



Universität für Bodenkultur Wien  
University of Natural Resources  
and Life Sciences, Vienna

# Die Universität für Bodenkultur Wien

## University of Natural Resources and Life Sciences, Vienna

[www.boku.ac.at](http://www.boku.ac.at)

Univ.-Prof. Dr. Josef GLÖSSL  
Vice Rector for Reseach and International Research Collaboration  
[josef.gloessl@boku.ac.at](mailto:josef.gloessl@boku.ac.at)

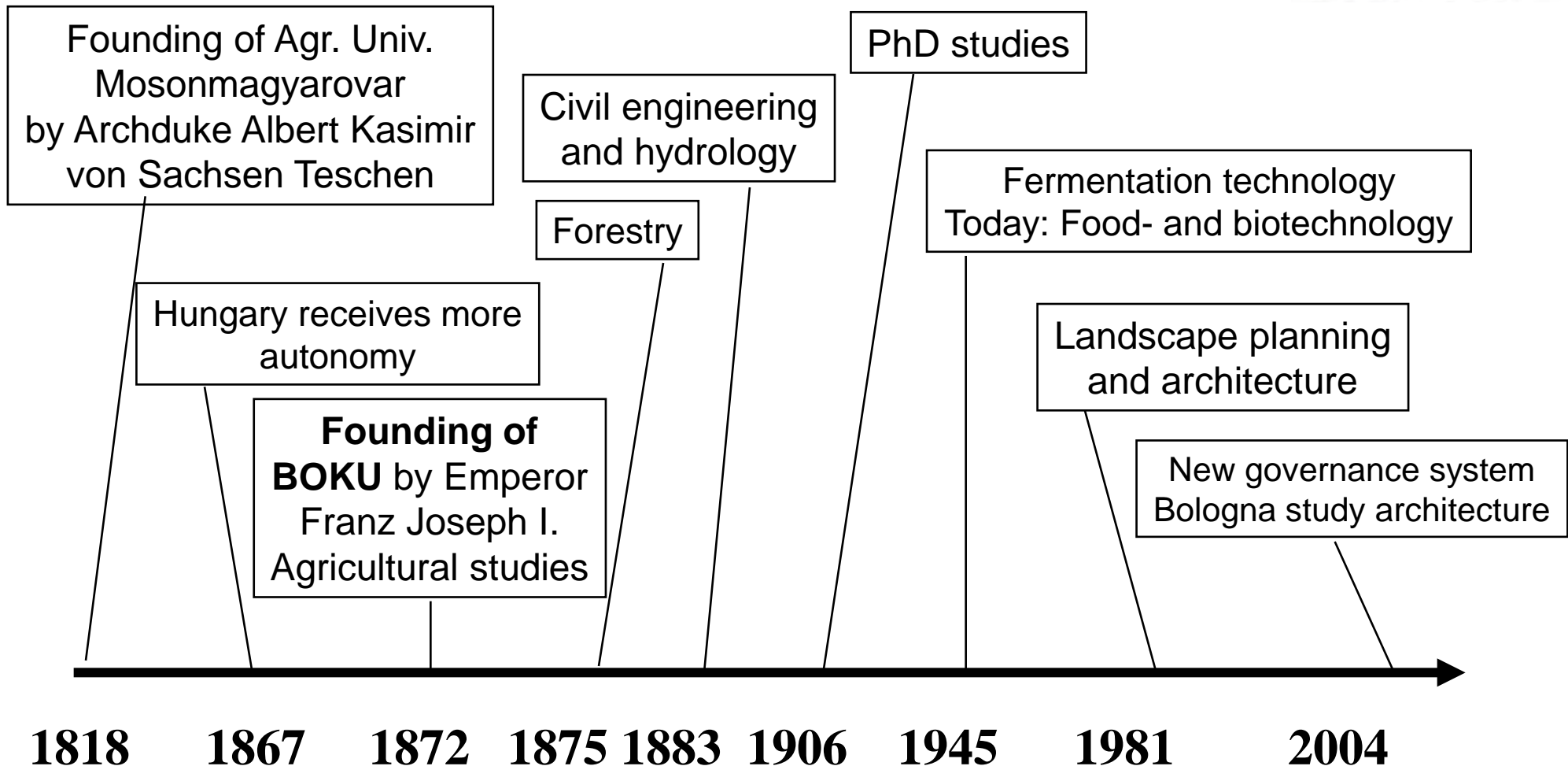




## Mission

- The University of Natural Resources and Life Sciences, Vienna, the Alma Mater Viridis, sees itself as an **education and research centre for renewable resources**, which are a necessity for **human life**.
- With its wide range of areas of expertise it is the task of BOKU to contribute significantly to the **protection of life resources** for future generations. With a connection between **natural sciences, engineering and economics**, BOKU is trying to deepen the knowledge of an **ecologically and economically sustainable use of natural resources in a cultivated landscape**.

