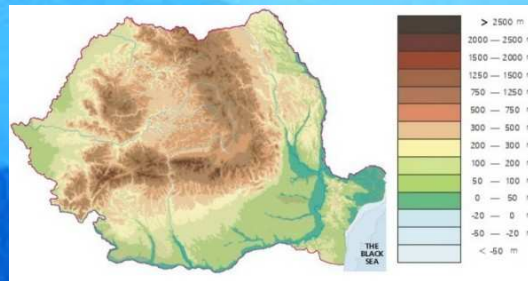
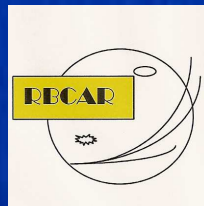


Romanian Bioresource Centre establishment, development, future and international cooperations



Dr. Sergiu Fendrihan
Romania



30th November 2010, Vienna, Austria

Culture collections

- According to the official data there are about 538 microorganisms and other biological materials collections in 67 countries, members of WDCM, 145 governmental, 30 half governmental, 130 in universities, 6 industrial and 18 private containing over 1.337.339 strains. In Romania there are at WDCM only 2 cultures with a total of 760 strains.

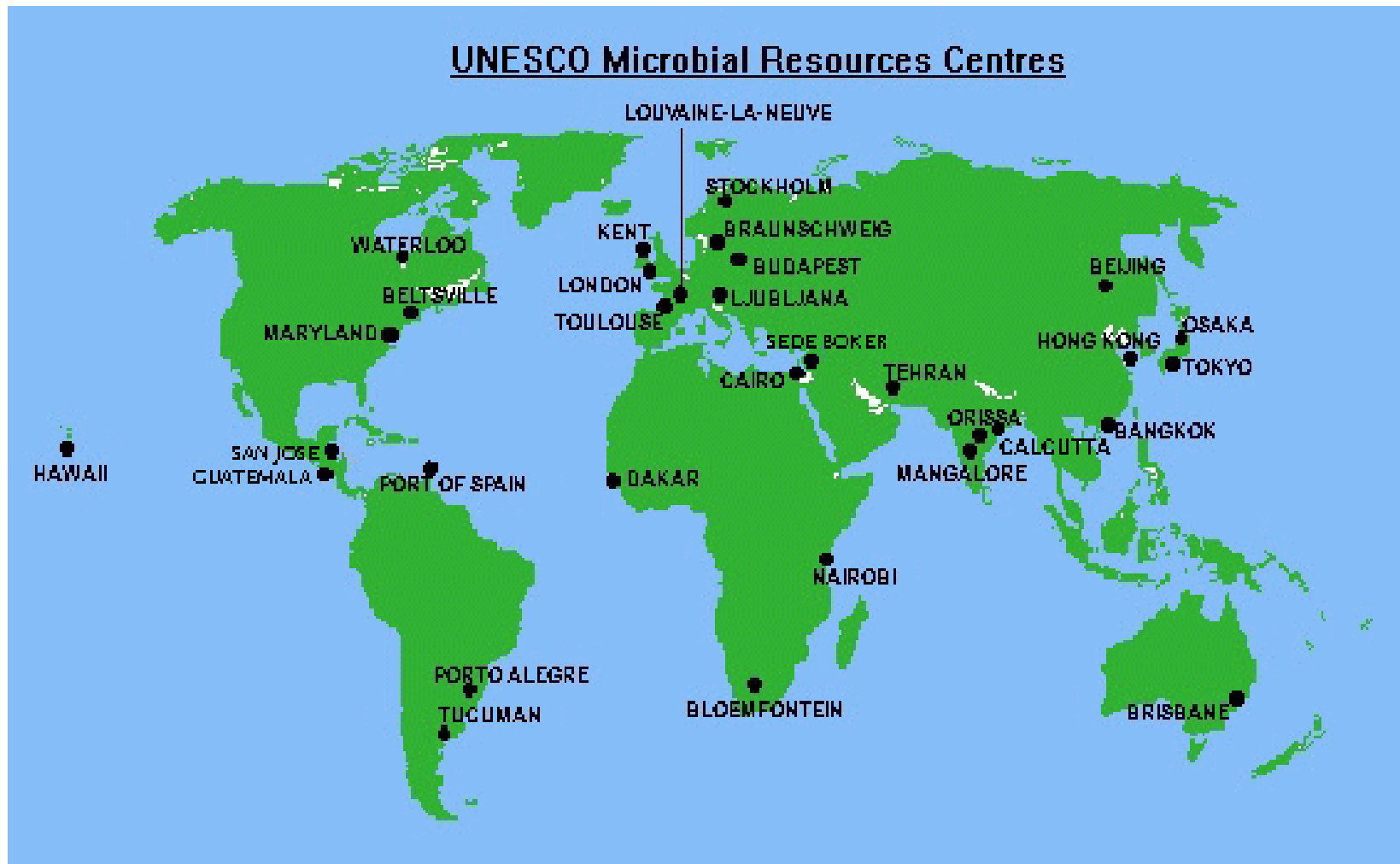
International treaties and conventions

- Budapest treaty Tratatul de la Budapesta din 1977.
- Convention for Biodiversity Conservation Rio de Janeiro din 1992 .
- Romania is part of these convention and treaties
- Many reglementations from UE and OECD regarding the bioresources

International organizations

- GBCN- Global Bioresource Centre Network
- EBCN -European Bioresurse Centre Network
- ECCO- European Culture Collection Organisation
- MIRCEN Microorganisms Resource Centres
- World Federation of Culture Collections
- World Data Centre for Microorganisms











Center MIRCEN



Activities of the Bioresurse Centre


- Deposits of strains and of cell lines and genetic elements.
- Safe deposit
- Services of identification of microorganisms,
- Service of distribution
- Services of consulting
- Services of training
- Scientific research fundamental and applicative.
- Expertise on the field of culture collection, standards, and so on
- Expertise in biodeterioration of materials
- Bioaudit

Plan of establishment and development of the Romanian Bioresource Centre

- Juridical establishment of the Centre nr. 67/2008 in Register of Associations Bucharest 6th district 
- Internet site establishment 
