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EXPLORING NEW FRONTIERS

CULTIVATING TALENTS

REALISING NEW IDEAS

Executive Summary

The Austrian Science Fund (FWF) is Austria's central funding organisation for basic research. The FWF's annual volume of grants comes to approximately €180 million, nearly 80% of which is invested in personnel – that is, in academics, scientists and researchers. In this way, the FWF plays a key role in supporting the next generation of researchers.

Upon the invitation of the Austrian Federal Ministry of Science and Research (BMWF), the FWF decided to take part in the **Human Resources Strategy for Researchers (HRS4R)**¹ programme, not least in order to ensure that the institutional, programme-related and research policy-related aspects of the FWF's work are handled in such a way that they comply with (or support the implementation of) the **European Charter for Researchers and the Code of Conduct for their Recruitment (Charter & Code)**.²

In the course of a gap analysis, an FWF task force examined the existing rules and regulations, guidelines, laws and measures on the basis of the **four dimensions of the Charter**:

- I Ethical and professional aspects
- II Recruitment
- III Working conditions
- IV Training

The task force developed a number of suggestions for improvement as well as an Action Plan which clearly assigns priority levels to the measures to be taken. These measures also include broad consultation with Austrian researchers; among other things, this will involve a large-scale survey of opinions on the FWF among people working in science and research (target group: approx. 20,000 persons; survey scheduled for 2012–2013), which will include specific questions related to the Charter & Code. The results of this survey will be incorporated in the design of FWF activities. The HRS4R as well as the FWF's Action Plan were approved by the FWF Executive Board in the first half of 2012.

¹ <http://ec.europa.eu/euraxess/index.cfm/rights/strategy4Researcher>

² <http://ec.europa.eu/euraxess/index.cfm/rights/brochure>

Ethical and professional aspects

The general framework of Austrian law and research policy as well as the FWF's self-concept oblige the organisation to ensure ethical behaviour and professionalism in all areas of work and activity. The relevant legal and institutional requirements at the level of government, universities (research institutions) as well as the FWF and other funding agencies define the general conditions for research work. Various commissions in the Austrian government and at universities and research institutions are responsible for ensuring compliance with ethical standards. The conditions and prerequisites as well as the rights and duties of the FWF and its grantees are defined in the FWF's **grant agreements**; aspects related to ethics and equal opportunities/treatment are becoming increasingly important in this context. Reviews are carried out by the research institutions themselves and in the course of the FWF's reporting and evaluation activities. In the case of suspected violations, the **Austrian Agency for Research Integrity (OeAWI)** is called in. This agency was founded as an independent institution at the national level, and the FWF was heavily involved in its establishment. The agency's duty is to investigate allegations of research misconduct professionally and independently.

Controlling, reporting and evaluation mechanisms have been established throughout the FWF's activities, both at the level of funded projects and at the funding programme level. One of the pillars of the FWF's corporate policy is the **dissemination** of research findings in order to stimulate the exchange of ideas between researchers and to support interactive effects between science (basic research) and all other areas of cultural, economic and social life in society. The implementation of an **open access policy** is one of the FWF's key concerns, and the FWF is among the world's pioneering organisations in this area.

The FWF's **Action Plan** with regard to **ethical and professional aspects** comprises five measures, four of which have been accorded top priority and are either already being implemented or will be launched in the course of the year 2012:

- broader publication and more customer-friendly (prioritised) presentation of relevant rules and regulations
- expansion of advising services
- a comprehensive self-evaluation; and
- enhancement of science/society activities and public engagement of FWF project leaders.
- The fifth measure refers to the standardisation of rules of good scientific practice, a rather long-term project which will require the full involvement of all relevant stakeholders.

Recruitment

At a general level, Austrian law provides for standards with regard to equal treatment and the prevention of discrimination of all kinds.

In the **FWF's grant decisions**, scientific excellence is the most important decision-making criterion. The FWF relies exclusively on independent experts who work outside of Austria (international peer reviewers) to ascertain the scientific quality of grant proposals; these expert reviewers are selected strictly on the basis of their expertise in the relevant field, international orientation and independence (lack of bias). Unbiased assessments and gender balance are also essential parts of the FWF's grant decision process. FWF grants are awarded exclusively to **physical persons (researchers)**, and its partners in grant agreements are never institutions (universities, research institutions, etc.). Assessments of personal qualities must always be considered in relation to the individual's career path and specific circumstances (specific educational paths, family and the like). As the FWF's decision-making process is not based on individual indicators but on the opinions of peers, this quality assessment is always based on a combined view of various parameters.

The FWF works to promote **independence and mobility** among young researchers, and the organisation offers two specific programmes to support career development for women in science and research. As for the selection of employees in FWF projects, the definition of selection criteria, the assessment of candidates' qualifications and their ultimate selection are left up to the project leaders in most programmes. In certain programmes (e.g., Doctoral Programmes [DKs]), applicants are required to prepare transparent selection guidelines for faculty members and students, and all positions must be advertised internationally.

For the **FWF office** itself, a clearly defined set of recruiting principles is applied. In general, every position is advertised internally and externally; the qualifications required for a position (job descriptions) remain constant and are not changed from case to case. Depending on the position to be filled, the selection is made by the relevant department head or the FWF's management, and the principle of "the more eyes, the better" is observed in this context.

The FWF's **Action Plan** in connection with **recruiting** comprises two measures:

- The export of the **FWF** job portal into Euraxess is considered a medium priority.
- The implementation of measures to ensure recruitment in line with the Charter & Code as well as training and continuing education for employees in all FWF funding programmes is regarded as a medium priority.

