ÖAW AUSTRIAN ACADEMY OF SCIENCES

Approved by the General Assembly on March 17, 2023.

OeAW Development Plan

2024–2026

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1. Preamble

This development plan (DP) sets out the strategic goals and outlook of the Austrian Academy of Sciences (OeAW) for the years 2024 to 2026. It also forms the basis for negotiations for the upcoming performance agreement (PA) between the OeAW and the Federal Ministry of Education, Science and Research (BMBWF). The legal classification of the PA, the contractual partners, and the minimum content are specified in the Research Funding Act (FoFinaG).

The OeAW itself is legally regulated by its own federal law ("OeAW-Gesetz: OeAWG"). Its task is to promote academic research in every respect. It enjoys the special protection of the Republic of Austria, represented by the Federal President, and has the right to protection and support from the federal government in fulfilling its mission.

The OeAW promotes academic research in the sciences and humanities by establishing and operating research institutions, by financing research programs and people, and by establishing a community of experts who address fundamental scientific questions. The OeAW is simultaneously a research institution, research funding organization, and learned society. As such, it holds a unique position in the Austrian research landscape that cannot be compared to other university or non-university institutions.

The science to be funded is not restricted in any way in the OeAWG. The breadth of scientific disciplines funded by the OeAW is one of its key features, as is the focus on curiosity-driven, application-independent basic research. This does not exclude the application of research but sets a specific focus: curiosity and openness as well as expertise and excellence characterize the scientific work of the OeAW.

The present DP is based on the development plans of the previous periods, advances in scientific knowledge, changed social issues, and the research policy framework in Austria and in the European Union. The planned activities follow on from existing initiatives and in many cases extend beyond the coming performance period.

The DP names the basic operating and design principles of the OeAW, the previous and future focal points of the research institution, the research funding organization, and the Learned Society, and also contains information on administration, locations, publishing, and budget requirements. The DP was drawn up by the Presiding Committee and discussed in the Academy Council in accordance with the OeAW's by-laws and finally approved by the General Assembly.

2. The Academy as a whole: operating and design principles

The operating and design principles of the OeAW follow its self-perception as a research institution borne by excellence; one that is a research performing organization, a research funding organization, and a learned society. It refers back to the idea of a "republic of scholars" – an idea deeply anchored when it was founded – that autonomously defines its structures and decides on its development. It offers space for multidisciplinary scientific debates, for research, promotion of research and young scientists, for the formation of an influential voice in society, and for pioneering and forward-looking decision-making that takes societal considerations into account.

The General Assembly, in which all domestic and discipline-wide member categories (with the exception of honorary members) are represented, plays a special role in the OeAW. In it, the members work together to "fulfill the tasks of the Academy as a whole" (§ 4 para. 2, OeAW Statute). A President heads the General Assembly and represents the Academy as a whole externally and internally. Together with a Vice President and the two Division Presidents, they form the "Presiding Committee", which is decisive for shaping and implementing the operating and design principles.

2.1. Promoting excellence, ensuring quality

The principle of excellence is of fundamental importance for the OeAW – academic mediocrity is to be avoided. This is achieved through consistent selection processes, through a mobility-promoting career model, through performance-oriented allocation of funds and resources, and through regular evaluations as a central instrument of quality assurance.

The OeAW adheres to the principle of excellence in all significant personnel decisions, particularly in the selection of new members for the Learned Society. Potential candidates are often invited to give public lectures beforehand, and the election committees engage in a thorough and rigorous discussion of the candidate's academic achievements. These deliberations continue in closed sessions of the respective divisions and finally in the General Assembly. The selection process aims to identify the "best minds" and is very accurate, as evidenced by the number of Nobel laureates who are members. Eight members of the Learned Society (~1% of the total!) have been awarded Nobel Prizes, making the OeAW the only institution in Austria with such an impressive record.

Of course, the principle of excellence also applies when filling management positions in research institutions. To achieve this, an independent selection committee consisting of outstanding individuals must play a decisive role. Specifically, the "head" of a search committee must be an internationally recognized expert with a distinguished academic record. This person selects the other members of the committee in consultation with the Presiding Committee. Subsequently, the search committee usually proposes three to five candidates for a hearing, which takes place semi-publicly and in which the employees of the respective institute can be present and contribute their opinions to the decision-making process. The search committee then arrives at an annotated list, usually a list of three, from which the Presiding Committee selects and begins negotiations. This procedure is transparent, can be carried out quickly, and allows the new management to re-orientate the institute's content without being bound by any obligations towards the committee that made the selection.

Quality assurance also plays an important role in the career model for scientific staff. Continuous career paths from student work to permanent group or institute management are not constructive. They tend to solidify existing structures and hinder the introduction of new ideas and scientific initiatives. Mobility is an important opportunity for the personal learning process in an academic career, but also for institutional exchange. The career model does not rule out the perpetuation of employment in exceptional cases that have been carefully checked, but links this to structural necessities and exceptionally outstanding scientific achievements, which are checked as part of quality assurance that follows international standards.

The pursuit of excellence is a fundamental requirement for all OeAW research institutes. To achieve this, each institute is supported by an independent Scientific Advisory Board, whose role is to provide constructive criticism, offer suggestions, and ensure that the institute continues to evolve dynamically. Additionally, the institutes are subject to regular evaluations, which are conducted according to international standards and involve the OeAW Research Board which consists of prestigious scientists. Important questions concern the development and continuation of the individual research groups at the institutes, also with regard to the research portfolio of the OeAW as a whole, with the goal of maintaining excellence on an international level.

To ensure overall excellence, the administration must also perform at the highest level. Therefore, in the upcoming PA period, the OeAW plans to develop a career model for non-academic employees that reflects this requirement. In 2024, the administration will undergo its first quality assurance reviews, which will be externally monitored and conducted according to international standards. In cooperation with other academies of similar nature (e.g. the Royal Netherlands Academy of Arts and Sciences) and relevant stakeholders of the administration, the work processes will be evaluated on the basis of written reports and on-site visits, and improved through the transfer of best practices.

2.2. Prioritizing relevance in the selection of topics

The process of topic selection in the Learned Society, research institution, and research funding organization is complex. It is not strictly top-down or bottom-up, but typically a combination of both. Relevance always plays a major role: relevance due to societal challenges (Agenda 2030 and SDGs, etc.), relevance due to research policy issues (RTI Pact, Horizon Europe, etc.), or relevance from a scientific and disciplinary perspective. All of these are important to the OeAW.

The relevance is obvious for current topics in social and spatial sciences: the climate crisis, energy transformation, sustainability, mobility, health, demographic changes, skilled worker shortages, care and provision for the elderly, immigration, as well as questions of national and European research policy, the consequences of technological changes, digitization, and artificial intelligence, the “new world order”, and the Europeanization of legal systems. The fact that these topics are relevant and require science-based solutions does not need to be further questioned.

Nevertheless, also in humanities research, relevance is given insofar as questions are asked that take into account social needs. Society is interested in questions like “Where do we come from?”, “What was it like in the past?”, “How have identities, ways of living together, legal systems, and other things changed?”. It is also important to understand the current forms of living together and to generate statements about future developments in state and society. One must anticipate these needs on the part of science and take them into account in communication activities.

In natural science-oriented research, the question of relevance also arises, though the answer is more obvious in some areas. Molecular biology research has not only started to clarify fundamental questions of life, but also to develop new forms of disease treatment and to adapt plants to changing environmental conditions. Physics not only explores the beginnings of the universe, analyzes the unpredictability of quanta, and searches for earth-like planets, but also aims to build a quantum computer, to securely encrypt messages, and to develop new detectors.