# Historical development of BOKU



# BOKU – University of Natural Resources and Life Sciences Vienna – Facts and figures



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- Founded in 1872
- ~ **12.000 students** in 9 Bachelor, 25 Master (+ several double degree programmes; 10 Master programs in English) and several PhD programs (~ 800 students); **1450 graduates** per year; students satisfaction: top rank in Austria; 18% foreign students; Green University ranking: no. 8 in Europe, No 1 in „German speaking world“; QS World University Ranking by Subject – Agriculture & Forestry: **position 33**
- ~ 1600 employees (full time equivalent), **2500 employees** (head count); ~800 scientists employed on a project basis; ~ 70 full professors (50% non Austrians), ~ 130 Assoc. Profs
- ~ **700 ongoing projects**: ~ 100 EU projects, ~ 110 FWF projects, participation in several excellence programmes (FWF, COMET, Christian Doppler, Laura Bassi, WWTF,...)
- ~ 100 Mio € GUF, **41,7 Mio € external resources** (research projects; 2013)
- ~ **2500 scientific publications** per year (2013: 684 SCI papers), ~ 1600 presentations per year at conferences
- Organized in 15 departments

# BOKU University – Themes & Competences

Interlinking Natural Sciences, Technology & Socio-Economics



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Soil and  
terrestrial  
ecosystems

Water –  
Atmosphere -  
Environment

Living space and  
landscape

Development of  
the Living Space

Management  
of Natural  
Resources

Resources and  
societal  
dynamics

Renewable raw  
materials, resources  
oriented technologies

Securing Nutrition  
and Health

Nanosciences &  
- technology

Food – nutrition -  
health

Biotechnology



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# **BOKU bachelor programs**

**Forestry**

**Wood and Fibre Technology**

**Management of Environment and Bio Resources**

**Environmental Engineering**

**Food Sciences and Biotechnology**

**Agro Sciences**

**Landscape Architecture and Planning**

**Viticulture, Oenology and Wine Marketing**

**Equine Sciences**

**Further information: [www.boku4you.at](http://www.boku4you.at) :**

**[www.boku4you.at](http://www.boku4you.at)**



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# BOKU master programs

**Agricultural and Food Economics (H 457)**

**Alpine Natural Risks Management (477)**

**Applied Plant Sciences (H 455)**

**Animal Sciences (456)**

**Agro Biology (H 459)**

**Biotechnology (H 418)**

**Environmental Engineering (H 431)**

**Food Science and Food Technology (H 417)**

**Forest Science (H 425)**

**Landscape Architecture and Planning (H 419)**

**Management of Environment and Bio Resources (H 427)**

**Organic Farming (H458)**

**Phytomedizin (H 422)**

**Water Management and Ecological Engineering (H 447) (in English)**

**Wildlife Ecology and Wildlife Management (H 423)**

**Wood Technology and Management (H 426)**

**Mountain Forestry (in English)**

Further information : [www.boku4you.at](http://www.boku4you.at)