Working conditions and social security

In general, the Austrian Labour Code (Arbeitsverfassungsgesetz; ArbVG) applies to all FWF-funded employees (like all salaried employees in Austria). University employees are subject to the Universities Act (Universitätsgesetz; UG) as well as a number of additional regulations. The FWF itself is a legal public-law entity established under the Austrian Research and Technology Funding Act (Forschungs- und Technologieförderungsgesetz; FTFG). The committee structure of the FWF ensures that scientists and researchers are involved into the FWF's activities in an optimal manner. With regard to **social security**, the FWF fulfils the requirements of the Charter & Code in their entirety. All FWF-funded researchers receive full social security benefits in addition to the remuneration paid for their work, and FWF-funded researchers are always employed under a contract of employment; in foreign countries, grants always include health and pension insurance. For all of its programmes, the FWF prescribes personnel costs and salaries which serve as lower limits where no collective bargaining agreement is applicable; given appropriate and constantly high qualifications, independent scientists and researchers may receive funding from the FWF until the end of their active research careers.

With regard to the **general conditions for the work of researchers**, the FWF requires the research institution(s) hosting a project to confirm the availability of material infrastructure and personnel necessary for the project; otherwise, the grant cannot be approved. In the course of the review process, the FWF also reviews whether the funds requested as well as the general conditions for carrying out the planned research project are appropriate.

With regard to the **combination of family and career**, the FWF largely supports women through its career development programmes for women in science; in other programmes, the FWF mainly offers the possibility of flexible working hours. However, handling the legal situation at universities is often problematic in connection with FWF-funded researchers; the FWF is working with the universities to find a viable solution. With regard to gender balance, the FWF can only make recommendations in the area of research funding; this principle has been observed wherever possible in the FWF's own activities (decision-making bodies and office personnel).

In connection with **intellectual property rights and authorship**, the FWF's rules provide researchers with a maximum of freedom. In its funding programmes and contracts, the FWF does not claim any rights to the intellectual property arising from FWF-funded projects. The contracts are drawn up in such a way as to ensure the best possible dissemination of research findings.

Career development: The FWF's funding programmes provide a model for funding a researcher's career from undergraduate status all the way to the level of established researchers. In all funding categories, project leaders are asked to consider career development aspects with regard to all project members (especially junior researchers) when planning a project. The **mobility** of researchers and the **portability of projects** (at the international level) are supported by a number of programmes and agreements, e.g. D-A-CH, a trilateral cooperation agreement between research funding organisations in Germany, Austria and Switzerland (D-A-CH: DFG, FWF, SNSF).

The FWF's **Action Plan** with regard to **working conditions and social security** provides for five measures:

- One short-term, high-priority measure is the intensification of the FWF's dialogue with universities regarding career models for FWF-funded researchers and the development of a best-practice model for this purpose.

The medium-priority measures (medium-term implementation) include the following:

- improving awareness measures regarding social security for project employees;
- increasing the share of women on the FWF Board;
- enhancing the portability of grants; and
- networking activities for women in science and research (role model mentoring).

Training

Training junior researchers is one of the pillars of the FWF's mission ("education through research"). The general terms and conditions of FWF grant agreements require project leaders to develop training /education and career development plans for project employees even at the time of application; the applicant's ability to act as a suitable trainer/mentor for junior scientists and researchers is assessed in the review procedure prior to the grant decision. These aspects are also reviewed in the course of the ex-post evaluation of final reports. The highest education/training requirements apply to FWF Doctoral Programmes (DKs), and funds are available for education/training (i.e. the acquisition of special scientific skills and generic skills). The FWF's information strategy covers a broad range of information and training activities, from general overview events to intensive personal coaching.

The FWF's **Action Plan** in connection with **training** provides for the expansion of the Doctoral Programmes' educational concept to other programmes as a medium-term priority.

FWF Human Resource Strategy for Researchers

Preface

The Austrian Science Fund (FWF) is Austria's central funding organisation for basic research. The FWF's annual volume of grants comes to approximately €180 million, nearly 80% of which is invested in personnel – that is, in academics, scientists and researchers. The FWF finances the salaries of approximately 1,230 post-doctoral researchers, over 1,770 doctoral candidates and some 140 technical assistants. In this way, the FWF plays a key role in supporting the next generation of researchers.

The FWF adheres to high quality standards in the projects funded as well as its own activities. As a result, all of the FWF's funding programmes have been evaluated by external institutions, which has enabled ongoing quality assurance as well as continuous improvement in the organisation's procedures and structures. In adopting the European Charter for Researchers and the accompanying Code of Conduct for the Recruitment of Researchers in 2005, the European Commission compiled a catalogue of general principles and requirements which defines the roles, responsibilities and entitlements of researchers as well as those of employers and/or funding organisations. In 2006, the FWF endorsed the Charter and the Code of Conduct and highlighted the importance of such a code in a separate editorial published in the organisation's "info" magazine³. Since 2009, the FWF has been able to obtain €9.1 million in co-funding for the Erwin Schrödinger Fellowship Programme in three calls within the framework of the Marie Curie Action COFUND. The criteria defined by the European Commission for the approval of co-funding are largely based on the principles of the Charter & Code, and with three successful grant applications, the FWF has been able to demonstrate that it has already implemented these high standards in its programmes as well as its methods.

At the end of 2010, the Austrian Federal Ministry of Science and Research (BMWF) asked the FWF to take part in the Human Resources Strategy for Researchers (HRS4R) Programme. The five-stage programme provides guidance in the implementation of the principles contained in the Charter, and participating institutions are awarded the HR Excellence in Research logo, which can be considered a seal of approval for employers of researchers and/or research funding organisations. The overarching goal is to define the general institutional, programme-related and research policy framework in such a way that it meets the requirements of the European Charter for Researchers.