The OeAW conducts broad and relevant research, aiming to bring together experts, advance important research, and discover new insights. It represents responsible science in a holistic approach.

2.3. Sharing knowledge

Communicating knowledge and reaching the public is and must be an inherent principle of scientific work. It is important to publish scientific results to reach others and to promote scientific progress. The higher the impact of journals, the more frequently and internationally they are acknowledged, and the more it should be aimed to publish there. The OeAW supports its researchers in publishing in high-ranking journals through a variety of measures.

Because the OeAW wants to pass on the knowledge it has gained, often with public funds, it also operates its own publishing house. The fact that the OeAW Press needs further development, also in its production processes and forms of financing, to be even more visible nationally and internationally as an “Academic High-Quality Publisher” and even more successful in open access is simply mentioned at this point.

Similarly, the OeAW operates “BAS:IS” (Library, Archive and Collections: Information & Services) with the ultimate goal of sharing knowledge. This academia-oriented unit is responsible for collecting, indexing, presenting, and disseminating the cultural heritage of the OeAW. Electronic media and digital availability, together with open access, play a vital role in increasing the reach and accessibility of scientific publications. With its relocation to the library on the Academy Campus, BAS:IS has also become a place for direct encounters: exhibitions invite the broader public to participate in the OeAW’s historical holdings.

Passing on knowledge directly to the public and political decision-makers is crucial, even if dealing with the media and politics can be challenging. Politicians are not always looking for explanations, but sometimes for legitimization of their actions by experts. It is important to defend the complexity of science against the simple solutions often demanded by the media and politics. Nevertheless, the OeAW is ready to share its knowledge, recognizing that academia also depends on public support.

The OeAW creates specific formats to reach the general public. Science Update is one of these new formats, enabling an interactive and longer discussion on certain topics between journalists and scientists in a “Club 2 atmosphere”. The OeAW advertises scholarships for science journalists, which are awarded competitively and allow a journalist the freedom to work on specific topics without the daily pressure of editorial work. The OeAW is also continuing to expand its social media presence in order to increase its engagement with the public, particularly with younger audiences.

The concept of a “Third Mission”, originating from universities, addresses, among other things, the deliberate exchange of researchers with the press, radio, and television. However, it is important to learn how to effectively engage with the media. To this end, the OeAW provides focused media and science communication training for its members, and especially for its scientific staff. The training utilizes simulated interviews to highlight opportunities and common pitfalls.

Studies have shown that when researchers speak out on controversial issues, they may face insults and threats that can be difficult to handle. In such instances, the institution that encouraged these researchers to speak out must not abandon them. The OeAW is therefore taking proactive measures to support researchers in situations of external communication crises and offers psychological, legal, and media help.

The OeAW will continue to expand its role as a powerful voice of science and to promote ongoing dialogue with the public, thereby enhancing Austria's knowledge-based society. The communication of scientific questions, advancements, achievements, and skills, as well as the discussion surrounding them, should become even more agile and intensive. Uncertainties that inevitably arise from scientific debates must not be ignored, but rather should be openly addressed.

With its IPR strategy, the OeAW aims to transfer knowledge from basic research to application by using patents, out-licensing, or spin-offs to bring science-based innovation to the economic or social sector. This is a desired and promoted side effect of the OeAW's application-independent basic research.

2.4. Strengthening trust

Trust in science is a precious commodity. It is closely linked to the perceived integrity of researchers, who strive to explore new territories and uncover truth. Applications, commercialization, and personal recognition may follow, but they are not foreseeable and are not the primary motivations driving academic work.

But not everyone shares this view. Surveys of trust in science (e.g., Eurobarometer 516[1]) show that around a quarter of the respondents – depending on the question – are skeptical about science. They do not believe in the integrity of science and the benefits of scientific knowledge. In Austria, the proportion of science skeptics is higher than in other European countries, despite the public sector investing more in science and research than in many other European countries. This result is disappointing for the OeAW, which sees science skepticism as a mandate to strengthen its persuasive efforts. If not the OeAW, who should take care of this? After all, much is at stake: trust in science and academic freedom are inextricably linked. Freedom cannot be granted without trust, and both are associated with a culture of diversity of opinions, knowledge transfer, and informed debate. Communicating scientific ways of thinking, which are valuable beyond their application in the pursuit of knowledge, as tools for developing worldviews and addressing life's challenges, is essential, especially in the context of (digital) information overload.

The OeAW stands for strengthening trust in science as a whole, and it takes concrete measures to this end, such as improved accessibility to science and its results (open science and open data). It will increasingly seek dialogue with the media and politicians and continue its successful formats of policy advice. In addition, it will install a continuous "Science Barometer Austria" to regularly measure the perception of science and the Austrian population's trust in it.

[1] See: https://data.europa.eu/data/datasets/s2237_95_2_516_eng?locale=en.

2.5. Strengthening generational bridges

The OeAW is committed to inspiring young people, showing them how exciting research can be, and passing on knowledge to the next generation. However, the OeAW is concerned that the intergenerational dialogue is not happening in a way that is conducive to knowledge transfer, and that some young people have a low opinion of science. Generational bridges have to be built again and again so that no knowledge is lost. Convincing children, teenagers, and young adults of the power of science will also contribute to combating science skepticism.

The OeAW has already implemented measures to ensure that children and young people come into contact with science and research. It took part in the "Children's University at the OeAW" (in cooperation with the University of Vienna) and the "Long Night of Research" and published the OeAW's science comics. The OeAW is aware that it is particularly important to reach children and young people from backgrounds with limited access to science and education – and this in age groups in which school careers are beginning to differentiate. Until now, there has been little on offer for these groups. The Academy is therefore planning to continue to support its demonstration laboratories and to set up a new "Science Space" that can be used for educational programs in small groups.[2] The goal is to stimulate enthusiasm for the professional role of scientists and a fascination with a research-based approach to the world.

The "Academy in the Classroom" school lectures, which are held in many senior high schools throughout Austria, have proven to be a successful format. They lead to an interactive exchange with scientists and to insights into the working methods of various scientific disciplines. Unfortunately, this format usually reaches only senior high schools, even though the "Academy in the Classroom" lectures are offered to all types of schools. However, the course for developing an affinity for science is set early on.

To address this issue, the OeAW – together with the Austrian Science Fund FWF and, if necessary, with other partners – is planning to establish a web-based, education-oriented science channel. This moderated videocast will be tailored for 10- to 14-year-old students, with researchers presenting scientific findings in an engaging and informative manner, providing an inside look at their work. The content will be connected to the current competence-oriented curricula, allowing teachers to also benefit from this science channel. Previous experience has shown that a successful science channel has the potential to reach not just a few hundred, but thousands of students.

The OeAW has developed special opportunities for students in their final years of schooling, particularly motivating female students with a prize for the best pre-scientific work in the STEM field. Through the Austrian Studienstiftung, the Academy offers exceptionally motivated and committed students funding, training, and networking opportunities. The Studienstiftung offers winter and summer schools, top-class talks, and networking activities, also in cooperation with the Studienstiftungen in Switzerland and Germany. It offers insights into future professional fields, networking within the age group, and discussions on socially important topics of the time.

[2] The Science Space is a room on the Academy Campus that offers space for a school class and is furnished with the equipment required for easy science communication. Together with cooperation partners, OeAW researchers from a wide variety of disciplines will regularly and interactively convey current knowledge relevant to children and young people in the Science Space. Age groups range from 8 to 16 years old.

