

The Austrian Academy of Sciences

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The Austrian Academy of Sciences (founded 1847) represents a learned society like the great European academies on the one hand and Austria's leading non-university institution for basic research on the other.

It is currently supporting about 65 research institutions: Institutes, Research Units, Scientific Commissions and Research associations as limited liability companies. The Academy counts about 1200 employees in research and administration.

At present the research institutions of the Academy are located at ten places all over Austria: Dornbirn, Graz, Innsbruck, Krems/Donau, Leoben, Linz, Mondsee, Salzburg, Wien, Wiener Neustadt.

The Academy's tasks include

- Research activities in its own research institutions and initiatives for new research fields
- Advisory Function (reports, expertises, statements related to research policy)
- Participation (cooperation) in international research projects and membership in international scientific organisations
- Promotion of highly qualified (young) researchers with grants and awards

Mission

To meet its statutory mission of promoting the sciences in every respect, and in the awareness of its social, cultural and economic responsibility, the Academy promotes and conducts basic research in all fields.

Renowned researchers from Austria and abroad have formed a comprehensive knowledge pool covering a wide array of disciplines for the sake of progress in science as a whole. All of the Academy's activities are closely networked at national, EU, and international level with university and non-university partners.

As a learned society, the Academy contributes decisively to assuring a highly competitive Austrian research, advising decision-makers in politics, business, and society on science-related issues while informing the interested public about major scientific discoveries. The Academy's members support this process by making their broad range of expertise available for the Academy's activities. The Academy gives new impetus by taking up new, forward-looking research areas. Scientific quality, innovation potential and sustainability are the main criteria for the Academy's research profile. As centres of excellence, the Academy's research institutions must stand the test of international competition in the form of periodic evaluations.

The Academy offers fellowships to talented young scholars in promotion programmes that are committed exclusively on the standards of the international scientific community, thus giving highly qualified junior scientists an opportunity to develop scientific expertise. In granting awards, the Academy commends outstanding scientific achievements.

History and Location

The Austrian Academy of Sciences was founded as "Kaiserliche (Imperial) Akademie der Wissenschaften in Wien" on 14th May 1847 under the reign of Ferdinand I.. As a learned society it was a stronghold of scientific freedom.

The Academy soon began extensive research. It published important encyclopedias and conducted research trips to Asia Minor, Southern Arabia and Numibia. Archaeologists started to investigate the Roman border and began excavations in Egypt and in Ephesos, Turkey.

The Academy was also active in a wide variety of topics in the natural sciences. It took scientific responsibility for the circumnavigation of the globe with the "Novara"; it participated in polar and oceanographic research, promoted geological expeditions and investigated the Alps. It founded the Central Office of Meteorology and Geomagnetism in 1851 and the Institute for Radium Research in 1909.

After the Second World War, the Academy rapidly became the country's leading institution in the field of non-university basic research. It founded numerous institutes which cover wide fields of the sciences as well as the humanities and the social sciences.

From 1857 onward the Academy was granted the use of the building of the old University in the center of Vienna. The Academy's main building was designed by the Lorraine architect Jean Nicolas de Ville-Issey and completed in the years 1753 to 1755. It is situated in the center of Vienna next to the building complex of the Jesuit College. The building originally housed the University of Vienna but it was assigned to the "Imperial Academy of Sciences" in 1857. The Festive Hall has a ceiling fresco depicting the university's four faculties and the apotheosis of the imperial couple Maria Theresia and Franz Stephan (who sponsored the erection of the building) as patrons of the sciences and the arts. It was created by Gregorio Guglielmi and Domenico Francia in 1755. In 1961 a fire caused the ceiling to collapse but the fresco could be restored by Paul Reckendorfer with the support of the Austrian Federal Office for the Care of Monuments.

Today the Festive Hall is used for the monthly assemblies of the Academy's members as well as for scientific symposia, public lectures and classical concerts.

The main building currently houses administrative offices and the Academy's library and Archive.