- Catalogues of strains under the association supervision 
- Registration in the catalogue of contractors and accreditation from the National Agency for Scientific Research 
- NGO projects application 
- Obtaining the public status from our government 
- Establishment of the organisation plans of the centre. 
- Communications and new members 
- - obiectiv indeplinit:  - in curs 

Obtaining the trade mark from Romanian Patent Office 

New organigram of the Centre 

The first National Conference of the Culture Collection of
Microorganisms and Cell lines from Romania 

Establishment of a laboratory  

Finding a management specialized company to assist in
performant management 

Adoption of the CABRI protocols and standards 

Participation with projects in research contracts and
projects 

Extension of the board of trustees 

Establishment of the Scientific Council of the Centre 

Participation to international and European projects 

Legislation

- The Romanian Bioresource Centre acts conforming to the laws and recommendations in use:
- **International**
- -Cartagena Protocols on Biosafety
- -Budapest Treaty 1977 - intention obtaining IDA
- -Convention on Biological Diversity 1992
- -WFCC Guidelines
- -Gene Bank Standards FAO
- -United Nations Committee of Experts of the Transport of Dangerous Goods recommendation
- -UN certified packages
- -Universal Postal Union regulations
- -World Health Organization-recommendations
- -IATA Dangerous Goods regulations 602 (2002) and \
- IATA 2000
- -Biological Warfare Convention 1975

- **European**

- -EU Council Regulations 3381/94/EEC
- -EEC Directive 90/219/EEC
- -EEC Directive 90/220/EEC
- -EC Directive 93/88/EEC
- -EC Directive 90/679/EEC
- -EEC Council Directive 94/55/EC
- -E Council Directive 90/219 EEC
- -E Commission Directive 94/51/EC
- -E Commission Decision 94/730/EC