Due to the high demand, the OeAW will again increase the number of students admitted to the Studienstiftung.

The OeAW seeks to support exceptional young people and provide them with opportunities to explore the world of science, while also raising awareness of its own name. Young people are familiar with universities and technical colleges; perhaps in the future they will also be more familiar with the OeAW.

2.6. Striving for and securing equality and diversity

Under the umbrella of the OeAW, a working and discourse environment must be created and maintained in which all employees and members feel respected, regardless of their ethnic and national origin, gender and sexual identity, religion and world view, disability, and age. The measures that have already been taken or are ongoing range from the increased provision bilingual forms and websites to family-friendly work and participation models, e.g., regarding meeting times and hybrid formats, to the consideration of accessibility in all building and construction measures. The OeAW will continue to ensure the implementation of the "Academy and Family" policy adopted in 2022.

Among the many dimensions of diversity, the OeAW attaches particular importance to gender equality. The implementation of a further developed OeAW gender equality plan is being pursued with commitment and vigor. Continuous monitoring is carried out using specific indicators (Glass Ceiling Index, proportion of women in committees).

In the Learned Society, too, it is important to achieve gender parity in the medium term. In achieving this, the OeAW is dependent on the university careers of women and their appointment policies. In its own sphere of influence the OeAW is committed to increasing the proportion of women among its members. It promotes this increase through an equality-oriented management of the election process by actively searching for excellent women and placing them in eligible positions. The numbers show that this strategy is successful: while the proportion of women elected before 2000 was just 3%, between 2016 and 2021 it was almost 46%. The OeAW will continue along this path, accompanied by an active approach in the area of elections to the Learned Society.

In its Gender Equality Strategy 2020-2025 (COM/2020/152 final[3]), the European Union complains that there are still "far too few women in leading positions, be it in politics or government agencies, at the highest courts or on companies' boards". The OeAW conforms to this strategy and can refer to a Presiding Committee that has achieved gender parity for the first time in its long history. This will be a benchmark for future Presiding Committees.

2.7. Cooperating internationally

Science is global. The rules of honest research apply everywhere, and the theories and empirical results are universal. No other social subsystem is as unlimited as science and research. At the level of public governance in the European Union, this development is acknowledged and the elimination of boundaries is supported by the creation of a common research area, the standardization of tertiary education ("Bologna Process"), and the installation of long-term

[3] See: https://commission.europa.eu/document/download/500cf92d-792b-4055-b951-dd111419818e_de.

funding structures (research framework programs). The same applies to selected scientific areas. CERN, ESA, ESO, and the infrastructure consortia CLARIN and DARIAH are institutions that foster global cooperation, despite participants being located in different parts of the world.

The OeAW supports these processes and sees its cooperation as a central instrument to strengthen Austria in the world as a knowledge society and as a location for innovation. The aim is to continue the diverse cross-border alliances and successful OeAW cooperations and to supplement them with new relationships. The OeAW aims to establish itself as a hub for excellent, interdisciplinary, and open-ended basic research, and thus contribute to Austria's international reputation.

Partnerships are made possible and mapped at the level of researchers through their mobility. The OeAW has created formats to facilitate the mobility of researchers (regulations on leave of absence) and to promote it (JESH program): cooperation at the level of its research institutes and the Academy as a whole, through agreements with other academies (60 international partnerships in more than 50 countries), by holding joint conferences or activities (Joint Academy Day, Western Balkans Process), by being a member of international associations or institutions (IIASA, ALLEA, EASAC, Africa-UniNet, etc.), or by taking on the operational management of cooperative associations.

The latter is particularly relevant for the OeAW. By 2024, the OeAW is to replace the Leopoldina as the host of the EASAC office. The European Academies Science Advisory Council (EASAC) is an association of national science academies from EU member states, from Norway, Switzerland, and the United Kingdom. It exists since 2001 and focuses on issues related to energy, environment, and life sciences. This move represents a visible sign and a strengthening of the OeAW institutional vision of being the "capital of basic research". Working with the best, strengthening exchange, being a pioneer – these are the prospects.

2.8. Further developing locations and digital processes

Important operating and design principles ultimately apply to the OeAW institution itself. The aim is to further develop the locations, to realize diversity, and to digitize internal processes.

After the completion of extensive renovation work in the area of the OeAW campus, the main building and the former Postal Savings Bank (PSK), new structures for cooperation between the institutes can be created. Synergies in physics and archeology are evident and improve the opportunities for excellent research. The east side of the 1st district, which has been regarded as the less desirable area of the inner city for decades, is getting new impetus.

This means that the OeAW can turn to other location issues. The building owned by the OeAW in Boltzmanngasse needs to be renovated. The foundations have to be underpinned and the top floor is being redesigned.

In view of the climate crisis and energy transformation, energy efficiency improvements for a number of buildings are necessary. Measures to save energy, the insulation of facades, and the generation of electricity by photovoltaic systems on unused roof areas are being examined. The buildings owned by the OeAW in Leoben, Graz, and Vienna are given priority.

The digitization of processes in the OeAW will help with the energy challenge. Additionally, by installing a computerized facility management system, costs will be controlled more precisely

than before. Hybrid formats of meetings and conferences can be promoted through the use of high-performance digital conference systems. This also helps reduce travel-related expenses. Through comprehensive digitization of administration, processes are to be made leaner, less error-prone, and more efficient. Under the leadership of the "Chief Digital Strategy Officer (CDSO)", a position to be filled for the first time in 2023, digitization is to be promoted and installed comprehensively and in a targeted manner – moving away from previous partial and small-scale approaches.

3. Learned Society

The Learned Society consists of around 770 members in Austria and abroad who have committed themselves to promoting the goals of the Academy (cf. OeAW by-laws § 8 para. 1). The Learned Society is divided into the Division of Humanities and Social Sciences, the Division of Mathematics and Natural Sciences, and the Young Academy. As a broad, multidisciplinary forum for discussion, the Learned Society is uniquely positioned to bring together interdisciplinary competencies and to shape the Academy as a forward-thinking, respected hub of scientific knowledge that is accessible to society and serves as a voice for science.

3.1. Excellence, responsibility, and knowledge transfer

The Learned Society plays a central role in the visibility of achievement and appreciation within the scientific community and beyond. Following the principle of self-supplementation, it elects additional members every year and awards important prizes for scientific lifetime or outstanding individual achievements. Members also voluntarily participate in a wide range of selection processes, be it for admission to the Studienstiftung or for scholarships, or for the identification of high-caliber speakers. The Learned Society represents science and brings it the fore ad personam.

OeAW members will continue to design and implement dialogue-oriented public events to promote enthusiasm for research and science in the general public and especially among young people. The range of event and publication formats is broad and includes lectures and discussions, statements, as well as contributions to international positions of academy networks, the publication series "Academy in Dialogue: Research and Society", etc. These activities are to be continued without restrictions. The OeAW will continue to increase its Austria-wide presence by offering events in the federal provinces. Reference has already been made to the high level of commitment shown by members in the area of Young Science, particularly in school lectures as part of the "Academy in the Classroom", in the Studienstiftung, and in many other activities. The Learned Society serves thus as a fundamental pillar in knowledge transfer to the public.

In addition, the Learned Society plays an important role to bridge knowledge between generations. The Young Academy with its outstanding young scientists from all disciplines serves this purpose. Membership in the Young Academy is limited to a period of eight years. An alumni association of former members of the Young Academy (with unlimited membership) to be set up in the future will permanently strengthen the multidisciplinary networks and the connection to the OeAW.