³ www.fwf.ac.at/fileadmin/files/Dokumente/Info-Magazin/info70-09-03.pdf

FWF gap analysis

The HRS4R initiative for the implementation of the Charter & Code was presented at a kick-off meeting in March 2011. Subsequently, an initial analysis was carried out on the basis of the 40 criteria defined in Charter & Code, and the areas relevant to the FWF were identified. The HRS4R Task Force working group was set up on the basis of an instruction from the FWF's management (President Christoph Kratky and Managing Director Dorothea Sturn). The purpose of this task force was to survey and summarise existing regulations, guidelines, laws and measures as well as suggested improvements on the basis of the four dimensions listed in the Charter and in the FWF's funding activities: Ethical and professional aspects, Recruitment, Working conditions, and Training.

The members of the HRS4R Task Force were as follows:

- Reinhard Belocky (Head of Department, International Programmes)
- Stefan Bernhardt (Head of Department, Public Relations and Science Communication)
- Nicole Föger (Austrian Agency for Research Integrity)
- Sabine Haubenwallner (Head of Staff Unit for Gender Issues)
- Beatrice Lawal (Programme Manager, International Programmes)
- Rudi Novak (Head of Department, National Programmes)
- Falk Reckling (Head of Department, Humanities and Social Sciences / Analysis)
- Ulrike Varga (Head of Department, Legal Affairs and Committee Support)
- Gerlinde Weibold (Head of Department, Organisation and Human Resources)
- Barbara Zimmermann (Head of Department, Mobility and Women's Programmes).

An in-house workshop allowed FWF employees to exchange ideas and opinions on the task force's findings and the proposed measures which arose from the gap analysis. In addition, participants in the workshop discussed how and in what form scientists and researchers funded by the FWF might be involved in the process. A large-scale survey of opinions on the FWF among people working in science and research (target group: approx. 20,000 persons; survey scheduled for 2012–2013) will include specific questions related to the Charter & Code. The results of this survey will later be accounted for in the design of FWF programmes. In the first half of the year 2012, the work of the HRS4R Task Force and the results of the meetings and workshops were summarised in the FWF HRS4R Strategy, after which this document was discussed with and approved by the FWF Executive Board.

Members of the FWF Executive Board:

- Christoph Kratky (President)
- Christine Mannhalter (Vice-President)
- Johann Eder (Vice-President)
- Herbert Gottweis (Vice-President)

1. Introduction and method

There is no doubt that the coming shortage of researchers poses a serious threat to innovative power, knowledge potential and productivity growth in Europe. As in other countries of the European Union, human resources also represent the main bottleneck for the future development of the national innovation system (NIS). Promoting activities in this field is among the three pillars of the FWF's mission.

The FWF therefore wholeheartedly stands behind the content of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers and sees itself as an advocate of researchers' interests.

The FWF was and still is involved in various national and European initiatives in connection with research careers, including the ESF Member Organisation Forum on European Alliance on Research Career Development. At the national level in particular, there is an extensive body of evidence with regard to the situation of researchers as well as their general working conditions and their planning of future prospects (for a specific example, see the web site of the Austrian Ministry of Science and Research).⁴ The FWF's work is also largely based on the organisation's own (or FWF-commissioned) analyses and studies (see Publications on the FWF web site).⁵

In developing its human resources strategy (HRS), the FWF has positioned itself by relying on this body of evidence. With regard to specific options for action, an in-house gap analysis was carried out using the criteria defined in the Charter & Code. The results of this analysis were placed in relation to the FWF Policy Plan (FWF Multi-Year Plan, 2011-2015) and discussed at length in the FWF's decision-making bodies. The next section outlines the existing activities of the FWF with regard to research careers, after which the HRS described in the following section specifies the activities (Measures) to be undertaken in the relevant areas. The paper concludes with a discussion of concrete future prospects (possible courses of action for the FWF). The discussion mainly focuses on the areas where there is an especially urgent need to act as identified in the analysis.

The FWF's multi-year plan provides for three fundamental strategic measures to improve the situation with regard to research careers:

- 1) Improving education and training for junior researchers;
- 2) Increasing the share of women in research;
- 3) Ensuring brain gain from abroad.

The first two strategy lines (1 and 2) include measures focusing on a medium to long-term per-

spective, while only the third area is capable of remedying deficits in the relatively short term by attracting high-potential researchers from abroad and providing them with the necessary infrastructure on site in Austria. All three areas have been advocated by various stakeholders in Austria's science and research system if significant effects are to be achieved. However, the FWF has developed measures and offers programmes and support in all three areas.

Among other things, the FWF has established a seamless career model in its grant programmes; this model provides funding for careers in science and research from the very beginning (i.e. graduation from university with an advanced degree) to the level of established researchers. The FWF is one of Austria's most important sources of funding for research personnel, especially doctoral candidates.

The FWF pays special attention to measures related to gender mainstreaming and to the need to increase the share of women in Austria's scientific community: At higher career levels in research, the share of women decreases in Austria as well, and the country still lags behind most of Europe in terms of the share of female professors. For this reason, the FWF offers programmes designed to promote positive changes in this situation. An FWF staff unit specifically dedicated to addressing gender issues provides the basis for the FWF's gender-related activities, ensures accompanying measures and acts as an interface at the national and international level.

The active involvement of the Austrian scientific community, close contact with researchers, and intensive advising activities (including coaching) are among the central elements of the FWF's human resources strategy. The key decision-making bodies at the FWF comprise highly esteemed researchers, and the FWF makes efforts to ensure an appropriate share of women in those bodies. The FWF has a clearly structured set of information services (info events, coaching workshops, info specials) which is supplemented by informal advising and programme-specific information events such as proposers' days or coaching sessions for specific FWF funding programmes. Comprehensive surveys of the Austrian scientific community (2002/2003, to be repeated in 2012/2013) provide input for the FWF's work with regard to providing appropriate support for research careers and implementing the Charter & Code.