Structure: The Academy's Learned Society

Thanks to its full and corresponding members, the Academy has become a knowledge pool that is unparalleled across Austria in terms of variety. This pool sets impulses for an adequate, balanced and continuous development of the sciences and the humanities in Austria. By virtue of its interdisciplinary, inter-institutional and international composition, the learned society is able to gain a general overview of the sciences and of the performance of universities and non-university research institutions but also to detect gaps in the research spectrum and any innovation potential. In this way, the Academy – unrivalled by other Austrian research institutions – sets accents for and in research. Because of the Academy's autonomy guaranteed under Austrian law, both the sciences and the humanities are promoted – above all under the responsibility of the Academy's learned society – largely independent of any particular interests with the aim of positioning Austrian research in relevant fields of research, ensuring high quality in Austrian science policy and creating an understanding for science and research in Austria.

Like Europe's other major academies, the Austrian Academy of Sciences is also a learned society. It is comprised of two sections, one for mathematics and the natural sciences, and one for the humanities and the social sciences. Scholars from Austria and abroad are elected as full, corresponding or honorary members of the Academy with elections taking place once yearly based on the principle of co-option by existing full members. According to the Academy's bye-laws, full members and corresponding members in Austria must be resident in Austria while corresponding members abroad must be resident outside Austria. The Academy's statutes provide for 90 full members, 45 for each section, and 250 corresponding members, 125 for each section, of these 55 in Austria and 70 abroad. In accordance with the statutes, members aged 70 or older retain all rights, but are not included in the above figures. This means that the Academy's statutes merely stipulate the number of persons under the age of 70 that

may become members in the learned society. Currently the Academy counts about 600 members in Austria and abroad.

In 2007 a new body of members, the “Junge Kurie”, was established. It consists of about 50 members aged under 45 years. The members of the “Junge Kurie” are elected for a period of at most eight years.

In April 2005 the Senate of the Academy was established upon resolution by the General Assembly. As an external advisory body, it supports the Academy in resolving issues of principle, forming an interface to politics, business and the public.

The Senate of the Academy is comprised of:

Incumbent president of the National Assembly (chairperson)

Incumbent chairperson of the Conference of Provincial Governors

President of the Administrative Court

Director-General of the Austrian National Library

Chairman of the Austrian Council for Research and Technology Development

President of the Max Planck Society for the Advancement of Science

President of the Swiss Science and Technology Council

Two members among the sponsors of the Academy

Activities of the research performing organisation

Research activities of the Academy are of a heterogeneous nature. In all scientific projects the self-imposed claim to excellence applies. The research institutions are grouped into fields of research (within the Mathematics and Natural Sciences cluster) respectively centers (within the Humanities and Social Sciences cluster).

Fields of research in the Mathematics and Natural Sciences cluster

Biology and Medicine

In recent history, hardly another area has seen such rapid advances in basic, application-friendly research as the fields of biology and medicine. The Academy has taken this development into account and strengthened existing research institutions, defined main areas of future research and explored new research areas.

Institute for Biomedical Aging Research

Institute of Biophysics and Nanosystems Research

Konrad Lorenz Institute for Ethology

Breath Research Unit

CeMM - Center of Molecular Medicine

GMI - Gregor-Mendel-Institute of Molecular Plant Biology

IMBA - Institute of Molecular Biotechnology

Earth Sciences

Non-university Academy research endeavours to focus, complement and deepen the expertise of Austrian universities in the earth sciences research field. The aim is to enable synergy effects in this field of research, which has a long-standing tradition in Austria.

Commission for Geophysical Research
Commission for Basic Research on Mineral Raw Materials
Commission for the Palaeontological and Stratigraphical Research on Austria
Commission for Quaternary Research
Research Unit for Geographic Information Science

Mathematics, Simulation and Metrology

Mathematics, simulation and metrology are ever more developing into links connecting individual fields of research and are often used as tools without which it would be impossible or very difficult to carry out a comprehensive analysis of data obtained. This demonstrates the necessity of an interdisciplinary approach and requires a comprehensive approach to the problems. Ideally, this can be realised in a non-university research performing organisation.