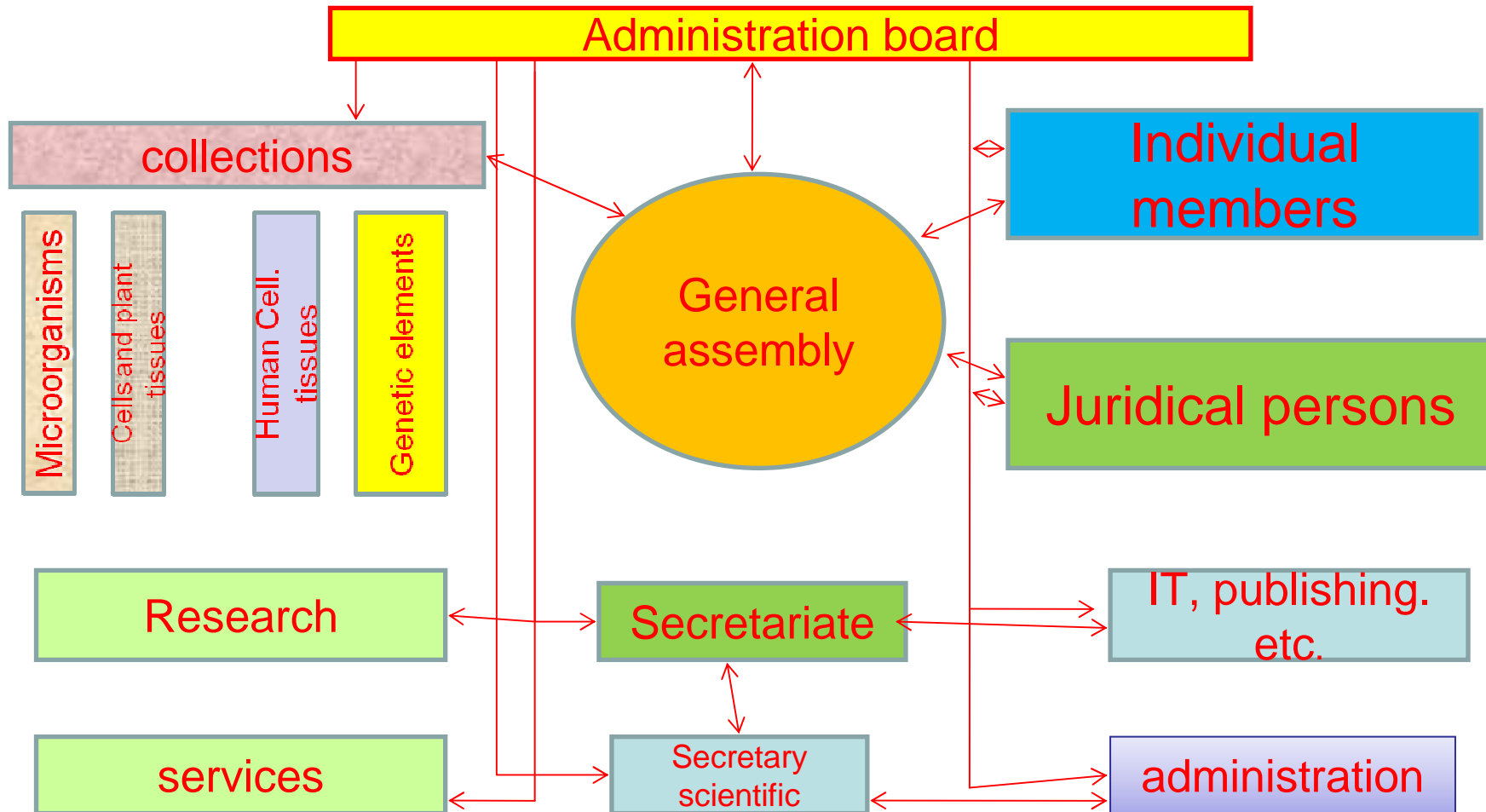
- **National**

- -Government Ordinance nr. 60/1997
- -Government Ordinance 44/2002
- -Law nr. 360 /2003
- -Law 588/2004
- -Law 79/2004
- -Law 319/2006
- -Law 8/2008
- -Government Decisions regarding safety at work and fire prevention and other domains nr. 971/26.07.2006, nr. 1092 from 16/08/2006, nr. 1093 from 16/08/2006, nr. 1218 from 06/09/2006, nr. 261 from 22.02. 2001.

