BETTER POLICIES FOR BETTER LIVES

Co-operative Research Programme:
Sustainable Agricultural and Food Systems

AUSTRIA

Agriculture, Food, Fisheries and Forestry Research Facilities

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Universities/Higher Education Institutes

University of Natural Resources and Life Sciences - BOKU

https://boku.ac.at/en/research

The security and sustainable use of natural resources are at the centre of research at BOKU, in particular:

a) preservation and development of the environment and quality of life

b) management of natural resources and the environment

c) safeguarding food and health

Areas of Competence/Research/Faculty/Department

1. Soil and land ecosystems
2. Water - atmosphere - environment
3. Habitat and landscape
4. Renewable raw materials and resource-efficient technologies
5. Food - nutrition - health
6. Biotechnology
7. Nanosciences and technology
8. Resources and social dynamics
9. Institute of Agricultural and Forestry Economics

University of Vienna

https://www.univie.ac.at/en/

Priorities in interdisciplinary and internationally fields of research:

- Health & Microbiome
- Data Science & Digital Humanities
- Society & Communication
- Molecular Biology & Cognitive Neuroscience
- Materials & Quantum Science

Research at the University of Vienna

https://www.univie.ac.at/en/research/research-overview/research-at-the-university-of-vienna/

Austria

Areas of Competence/Research/Faculty/Department

1. Faculty of Chemistry
   e.g. Bioanalysis & Environmental analysis,
   Functional & Sustainable Materials Chemistry,
   Food Chemistry & Physiological Chemistry

2. Faculty of Life Science
   e.g. Environmental Change Biology,
   Microbial Ecology and Ecosystems,
   Computational Life Science

3. Faculty of Computer Science
   e.g. Bioinformatics & Computational Biology,
   Scientific Computing

4. Centre for Microbiology & Environmental Systems Science
   e.g. Environmental Geosciences,
   Terrestrial Ecosystem Research,
   Microbial Ecology

5. Centre for Molecular biology
   e.g. Disease Mechanisms, Immunology, Pathogens,
   Computational Biology, Genomes and Evolution,
   Gene Regulation, RNA, Epigenetics

University of Graz

https://www.uni-graz.at/en/

Priorities in five fields of excellence:

- Climate Change Graz
- BioHealth
- Complexity of Life in Basic Research and Innovation (COLIBRI)
- Smart Regulation
- Dimensions of Europeanization

Areas of Competence/Research/Faculty/Department

https://www.uni-graz.at/en/university/information/research-profile/

1. Environment and Global Change
   e.g. Global Earth Observation and Stewardship,
   Regional Integrated Modeling and Studies,
   Changing Ecosystems & Earth-external Environmental Systems,
   Green Processes and Technologies,
   Human Dimensions of Climate and Global Change,
   Regional Changes Research & Knowledge Transfer for Sustainability
2. The Human Factor in Digital Transformation
3. Brain and Behaviour
4. Heterogeneity and Cohesion

Austria

University of Innsbruck

https://www.uibk.ac.at/

Researchers manage four (Integration) Competency Centres (ICC) and participate in three other ICCs:

1. alpS – Centre for Natural Hazard and Risk Management
2. Technology Centre for Skiing and Alpine Sports
3. Material Center Tyrol
4. Textile Competence Centre Vorarlberg
5. VASCage
6. Oncoytyrol
7. Austrian Center of Industrial Biotechnology

Areas of Competence/Research/Faculty/Department

https://www.uibk.ac.at/forschung/profilbildung/#fsp

1. Mountain Regions
    - e.g. Climate – Cryosphere and Atmosphere,
    - Environmental Economics and Regional Development,
    - Geodynamics – Geomaterials,
    - Global Change – Regional Sustainability,
    - Mountain Climate and Environment,
    - Mountain Agriculture Research Unit
2. Digital Science Center
3. Cultural Encounters – Cultural Conflicts
4. Physics
5. Scientific Computing

