



Die Universität für Bodenkultur Wien

University of Natural Resources and Life Sciences, Vienna

www.boku.ac.at

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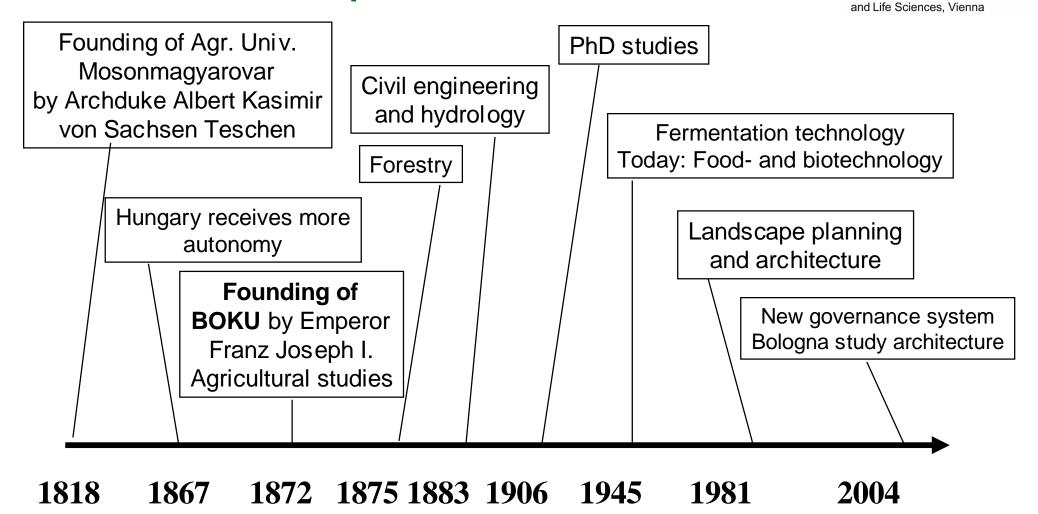
The University of Natural Resources and Life Sciences, Vienna, the Alma Mater Viridis, sees itself as an education and research centre for renewable resources, which are a necessity for human life. With its wide range of areas of expertise it is the task of BOKU to contribute significantly to the protection of life resour ces 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.

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Historical development of BOKU



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y of Natural Resources and Lite Sciences Vienna Ë Facts and figures



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

- Founded in 1872
- ~ 11.500 students in 9 Bachelor, 25 Master (+ several double degree programms; 10 Master programs in English) and several PhD programs (~ 800 students); 1550 graduates per year; students satisfaction: top rank in Austria; 18% foreign students; Green University ranking: no. 8 in Europe, No 1 in sGerman speaking world%QS World University Ranking by Subject . Agriculture & Forestry: **Top 51-100**
- ~ 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 projects (FWF, COMET, Christian Doppler, Laura Bassi, WWTF,...)
- ~ 100 Mio " GUF, **36 Mio Öexternal resources** (research projects; 2012)
- ~ 2500 scientific publications per year (~ 604 SCI), ~ 1400 presentations per year
- Organized in 15 departments

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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:

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grams



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)

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grams - international



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

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and Competences

merming 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

Food nutrition -

Resources and societal dynamics

Nano sciences and technology

Securing nutrition and health

Renewable raw materials, resources oriented technologies

health

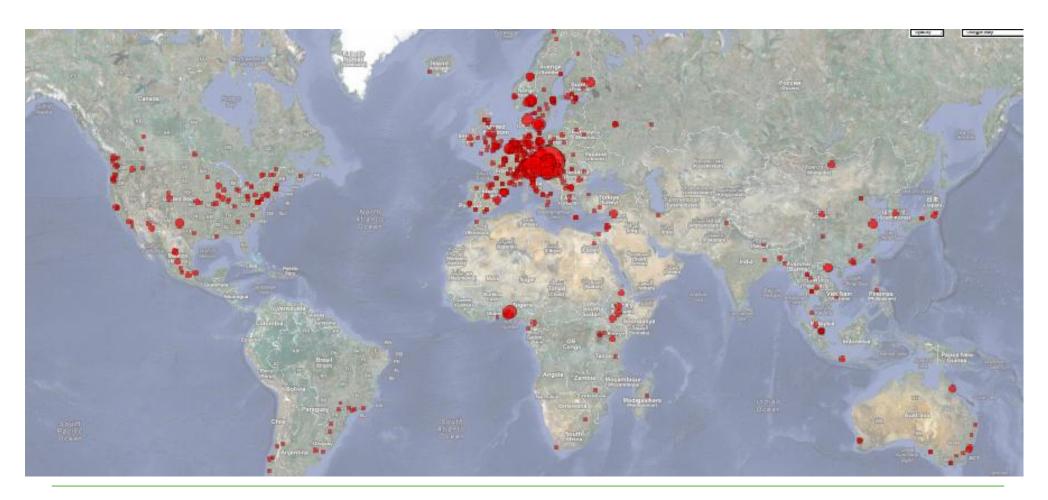
Biotechnology





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Map of co-authorships of BOKU publications