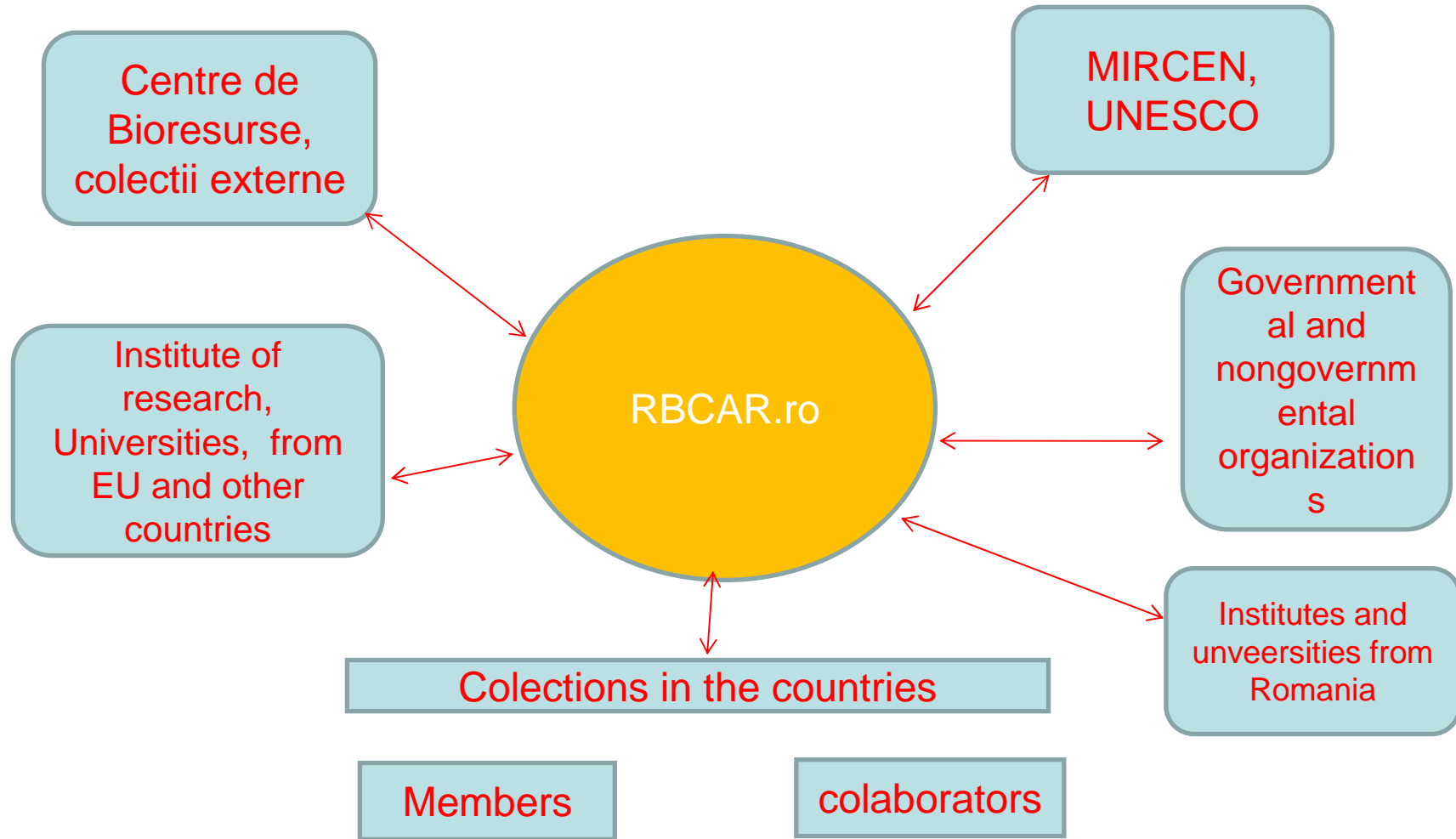
The association

- Established in July 2008, from three Romanian researcher actig like an initiative committee for establishment development of the first bioresource centre in our country, Romanian juridical person 67/2008 in the jurisdiction of Bucharest district 6, with the purpose to introduce international standards and good practice in this field of activity in Romania. The association have 11 members and 27 volunteers specialists professionals in life sciences.