# BOKU master programs - international



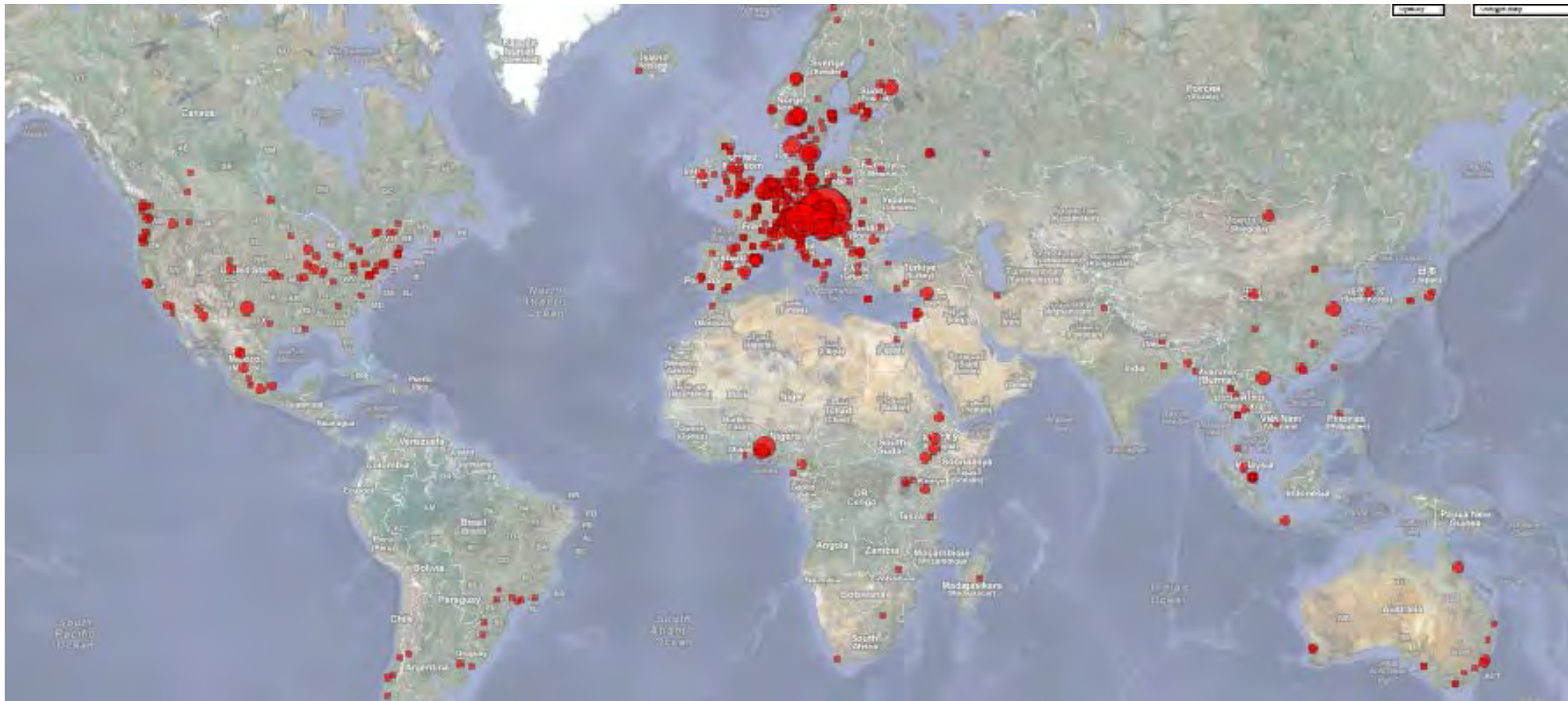
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**Applied Limnology – Wetland Management**  
**Natural Resources Management and Ecological Engineering**  
**European Forestry**  
**Horticultural Sciences**  
**Safety in the Food Chain**  
**Material and thermal utilization of renewable raw materials**  
**European Master in Animal Breeding and Genetics**  
**Environmental Sciences – Soil, Water and Biodiversity**  
**European master in Organic Agriculture and Food Systems**  
**Sustainable Agriculture, Food Production and Food Technology in  
the Danube Region**

Further information : [www.boku4you.at](http://www.boku4you.at)