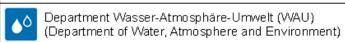
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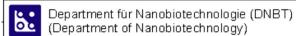


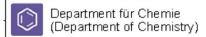
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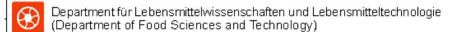
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Department für Nachhaltige Agrarsysteme (Department of Sustainable Agricultural Systems)

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)



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BOKU Departments

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- Türkenschanze / Gregor Mendel Straße
- BOKU Site Muthgasse
- BOKU Site Tulln
- sFourth 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

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Site Turkenschanze







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BOKU Site Muthgasse





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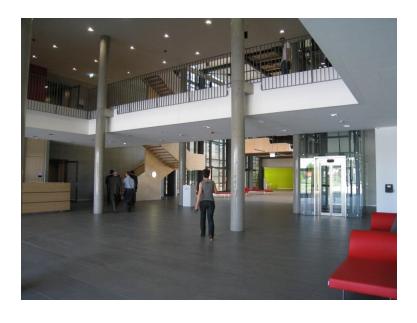








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Major achievements during the last four years

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- 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 sMuthgasse 3‰ (2009)
- Opening of the University and Research Centre Tulln (2011)
- QS World University Ranking by Subject. Agriculture & Forestry: **Top 51-100** (2013)
- Green university ranking 2012, rank 1 in German-Speaking countries, rank 8 in Europe and rank 21 worldwide (of 215 institutions).

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for Internationalisation



Universitat für Bodenkultur Wie University of Natural Resources and Life Sciences, Vienna

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: BOKUB 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



ICA Regional Network for Central and South Eastern Europe (Í ICA-CASEEÎ)

- ➤ 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



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www.ica-europe.info/casee



the ICA-CASEE network



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- 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 <u>natural resources</u> (soil, bioresources, water,..)
 - Development of <u>high-end technological methods</u> in biotechnology (biorefinery, renewable energy,....)
 - Landscape development; town- and country planning
 - And many more.....



Examples of CASEE Activities - 1CASEE involvement in the EU Strategy for the Danube region



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Project selected by Priority Area 7 as a Þflagship projectĺ



Í Danube River REsearch And Management . DREAMÎ

Objectives:

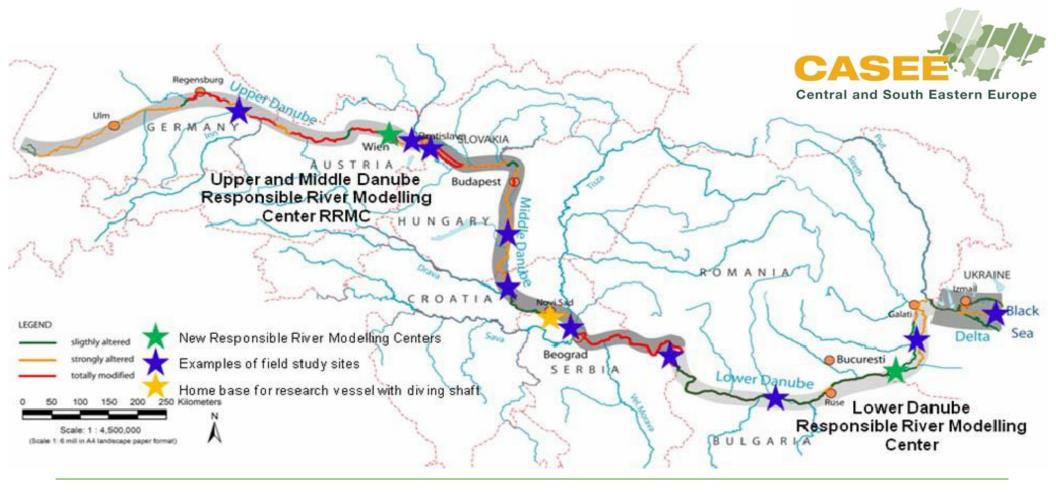
- ➤ Building two large **Responsible River Modelling Centers**/hydraulic engineering laboratories (5.000 liter/sec)
- Establishing a **network** of **field study sites for model calibration** and **validation**
- >construction of a research vessel with a diving shaft for the whole Danube
- Establishment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



Geographical distribution of research sites



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Science Universities - 1

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- 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

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
- ➤ Rectorsqand DeansqForum in Ghent in Oct. 2012



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ectors Conference

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- 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 uni versities 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 Pri ority Area working groups of the EU Strategy for the Danube Regi on

ue 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



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/



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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



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





CDR - Centre for Development Research

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- ➤ 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 wellbeing for the most vulnerable population



Universität für Bodenkultur Wien (BOKU)

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University of Natural Resources and Life Sciences, Vienna

THANKS FOR YOUR ATTENTION!

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