Johann Radon Institute for Computational and Applied Mathematics
Acoustics Research Institute
Commission for Scientific Visualization
Research Unit for Integrated Sensor Systems

Physics and Materials Sciences

The four Academy research institutes that are active in this area define the research landscape in Austria in these research areas, as they enjoy the highest reputation on account of their research priorities and accomplishments, and make important contributions to international cooperation. Both in the field of physics and in materials science, the Academy's research units have succeeded in strengthening their position among the elite of research institutions by high-profile and high-impact publications and crucial participation in large-scale research endeavours.

Stefan Meyer Institute for Subatomic Physics
Institute for High Energy Physics
Institute for Quantum Optics and Quantum Information
Erich Schmid Institute of Materials Science

Environmental Research

In this field, research is carried out in ecology, limnology and issues as diverse as air quality and the impact of new technologies on the environment and society. In view of the current climate debate, insights into ecosystems, biodiversity and the distribution and impact of air pollutants are thus of tremendous relevance. But the implications of new technologies for the environment and for society are also becoming increasingly important. In these areas, the research units of the Academy provide important fundamental knowledge. Quality objectives can thus be formulated with respect to existing gaps and requirements in a scientific and socio-political context, while strategies to achieve these objectives can be developed.

Institute for Limnology
Clean Air Commission
Commission for Interdisciplinary Ecological Studies
Institute of Technology Assessment

Space Research

Space research and the associated missions typically involve multilateral cooperation, an interdisciplinary approach and projects lasting several years. In order to fulfil these research activities, characterised by continuity and sustainability, a suitable research institution with the appropriate

expertise is required. The Academy responded to the challenge and now operates two research units in the field of space research. This allows the Academy to support long-term missions and contribute its long-established reputation in international cooperative ventures, and also to flexibly coordinate Austrian research activities.

Space Research Institute
Commission for Astronomy

Interdepartmental Research Tasks

Even though the Academy encourages the formation of focused fields of research, it also aims to support research projects that cannot be definitively assigned to any of the fields of research already mentioned.

Commission for the History of Natural Sciences, Mathematics and Medicine
Commission for Scientific Cooperation with the Austrian Federal Ministry of Defence

Centres of the Humanities and Social Sciences cluster

Centre for Ancient World Studies

The aim of the Centre is to link-up all ancient world research at the Academy. The geographical area covered stretches from Central Europe across the Mediterranean region to Egypt and the cultures of the Middle East and Southern Asia; the time period covered ranges from prehistory and early history to the arrival of the Arabs. The research projects are as diverse as the working methods employed. Individual projects, joint ventures with Austrian and foreign institutions and an interdisciplinary special research section supplement the current state of research into the history, material culture, religion, law, literature, art and economy of ancient cultures. Special attention is given to the editing and publication of archaeological, epigraphic and numismatic primary sources, the patrology of late antiquity and papyrology. Owing to the scope, methodical approach and academic effort involved, these are projects that can no longer be handled by universities.

Institute for Studies of Ancient Culture
Commission of Asia Minor
Commission for Egypt and the Levant
Commission for Ancient Literature and Latin Tradition
Commission for Legal History of Ancient States
Commission for Editing the Corpus of the Latin Church Fathers (CSEL)
Commission for Mycenaean Studies
Numismatical Commission
Prehistoric Commission

Centre for Studies in Asian Cultures and Social Anthropology

The aim of the Centre is to carry out research into social, cultural and historical facts and contexts which are rooted in, or have their origins in, selected regions of Asia. In terms of methodology and science history, the Centre employs a range of pluralistic approaches, drawn from the traditions of the “philological-historical method” but which has long adopted methods from social science and cultural studies (including literature, religion etc.). Particularly in this context, social anthropology takes on a special role, linking as it does different methodologies. Long-term cultural developments, historical, cultural and civilisational change and the interplay between tradition and modernity, locality and globality, characterise the thematic and methodical approaches of the Centre. It is necessary for all the

disciplines involved to retain firm roots in their own research traditions. The researchers' main aim is not to identify unique aspects of Asian cultures, but – with due respect for their particular characteristics – to understand their general place within global cultural processes affecting the whole of humankind.