3.2. Scientific commissions

The by-laws define the tasks and governance of the commissions. Accordingly, commissions can be set up to work on a specific scientifically or socially relevant topic. They are initially set up for a maximum of five years and can be extended by a further five years. Only in well-founded cases can an indefinite period be granted.

The task of a commission is the scientific processing of a clearly defined subject area, the formulation of a new scientific question, the coordination of relevant initiatives, or science-based advice to society and politics. It is important that commissions end their work after ten years at the latest or reorient themselves, so that a conclusion of what has been achieved so far and important new questions become clearly identifiable. Institutes comprehensively follow intrinsic questions, commissions only address temporary sub-questions – which of course are also important and highly relevant, but are nevertheless structured differently. This distinction is important to avoid blurring the line between institutes and commissions.

In any case, commissions are tried and tested structures to enable valuable cooperation between members and also experts from outside the OeAW. Members and experts contribute to topics on a voluntary basis and at the highest scientific level. As of the end of 2022, 14 scientific commissions were active, differing in terms of task and topic.

Three commissions are assigned to the Division of Mathematics and Natural Sciences. The Commission for Astronomy ensures the exchange of national astrophysics groups from university and non-university research institutes and the connection to relevant international associations (e.g., International Astronomical Union – IAU). The Commission for Geosciences sees itself as an interdisciplinary platform for networking Austrian research in the diverse field of geosciences. The same applies to the Climate and Air Quality Commission, which deals with questions of anthropogenic influences on the atmosphere and their effects on people and ecosystems.

There are currently seven committees set up in the Division of Humanities and Social Sciences. They are also responsible for networking, coordinating, and organizing events or publications. This applies to the Commissions Schubert Research Center, Migration and Integration Research, Legal History of Austria, Study of Islam in Central Eurasia, North Atlantic Triangle (Social and Cultural Exchange between Europe, the USA and Canada), Transformation of empire in ancient Afro-Eurasia, and Vanishing Languages and Cultural Heritage.

Finally, four commissions are assigned to the Academy as a whole due to their overarching nature. The Commission for Geographic Information Science, the Commission for History and Philosophy of Sciences and Humanities, and the Commission for Interdisciplinary Ecological Studies (KIOeS) have all made networking, the coordination of research, and the development of new research questions their main focus. The Commission for Science Ethics has an additional task: the assessment of science ethics issues that can arise both within and outside of the OeAW. Internally, it is therefore also classified as an administrative commission.

The topics dealt with by the scientific commissions require constant development due to the fact that they are only set up for a limited period of time. A significant increase in the number of scientific commissions is not intended. The criteria of excellence (2.1.), relevance (2.2.) and the other operating and design principles of the Academy, as well as the priorities described under 4.2.2., must be observed when realigning a commissions' work.

To strengthen generational bridges (2.5.) and diversity (2.6.), new commissions should be established in an open and transparent process. This is intended to open up equal opportunities for members, particularly younger ones, who have not previously received any material support from the funds of the Learned Society, to realize outstanding projects within the framework of a commission. If the opportunity arises for establishing one or more new commissions, all members are informed and – if more excellent applications are received than possible new commission can be established – the best projects are selected in a competitive process.

3.3. Cooperation between Learned Society and institutes

In addition to the scientific commissions, topic platforms have existed for several years. These represent an instrument for (predominantly) internal cooperation between institute employees and OeAW members. In contrast to the OeAW commissions, the research and cooperation impetus for topic platforms also comes from the OeAW institutes. Topic platforms aim to stimulate the connection of complementary approaches and the emergence of new ideas that can be quickly implemented and tested in concrete research activities at the participating institutes. For this reason, such cooperation will be taken into account in the target agreements with the institutes in the future, while the topic platform instrument itself will be retained in full.

3.4. Long-term projects of the Learned Society

To date, several scientific commissions have been performing long-term tasks that are not well placed in an institutional framework of clear time limits. This includes long-term, documentary-oriented research as well as the publication of established periodicals. The Commission for the Legal History of Austria and the Commission for Interdisciplinary Ecological Studies are mentioned as examples.

For example, one of the main tasks of the Commission for the Legal History of Austria is the publication of the journal “BRGÖ - Contributions to Austrian Legal History” (published twice a year) and the coordination of the Sources of the History of Austrian Law “Fontes iuris”. The latter was founded in 1946 and forms the third section of the “Fontes rerum Austriacarum”.

The Commission for Interdisciplinary Ecological Studies oversees the series “Catalogus Florae Austriae”, “Checklists of the Austrian Fauna”, and “Catalogus Novus Faunae Austriae”, which have been anchored at the OeAW since 1947 and are now published in the open access journal “Biosystematics and Ecology” (BiosystEcol). As the Austrian part of the Global Biodiversity Information Facility (www.gbif.at), KIOeS is also responsible for documenting species information from Austrian collections.

Commissions with such long-term projects or intrinsic tasks should be evaluated step by step and, if a decision has been made to continue them in the long term, transferred to another organizational form depending on the concrete possibilities. A grouping of similar long-term tasks that are carried out in institutes and science-oriented facilities should be discussed.

3.5. Coordinating, representative, and administrative commissions

Several coordinating, representative, and administrative bodies are currently in place, which have so far also been referred to as “commissions” of the OeAW. Their task is not to develop new

research topics or work on selected research questions, but essentially to advise, coordinate, or represent the OeAW in other committees.

The Austrian IIASA Committee, the Commission for the Coordination of Nuclear Fusion Research in Austria, and the Austrian fusion research program Fusion@OEAW are such commissions. On the one hand, they represent the bridge between IIASA and Austrian research or they combine and coordinate research and development projects on the subject of nuclear fusion research. The Commission for Cooperation with the Austrian Ministry of Defense goes in a very similar direction. It also connects the Ministry and the Armed Forces with Austrian research, thereby enabling cooperation and mutual support.

There are also administrative commissions with different ranges of tasks. Thus, the quality assurance of the publications of the OeAW Press is ensured, the awarding of scientific OeAW prizes is prepared, and donations, foundations, and funds that have been transferred to the OeAW within the framework of inheritances, legacies, and dedications are managed. The Commission for Science Ethics has the task of assessing science ethics issues that can arise both within and outside the OeAW.

In order to clarify the distinction between scientific commissions and bodies with a coordinating, representative, or administrative function and at the same time to define the respective tasks more clearly, it will be necessary to discuss whether these should continue to be referred to as “commissions” or whether other terms are more appropriate.

4. Research funding organization: career development, promotion of young researchers, and program funding

The promotion of young scientists is essential for Austria as a science and research location in general and for the OeAW in particular. The OeAW fulfills this task in two ways: by promoting the younger employees of the OeAW itself through an appropriate career model and associated support, and by promoting all younger scientists by awarding scholarships and prizes. In addition, the OeAW offers other excellence-oriented, thematically focused funding channels and networking opportunities.

4.1. Career development and promotion of young researchers

4.1.1. Promotion of OeAW employees (intramural)

The coming PA period will be characterized by in-depth experience with the implementation of the OeAW career model applicable to scientific employees, also in combination with the collective agreement. Numerous requirements such as transparency, increased mobility, and the involvement of doctoral students as first stage researchers are taken into account in this career model, so that the OeAW remains compatible with universities in the area of scientific careers and is an attractive employer for highly qualified international candidates in application-independent basic research.