University of Klagenfurt

https://www.aau.at/en/university/

The University is organised in four faculties, 34 departments and several specialized centers which serve as sites for teaching and research:

1. Faculty of Technical Sciences
2. Faculty of Interdisciplinary Studies
3. Faculty of Management and Economics
4. Faculty of Humanities

Areas of Competence/Research/Faculty/Department

https://www.aau.at/en/research/research-profile/main-research-areas/

1. Sustainability
2. Energy Management & Energy Technology
3. Networked and autonomous systems
4. Self-organizing Systems
5. Humans in the Digital Age

Austria

TU Wien – Vienna University of Technology

https://www.tuwien.at/en/tu-wien/

Priorities in research are focused on:

- Engineering
- Computer Science
- Natural Sciences

Areas of Competence/Research/Faculty/Department

https://www.tuwien.at/en/research/

1. Energy and Environment
    - e.g. Climate Neutral, Renewable and Coventional Energy Supply Systems,
    - Environmental Monitoring and Climate Adaptation,
    - Sustainable Production and Technologies
2. Information and Communication Technology
3. Computational Science and Engineering
4. Materials and Matter

TU Graz – Graz University of Technology

https://www.tugraz.at/en/research/forschungsschwerpunkte-5-fields-of-expertise/overview-fields-of-expertise/

The fields of expertise are:

- Sustainable Systems
- Advanced Materials Science
- Human and Biotechnology
- Information, Communication and Computing
- Mobility and Production

Areas of Competence/Research/Faculty/Department

1. Sustainable construction
    - e.g. Economic implementation of complex geometries and shapes in wood construction
    - Resource-efficient, non-standard construction methods – prototype construction in the robot design laboratory
2. Future-oriented energy systems
    - e.g. Thermal energy systems and biomass exploitation,
    - Process evaluation and synthesis, and waste and emission-free technologies/systems
3. Microanalytics and nanoanalytics, structure determination
    - e.g. Biocides, bioresponsive and biodegradable plastics
4. Industrial Biotechnology
    - e.g. Biocatalysis - green chemistry,
    - Computational biotechnology
5. Environmental Biotechnology

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- e.g. Metagenomics research and bioresource mining,
- Microbe-plant interactions,
- Food chemistry and human sensors,
- Enzymatic decomposition and modification of (bio-)polymers,
- Use of renewable materials through biotechnological processes

Johannes Kepler University Linz

https://www.jku.at/en/

Engineering, Tradition, technological creativity and accomplishment are focused on:

- Sustainable Development
- Digital Transformation
- Transformation in Finance and Financial Institutions
- Linz Institute of Technology (LIT)

Areas of Competence/Research/Faculty/Department

https://www.jku.at/en/the-jku/organization/institutes/

1. Faculty of Engineering & Natural Sciences
   - e.g. Chemistry & Polymer Engineering Technologies
   - Computer Science
2. Faculty of Social Science, Economics & Business

Montan University Leoben

https://www.unileoben.ac.at/en/

The research profile covers:

- Environmental technology and recycling
- Energy technology
- Extraction and processing of raw materials to metallurgy
- High-performance materials
- Process and product engineering

Areas of Competence/Research/Faculty/Department

https://www.unileoben.ac.at/en/3051/

1. Environmental and Energy Process Engineering
   - e.g. Waste Processing Technology and Waste Management,
   - Process Technology and Industrial Environmental Protection
2. Applied Geosciences and Geophysics
3. Polymer Engineering and Science
4. General, Analytical and Physical Chemistry
5. Mathematics and Information Technology
6. Product Engineering
7. Mineral Resources Engineering
8. Petroleum Engineering
9. Physical Metallurgy and Materials Testing

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10. Electrical Engineering

University of Veterinary Medicine, Vienna

https://www.vetmeduni.ac.at/en/research/

Priorities of research are focused on applied and clinical research as well as basic research in veterinary medicine:

- Food safety
- Organismic biology and biodiversity
- Animal health
- Preventative veterinary medicine
- Comparative medicine
- Animal models
- Public health services
- Animal husbandry, animal welfare and animal ethics