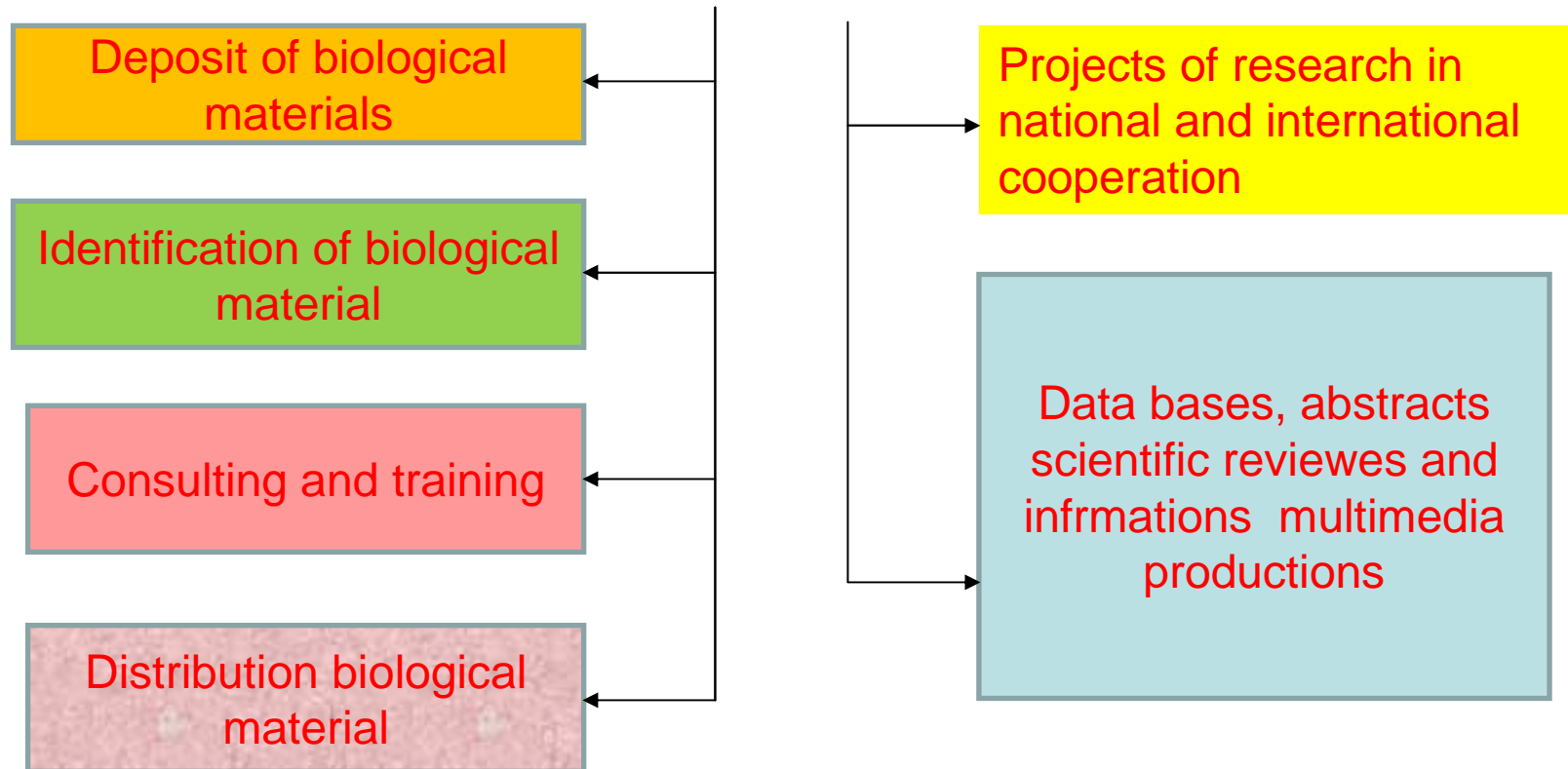
Organigram



Relations with different national and international organizations



Activities



Activities

- Public deposit for different institutions and organizations
 - Safe deposit for non-pathogenic strains for different organizations from research and industry
 - Storage of biological material for different organizations and institutions and companies and strain preservation services.
- Distribution of biological materials
- Microbiological analysis alone or in cooperation
 - Participation in different projects regarding biodiversity and environment protection, and biotechnology
 - Consulting and audit regarding new facilities, collections and laboratories
 - Isolation, identification, purity, viability and stability check of microorganisms
 - Bioaudit (microbiological audit) for different buildings working spaces, cultural heritage buildings, and natural or artificial environments, biological treatment, bioremediation and waste biological treatment, biogas production, biosafety, biodeterioration of materials, products and cultural heritage monuments and others
 - Training

Aspects from the association activities

- The association took part in two years to NGO and scientific 18 events
- **-Events**
- 1. The meeting in Bucharest in September 2008-The Scientific Romanian Diaspora
- 2. The Scientific Communication Session of the Romanian Institute of Biology of the Romanian Academy in 10-12 December 2008
- 3. The NGO Forum 2009 at the Parliament Palace in 12-13 May 2009
- 4. The Austrian Romanian Science day at Iasi in 14th of May 2009
- 5. A television debate about the Romanian Scientific Research in the near future and perspectives of intellectual property issues in 7th of June, 2009 to the Future Romania TV of the Spiru Haret University from Bucharest
- 6. Three meetings of Citizen commissions at BCC during the year 2009
- 7. One conference of BCC (Bureaus for Citizen Consulting in July 2009
- 8. Will participate in the Bioforum Romania 9th September 2009 in Bucharest at Infoeuropa centre
- 9. ONG Fest 2009– Bucharest 11-13 September 2009
- 10. Donors Forum from Romania 24th September 2009
- 11. Will took part to the Scientific Communication Session of the Romanian Institute of Biology of the Romanian Academy in 25th September 2009
- 12. The first Conference of Culture Collections from Romania in 17th November 2009

- 13.March 2010 Embarc project presentation to Institute Cantacuzino
- 14.EGU 2010 Wien scientific presentations
- 15.Institute of Biology communication sesion september 2010
- 16.GreenBizForum October 2010
- 17.Wien BBMRI and GBRC Nov.2010
- 18.Consultation on RENAR and application of standards of laboratory work Dec 2010

Aspects from the National Conference of Culture Collection of
Microorganisms and Cells lines from Romania
2009 17th November, 26 participants and 53 authors



A photograph of a petri dish containing a bacterial culture. The agar surface is covered with numerous small, reddish-orange colonies. The text of the slide is overlaid on the image.