However, experiences in the implementation of the career model and associated guidelines, the changed conditions of the Austrian academic job market, which in part result from the amended

university law (UG), in particular § 109, as well as the dynamics of non-university research in Austria and beyond, also provide approaches for the selective ongoing development of the model while retaining its central elements: The OeAW's offer to academic staff is excellence-oriented, transparent and internationally comparable; it is based on the career stages of the EU model "Towards a European Framework for Research Careers"[4], i.e.,

- in the early career phase, achievement of clearly defined development goals at the respective career stage with active support from the respective institute,
- in the case of junior group leaders or research associate positions with a tenure option, a defined possibility of a continuous career at the OeAW,
- depending on the needs, (Senior) Academy Scientists as a separate scientific employment category, e.g., in long-term projects.

Sustainable tenure options can be offered to advanced young researchers who have successfully completed the quality-assured admission process of the OeAW and to recipients of top-quality, personal grants (ERC Starting Grant, START Prize or similar; also from abroad) who wish to carry out their project at one of the OeAW institutes. This results in a flexible mix of opportunities for outstanding employees to pursue attractive career development options at the OeAW, but also to attract excellent external staff to the OeAW (in the sense of "opportunity hiring"; also in combination with dual career appointments).

In the implementation of the career model, the analysis and further development of the employee evaluation process – especially with regard to tenure – will continue to require special attention. In the future science-to-public and science-to-policy activities should also be considered in employee evaluations, without compromising the claim to scientific excellence.

A key aspect of the career model is to offer all academic staff at the OeAW the best conditions for ongoing development, regardless of their contractual situation and career level. The OeAW is thus also increasingly taking on responsibility for the development of those scientists who do not remain permanently at the OeAW. After all, the Academy can only offer a continuous and lasting career at its institutes to the internationally best among its young researchers. The OeAW therefore consciously trains and supports scientists who subsequently pursue career paths outside of the OeAW or outside of the academic sector altogether.

4.1.2. Austria-wide promotion of young scientists (extramural)

Scholarships awarded by the OeAW benefit the entire Austrian research area. Regardless of the connection to an institution, the scientific achievements, the potential, and the research ideas of the applicants are evaluated. With its scholarship programs, the OeAW thus continues to pursue a person- and excellence-oriented approach.

- The pre-doc funding for doctoral students with the DOC and DOC-Team programs will be continued. The programs are topic-independent; special attention will be paid to doctoral students with exceptional CVs or those whose topics are not funded within the framework of structured programs.

[4] See https://era.gv.at/era/human-resources-mobility/towards-a-european-framework-for-research-careers/.

- The cooperation with L'ORÉAL Austria and the Austrian UNESCO-Commission in the L'ORÉAL Austria program will also be continued. The aim of L'ORÉAL Austria, which is advertised for applicants with or without a doctorate (pre-doc and post-doc), is to promote women in science, technology, engineering, and medicine (STEM).
- The focus on promoting the transition from the pre-doc to the post-doc phase should also be retained: The Post-DocTrack program will continue to be offered throughout Austria, while maintaining the focus on humanities, social sciences, and cultural sciences (GSK).
- In accordance with global budget considerations, the OeAW is planning to perpetuate APART-GSK in the portfolio and to relaunch APART-STEM as post-doc funding with a focus on the STEM subjects. This is to ensure continuity for APART, the partial relaunch of which was initially carried out with funds from the National Foundation for Research, Technology and Development or the Fonds "Zukunft Österreich".
- The successful and Austria-wide subject-specific Erwin Schrödinger Center for Quantum Science & Technology (ESQ) with a focus on the Discovery Program is also to be continued – subject to budgetary considerations.

Promoting mobility is an essential form of support, especially for young scientists. The OeAW can refer to a sophisticated program that is to be expanded depending on budgetary constraints. If the number of researchers increases, the corresponding programs have to follow suit so as not to reach an approval rate that many find frustrating. The programs to be continued are:

- The MAX KADE grant for stays in the USA, funded by the Max Kade Foundation (New York).
- GO.INVESTIGATIO, the location-independent archive and travel grants.
- The JESH program (incoming and outgoing), for mobility to and from selected focus countries.
- The Summer School program, in which numerous research institutions of the OeAW participate and which has become a permanent fixture among the opportunities available to young scientists from Austria and abroad.

Finally, prizes should be mentioned, which represent an essential support measure at the individual level. Prizes are distinctions for what has been achieved so far and at the same time incentives for the future.

- The OeAW currently awards 23 prizes for young researchers, including two prizes to OeAW employees as part of the City of Vienna's Jubilee Funds for the OeAW. Most prizes are awarded annually; the total amount is up to € 200,000 per year.
- The selection of candidates for participation in the renowned Lindau Nobel Laureate Meetings, which the OeAW has been doing since 2013 within the framework of three-year agreements with the BMBWF, will continue. In the course of the PA negotiations, it must be clarified whether the OeAW will make the new agreement (including budget) directly with the Lindau organizers as contractual partner from 2025, when the current agreement expires.

4.2. Program funding

4.2.1. Established programs

The “Earth System Sciences” (ESS) program, commissioned by the federal government, plays a key role by promoting complex, interdisciplinary, and transdisciplinary research in the field of earth system sciences. The synergetic cooperation of the three ESS-related national committees – “Global Change”, “Geo/Hydro Sciences”, “Man and the Biosphere” – in relation to the Sustainable Development Goals will be further strengthened. Eleven multi-year projects of the ESS call “Resilience of Mountain Regions” will start their work in 2023.

The funds for a competitive program for data research – raised by the OeAW from the Fonds “Zukunft Österreich” – will be distributed throughout Austria in 2023. Research work in the respective institutions inside and outside the OeAW should begin in 2024.

4.2.2. New initiative: thematic focusing of innovative basic research

The OeAW is committed to application-independent basic research and to the principle of excellence. The latter requires continuous critical review, quality assurance at all levels, and allocation of funds based on performance. This is validated by the extremely successful performance of the OeAW in the “Clusters of Excellence” funded by the FWF, in particular the cluster on Eurasia research that is directly based at the OeAW. The OeAW must remain flexible both internally and in cooperation with others, it must set aside worn-out research questions, and it must be ready to take up new questions and give strong impetus within the Austrian research landscape.

It can be predicted with a high degree of certainty that a number of research questions will gain importance over the period of this development plan. Without prioritization, but taking into account the relevance and existing strengths of the OeAW, the following can be stated:

- Aging, from the cell to the human being to societies in the European and non-European context, is a topic of the highest relevance. It is important to examine aging processes from a molecular-biological perspective and to develop strategies to slow them down. However, it is also important to develop strategies to cope with the inevitable aging of society, which represents a major challenge in terms of care, health, and financing within the framework of the social welfare state.
- Despite all regulatory and political efforts, climate change is progressing. The mechanisms that lead to this are by and large clarified. Knowledge of the concrete effects of climate change on the economy and society, on physical space and the population is patchier. A brief list of relevant phenomena shows how diverse the effects are: excess mortality, changes in land use, shifting of vegetation boundaries, increased numbers of invasive plants, disappearing glaciers, increasing number of natural disasters, and much more. The OeAW would like to contribute to Austria’s effective participation in the EU mission “A Soil Deal for Europe” by funding cutting-edge research and by establishing a cross-sectoral and cross-disciplinary platform.
- The transformation of energy systems, the move away from fossil fuels, the expansion of renewable energy production, energy storage, and direct solar-to-fuel conversion are among the most important challenges of the coming years. The associated changes in

space, society, and the economy are large, since an energy system that has grown over many centuries has to be fundamentally restructured within a decade. Research is urgently needed so that this process of change – accompanied by numbers, facts, and science – can succeed.