Areas of Competence/Research/Faculty/Department

https://www.vetmeduni.ac.at/en/university/departments/

1. Department of Biomedical Sciences
   - e.g. Animal Breeding and Genetics,
   - Bioinformatics and Biostatistics Platform
2. Department for Farm Animals and Veterinary Public Health
   - e.g. Institute of Food Safety, Food Technology and Veterinary Public Health,
   - Animal Nutrition and Functional Plant Compounds
3. Department for Pathobiology
   - e.g. Virology
4. Interdisciplinary Life Sciences
   - e.g. Research Institute of Wildlife Ecology,
   - Messerli Research Institute

University of Applied Sciences – Fachhochschule Technikum Wien

https://www.technikum-wien.at/en/en/research/research_at_uas_technikum_wien_/

Research is conducted in cooperation with companies from business and industry, and also in collaboration with scientific partners from academic as well as non-university areas.

Areas of Competence/Research/Faculty/Department

https://www.technikum-wien.at/en/research/research/research-focuses/

1. Renewable Urban Energy Systems
2. Embedded Systems & Cyber-Physical Systems
3. Data-Driven, Smart & Secure Services
4. Tissue Engineering & Molecular Life Science Technologies
5. Automation & Robotics

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University of Applied Sciences – Fachhochschule Campus Wien

https://www.fh-campuswien.ac.at/en/

The University focuses on the application-oriented research and development with partners from the industry and the public sector as well as ensuring quality through research-oriented teaching.

Areas of Competence/Research/Faculty/Department

https://www.fh-campuswien.ac.at/en/research/research-fields.html

1. Applied Life Sciences
    - Sustainability and Packaging Research,
    - Biotechnology,
    - Molecular Biotechnology
2. Engineering
    - e.g. Smart & Green Technologies

University of Applied Sciences – Fachhochschule Vorarlberg

https://www.fhv.at/en/research/

Research is undertaken in:

- Research Centre Digital Factory
- Research Centre Energy
- Research Centre Microtechnology
- Research Centre for User Centred Technologies
- Research Centre for Social and Economic Sciences

Areas of Competence/Research/Faculty/Department

1. Energy Storage Technologies
2. Autonomous Load Management
3. Integration of Renewables

University of Applied Sciences – Fachhochschule Krems

https://www.fh-krems.ac.at/en/

The focus areas are:

- Digitalisation and engineering
- Life Sciences
- Health
- Business

Areas of Competence/Research/Faculty/Department

https://www.fh-krems.ac.at/en/research/department-of-life-sciences/

Department of Life Sciences
e.g. Materials Science,
Medical Biotechnology,
Bioprocess Engineering

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University of Applied Sciences – Fachhochschule St. Pölten

https://www.fhstp.ac.at/en

The focus areas are:

- Computer Science and Security
- Health Science
- Digital Business and Innovation
- Media and Digital Technologies
- Rail Technology and Mobility
- Social Science

Areas of Competence/Research/Faculty/Department

https://research.fhstp.ac.at/en

1. Institute for Innovation Systems
2. Institute of Health Sciences
3. Institute of Creative/Media/Technologies
4. Center for Digital Health Innovation
5. Josef Ressel and COMET Centers
6. Knowledge Transfer and Innovation

University of Applied Sciences – Fachhochschule Salzburg

https://www.fh-salzburg.ac.at/en/research/research-and-development

Research is clustered in four disciplines:

- Engineering
- Health Studies
- Business and Social Sciences
- Design, Media and Arts

Areas of Competence/Research/Faculty/Department

1. Forest Products Technology & Biogenic Technology,
2. Information Technology & Systems Management
3. Smart Building & Smart City

University of Applied Sciences – Fachhochschule Joanneum

https://www.fh-joanneum.at/en/

Focus on the following aspects:

- Applied Computer Sciences
- Engineering
- Building, Energy & Society

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- Health Studies
- Management
- Media & Design