⁴ www.en.bmwfw.gv.at/Seiten/default.aspx

⁵ www.fwf.ac.at/en/about-the-fwf/publications/

2. FWF human resources strategy, 2011–2014

2.1 Ethical and professional aspects

Fundamental considerations

The general research policy goals of Austria's government, federal ministries, universities and funding organisations have been specified in a legally defined set of strategy papers which provide a framework for the activities of various stakeholders. Thus the Austrian federal government has adopted an RTI strategy,⁶ the universities are obliged to develop intellectual capital statements, development plans and performance agreements with the Federal Ministry of Science and Research (BMWF) on a regular basis, and the FWF presents its strategic objectives in a multi-year plan, which also provides an overview of planned developments in the FWF's funding portfolio in the coming five years as well as the general budget conditions. This plan is also published on the FWF's web site.⁷ The FWF's multi-year programmes are implemented in the organisation's annual work programmes. Both of these programmes are subject to approval by the FWF's supervisory authority (the Austrian Federal Ministry of Science and Research).

The FWF's legal mandate as well as its self-concept oblige the organisation to ensure ethical behaviour and professionalism in all areas of work and activity. These demands are accounted for in the FWF's corporate policy, values and mission, which have been clearly defined in writing and published.⁸ These principles are explicitly implemented in FWF documents, including its grant guidelines and general terms and conditions of agreements.⁹ The FWF's values statement pays special attention to the principle of equal treatment (non-discrimination), and the corresponding non-discrimination standards have also been defined and published.

The relevant legal and institutional requirements at the level of government, universities (research institutions) as well as the FWF and other funding agencies define the general conditions for research work. Like other countries, Austria has a well-developed system for addressing issues in bioethics. Various commissions in the Austrian government (Federal Chancellery) and at universities and other research institutions are dedicated to dealing with these issues and are decisive for the approval of certain research projects (e.g. clinical studies). Recently, there has also been a discussion on the establishment of ethics commissions for the humanities and social sciences in Austria. At the moment, such commissions are still in the planning stage at Austrian research institutions. There are currently no legal regulations regarding integrity in research in Austria, but there are numerous different institutional regulations. With regard to the dissemination and use of research findings, the FWF has a legally defined

mandate (Art. 4 Par. 1 lit. d Austrian Research and Technology Promotion Act, FTFG) to sensitise the public to the importance of scientific research and its promotion, especially by introducing new forms of participatory communication.

FWF practices – Contracts

The conditions and prerequisites as well as the rights and duties of the FWF and its grantees are governed by the FWF's grant agreements. These agreements oblige the grantees to adhere to all legal requirements and, in line with the applicable law (FTFG), even call for the repayment of grant funds in the case of certain (precisely defined) violations.

The FWF's grant and application guidelines also ensure that the corresponding requirements for the execution of projects (approvals, infrastructure, etc.) are obtained in due time. In the grant agreements, the FWF obliges project leaders to adhere to all applicable legal and other regulations in the execution of research projects. Compliance with those regulations is reviewed by the research institutions at which the projects are carried out and by means of interim and final reports to the FWF. In exceptional cases (where peer reviewers point out potential ethical conflicts), the FWF may require applicants to submit the relevant approval as a precondition for carrying out a project. The guidelines for the Erwin Schrödinger Programme, which is co-funded by the European Commission (EC) under the 7th Framework Programme (Marie Curie Actions), have included a new rule with regard to ethical issues since January 1, 2011. Applicants are now required to submit a statement indicating that they will obtain all necessary approvals for their research and adhere to the ethical standards established in their destination countries and at the host institutions. The approvals must be presented to the FWF before the project commences. In addition, applications which touch on specific sensitive research issues must be sent to the EC for an ethics review. In line with the requirements of the EC, the FWF also considers it increasingly important to consider ethical aspects in funded projects and is considering an extension of this requirement to all other FWF programmes.

The FWF's application guidelines and grant agreements also require grantees to comply with the rules of good scientific practice; for clinical studies, the guidelines for good clinical practice and good laboratory practice are also mandatory.¹⁰ In the case of suspected violations, the Austrian Agency for Research Integrity (OeAWI) is called in. This agency was founded as an independent institution at the national level, and the FWF was heavily involved in its establishment. The agency's duty is to investigate allegations of research misconduct professionally and independently.¹¹ On the basis of the OeAWI's comments, the FWF decides how to proceed, in particular whether sanctions are to be imposed.

6 www.bka.gv.at/DocView.axd?CobId=42655

7 www.fwf.ac.at/en/about-the-fwf/publications/

8 www.fwf.ac.at/en/about-the-fwf/corporate-policy/

9 www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-relevante_Publikationen/fwf_funding_guidelines.pdf

10 www.fwf.ac.at/en/research-funding/decision-making-procedure/funding-guidelines/rules-of-good-scientific-practice/

11 www.oewi.at/en/index.html

The FWF's rules otherwise stipulate that project leaders may request the intervention of an arbitration committee in the case of violations and the resulting disputes; the parties involved are then bound by the decisions of this committee.

FWF practices – Accountability and evaluation

Controlling, reporting and evaluation mechanisms have been established throughout the FWF's activities, both at the level of funded projects and at the programme level. At the project level, the FWF adheres to the principle of "results-based controlling," which ensures a maximum of flexibility in project execution as well as accurate charging and transparent, correct financial reporting. The entire process is IT-based; the parameters for project output are captured in electronic form and are thus available for programme evaluations and other analyses.

The FWF evaluation system ensures the following:

- Capture and evaluation of performance and output for each funded project upon completion; long-term, large-scale projects such as priority research programmes or doctoral programmes are subjected to interim evaluations.
- Each programme is evaluated by independent, international and well-established evaluation bodies. These evaluations are either commissioned by the FWF itself or by the Austrian Federal Ministry of Science and Research (the FWF's supervisory authority).

