

# The formal process

Herbert Mang, Secretary-General

It is the task of the Austrian Academy of Sciences to promote academic science in all fields from every perspective, particularly in terms of pure research. Accordingly, the Academy lays claim to commensurate sponsorship from public funds. It is the first research institution in Austria to establish a mechanism for permanent quality assurance through the regular publication of its Medium-Term Research Programme, which forms the basis for continuation, re-orientation or conclusion of the various research enterprises. This evaluation process is intended to serve programmatic orientation of the Academy and, at the same time, to ensure academic excellence on a sustained basis.

Over the past five years (1996–2000), the Austrian Academy of Sciences has commissioned a systematic academic evaluation of all its 56 research institutions by external experts in the relevant specialist subject areas, and has made the results and consequences accessible to the general public through the brochure publications *Evaluation Results 1* and *2*.

Through its current Medium-Term Research Programme 2001–2005, the Academy is reaffirming its ambition to achieve outstanding quality in its research activities, at the same time issuing an invitation to critical and attendant observation.

The Medium-Term Research Programme 2001–2005 is intended to lead to the adjustment and amendment of the Academy's research aims in terms of both content and structure, and to present an opening for discussion on the following:

- the future content of research activities;
- the structure of individual areas of research; and
- rigorous implementation of specific recommendations.

Based on its positive experiences, the Academy will retain the format of an external evaluation by independent experts as a central element of quality assurance.

The Evaluation serves the following complementary aims:

- planning the content of research activities for the coming years;
- justification of the Academy's public funding; and
- information to a broader public.

## Principles

With its Medium-Term Research Programme 2001–2005, the Austrian Academy of Sciences is continuing a process of research planning which was initiated back in 1995 as an open, transparent process of groundwork for decision-making and quality assurance. This process relies on the present research programme as a foundation and information base, and on evaluation conducted by independent experts.

The aim of this research programme is to justify the statutory claim of the Austrian Academy of Sciences to public funding. It further serves to proclaim the nature, scope and content of the various research activities. The present publication is intended to enable a public audit of the Academy's independently selected areas of research in terms of objectives achieved. Based on evaluation of all research institutions of the Academy conducted in the years 1996 to 2000, the Medium-Term Research Programme 2001–2005 offers a perspective on the future of important sectors of extra-university research in Austria. Parallel to this, the present research programme offers members and staff of the Academy, as well as the public at large, comprehensive information on the objectives, content and scope of the very diverse areas of research.

## Content

The basis of the present Medium-Term Research Programme 2001–2005 is formed by the plans prepared by the heads of the research institutions jointly with the academic staff, taking particular account of requirements imposed by the Presiding Committee (*Präsidium*), and with the support of fellows of the Academy and managerial staff.

The present publication is divided into the following areas of research: social sciences, historical sciences of antiquity, European languages and literatures, Asian research and social anthropology, Austria, the Danube region and Europe, European history to 1500, prehistory and palaeontology, information sciences, solid-state physics and biophysics, limnology, behavioural research and the environment, biology and medicine, particle physics and mathematics, space research, astronomy and atmospheric physics. Each field of research is presented by a fellow of the Academy on the basis of the plans of the research institutions comprised within the relevant subject area.

## Programme development

The Medium-Term Research Programme 2001–2005 represents a continuation of the Academy's research-planning process. The present research programme provides information on research planning for the next five years in the fields of research of those research institutions currently comprised within the Academy. The following principles characterize the genesis of the present research programme:

- consultation with international, top-class external experts having an excellent global understanding of their relevant field of research;
- the combining of academic disciplines to form autonomous fields of research according to criteria of expediency from the perspective of the Academy;
- in terms of consultation focus for the Academy, medium and long-term strategic research options in the various fields of academic research;
- autonomous management of the consultation process by a single, highly-qualified researcher assuming the position of chairman of an external, independent Programme Committee;
- staffing of the Programme Committee on an independent basis from the Academy, under the overall direction of the Committee chairman, and choice of Committee procedure taking account of the financial framework conditions imposed by the Academy;
- the conclusions of the Programme Committee are interpreted as key recommendations to the Academy, and remain confidential until released by the Academy;
- the Programme Committee is then wound up, once its consultancy tasks have been completed.

## Structure

- \* Programme proposal
- \* Programme audit
- \* Programme modification
- \* Programme declaration
- \* Programme implementation

## Programme proposal

Programme proposals are the result of creative processes. Such proposals are submitted to the Academy's Presiding Committee or are initiated by the Presiding Committee itself. Frequently, such proposals relate to the initiation of new research directions which are either not represented or which are at best under-represented in Austrian research institutions.