Areas of Competence/Research/Faculty/Department

https://www.fh-joanneum.at/en/research/

1. Biomedical Sciences
2. Electronic Engineering
3. Energy, Transport and Environmental Management
4. Sustainable Food Management

University of Applied Sciences – Fachhochschule Oberösterreich

https://www.fh-ooe.at/en/

Priority areas:

- environment & energy
- food/nutrition
- industrial production processes
- health/aging population
- mobility /logistics

Areas of Competence/Research/Faculty/Department

https://forschung.fh-ooe.at/en/about-research/

1. Food technology and Biotechnology
2. Eco-energy & environmental technology topics
   e.g. solar energy / hydrogen, building optimization / solar mobility,
   waste gas, waste air and wastewater treatment
3. Software Technology and Applications

University of Applied Sciences – Fachhochschule Burgenland

https://www.fh-burgenland.at/en/

Focus on the following aspects:

- Energy & Environmental Management
- Information Technology and Information Management
- Health
- Social Work
- Business Studies

Areas of Competence/Research/Faculty/Department

https://www.fh-burgenland.at/en/research/

1. Energy and Environment
2. Information Technology
3. Health

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MCI The Entrepreneurial School

https://www.mci.edu/en/

Priority areas:

- Food Science & Biotechnologies
- Smart Production & Organization
- Electronics
- Digital Transformation
- Energy & Process Technologies

Areas of Competence/Research/Faculty/Department

https://www.mci.edu/en/research

1. Food Science & Biotechnology
   e.g. Agricultural raw materials & Algae Biotechnology,
   Molecular Biotechnology & Bioengineering,
   Food Production & Product Analysis
2. Smart Production & Organisation
   e.g. Software & Automation Systems in Production
3. Energy & Process Technologies
   e.g. Biomass to Power & Heat,
   Decarbonisation & Hydrogen Management,
   Energy Distribution & Storage,
   Membrane Technology & Water Treatment

CEU – Central European University

https://www.ceu.edu/

Focus on the following aspects:

- Environmental and Energy Studies
- Development Studies
- Economics
- Cognitive Science

Areas of Competence/Research/Faculty/Department

https://www.ceu.edu/node/60

1. Sustainable development
2. Climate change
3. Environmental and Energy Studies

Joanneum Research

https://www.joanneum.at/en/

Joanneum Research is a technology-oriented research institution and has the following key tasks:

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- innovation
- networking
- knowledge transfer

Areas of Competence/Research/Faculty/Department

1. Life – Institute for Climate, Energy and Society
2. Digital – Institute for Biomedicine and Health Sciences
3. Health – Institute for Biomedicine and Health Sciences
4. Materials – Institute for Surface Technologies and Photonics
5. Policies – Institute for Economic and Innovation Research
6. Robotics – Institute for Robotics and Mechatronics

Austria

Other Organisations/Institutes

FiBL - Research Institute of Organic Agriculture

www.fibl.org/en/; mailto: info.oesterreich@fibl.org

The main areas of work include:

- Sustainability Assessment
- Sustainable Food Systems
- Crop and Vegetable Production

Areas of Competence/Research/Faculty/Department

Work Areas:

- Life – Institute for Climate, Energy and Society
- Biodiversity and nature conservation
- International Co-operation
- Sustainability Assessment and Climate Protection

Themes and Projects:

https://www.fibl.org/en/themes

- Soil
- Crops
- Livestock
- Society
- Sustainability
- Quality Assurance
- Knowledge Exchange
- International

GMI – Gregor Mendel Institute of Molecular Plant Biology

https://www.oeaw.ac.at/gmi/

Priority areas:

- Plant molecular biology
- Basic plant research

Areas of Competence/Research/Faculty/Department

https://www.oeaw.ac.at/gmi/research/research-groups/

1. Genomics and Epigenomics of Plant-Plant and Plant-Environment Interactions
2. Plant Cell Signaling at the Interface of Growth and Defense