The capture and analysis of performance data is invariably complemented by peer reviews, which are carried out by international experts outside of Austria. A description of the evaluation system has been published on the FWF's web site,¹² and programme evaluations are also available to the public.¹³

¹² www.fwf.ac.at/en/research-funding/decision-making-procedure/decision-making-procedure/

¹³ www.fwf.ac.at/en/about-the-fwf/publications/

FWF practices – Dissemination, use and public engagement

One of the pillars of the FWF's corporate policy is the dissemination of research findings in order to stimulate the exchange of ideas between researchers and to support interactive effects between science (basic research) and all other areas of cultural, economic and social life in society. In particular, these activities are meant to enhance the general acceptance of science and research through PR activities which are coordinated with other stakeholders.

In this context, it is especially worth highlighting the FWF's thorough evaluation activities (ex ante and ex post at the project level, ex ante and interim evaluations at the programme level) as well as the organisation's activities with regard to open access, an area in which the FWF is certainly among the forerunners worldwide.¹⁴

With regard to patents and licences, the FWF allows project leaders a maximum of freedom; the FWF does not intervene in this area at all, nor does it demand returns.

As for public engagement, FWF projects also include the possibility of undertaking "science in society" activities; 5% of the funds approved can be used for efforts of this kind (among other activities). The corresponding execution of such campaigns is reviewed and documented in the evaluation of final project reports.

Measures related to ethical and professional aspects:

- The FWF plans to launch a project dedicated to the **more client-friendly (prioritised) provision of relevant documents**. This project will involve standardising all relevant programme documents and providing priority access for the FWF's clients.
- The FWF is initiating a discussion on the **standardisation of rules of good scientific practice at the national level**. There are no uniform standards in this respect at the Austrian or international level, and thus it would be advisable to establish uniform rules for good scientific practice for Austria on the basis of existing international rules. This task is to be tackled by the FWF, the Austrian Agency for Research Integrity as well as selected research institutions. As is already the case in the Erwin Schrödinger Fellowship Programme, ethical issues will be attributed greater importance throughout the FWF's own programme portfolio in the future.
- For specific client groups, the FWF will offer occasional events in which the Auditing, Finance and Legal Affairs departments will inform grantees about key legal and operational aspects of FWF grants. The FWF also plans to **expand its specific advising and information services** by increasing the frequency of these events.

¹⁴ www.fwf.ac.at/en/research-funding/open-access-policy/

- The FWF is currently in the process of implementing a comprehensive package for **self-evaluation** which is primarily geared toward stand-alone projects (the FWF's largest funding category). The ex ante procedures have already been examined.* An analysis of final project reports including comprehensive bibliometric data will be completed by the end of 2012. This analysis will provide in-depth information on project output and its relationships to ex ante and ex post evaluations, as well as enabling reliable international comparisons. The FWF's open access policy will be expanded to include a special campaign for the implementation of quality assurance instruments and open access at publishing houses and in book publications.
- Finally, the FWF plans to take additional measures to draw the project leaders' attention to potential means of **enhancing "science in society" activities and public engagement**. A specific programme for the promotion of these activities will be launched in 2012.

* www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publicationen/FWF-Selbstevaluation/FWF-ApprovalProbability_P-99-08_15-12-2010.pdf

2.2 Recruitment

Fundamental considerations

At a general level, Austrian law provides for standards with regard to equal treatment and the prevention of discrimination of all kinds. In this context, the provisions of the Austrian Federal Act on Equal Treatment (GIBG)¹⁵ govern employment relationships in the private sector, while the Act on Equal Treatment in Federal Employment (B-GIBG)¹⁶ applies to public-law and private-law employment relationships with the Republic of Austria. The Universities Act (UG) of 2002 likewise contains provisions regarding equal treatment and the prevention of discrimination. Several universities have endorsed the Charter & Code and are implementing the standards defined in those documents, but nationwide implementation is still lacking.

The duties of the FWF as well as the structure and composition of its key decision-making bodies are defined under Austrian law (Austrian Research and Technology Promotion Act, FTFG).¹⁷ The selection of members for those decision-making bodies is defined in a transparent manner and accounts for legal requirements as well as the FWF's non-discrimination standards (see FWF corporate policy and FWF decision-making bodies).¹⁸

15 <https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20003395>

16 www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10008858

17 www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10009523

18 www.fwf.ac.at/en/about-the-fwf/corporate-policy/
www.fwf.ac.at/en/about-the-fwf/organisation/

FWF practices – Grant decisions

Excellence in research is the most important criterion in the selection of projects to be funded. In the process of assessing projects, experts are selected for written peer reviews of projects and review panels are assembled for on-site reviews according to the strict criteria of optimising specialist expertise, international orientation and independence (i.e. an unbiased perspective). The selection mechanisms include written peer reviews as well as expert panels and on-site visits. Avoiding biased reviews and assessments is a key element in international peer reviews and is also observed carefully in the FWF's decision-making bodies and Secretariat. Gender balance is also very important to the FWF in terms of the peer reviewers and expert panels it appoints, the composition of its decision-making bodies and the Secretariat (see "FWF gender mainstreaming"), and the non-discrimination standards applied in the FWF's internal and external processes.

FWF practices – Human resources

FWF grants are awarded almost exclusively to physical persons (researchers), and its partners in grant agreements are never institutions (universities, research institutions, etc.). The grant decision-making practice described above ensures a maximum of transparency in this respect. The review process and selection criteria for projects are described in detail on the FWF web site. Likewise, the names of members of the FWF Board and the FWF Executive Board are published. The decisions of the FWF Board are based solely on peer reviews obtained from external sources. The questions to which the peer reviewers respond on the basis of the application, CV, publications and recommendations vary according to the objectives of the programme and are also published on the FWF website.