PARTICIPATION OF SOME CULTURES OF MICROORGANISMS AND CELL LINES TO THE CONFERENCE

- **1. COLLECTION OF CYANOBACTERIA AND ALGAE OF UNIVERSITY BABES BOLYAI FROM CLUJ NAPOCA**
- **2. COLLECTION OF YEASTS OF THE FACULTY OF HORTICULTURE OF CRAIOVA UNIVERSITY**
- **3. COLLECTION OF GERMLASM OF BOTANICAL GARDEN FROM CLUJ NAPOCA**
- **4. COLLECTION OF NONPATOGENIC MICROORGANISMS OF THE ACADEMY OF REPUBLIC OF MOLDAVIA**
- **5. INSTITUTE CANTACUZINO COLLECTION OF BACTERIA**
- **6. INSTITUTE OF BIOLOGY OF ROMANIAN ACADEMY**

Aspects from history of the laboratory

- First look...

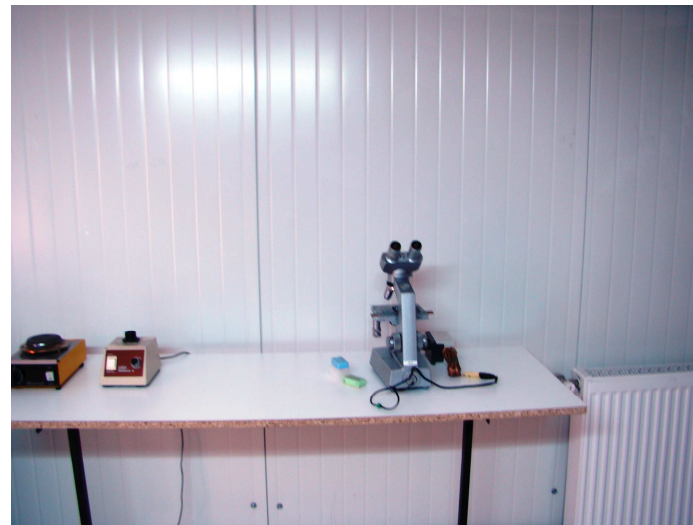


next step I



After a lot of work.....

The next step II



The next step IV near future

- 1. the sterile bank
- 2. the little storage room
- 3. contract with a company for dangerous wastes disposal
- 4. To have a cryostate
- 5. To develop the cell lines facility and to rent another two rooms there when we will have projects and/or support