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3. Development and Evolution of Land Plants
4. Chromatin Architecture and Function
5. Autophagy Mediated Cellular Quality Control Mechanisms in Plants

IMP – Research Institute of Molecular Pathology

https://www.imp.ac.at/

Research at the IMP in the field of:

- Molecular biology

Areas of Competence/Research/Faculty/Department

https://www.imp.ac.at/research/groups/

1. Molecular and Cellular Biology
2. Structural Biology and Biochemistry
3. Gene Expression and Chromosome Biology
4. Stem Cell Biology and Development
5. Immunology and Cancer
6. Neuroscience

MFPL – Research Institute of Molecular Pathology

https://www.maxperutzlabs.ac.at/

Research at the MFPL in the fields of:

- Molecular Biology
- Cell Biology

Areas of Competence/Research/Faculty/Department

https://www.maxperutzlabs.ac.at/research/research-areas

1. Mechanistic Cell and Developmental Biology
2. Chromatin, RNA and Chromosome Biology
3. Infection and Immunity
4. Structural and Computational Biology

BFW –Austrian Research Centre for Forests

https://www.bfw.gv.at/en/

The BFW is a multidisciplinary training and research centre. It consists of six departments and two forestry training centres.

Areas of Competence/Research/Faculty/Department

https://www.bfw.gv.at/en/

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1. Forest Growth, Silviculture and Genetics
2. Forest Biodiversity and Nature Conservation
3. Forest Ecology and Soil
4. Forest Protection
5. Forest Inventory
6. Natural Hazards

ZAMG – Zentralanstalt für Meteorologie und Geodynamik (Central Institute for Meteorology and Geodynamics)

https://www.zamg.ac.at/cms/en/news

ZAMG is a research institute of the Federal Ministry of Education, Science and Research. It is responsible for:

- meteorological and geophysical examinations
- meteorological and geophysical questions connected to the protection of the environment
- Climatological and geophysical survey

Areas of Competence/Research/Faculty/Department

https://www.zamg.ac.at/cms/en/research

1. Weather
   Meteorological research
2. Climate
   e.g. Glaciology,
   Phenology
3. Environment
   e.g. Development of the atmospheric composition,
   Air quality forecasts
4. Geophysics
   e.g. permafrost,
   archeoprospections

GBA – Geologische Bundesanstalt (Federal Geological Institute)

https://www.geologie.ac.at/en/

GBA is a research institute of the Federal Ministry of Education, Science and Research. It is responsible for:

- Comprehensive geoscientific detailed information
- High level of expertise and research competence in core areas of geology
- Thesaurus Project of the Geological Survey of Austria

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Areas of Competence/Research/Faculty/Department

https://www.geologie.ac.at/en/research-development

1. Mapping
   Geology,
   Substrate Floor,
   Water,
   Mass Movements,
   Energy,
   Geochemistry,
   Geophysics
2. Basic Research
   e.g. sedimentary environment of rocks

Agricultural Research and Education Centre Raumberg-Gumpenstein

http://www.interreg-danube.eu/uploads/media/approved_project_public/0001/10/ebf87a4ca72acf5ff05c10530f08e6af02ab36bd.pdf

This is the largest federal institute of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management and driving-force for sustainable economising in the region.

Renate Mayer (renate.mayer@raumberg-gumpenstein.at); Claudia Plank (claudia.plank@raumberggumpenstein.at)

Areas of Competence/Research/Faculty/Department

1. Livestock Research
2. Plant Production and Cultural Landscape
3. Animal Husbandry and Animal Health
4. Organic Farming and Farm Animal Biodiversity

AIT – Austrian Institute of Technology

https://www.ait.ac.at/en/

AIT performs:

- Development of new technologies/ methods/ tools
- first proof of concepts
- applied research to transfer emerging technologies into specific applications
- demonstrators and prototyping