Social Anthropology Research Unit
Institute for Iranian Studies
Institute for the Cultural and Intellectual History of Asia

Centre for Cultural Research

The Centre for Cultural Research is involved in projects in the fields of philology, music, the history of art and theatre, literature and culture, and text technology. This Centre provides an internationally visible platform for key areas of the humanities which also promotes the networking of interdisciplinary topics.

AAC - Austrian Academy Corpus
Institute for Culture Studies and History of Theatre
Commission for the History of Art
Commission for Music Research
Commission for the "Fackel" Text Dictionary

Centre for Medieval Studies

The units of the Centre for Medieval Studies carry out concerted research into cultural history and are concerned with recording, publishing, documenting and interpreting written, pictorial and material sources, in the broadest sense of the word, dating from the medieval and early modern periods in Europe and the eastern Mediterranean.

The Centre's main areas of work include the study of all aspects of material culture as a testimony to the diversity of human experience in medieval and early modern Europe, the critical editing of official records, the publication of sources of medieval legal history, the filming and editing of Austrian inscriptions for documentation purposes, the study of ethnic identities in early medieval Europe, the recording and documentation of basic geographical material and monuments of the Byzantine Empire in its various stages of expansion, lexicographical studies of Greek in the Middle Ages, the systematic study of Byzantine seals, studies of Byzantine records, the cataloguing of manuscripts in Austrian libraries (with particular attention being given to illuminated manuscripts) and the documentation of watermarks from the medieval and early modern periods using beta-radiography. In all these areas, the research carried out in the Centre's units is amongst the most advanced in the world.

Institute for Byzantine Studies
Institute for Medieval History Research
Institute for the Material Culture of the Middle Ages and the Early Modern Period
Commission for Palaeography and Codicology of Medieval Manuscripts in Austria

Centre for Research into the Modern Period and Contemporary History

The research units of this Centre are concerned with the position of the Habsburg monarchy and the Republic of Austria in the context of the multicultural society of modern central Europe. The largest individual project deals with the comparative history of "Continental European Empires 1700–1920". The research area entitled "Die Höfe des Hauses Österreich, 1550–1850" (The Courts of the Austrian Monarchy, 1550-1850), covering an extensive period of history, addresses issues of complexity and functionality in the Austrian monarchy as a complex political system.

The editorial publication of sources of Austrian legal history helps researchers to analyse the fundamental aspect of the Austrian legal system and, increasingly, its eastern neighbours. In international research, the history of the Habsburg monarchy in the 19th century is considered to be a model case when it comes to the possibilities and limitations of the organisation of a multicultural and

federal multinational state, historically seen as an alternative to the nation state and currently as an example for European politics. A lexical aid is provided by the “Österreichisches Biographisches Lexikon” (Austrian Biographical Encyclopaedia), a systematic compendium of prominent individuals covering the period 1815–1950.

Historical Commission

Commission for the History of the Habsburg Monarchy

Commission for Austrian Legal History

Austrian Biographical Encyclopaedia and Biographical Documentation

Social Sciences Research Centre

The Social Sciences Research Centre comprises all those research units concerned with the diverse phenomena of behaviour and the co-existence of human beings in society. This broad spectrum directs attention to often neglected correlations and facilitates the study of borderline areas and interdisciplinary problems. One key area of interest is the relationship between people and space, which involves the documentation, analysis and interpretation of regional, inter-urban and intra-urban disparities in society and land use and the significance of global change for mountain areas. Another key area is devoted to the emergence of a supranational political community and its constitutionalisation, and the analysis of migration and integration processes in Austria and Europe. The relationship between the individual and society is another of the Centre’s main areas of concern. It studies the social phenomenon of mass media and its impact on political communication in a democratic society. Other projects take a comparative approach to tort law, an important aspect of human coexistence, which governs compensation for harm or loss and therefore steers human behaviour. Finally, there is a large area devoted to the description, explanation and prediction of demographic processes.