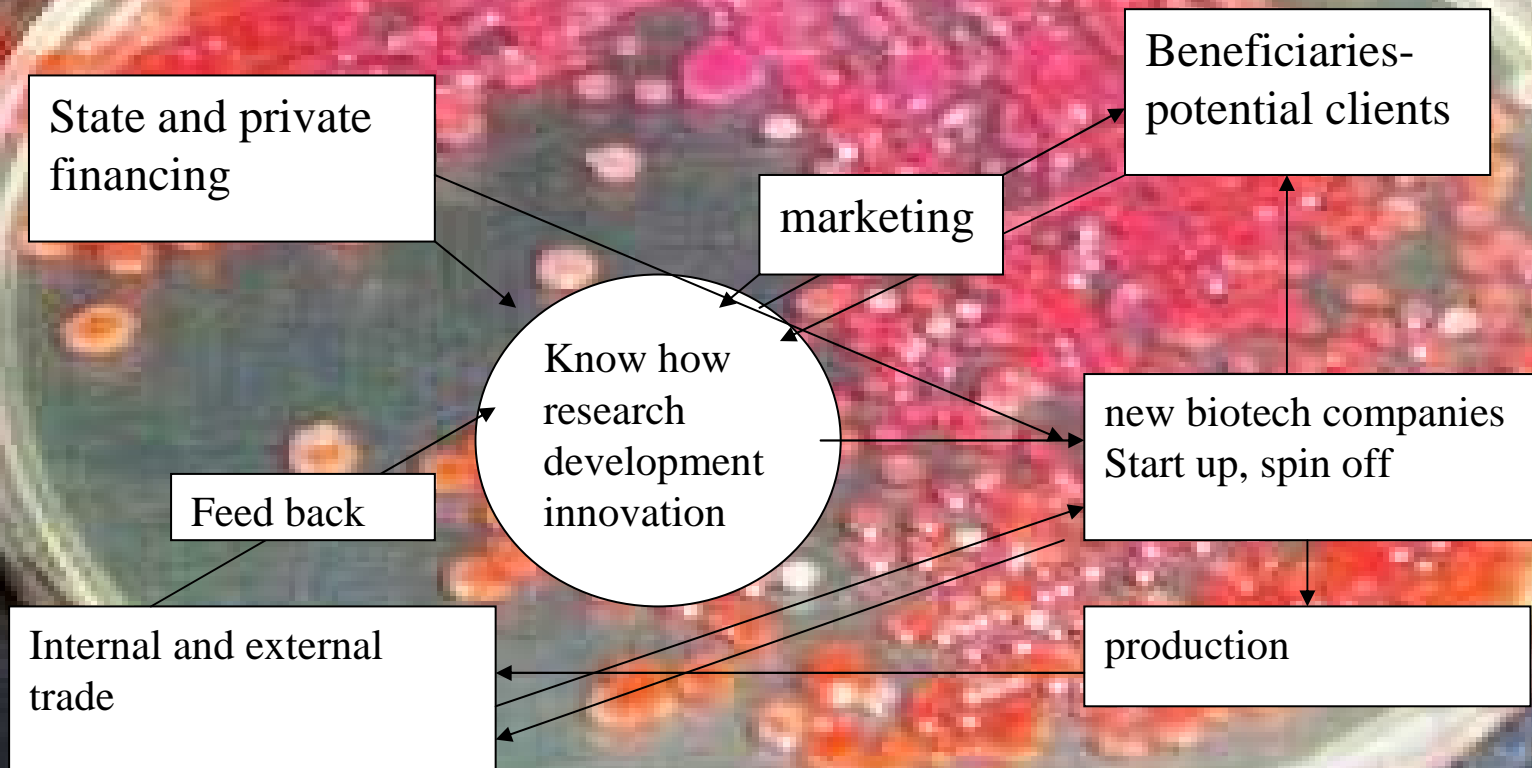
Public opinion survey

- In autumn 2009 we performed a large opinion survey on the situation of the culture collection from Romania in which many features and necessary supports and development were integrated, and questions about the biotechnology and biomedicine development in our country.
- Please see the preliminary results of about 380 answers from researchers, from physicians, pharmacists and industry peoples. The survey will continue.
- The questionnaire was about the importance of culture collection for activities in research, biotechnologies, industry , education and economy and the importance to have some legal and standards reglementations

Example of results from the survey

- The results of the survey shown that only 12,7% understand the importance of a Bioresource Centre
- There are about 17 cultures collection in Romania, only two are internationally recognized, and about 6 are recognized at national level, 5 are private stem cell organizations, and there are many of them as a secondary activity from the project research.

Implementation research and industry



Future development

Integration of the Centre in the network of GBCN and
BBMRI

Integration in research consortium of CAREX

Integration in the research consortium of the Stem Cell
Platform

Adoption of FACT (Foundation for the Accreditation of
Cellular Therapy) NETCORD standard for Romanian
organizations in the field.

Integration in Biofuel European Platform

Starting the procedures of obtaining the Public Utility status

Contribution to the national Biodiversity Conservation Plan

In special for the exsitu conservation (our activity)
and to the national exchange of information CHM