# Map of co-authorships of BOKU publications





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	Department für Materialwissenschaften und Prozesstechnik (Department of Material Sciences and Process Engineering)
	Department für Biotechnologie (Department of Biotechnology)
	Department Wasser-Atmosphäre-Umwelt (WAU) (Department of Water, Atmosphere and Environment)
	Department für Nanobiotechnologie (DNBT) (Department of Nanobiotechnology)
	Department für Chemie (Department of Chemistry)
	Department für Integrative Biologie und Biodiversitätsforschung (Department of Integrative Biology and Biodiversity Research)
	Department für Lebensmittelwissenschaften und Lebensmitteltechnologie (Department of Food Sciences and Technology)
	Department für Raum, Landschaft und Infrastruktur (Department of Landscape, Spatial and Infrastructural Sciences)
	Department für Wirtschafts- und Sozialwissenschaften (Department of Economics and Social Sciences)
	Department für Nachhaltige Agrarsysteme (Department of Sustainable Agricultural Systems)
	Department für Bautechnik und Naturgefahren (Department of Civil Engineering and Natural Hazards)
	Department für Wald- und Bodenwissenschaften (Department of Forest- and Soil Services)
	Department für Angewandte Pflanzenwissenschaften und Pflanzenbiotechnologie (Department of Applied Plant Sciences and Plant Biotechnology)
	Interuniversitäres Department für Agrarbiotechnologie, IFA-Tulln (Department of Agrobiotechnology / IFA Tulln)
	Department für Angewandte Genetik und Zellbiologie (DAGZ) (Department of Applied Genetics and Cell Biology)

## BOKU Departments

# Sites of BOKU

- Türkenschanze / Gregor Mendel Straße
- BOKU Site Muthgasse
- BOKU Site Tulln
- „Fourth Site“ – Research farms and forests
  - Research Farm Groß-Enzersdorf
  - Landscape planning research Essling
  - Horticulture Research Jedlersdorf
  - Research forest garden Knödelhütte
  - Research Forest Heuberg
  - Water cluster Lunz

# Site Türkenschanze



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## BOKU Site Muthgasse



# BOKU Site Tulln



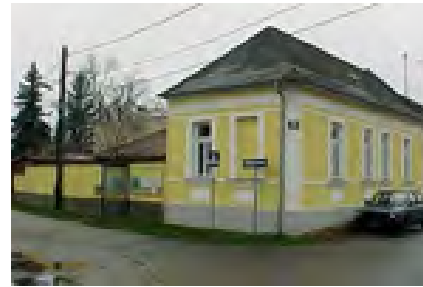
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# Research farms and forests



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## Major achievements during the last four years

- More than 30 new professors appointed
- First three joint degree master programmes
- Three doctoral schools
- Two ERC starting grants (Prof. Oostenbrink, Prof. Reimhult)
- Founding of the Centre for Developing Research; ICA-CASEE, BIOS Science Austria (2010)
- Opening of the new laboratory and office building „Muthgasse 3“ (2009)
- Opening of the University and Research Centre Tulln (2011)
- QS World University Ranking by Subject – Agriculture & Forestry: Ranking position 33 (2014)
- Green university ranking 2013, rank 1 in German-Speaking countries, rank 11 in Europe and rank 27 worldwide (out of > 300 institutions).



# BOKU University's Mission Statement for Internationalisation



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**BOKU is committed to engagement in education, research, innovation and development beyond its national boundaries, in its region and globally**

BOKU will fulfil this Mission by focusing on the following goals:

- Increase in both incoming and outgoing student mobility
- "Internationalization at Home"
- Strengthening the development of international cooperative networks with both European and non-European countries (especially in the field of development assistance)
- Cooperations with international organisations with offices in Vienna (e.g. IIASA, UN)
- Development of an international, cross-disciplinary alumni network of international alumni and alumni in international organisations

## Strategy for Internationalisation: BOKU's primary focus regions

- East and South Eastern Europe
- South East Asia
- Central Asia
- Himalaya Region
- Eastern Africa
- Central / South America

In order to increase co-operations BOKU is actively engaged in international networks, was a founding member of several networks, and has initiated one university network in 2010



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## ICA Regional Network for Central and South Eastern Europe (“ICA-CASEE”)

- Is a network of Central and South Eastern European Higher Education Institutions relating to the Life Science disciplines (agriculture, food, biotechnology, natural resources, rural development and the environment)
- Was founded by the University of Natural Resources and Life Sciences, Vienna, (BOKU) in 2010
- The **objectives** of network are:
  - to support the development and implementation of the EU Strategy for the Danube Region (EUSDR)
  - to strengthen research, education and University Development in this region
  - to develop joint research, educational and other projects

[www.ica-europe.info/casee](http://www.ica-europe.info/casee)



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# Reasons for creating the ICA-CASEE network

- Enormous challenges for **university development** at present
  - Bologna process
  - Excellence in research, education and university management (increasing competition between higher education institutions!)
- Specific challenges for **life science universities** to develop the basis for the future development of mankind
  - Food and water security, environmental protection
  - Sustainable use of natural resources (soil, bioresources, water,..)
  - Development of high-end technological methods in biotechnology (biorefinery, renewable energy,....)
  - Landscape development; town- and country planning
  - And many more.....