Research Unit for European Tort Law

Research Unit for Mountain Research: Man and Environment

Institute for Demography

Institute for European Integration Research

Institute for Urban and Regional Research

Commission for Migration and Integration Research

Commission for Comparative Media and Communication Studies

Centre for Linguistics and Audiovisual Documentation

The Centre for Linguistics and Audiovisual Documentation serves as an inter- and intradisciplinary association of research units that combine a rich tradition with innovative approaches. The projects in which the Centre is involved are concerned with the documentation, study and analysis of language(s) and names, taking into account their past and present cultural and social dimensions; the study of spoken variants in Austria and neighbouring, formerly German-speaking areas; and the languages of South-Eastern Europe, particularly the Slavic languages (which are also minority languages in Austria). Another area is concerned with covert and overt first language acquisition in children and the impairment caused by language disorders, and also engages in therapy research. The Centre’s research findings are obtained by building up project-specific corpora, the evaluation of cultural-historical and linguistic sources, and contemporary information. These findings are made publicly available using modern methods of edition and publication based on new media, which provide timely access to the sources. The Centre’s other main tasks include the production and archiving of phonographic and videographic research documents, primarily in the fields of social and cultural anthropology, music ethnology and linguistics, and providing advice and support for Austrian research projects for the acquisition of such research documents. These are accompanied by the ongoing development of methodology and technology in scientific phonography and videography, and source-

critical processes and standards for the analogue-digital transfer of audiovisual sources to make them available in digital form in the long term.

Balkans Commission
Institute of Lexicography of Austrian Dialects and Names
Commission for Linguistics and Communication Research
Austrian Audiovisual Research Archive (Phonogrammarchiv)

Grants & Awards

The Academy is committed to helping junior researchers start out on their careers. It develops its own grant programmes, and manages and bestows its own awards and grants from special purpose public funds, third-party funds, and with the assistance of private sponsors. The scientific and professional development of grant recipients is actively monitored.

To be able to select the best talents, the Academy has developed elaborate assessment mechanisms. These are mainly carried out by members of the Academy but also to a substantial extent by other experts from the Austrian and international scientific community. Applications for grants and awards are assessed by means of an international peer review system to ensure a high level of quality in career building.

Presently the Academy offers eight fellowship programmes for the promotion of highly qualified Austrian junior scientists. Outstanding scientific achievements in various areas of research were appreciated with about 20 Academy awards.

Publications, Library, Computer Center

From 1973 onwards, the Academy has its own publishing house printing the latest research results. Between 60 and 80 publications come out every year.

The Academy has one of the most important libraries in Austria comprising at present up to 300,000 books. The scientific archives of the Academy illuminate the biographical background of Austria's history of research and include numerous unpublished manuscripts of scholars.

The Computing Center (ARZ) provides for modern computer technology and offers innovative solutions to problems of data security and communication.

International and Interdisciplinary Relations

The institutions of the Austrian Academy of Sciences are closely interlinked with international research projects and scientific organisations. At present bilateral agreements with some 47 partner institutions in 43 countries provide the opportunity to participate in international research projects on an exchange basis.

The administration of numerous national and international research programmes is another important task of the Austrian Academy of Sciences. Some of the research institutions of the Academy closely collaborate with leading international institutions, like for example CERN in Geneva. The participation in research programmes of the European Union has gained increasing importance in recent years.

The level of mobility is indicative of vibrant exchanges within each scientific community. Academy staff stands to benefit from such foreign exchanges, which help to broaden their horizons and allow them to grow personally and socially in addition to developing their scientific knowledge. Thus, the Academy is

keen to motivate its staff, especially its junior researchers, to spend time abroad, and has created the necessary conditions, e.g. by amending its collective contract and setting up a scientist exchange programme.