- Empires and world orders are subjects that are no less relevant and academically fruitful. More in-depth knowledge about empires and world orders provides the necessary contextual knowledge demanded from the population, media, and politics. However, it is not only about empires and world orders of the present, but also about the historical analysis of their emergence, change, and possible failure. China, the USA, Russia, Europe, but also Southeast Asia, and the Caucasus are the focus of interest. More contextual knowledge is urgently needed.
- Artificial intelligence is a collective term for different methods of machine learning that have one thing in common: generation of "knowledge" (patterns, structures, rules, language, texts) from empirical data. In many disciplines, the use of machine learning is only just beginning but the possibilities are fascinating. Machine learning can be used wherever extensive amounts of data are generated due to cutting-edge technologies, whether from gene sequencing, medical imaging, the analysis of legal documents, or the automated recording of medieval manuscripts. Artificial intelligence will significantly change the learning process that is based on empirical data.

Depending on budgetary constraints, funding is provided for working on these topics. The topics are assigned to a specific OeAW research institute after a quality-assured process. The topics are not necessarily worked on in one OeAW institute alone, but also by broader research consortia that may include institutions outside the OeAW. Quality, and not the institutional "home", is decisive.

The implementation of the ESS program has shown that the OeAW is a fair broker within the research system. The best minds should work on the topics, and that is not just a catchphrase. The organizational structure (working group, new institute, cross-institutional hub, individual research, and more) depends on the research question and, of course, on the availability of budgetary funds.

The OeAW sees this new initiative as an important instrument, because it is thematically focused, to overcome the fragmentation of cutting-edge research, to further develop the research performing organization, and to obtain answers to the most pressing questions of the present and future. It is not a departure from curiosity-driven and application-independent basic research, because the thematic guidelines (aging research, climate impact research, energy research, research into empires, and artificial intelligence) are still extremely broad and do not differentiate in terms of time or space, discipline, or content.

4.2.3.New initiative: research funding program "NEW:TRUST"

The conventional form of research funding has a weakness: it lacks adequate mechanisms to support high- risk "blue sky research". Such programs are often deemed failures upon critical reflection which is not least due to the assessment process. Written research proposals, which are developed in a bottom-up manner, must align with the mainstream or they will not be successful. They must demonstrate how they build on previous research, predict the direction of

their own research, anticipate results, and specify the methodology. There is often no room for disruptive research. Those who break with tradition may not be understood by evaluators, and those who do not describe precisely what the research path looks like have little chance of a positive overall assessment.

High-risk “blue sky research” requires a different funding approach. It requires trust in talents and in the scientific intuition of the researchers. They have a new and perhaps groundbreaking idea, but are not yet at the stage to describe the research path. They often just need small amounts to get one step further. Large funds are only needed later and can then be raised through the traditional channels of research funding. Until then, however, researchers need resources to take the first steps, and these can only be allocated by those who are close enough to the mostly young researchers to be able to assess their – ideally disruptive – ideas.

The OeAW therefore proposes a “NEW:TRUST” program, which awards relatively small funds to aspiring researchers – usually, but not only, pre- and post-docs as well as junior group leaders and research associates. After a call within the OeAW, the management of the institutes nominate employees with their ideas. They can only submit a limited number of applications (proportional to the size of the institute). The description of the research idea should be presented to a member of the Research Board who is closely related to the subject, who then makes a brief assessment. A selection committee to be set up with the participation of the General Assembly (e.g., consisting of the Chairperson of the Conference of the Institute Directors, Presiding Committee, Chair of the Academy Council) conducts interviews and makes the final decision, taking into account the opinions of the Research Board and the institute management. The number and amount of the research grants to be awarded depend on budgetary considerations.

After the first two calls, the “NEW:TRUST” program is to be evaluated and, depending on experience and the result of the evaluation, adjusted.

“NEW:TRUST” thus complements the traditional research funding of the OeAW, but also of the FWF and other grant agencies. It is an earnest and necessary attempt to compensate for the weaknesses in current research funding and to add an essential component.

5. Research performing organization

The OeAW is responsible for fostering curiosity-driven, application-independent basic research at an internationally competitive level. The OeAW institutes conduct research on the fundamentals of nature, life, society, and cultural heritage, and work on the innovations of tomorrow and beyond. Opportunities to use the research results in the form of licenses, spin-offs, and investments are open.

The OeAW research institutes, which cover a wide range of disciplines, see themselves as driving forces within the Austrian and European research landscape. The Academy will continue its knowledge-oriented, application-independent scientific commitment, combined with a claim to excellence, with its 26 research institutes in the coming PA period. In view of the dynamic development of science and research, the OeAW is open to new research activities in terms of personnel, structure, and subject matter. Additional funding is needed to implement some

innovative initiatives, for example as part of the OeAW program funding (see 4.2.2.), while other initiatives can be carried out cost-neutrally, e.g. through resizing and when replacing senior scientists who are moving away or retiring.

5.1. Life Sciences

CeMM - Research Center for Molecular Medicine, Vienna

On the campus of the Medical University and the Vienna General Hospital, the highly international and interdisciplinary CeMM combines basic research with clinical expertise to develop innovative approaches for precision medicine. Research focuses include cancer, the immune system, metabolism, and cellular aging processes. The availability of "patient material" makes it possible to further develop chemical substances, biological elements (proteins, antibodies, RNA), and cells to treat diseases in a targeted manner (biological and chemical engineering).

GMI - Gregor Mendel Institute of Molecular Plant Biology, Vienna

The GMI is a world-leading plant research institute dedicated exclusively to basic research using a wide variety of plants as model organisms. Research at the GMI aims to understand plant growth, development, and interactions with the environment at the genetic and molecular level. It thus supplements the research spectrum at the Vienna BioCenter with a scientific area whose relevance – e.g. for dealing with climate change, for sustainable food, and for energy management – cannot be overestimated. At the same time, the international orientation and networking of the researchers at GMI create excellent training conditions for young scientists in plant sciences.

IMBA - Institute of Molecular Biotechnology, Vienna

IMBA is one of the leading biomedical research institutes in Europe and one of the largest institutes of the OeAW. IMBA conducts basic research in the fields of molecular biology and specializes in stem cell research, development of disease models, RNA biology, and cell biology. The focus is on the molecular-biological foundations of "diseases of civilization" such as cancer, cardiovascular diseases, vascular diseases, diabetes, and neurological and neurodegenerative diseases. In recent years, IMBA has established itself as an international center for innovative and future-oriented organoid research. As part of the Vienna BioCenter, IMBA researchers benefit from excellent infrastructure, interdisciplinary collaboration, and a dynamic environment.

Carl and Gerty Cori Institute of Molecular and Computational Metabolism, Graz

With the founding of the Cori Institute for metabolism research in Graz (in cooperation with the University of Graz, the Medical University of Graz, and Graz University of Technology) in October 2022, the OeAW emphasizes its pan-Austrian, cooperative, and innovative character. The interdisciplinary research approach at the Cori will allow it to enter a new field of knowledge. Cellular metabolic processes are examined systematically, experimentally, and molecular-biologically, and are modeled with the help of mathematical methods. Specialists from different disciplines, such as medicine, mathematics, computer science, biology, chemistry, and engineering, will work closely together in the research groups.