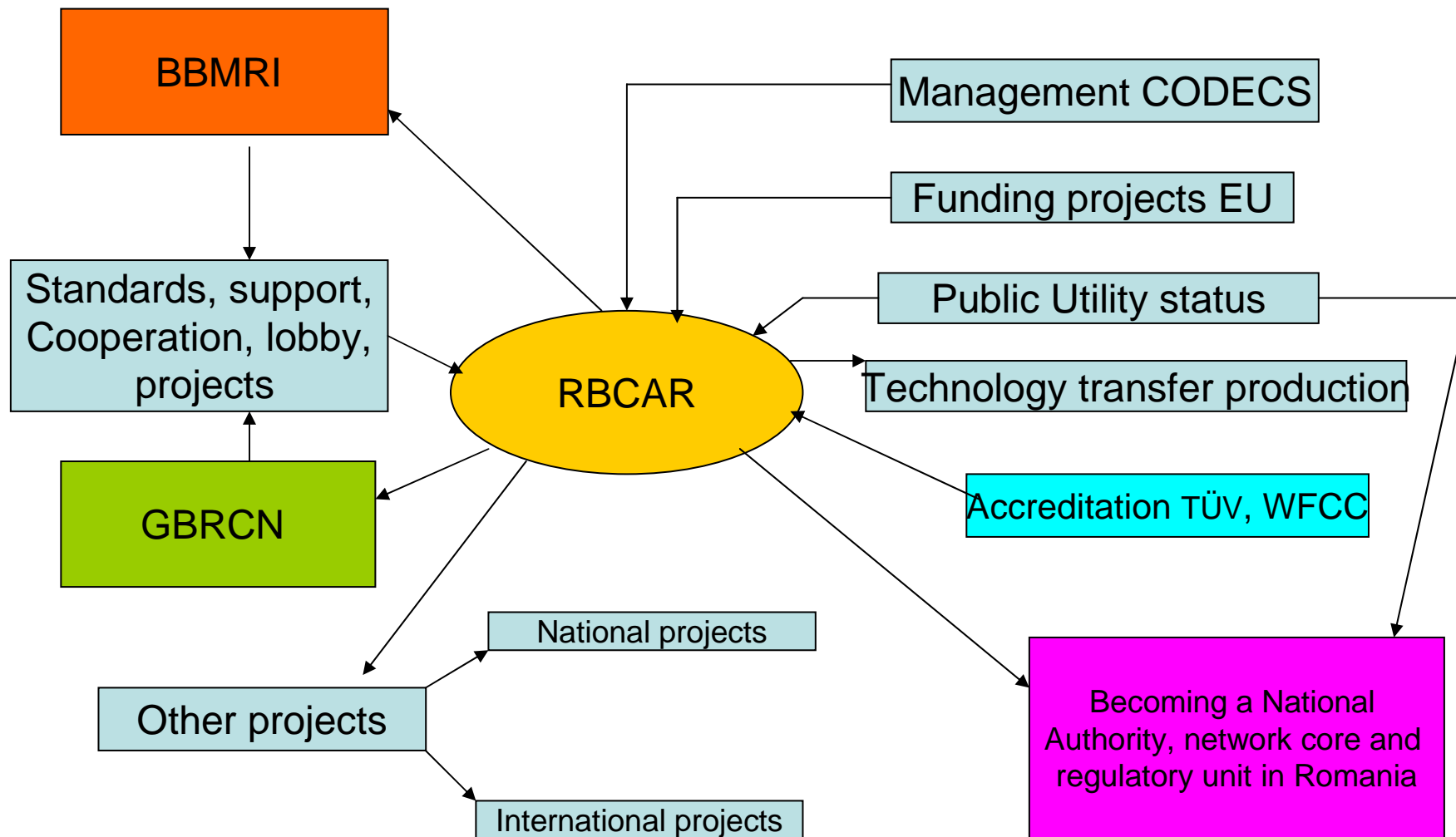
continuation

- Starting the explorations and procedures for affiliation to our Academy or to The National Institute of Biological Research
- Implementing the international standards and ISO for laboratories and for management
- Management Contract with company CODECS SA a British Romanian management assistance company
- Contract with EU funds projects specialist from two project companies
- Contract with TUV and RENAR for accreditation
- Negotiation with WFCC for accreditation

Projects in near future

- Participant in the European Consortium for establishment of a Centre for Danube, Danube Delta and Black Sea studies and protection in Danube Delta
- Applying for EMbarC project for personnel training
- BIODOC project
- Finding financial solutions for funding National and EU funding
- Establishment of little production companies of the association alone or in partnership with private companies
- Implementation of the Quality Assurance Programme
- Implementing new standards having as a model of NFS 96-900

RBC development scheme



Acknowledgements

- Many thanks to director Dr. David Smith from BRC CABI, UK for the kind providing of materials to start the Centre to prof. Dr. Helga Stan-Lotter, for permanent support, to Dr. Erko Stackelbrandt and Dr. Milena Wosznicka de la from DSMZ for good advices, to dr. Hans Mustafa, to prof Stan Lotter, to Thomas Geigl for nice donations in equipment and little laboratory materials, to company Lagermax for supporting the transport for free of a half a truck with materials, to general manager Gh. Bala from the National Agency for Scientific Research helping our association with rooms for the laboratory and to all other colleagues and specialists, members of our association and volunteers which are constantly supporting our valuable initiative.
- to director Manuela Sidoroff, dr. Maria Lungu for being our hosts in the National Institute for Researches of Biological Sciences from Bucharest

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