Areas of Competence/Research/Faculty/Department

https://www.ait.ac.at/en/research-topics/

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1. Microbe-assisted Crop Production
2. Sustainable Thermal Energy Systems
3. Environmental Pathogen Detection
4. Autonomous Systems
5. Bioinformatics
6. Biosensor Technologies
7. Biosignal Processing
8. Crisis and Disaster Management
9. Data Science and Artificial Intelligence
10. Improvement of Plant Quality and Vigor
11. Hybrid Power Plants
12. Microbial Genome Mining & Strain Improvement

SAL – Silicon Austria Labs

https://silicon-austria-labs.com/en/

SAL is laying the basis for smart products and processes that create the foundations for things such as:

- Industry 4.0
- the Internet of Things (IOT)
- autonomous driving
- cyber-physical systems (CPS)
- AI
- smart cities
- smart energy
- smart health

Areas of Competence/Research/Faculty/Department

https://silicon-austria-labs.com/en/research/

1. Sensor systems
2. RF systems
3. Power electronics
4. System integration
5. Embedded Systems

CCCA – Climate Change Centre Austria

https://ccca.ac.at/netzwerkaktivitaeten/internationale-vernetzungsplattform

CCCA is a networking platform for European and international climate agendas. The aim of CCCA is:

- dedication to the social challenge of climate change
- better linking various activities of the Austrian research community with the activities of European and international scientists

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- Austrian climate research community is increasingly informed about and involved in international initiatives

Areas of Competence/Research/Faculty/Department

1. Joint Programming Initiative Climate
2. IPCC - Intergovernmental Panel on Climate Change
3. Climate friendly Research
4. Alpine partnership for local climate campaigns (ALPACA)

UBA – Umweltbundesamt (Environment Agency Austria)

https://umweltbundesamt.at/en/

UBA is a research institute of the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology. It is responsible for:

- Climate: Development of environmentally friendly forms of business
- Circular Economy: Ecologically sustainable processes, production, recycling processes
- Biodiversity: Protecting biodiversity to protect livelihoods

Areas of Competence/Research/Faculty/Department

1. Climate
2. Soil
3. Genetic Engineering
4. Sustainability
5. Land usage
6. Nature Conservation
7. Environment Management System
8. Water

AGES – Agentur für Gesundheit- und Ernährungssicherheit (Agency for Health and Food Security)

https://www.ages.at/en/

AGES is a research institute of the Federal Ministry of Social Affairs, Health, Care and Consumer Protection as well as the Federal Ministry of Agriculture, Regions and Tourism. It is responsible for:

- Food Security
- Food Safety
- Animal Health
- Research & Knowledge
- Public Health
- Medicines & Medical Devices
- Radiation Protection
- Risk Assessment

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- Risk Communication

Areas of Competence/Research/Faculty/Department

1. Environment
2. Agriculture
3. Genetic Engineering
4. Pathogenic Organisms
5. Feed

ÖAW – Österreichische Akademie der Wissenschaften (Austrian Academy of Sciences)

https://www.oeaw.ac.at/en/research/research-at-the-oeaw

ÖAW institutes are engaged in basic research of international standing in a variety of disciplines:

- Life Sciences
- Mathematics, Physics, Space Research and Materials Sciences
- Social Sciences
- Cultural Research
- Historical Sciences
- Asian studies and Social Anthropology
- Archaeology and Classical Studies
- Other Research Units

Areas of Competence/Research/Faculty/Department

1. Institute for Interdisciplinary Mountain Research
2. Institute for Comparative Media and Communication Studies (CMC)
3. Institute of Molecular Biotechnology (IMBA)
4. Research Center for Molecular Medicine (CeMM)
5. Johann Radon Institute for Computational and Applied Mathematics (RICAM)
6. Erich Schmid Institute of Materials Science (ESI)
7. Institute of Technology Assessment (ITA)

International Institute for Applied System Analysis-IIASA

https://iiasa.ac.at/

Research/Faculty/Department/Areas of Competence:

1. Advancing Systems Analysis
2. Biodiversity and Natural Resources
3. Economic Frontiers
4. Energy, Climate and Environment
5. Population and Just Societies