5.2. Mathematics, Physics, Space Research, and Materials Science

Johann Radon Institute for Computational and Applied Mathematics (RICAM), Linz

RICAM conducts basic research in computer-aided and applied mathematics. At the institute, scientists from all over the world work together on new methods of mathematical modelling, simulation, and optimization as well as on the basics of machine learning and inverse problems. The results are used directly to solve current problems in society and industry. With their technical expertise, the working groups create a unique environment for excellent research. In addition, RICAM promotes global networking and interdisciplinary cooperation by conducting special semesters and thus plays an active role in the international research environment.

Institute for Quantum Optics and Quantum Information (IQOQI Innsbruck), Innsbruck

The IQOQI Innsbruck is dedicated to theoretical and experimental basic research in the quantum sciences. The topics range from the fundamental principles of quantum physics and the structure of quantum matter to their application, including for metrology, sensor technology, quantum simulations, and quantum information processing. A cluster of spin-off activities is forming around the institute and its partners at the University of Innsbruck, which are at the forefront of the global race to build a quantum computer.

Institute for Quantum Optics and Quantum Information (IQOQI Vienna), Vienna

The IQOQI Vienna researches the scientific foundations of quantum physics, quantum information, and the physics of spacetime and gravity. Groundbreaking work on quantum mechanical entanglement, such as secure quantum communication through the exchange of tap-proof information via a satellite connection, and research into the interface between quantum physics and gravitation through experiments on massive quantum systems, position the IQOQI Vienna at the international forefront of quantum research. The clear focus on fundamental questions as well as the combination of theory and experiment under one roof creates a unique environment in the field of “Quantum Foundations”.

Institute of High Energy Physics (HEPHY), Vienna

The scientists at the HEPHY conduct research in the field of the fundamental building blocks of the universe and their interactions with each other. One focus is the search for particle-based solutions to previously unexplained phenomena, such as the existence of dark matter. HEPHY is instrumental in international research collaborations: at CERN near Geneva, at KEK in Japan, at LNGS in Italy, and at Chooz in France. For future experiments, new detectors are being developed at HEPHY, which could be used not only in particle physics experiments, but also in medical radiation therapy at MedAustron in Wiener Neustadt. The experimental activities are completed by a research group on theoretical particle physics. Entry into gravitational wave research is currently being considered.

Stefan Meyer Institute for Subatomic Physics (SMI), Vienna

The SMI also addresses fundamental questions of particle physics. In precision experiments, matter-antimatter symmetry is investigated with antihydrogen. Experiments on the strong interaction try to explain the origin of the mass and structure of the hadrons. The experiments are carried out at the leading particle accelerators CERN (Switzerland), DAFNE (Italy) and JPARC

(Japan). The SMI is also a sought-after partner in large-scale international research projects. After moving to the PSK building, SMI and HEPHY will share infrastructure and will complement each other more in terms of content.

Acoustic Research Institute (ARI), Vienna

The ARI conducts application-independent basic research in the field of acoustics. This multi- and interdisciplinary field of research combines findings from numerous disciplines such as physics, psychology, phonetics, communications engineering, biology, and mathematics. The interdisciplinary approach makes the institute unique in Austria, and there are only a few research institutes in the world that deal with this wide range of challenges in the field of acoustics.

Space Research Institute (IWF), Graz

The IWF deals with the physics of space plasmas and (exo)planets on the basis of measurements directly "on site" in the solar system and indirectly through observations made possible by modern space telescopes. To this end, the IWF develops and builds devices suitable for use in space, whose data are scientifically analyzed and interpreted at the institute. The institute is currently involved in over twenty international space missions, making it the Austrian center in the global network of space research institutes.

Erich Schmid Institute of Materials Science (ESI), Leoben

Together with the Chair of Materials Physics at the University of Leoben, ESI conducts multiscale basic research on modern high-performance materials. The mechanical and functional properties are determined, also in order to gage the relevant applicability of the materials. Questions of energy conversion and storage are becoming increasingly important in view of the energy transformation. In cooperation with leading industrial partners, state-of-the-art research sets the ground for new material concepts.

5.3. Archaeology and Classical & Ancient Studies

Austrian Archaeological Institute (OeAI), Vienna

The OeAI combines basic research in the fields of archeology and classics at the OeAW. The core task is to research human history from the Quaternary to modern times, taking into account all material archaeological sources and written records. The three departments of the OeAI (Prehistory & West Asian/Northeast African Archaeology, Historical Archeology, and Classical Studies) cover the entire range of subjects and the variety of methods of the disciplines they represent. Thanks to excellent laboratory equipment and diverse expertise, the OeAI has established itself as a research center for archaeological sciences. The institute, which occupies a leading international position, is characterized by interdisciplinarity and subject interconnectedness.

5.4. Asian Studies and Social Anthropology

Institute of Iranian Studies (IFI), Vienna

History, languages, literature, and the material culture of Iran from prehistory to the present are the subjects of IFI's cultural-historical research. Particular attention is paid to the cultures of the Caucasus, Central Asia, and South Asia, which are historically and culturally closely linked to Iran. The research supports a de-ideologization of common explanatory models of the history of this area. The institute is responsible for the "Caucasus Forum", which brings together and stimulates relevant research in cooperation with universities.

Institute for the Cultural and Intellectual History of Asia (IKGA), Vienna

The goal of the IKGA is long-term research into the cultures of East, Southeast, South, and Central Asia. The research is based on primary sources and uses a philological-historical inventory of methods with aspects derived from cultural studies. Research projects serve the purpose of editing important primary sources, creating specialized dictionaries, and investigating historical issues. The results of the institute's work promote knowledge about the cultures and societies of Asia, which are becoming increasingly intertwined with Europe.

Institute for Social Anthropology (ISA), Vienna

The ISA conducts ethnographic, historical, and scientific history research on the Middle East, Inner Asia, and Southeast Asia. Research interests focus on spatial, social, political, and religious movements as well as social and ecological/climatic changes. The institute is characterized by a high level of academic diversity, which is also reflected in the approaches to solving current political conflicts in the region, expertise in art-based research and material culture, as well as informative public academic events. The ISA also maintains and researches the Archive for the European Association of Social Anthropologists (EASA), scientific gifts and bequests, and important historical collections from social anthropology.

5.5. Historical Sciences

Institute for Medieval Research (IMAFO), Vienna

The IMAFO is internationally regarded as one of the leading centers for research into the Latin Middle Ages and Byzantium from around 300 to around 1500 CE. The analysis and interpretation of the medieval heritage is carried out through historical-philological source research and with the use and further development of digital methods. They form the basis for topic-oriented work on nonliterary texts, everyday culture, and multilingualism as well as the associated social practices. In a larger framework, and in an interdisciplinary dialogue, highly topical research questions on identity and community building, environmental history and resilience as well as mobility and global networks are dealt with.

Institute for Habsburg and Balkan Studies (IHB), Vienna

The IHB researches the Habsburg Monarchy and the Balkan region from a historical, art historical, linguistic, and anthropological perspective and thus makes important contributions to investigate, preserve, and interpret Austria's cultural heritage. Fundamental historical and cultural-scientific questions are dealt with across epochs and with a wide range of methods.

Among other things, techniques from the digital humanities are used. Results are actively fed into scholarly discourse and communicated to a non-scientific audience with the help of contemporary formats. The History of Art unit, which is integrated into the IHB, produced the five-volume series on the architectural and functional history of the Vienna Hofburg, while the History of the Habsburg Monarchy unit produced the twelve-volume anthology "The Habsburg Monarchy 1848-1918", both of which are internationally acclaimed standard works.