## Programme audit

In collaboration and partnership with both Austrian and foreign specialist colleagues, the Presiding Committee of the Academy selects a researcher of

the appropriate academic standing who is willing to assume responsibility for and take the initiative with regard to the formation and leadership of an external, international committee of experts for a particular field of research. This so-called Programme Committee elaborates proposals for the Academy in terms of desirable avenues of research and options for implementation. In the context of this process, the Committee takes account of any changes of emphasis in the Academy's research which may impact upon such proposals, including any new institutions, restructuring, or facility closures.

The role of the Programme Committee is to submit proposals on its own initiative and determine the current status of a particular area of research, whereby consideration must be given to existing circumstances (research topics, identity of researchers, sponsor organizations, forms of research organization, time and resource horizons, opportunities and threats). Further, the Committee is expected to elucidate topical and academically pertinent options, describe trends, and set out new research approaches. Options for implementation must also be recorded in writing in summary, condensed form, and in terms comprehensible to academics from other disciplines.

The Programme Committee uses all requisite internal and external sources of information (such as, for instance, programme proposers, Academy fellows and Presiding-Committee members, staff of the Academy's research and administrative institutions, institute advisory boards, research-unit advisory boards, and internal Academy documentation such as annual reports and accounts).

## Programme modification

Following a provisional internal Committee appraisal, the Presiding Committee convenes a discussion panel of experts and invites the heads of the relevant research institutions and the competent internal supervisory bodies to respond. At the level of the relevant specialist subject areas, the Programme Committees take account of the outcome of this discussion process in preparing their proposals and making recommendations to the Academy. This may lead to modifications in the various subject-specific provisional appraisals prepared by the Programme Committee.

Further to evaluation of the proposals arising from the Programme discussion, the Academy comes to an independent decision on the content and scope of its Medium-Term Research Programmes, each of which is scheduled over five years.

## Programme declaration

Following adoption of the Medium-Term Research Programme by the Academy of Sciences, the Academy arranges for publication in the appropriate form.

### Programme implementation

Research programmes of the Austrian Academy of Sciences are realized within the relevant research institutions of the Academy.

In addition to research institutes, the Academy has research units and academic commissions. Research units are basically structured in the same manner as institutes, and are set up for a three-year limited period, although their existence may be extended by a further three years. Once this scheduled period has expired, the Academy decides on whether to close the unit in question or convert it into a permanent research institution, such as a research institute.

Both institutes and research units are run by an academic head. By way of supervisory and advisory body, a form of advisory board known as a *Kuratorium* is attached to institutes, reporting to the Presiding Committee, while an equivalent body known as a *Beirat* is attached to the research units.

Academic commissions are set up for particular fields of research for a period of five years, although this period may be extended indefinitely. They constitute a forum for collaboration between Academy fellows and Austrian and foreign scholars under the leadership of an Academy fellow. The supervisory bodies governing the Commissions are the highest organs of the Academy (Schools/full assembly of the Academy).

Annual reporting by the heads of the research institutions to the relevant supervisory body, as well as to the Presiding Committee, is intended to facilitate not only ongoing research control, but also academic discussion of programmes and thus the possibility of timely reorientation.

Advisory boards, as well as Schools and the full assembly of the Academy, constitute established supervisory and advisory committees in the context of planned programme implementation.

### Procedural sequence

The content and sequence of Evaluations are based on the principle that ongoing critical assessment of the quality of academic research work forms part of the academic research system itself. Evaluation is intended on the one hand to render this intra-disciplinary assessment accessible to the overall research organization – in this case the Academy itself – and the public, but it must also fulfil broader functions than this, for it is further intended to foster the positioning of research work in a broader temporal, academic and institutional context. All three of these contexts demand a detachment from the research institution being evaluated, and this requisite detachment is the motivation behind the Academy's decision to engage external experts. It also explains why the Programme Committees in no manner replace the Academy's permanent academic supervisory bodies, and are wound up once the Evaluation in question has been completed.

Over the next five years, each of the aforementioned fields of research will go through the above

process of Programme development. Such a process will take an anticipated period of one year to complete.