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# Examples of CASEE Activities - 1

## CASEE involvement in the EU Strategy for the Danube region



Project selected by Priority Area 7  
as a „flagship project“

“Danube River REsearch And Management – DREAM”

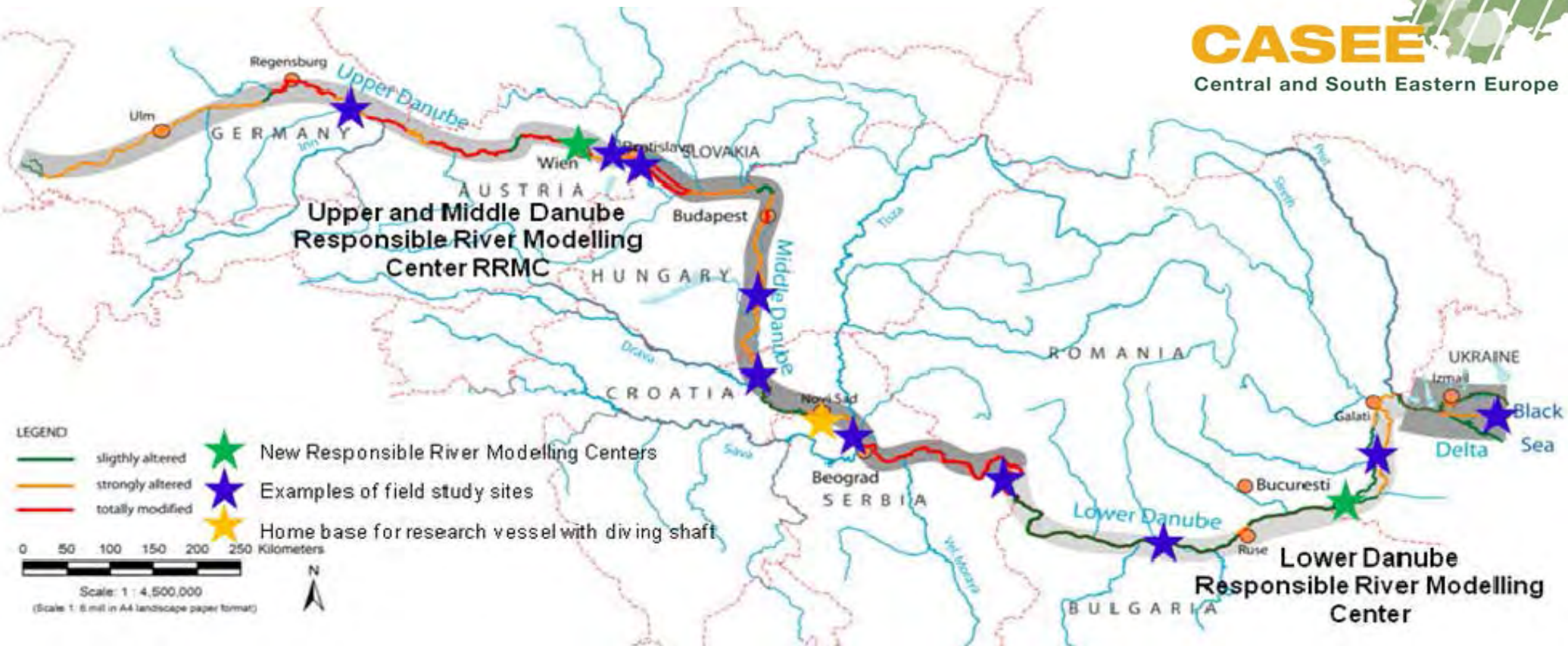
### Objectives:

- Building two large **Responsible River Modelling Centers**/hydraulic engineering laboratories (5.000 liter/sec)
- Establishing a **network of field study sites for model calibration and validation**
- construction of a **research vessel** with a diving shaft for the whole Danube
- Establishment of a **network of existing and extended Danube River Research Institutions** throughout **all riparian countries**