5.6. Cultural Studies and Digital Humanities

Austrian Centre for Digital Humanities & Cultural Heritage (ACDH-CH), Vienna

The ACDH-CH conducts digitally supported research in the humanities and develops infrastructures that support researchers in the innovative use of digital methods and tools. One focus is on basic research in the humanities to analyze, preserve, and interpret cultural heritage, especially in the context of long-term projects. Building on the methodological and theoretical paradigms of digital humanities, the institute combines relevant competencies, integrates existing resources, and thus enables a sustainable increase in the quality of humanities research. This is done in close cooperation with national and international initiatives and networks such as CLARIAH-AT, CLARIN, DARIAH, and EOSC.

Institute of Cultural Studies and Theatre History (IKT), Vienna

The IKT examines how memory and knowledge are generated, represented, and updated in social and cultural power structures at local, national, and global levels. Central research questions are how societies deal with a traumatic past and how historical and contemporary identities are regulated through knowledge production in the context of academic and media, often power-driven discourses, practices, and norms. Research into antisemitism, which primarily deals with the current manifestations of the phenomenon, is being promoted in particular.

5.7. Social Sciences and Law

Vienna Institute of Demography (VID), Vienna

Research at the VID focuses on international analyses and prognoses of fertility, mortality, migration, and human capital, including their impact on society, the economy, and the environment. The institute cooperates closely with the International Institute for Applied Systems Analysis (IIASA) and the University of Vienna within the framework of the Wittgenstein Center for Demography and Global Human Capital. Competitive scientific quality, social relevance, and innovative methods on a strictly empirical basis make the VID an internationally sought-after center of excellence.

Institute for European Tort Law (ETL), Vienna and Graz

The ETL, which is managed in cooperation with the University of Graz, researches European tort law on the basis of a comparative approach and an interdisciplinary methodology, and has become the leading European research institute in its field. In addition to its hub function at the European level, ETL acts as a point of contact for an international dialogue on transnational tort law. By combining basic research and projects on new, promising research fields, the theoretical pervasion of national, European, and comparative tort law is promoted, and a political and civic

impact is achieved. This contributes significantly to the enhancement and harmonization of legislative bases and legal practice on a national and European level.

Institute for Interdisciplinary Mountain Research (IGF), Innsbruck

The IGF is dedicated to the long-term monitoring and analysis of natural and socio-spatial structures and processes in mountainous areas. Using methodically broad, innovative research approaches, the institute contributes to a better understanding of the dynamics of human-environment interactions at an international level. Due to the high density of data and the long research history, the Alps occupy a special position in basic research. With the knowledge gained in the Alps and a strong international network and cooperation, the current societal challenges of sustainable development, globalization, and climate change are faced in various mountain areas by developing adaptation and control measures.

Institute for Urban and Regional Research (ISR), Vienna

The ISR is a spatial science-oriented research institute outside of a direct planning environment that conducts application-independent basic research at an international level. It deals with the analysis of structures and dynamics of contemporary society in an urban and regional context, analyzing population and society together with the natural, built, and social environment. ISR emphasizes a multi-perspective and transdisciplinary approach, also in cooperation with institutes of a similar orientation in Europe.

Institute for Comparative Media and Communication Studies (CMC), Vienna and Klagenfurt

The CMC, jointly operated by the OeAW and the University of Klagenfurt, examines the changing role of (mass) media and journalism in public communication. It analyzes the effects of digitization, social networks, and automated communication on media offerings, communication content, media use, social behavior, especially in relation to politically relevant communication, and media policy requirements. In addition, the institute deals with science communication, collaborating with the University of Klagenfurt in a dedicated working group.

Institute of Technology Assessment (ITA), Vienna

ITA investigates the effects of technical change on society, the economy, the environment, and health to contribute to a better understanding of the societal relevance of technology and to further develop technology assessment methods. The institute is particularly dedicated to analyzing the unintended consequences of technical change: researchers from the natural, technical, and social sciences work together in an interdisciplinary and practice-oriented manner. The experiences of experts, stakeholders, and users are integrated into the analyses through participatory methods. The options and recommendations developed are used by politicians (including the Austrian National Council), administration, and the public for orientation and decision-making.

5.8. Science-oriented units

In addition to **BAS:IS** (see 2.3.), the OeAW maintains two science-oriented units.

Phonogrammarchiv

The Phonogrammarchiv is intensifying its efforts to digitize, analyze, and legally process its unique audio and video archives with a global provenance spanning 125 years of research, with the aim of making them more easily accessible and widely available. Together with BAS:IS, it takes on the topic of the OeAW's digital (born) objects in the domains of text, image, sound, and video. These include documents from the administration, from events, and other documentation of the institutional memory of the OeAW, which is to be collected, made accessible, and secured in the long term. Both institutions are working on a collection and documentation strategy for the documentary heritage of the future. The relocation of the Phonogrammarchiv to the PSK will lead to intensified cooperation and will create new synergies.

Austrian Historical Institute in Rome (OeHI)

In addition to its own research projects and continuous publication activity ("Römische Historische Mitteilungen", book series), a key task of the OeHI is the networking of Austrian researchers and research institutions with Italian partner institutions. This is done through workshops, conferences, and joint research initiatives, also in cooperation with international institutes based in Rome. The successful mentoring of Austrian researchers in Rome will be continued, among other things, within the framework of the OeAW scholarship program GO.INVESTIGATIO. With its large specialist library and the organization of academic events, the OeHI continues to contribute to the establishment and consolidation of academic cooperation between Austria and Italy.

APPENDIX

List of abbreviations

ALLEA	All European Academies
APART	Austrian Programme for Advanced Research and Technology
BAS:IS	Library, Archive, and OeAW Collections: Information & Services (Bibliothek, Archiv, Sammlungen: Information und Service)
BMBWF	Federal Ministry of Education, Science and Research (Bundesministerium für Bildung, Wissenschaft und Forschung)
CERN	European Organization for Nuclear Research, Geneva
CLARIAH-AT	Consortium for the coordination of Austrian activities in European research infrastructures
CLARIN	Common Language Resources and Technology Infrastructure
DARIAH	Digital Research Infrastructure for the Arts and Humanities
DAFNE	Electron-positron collider of the Laboratori Nazionali di Frascati (LNF) in Italy
DP	OeAW Development Plan
EASAC	European Academies Science Advisory Council
EOSC	European Open Science Cloud
ERC	European Research Council
ESA	European Space Agency
ESO	European Organisation for Astronomical Research in the Southern Hemisphere
ESS	Earth System Sciences
FWF	Austrian Science Fund (Fonds zur Förderung der wissenschaftlichen Forschung)
GSK	Humanities, social sciences, and cultural sciences (Geistes-, Sozial- und Kulturwissenschaften)
IIASA	International Institute for Applied Systems Analysis
IPR	Intellectual Property Rights
JESH	Joint Excellence in Science and Humanities
JPARC	Japan Proton Accelerator Research Complex
LNGS	Laboratori Nazionali del Gran Sasso
OeAW	Austrian Academy of Sciences (Österreichische Akademie der Wissenschaften)
PA	Performance Agreement between the OeAW and the BMBWF
PSK	Building of the former Postal Savings Bank (Postsparkasse) in Vienna by Otto Wagner
RNA	Ribonucleic acid
RTI	Research, Technology, and Innovation
SDGs	Sustainable Development Goals
STEM	Science, Technology, Engineering, and Mathematics
UG	University Law (Universitätsgesetz)