In its guidelines for reviewers, the FWF makes it very clear that the assessment of personal qualities must always be viewed in light of the individual's career history and specific circumstances (specific educational paths, family and the like):

"In all of its programmes, the FWF actively supports equal opportunities and equal treatment. The review of an application must not put the applicant at a disadvantage for non-scientific or non-scholarly reasons such as age, gender, etc. For example, the assessment of research proposals should not be based on the applicants' actual age, but instead on their previous research achievements in relation to the individual circumstances pertaining to the duration of their research careers. For the FWF, ensuring equal opportunities also involves accounting for unavoidable delays in the scientific careers of applicants (e.g. longer qualification periods, gaps in publication activity, or less time spent abroad for family reasons). When preparing your review, please keep in mind that your comments in Section 1 will be forwarded in their entirety to the applicant (without including your name)" (Excerpt from FWF application guidelines).¹⁹

19 www.fwf.ac.at/fileadmin/files/Dokumente/Antragstellung/Einzelprojekte/p_application-guidelines.pdf

These criteria play an especially important role in the context of grants awarded to individuals (such as FWF prizes) as well as mobility and women's programmes. As the FWF's decision-making process is not based on individual indicators but on the opinions of peers, the quality assessment is always based on a combined view of various parameters as described above. The FWF's CV presentation requirements are flexible enough to account for career breaks and the like. In particular, the FWF also supports researchers who wish to return to their research careers after an interruption by allowing them to take a sabbatical leave from a previous employment relationship and funding their salaries during the research project.

Career development programmes for young post-docs define specific requirements (doctoral degree, sufficient international publication output) and objectives (qualification for professorships or management positions in research). The FWF also supports the independence of junior researchers: The duration of employment for post-docs as research personnel in FWF projects is limited to 6 years. After that time, researchers are required to take on the responsibility for a project themselves if they wish to continue receiving FWF funding.

The FWF promotes the mobility of researchers in all of its programmes, e.g. by providing generous travel allowances. One specific programme (Erwin Schrödinger Programme) specifically promotes research fellowships abroad and has established itself as a classic career development programme. Since 2009, the Schrödinger Programme has also included the possibility of applying for an additional return phase in order to counteract the danger of brain drain, which is inherent to outgoing programmes (see also the evaluation of the FWF's mobility programmes).²⁰

For women, the FWF supports a continuous career model in two specific funding programmes (Hertha Firnberg and Elise Richter); since 2010, the Hertha Firnberg Programme has also included the possibility of a research year abroad by making it possible for universities to post researchers to institutions outside of Austria. This means that the researcher's employment relationship – and thus also her social security benefits – are maintained.

As for the selection of employees in FWF projects, the definition of selection criteria, the assessment of candidates' qualifications and their ultimate selection are left up to the project leaders in most programmes. The area of human resource development is explicitly and prominently emphasised among the parameters for the measurement of project performance as well as the criteria for the assessment of project success (cf. requirements for final reports on stand-alone projects).

In certain programmes (e.g., Doctoral Programmes [DKs]), applicants are required to prepare transparent selection guidelines for faculty members and students, and all positions must be advertised internationally.

FWF office

The FWF has prepared descriptions for every position as a basis for vacancy announcements. As a rule, each position is advertised both internally and externally. The qualification requirements remain the same for a given position and are not changed from case to case.

Depending on the position to be filled, the selection is made by the relevant head of department or the FWF's management. In all cases, at least two persons (manager and Human Resources department) are involved in the application process; in many cases, expert employees from various departments are also called in.

Tolerance for atypical career histories and the assessment of the candidate's overall range of experience are integral parts of the FWF application process, as high-quality research management cannot be ensured with scientific expertise alone.

The principles of the FWF's recruiting guidelines are cited below.

²⁰ www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-relevante_Publikationen/fwf_mobility_report.pdf

The FWF's values

The FWF's corporate policy documents the organisation's values and principles. The principles in the FWF's corporate policy statement are also applied to the recruiting process; the internal processes are carried out on the basis of the FWF's non-discrimination standards.

Transparency, fairness and appreciation

- Respectful and appreciative treatment of FWF employees, clients and applicants is part of the FWF's corporate culture and is also reflected in the job application process.
- The FWF makes efforts to ensure that its recruiting process is transparent and standardised. The organisation's commitment to equal treatment for all applicants in a transparent process is a key part of the recruitment procedure.
- This means that applicants are informed about the planned schedules and deadlines in the application process once they submit an application. No more than one month should pass between the application deadline and notification of the hiring decision. Should delays arise, the candidates are informed by e-mail. Inquiries are answered promptly and with due appreciation.

International orientation, equal opportunities and gender mainstreaming

- Candidates are selected on the basis of their qualifications and abilities with regard to the vacancy advertised. The applicants' origins, nationality and gender are not taken into account in the recruiting process.

Confidentiality and trust

- We place special emphasis on maintaining confidentiality when handling data and information. Application documents are strictly confidential and must not leave the FWF's premises. These documents must be reviewed in the FWF's offices. External access is possible via Outlook Web Access. However, the documents must not be printed out outside the FWF's offices. Only the persons involved in the recruiting process have access to these documents, and those persons are obliged to maintain strict confidentiality.
- Due to its careful recruiting policy, the FWF does not use trial periods for new employees. We rely on the quality of our recruiting process. An indefinite contract of employment without a trial period is the FWF's standard, and this approach has proven its worth over many years.

FWF practices: Transparency and information

The measures and policies described in the previous section ensure that the intentions underlying the transparency criteria in the Charter & Code are fulfilled in their entirety in the FWF's grant decisions as well as its recruiting processes.

The FWF's comprehensive information strategy is intended to help provide researchers with all necessary information, especially with regard to tacit knowledge and maximum transparency; in this context, intensive personal advising plays a major role. As the name already suggests, the FWF's coaching workshops deal with this element as a high priority.