# DREAM Project: Geographical distribution of research sites

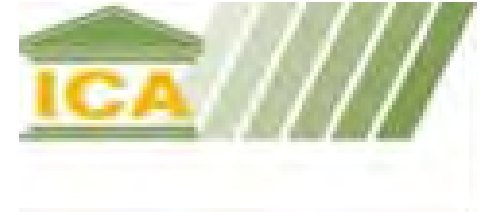


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# ICA - European Association of Life Science Universities - 1

- Founded as “International Conference of Agricultural Universities” (initiated by Wageningen Univ.)
- aims to develop concerted actions in the field of higher education and research in agricultural and related sciences
- > 60 life science universities from the geographic region of Europe

[www.ica-europe.info](http://www.ica-europe.info)



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# ICA - European Association of Life Science Universities - 2

## Activities:

- cooperation in curriculum development
- Lobbying for agricultural sciences at the European level
- Cooperation with sister organizations in USA and Canada as well as GECHERA (global network of agricultural universities);
  - joint conference on Bio-economy in September 2012 in Bamff, Canada
- Cooperation with student organizations of agr. univ. (IAESTE, IAAS, IFSA)
- New network for education of agr. univ. (ICA-EDU) to foster e.g. E-learning
- Rectors' and Deans' Forum in Ghent in Oct. 2012





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# DRC – Danube Rectors Conference

- Established in 1983
- Members: 54 higher education institutions from 13 countries
- General aims:
  - improvement of higher education in teaching and research in the region
  - advancement of member universities by establishing and facilitating bilateral and multilateral contacts between the universities
- DRC Presidency changes annually
- Annual DRC Conference:
  - Nov. 2011: at BOKU, Vienna
  - Nov. 2012: at CULS, Prague
  - Nov. 2013: Cluj-Napoca
- Involvement in the Priority Area working groups of the EU Strategy for the Danube Region

# ELLS – Euroleague for Life Sciences



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Founded in 2000 (initiated by Univ. Wageningen)

General Aims:

- To develop a quality network of European universities in the fields of Natural Resources Management, Agricultural and Forestry Sciences, Environmental Sciences, Life Sciences, Veterinary Sciences, Food Sciences
- 7 Member Universities:
  - Univ. Copenhagen; Swed. Univ. Agr. Sci.; Czech Univ. Life Sci.; Univ. Hohenheim; Warsaw Univ. Life Sci.; Wageningen Univ. and Res. Ctr.; BOKU Vienna
- This network should strengthen each partner university's position and capability through
  - sharing expertise and costs in the development and delivery of their degree programs, and
  - explore cooperation with other consortia in higher education.
- Fund for Incentives for support of activities
  - budget from membership fees





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## EURASIA-PACIFIC Uninet

- Aims at establishing contacts and scientific partnerships between **Austrian** universities and other research institutions with member institutions in **East Asia, Central Asia, South Asia** and the **Pacific region**
- Scholarships for
  - Ph.D. and Postdoc mobility
  - Staff exchange
  - Summer schools



<http://www.eurasiapacific.net/>

## ASEA-Uninet

- ASEAN-European Academic University Network
- Austria was founding member in 1994
- Member universities are from the ASEAN countries (Indonesia, Malaysia, Philippines, Thailand and Vietnam) and Pakistan as associated member; European members include Austria, Czech Republic, Germany, Italy, Russia



<http://asea-uninet.uibk.ac.at/anetinfo.html>



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## CDR - Centre for Development Research

- The CDR is a multi-disciplinary scientific unit located at BOKU, founded 2009
- It brings together a multidisciplinary network of over twenty scientists from BOKU
- The CDR engages in national and international networks such as the AGRINATURA (The European Alliance on Agricultural Knowledge for Development) and the Commission for Development Studies (KEF)
- The CDR collaborates with a wide range of partners in Africa, Asia and Latin America
- It conducts applied development research and training in areas related to sustainable natural resource management.
- The CDR works towards poverty reduction, food security, and well-being for the most vulnerable population



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**THANKS FOR YOUR ATTENTION!**

Prof. Dr. Josef Glössl  
Vice Rector for Research  
and International Research Collaboration

[josef.gloessler@boku.ac.at](mailto:josef.gloessler@boku.ac.at)  
[www.boku.ac.at](http://www.boku.ac.at)