The detailed procedural sequence is as follows:

1. At the request of the Presiding Committee, the research institutions formulate their concepts as to their work programme for the coming few years.
2. Several associated research institutions are combined to form a field of research, which is evaluated by a Programme Committee. The necessary heterogeneity of the Programme Committee in terms of subject expertise ensures assessment from a broader disciplinary perspective. In any event, the Academy's large number of relatively small research institutions would not permit a separate evaluation of each individual institution.
3. For each specific area of research, the Academy's Presiding Committee appoints a head of the Programme Committee, who then selects the further members of the Committee on his or her own authority.
4. The Programme Committee examines the research institutions belonging to the particular field of research, together with their work programmes. The evaluation should be specifically focused on the future of the respective field of research. Past and present are only taken into account in so far as they are relevant to an assessment of development potential in the particular field of research.
5. The Programme Committee presents the results of its audit to the Presiding Committee. If several research institutions are comprised within one field of research, the report is divided into a general section (covering the entire field of research), and further separate sections.
6. The heads of the research institutions submit to the Presiding Committee their formal written responses to the audit report.
7. The Presiding Committee refers the outcome of the audit and the relevant written responses to the competent internal supervisory body, then transmits these written responses, together with any written opinion of the supervisory body, to the Programme Committee.
8. The final report by the Programme Committee is submitted to the Presiding Committee.
9. The competent Secretary reports within the School.
10. Having held oral discussions with the heads of the research institutions, the planning commission holds consultations.
11. Further to presentation of a proposal from the Presiding Committee, a decision is adopted by the School and/or the full assembly of the Academy.

The Academy's various fields of research will be studied in terms of their medium-term research planning according to the following timetable, with a view to determining future research options.

## Medium-term Research Programme of the Austrian Academy of Sciences 2001–2005

(Table I: Proposed timetable for the evaluation of individual fields of research)

2002	2003	2004	2005
Information Sciences			
Particle Physics and Mathematics			
European History to 1500			
	Social Sciences		
	Austria, the Danube Region and Europe		
	Solid-State Physics and Biophysics		
		Limnology, Behavioural Research and the Environment	
		Asian Research and Social Anthropology	
		European Languages and Literatures	
		Space Research, Astronomy and Physics of the Atmosphere	
			Historical Sciences of Antiquity
			Prehistory and Paleontology
			Biology and Medicine

### List of research fields and associated institutions

#### Social Sciences

Institute for Technology Assessment  
 Institute for Demography  
 Institute for Urban and Regional Research  
 Research Unit for Institutional Change and European Integration  
 Commission for Historical Press Research

#### Historical Sciences of Antiquity

Institute for Studies of Ancient Culture  
 Commission for Legal History of Ancient States  
 Numismatical Commission  
 Egyptian Commission  
 Commission for Mycenaean Studies  
 Commission of Asia Minor

#### European Languages and Literatures

Commission for Literary Studies  
 Commission for Editing the Corpus of the Latin Church Fathers (CSEL)  
 Commission for Ancient Literature and Latin Tradition  
 Commission for Non-Fictional Literary Texts  
 Institute for Lexicography of Austrian Dialects and Names  
 Balkans Commission

#### Asian Research and Social Anthropology

Institute for Asian Studies  
 Commission for Social Anthropology  
 Commission for Iranian Studies

#### Austria, the Danube Region and Europe

Commission for the History of Art  
 Commission for Music Research  
 Commission for Culture Studies and History of Theatre  
 Historical Commission  
 Commission for the History of the Habsburg Monarchy  
 Austrian Biographical Encyclopaedia and Biographical Documentation  
 Commission for Austrian Legal History  
 Commission for the History of Natural Sciences, Mathematics and Medicine

#### European History to 1500

Commission for Byzantine Studies  
 Commission for the Tabula Imperii Byzantini  
 Institute for Research into the Daily Life and Material Culture of the Middle Ages and the Early Modern Period  
 Medieval History Research Unit  
 Commission for Paleography and Codicology of Medieval Manuscripts in Austria

**Prehistory and Paleontology**

Prehistorical Commission  
Commission for Paleontological and Stratigraphical Research on Austria  
Commission for Quaternary Research

**Information Sciences**

Commission for Linguistics and Communication Research  
Phonogram Archive  
Acoustics Research Institute  
Commission for Scientific Visualization

**Solid-State Physics and Biophysics**

Erich Schmid Institute of Materials Science  
Institute for Biophysics and X-Ray Structure Research  
Commission for Geophysical Research  
Commission for Basic Research on Mineral Raw Materials

**Limnology, Behavioural Research and the Environment**

Institute for Limnology  
Konrad Lorenz Institute for Comparative Behavioural Research  
Commission for Interdisciplinary Ecological Studies

**Biology and Medicine**

Institute for Biomedical Aging Research  
Institute for Molecular Biology  
Institute of Cell and Developmental Biology (IZEB)  
Institute of Molecular and Cellular Bioinformatics (IMBA)  
Center of Molecular Medicine (CeMM)

**Particle Physics and Mathematics**

Institute for High Energy Physics  
Institute for Medium Energy Physics  
Institute of Discrete Mathematics

**Space Research, Astronomy and Atmospheric Physics**

Space Research Institute  
Commission for Astronomy  
Commission for Maintenance of Clean Air