Measures related to recruitment:

- It is necessary to discuss whether and in what form measures should be introduced in all FWF programmes in order to ensure that **recruitment as well as (continuing) education for employees are in line with the Charter & Code**. At present, the FWF does not impose any requirements on project leaders with regard to the selection of employees.
- Export of the **FWF job portal** into Euraxess

2.3. Working conditions and social security

Fundamental considerations

In general, the Austrian Labour Code (Arbeitsverfassungsgesetz, ArbVG) applies to all employees in FWF-funded projects (as is generally the case with salaried employees in Austria).

For university employees, the Universities Act (UG) also applies; in connection with FWF grants, problems often arise in connection with provisions on limited-term employment relationships (see next section).

Legal regulations (collective labour agreements) also define the amount to be paid to researchers; FWF projects are subject to the FWF's salary guidelines, which are published on its web site and adjusted on a yearly basis.

The Labour Code also governs employees' rights and their voice in the employing organisation. At Austrian universities, two additional institutions are required by law: employees can submit grievances regarding discrimination to a committee for equality issues (Art. 42 UG 2002) and to an arbitration commission (Art. 43 UG 2002); in particular, the universities' arbitration commissions fulfil the criteria listed above.

Intellectual property rights (including authorship rights and copyrights) are governed by the relevant legislation in Austria (Patents Act, Universities Act 2002, Copyright Act); these aspects are also covered by the rules of good scientific practice as codified in Germany and Austria, for example.

The FWF itself is a legal public-law entity established under the Austrian Research and Technology Funding Act (FTFG). The FWF's decision-making is based on a structure consisting of various bodies (Assembly of Delegates, FWF Board, Executive Board, Supervisory Board). All bodies consist entirely or predominantly of researchers. Therefore, the involvement of researchers in the FWF's decision-making bodies has been implemented ideally.

FWF practices – Social security

In this regard, the FWF supports the requirements of the Charter & Code in their entirety. In all FWF programmes, young researchers are regarded as early stage researchers from the PhD student level upward, and thus they are paid and provided with social security benefits accordingly. All FWF-funded researchers receive full social security benefits in addition to the remuneration paid for their work, and FWF-funded researchers are always employed under a contract of employment; in foreign countries, grants always include health and pension insurance. For all of its programmes, the FWF prescribes personnel salary scales which define the lower limits in cases where a collective labour agreement does not apply.

Independent scientists are also supported by the FWF if they possess the qualifications and infrastructure necessary to carry out their projects (independent applicants). More experienced researchers are provided with higher amounts of support (see Application Guidelines for Stand-alone Projects).²¹

The extent of employment of research employees is left up to the project leader in nearly all FWF programmes (a special regulation applies to Doctoral Programmes, where employment contracts must not be split up among multiple employees).

21 www.fwf.ac.at/fileadmin/files/Dokumente/Antragstellung/Einzelprojekte/p_application-guidelines.pdf

Share of part-time working contracts, 2004 to 2010

Share of working contracts in %	Doctoral students		Post-docs		All	
	Men	Women	Men	Women	Men	Women
00 – < 20	1.1%	1.3%	1.5%	1.7%	1.3%	1.5%
20 – < 40	6.2%	8.4%	4.3%	5.8%	5.5%	7.4%
40 – < 60	12.2%	12.8%	14.5%	17.7%	13.1%	14.7%
60 – < 80	32.3%	35.4%	5.3%	9.2%	21.6%	25.6%
80 – < 100	1.9%	1.5%	2.4%	3.9%	2.1%	2.4%
100	46.2%	40.5%	72.0%	61.7%	56.5%	48.4%
Total	5,555	3,803	3,686	2,274	9,241	6,077

For project leaders and employees in FWF projects, the FWF's Legal Department is available for legal information and advice. In cases where conflicts arise beyond the limits of employment law alone and issues of scientific integrity are raised, there is also the possibility of submitting an inquiry to the Austrian Agency for Research Integrity (OeAWI) for an investigation and possible arbitration.

FWF practices – General conditions for researchers

The FWF requires researchers to define the material and personnel infrastructure needed for a research project already at the time of application (contributions of the research institutions). The research institution(s) at which a project is established must confirm the availability of this infrastructure, otherwise the grant cannot be approved. In addition to the institutions' declaration of consent, large-scale projects such as Special Research Programmes (SFBs) and Doctoral Programmes (DKs) also require applicants to submit a contract in which the sometimes complex rights and obligations of the research institution and the researcher are defined. In cases where the FWF funds outgoing researchers (e.g. in the Erwin Schrödinger Programme), the research institution abroad is required to confirm that it will make the necessary infrastructure available to the Schrödinger Fellow. In the course of the review process, the FWF also reviews whether the funds requested as well as the general conditions for carrying out the planned research project are appropriate. The FWF decides on the amount of funds awarded on the basis of the peer reviews (see Application Guidelines and Principles of the Decision Process).²²

22 www.fwf.ac.at/fileadmin/files/Dokumente/Entscheidung_Evaluation/fwf-decision-making-procedure.pdf

With regard to the combination of family and career, the FWF mainly supports women through its career development programmes for women in science. For project employees in other programmes, there is mainly the possibility of flexible working hours.

The duration of employment for research project employees on a contract of employment in FWF projects is limited to a maximum of 6 years; as mentioned in Section 2, researchers should be able to take on responsibility for their own projects after that period. Given the necessary qualifications, independent scientists and researchers may receive funding from the FWF until the end of their active research careers.

However, it is often problematic to deal with the legal situation at Austrian universities, which frequently obstructs the longer-term employment of highly qualified researchers using FWF grants. The FWF is working with the universities to find a solution.

Gender balance: The FWF's non-discrimination standards contain recommendations with regard to research funding and with regard to the FWF's internal organisation. Within the organisation, balance prevails with regard to department heads; there are more women than men in programme management and in scientific and administrative project support.

In the FWF's decision-making bodies, there are more men than women among the Reporters, and the situation is the same in the Executive Board. The FWF's Supervisory Board is balanced, and the Assembly of Delegates has more male members.

Intellectual property rights: In connection with intellectual property rights (IPR) and authorship, the FWF's rules provide researchers with a maximum of freedom. In its funding programmes and contracts, the FWF does not claim any rights to the intellectual property arising from FWF-funded projects. The contracts are drawn up in such a way as to ensure the best possible dissemination of research findings. In the declaration of consent to be submitted with the application, the research institution at which the project is carried out is also required to confirm that no limitations (or no excessive limitations where findings are exploited) will be imposed with regard to publication activities and/or other dissemination activities for the project's findings. For all programmes, the FWF has implemented highly progressive open access regulations.

Already upon submission of the application, applicants to the FWF are required to adhere to the rules of good scientific practice. These rules are currently defined by the FWF on the basis of the corresponding rules of the German Research Foundation (DFG)²³ and include, among other things, provisions regarding co-authorship and the right to be named as an author. Moreover, the FWF requires all applicants to name all co-authors of the application upon submission, including

a brief description of the nature of each co-author's contribution.

The FWF defines co-authors as all persons who have made a substantial scientific contribution to the creation and writing of the application.²⁴

FWF practices – Career development

The FWF's funding programmes provide a model for funding a researcher's career from undergraduate status all the way to the level of established researchers. In all funding categories, project leaders are asked to consider career development aspects with regard to all project members (especially junior researchers) when planning a project. In the case of Doctoral Programmes (DKs), this is naturally a key aspect.²⁵

In the career development programmes for women in research, mentoring is a mandatory part of the Hertha Firnberg Programme, and the FWF supports networking and the emergence of an alumnae culture by funding regular workshops and by maintaining a web portal for the programme; such portals have also been set up for the FWF's awards and prizes.

Teaching, which is regarded as an integral part of science and research, cannot be funded by the FWF directly. However, the FWF does allow teaching activities to a limited extent in its funding programmes. In certain programmes (e.g. Doctoral Programmes, Hertha Firnberg), however, teaching activities are explicitly supported and must be funded by the sponsoring research institution.

The significance of researcher mobility was already discussed in connection with human resource development in Section 2. The FWF generally supports mobility in all of its programmes by funding short-term travel (research trips) within the framework of projects. Geographical mobility is supported by a number of specific programmes with regard to outgoing as well as incoming researchers and brain circulation.²⁶ Project portability (i.e. the transfer of projects to other countries) is enabled by the "money follows researcher" principle within the "D-A-CH" region (Germany, Austria and Switzerland) completely and with a number of other countries on a bilateral basis. Finally, interdisciplinary and transdisciplinary mobility is generally possible in all FWF programmes, as the FWF's flexibility in project support and reviews meets these requirements to a sufficient extent.

²³ www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice/index.html

²⁴ www.fwf.ac.at/fileadmin/files/Dokumente/Antragstellung/attachment_co-authors.pdf

²⁵ www.fwf.ac.at/en/research-funding/application/dks/

²⁶ www.fwf.ac.at/en/research-funding/fwf-programmes/schroedinger-programme/
www.fwf.ac.at/en/research-funding/fwf-programmes/meitner-programme/

The FWF accounts for matters related to career advising/support mainly through its comprehensive information activities. The FWF job portal enjoys considerable reach in the scientific community.²⁷

Measures related to working conditions and social security:

- **Awareness measures** should be discussed with regard to ensuring good social security benefits for project employees (especially in order to sensitise project leaders in cases where contracts of employment are split) in order to avoid putting employees in precarious employment situations.
- **Intensification of the dialogue with universities with regard to career models for FWF-funded researchers;** development of a best practice model by the FWF. The FWF makes efforts to provide the appropriate incentives (e.g. coverage of overheads) to support the process of shifting project employees from “soft money” positions to employment relationships with longer-term prospects at the research institutions. In the general public discussion of research policy, the FWF vehemently supports the need to base the recruiting of employees in the university system more on quality signals which emanate from the FWF's grants for career development programmes for women in research, the FWF's awards and prizes, as well as FWF project leaders and employees in general.
- The FWF continues to make efforts to **increase the share of female Reporters on the FWF Board** in the course of its recruiting activities.
- An **extension of grant portability** is currently under consideration, but can only be carried out in cooperation with (European) partner organisations.
- **Networking measures for female researchers:** Firnberg/Richter networking meetings are to be expanded to include doctoral candidates (especially for the sake of providing role models and mentoring).

2.4 Training

Fundamental considerations/FWF practices

Training junior researchers is one of the pillars of the FWF's mission (“education through research”). Accordingly, all project leaders are asked to articulate plans for training and career development at the time of project submission. The applicant's suitability as a trainer (mentor) for junior researchers is also taken into account in the review process prior to the approval or rejection of grant proposals. The FWF's general terms and conditions also include these obligations as well as others stipulated by the Charter & Code for the project leaders (project

leadership/management, accounting, publications [web site, open access]; compliance with the rules of good scientific practice [e.g. with regard to IPR], etc.). These aspects are also reviewed in the course of the ex-post evaluation of final reports.

The project leaders' degree of responsibility for training employees varies in terms of extent; this responsibility is, of course, highest in the FWF's Doctoral Programmes (DKs). In this funding programme, which primarily supports quality assurance in the education and training of doctoral candidates, the project leaders' (faculty members') responsibilities in this regard are extensive and are formally governed by the statutes of the relevant DK programme (support and supervision plans as well as internal progress monitoring). Funds are available for the purpose of training (acquisition of special research skills and generic skills).

In the “introductory programme” for women – the Hertha Firnberg Programme – the role of the mentor is defined and certain commitments are required of the research institution. At the second level of the FWF's career development programmes for women in research, the Elise Richter Programme, a sum of €2,000 can be used for individual coaching and HR development measures.

In the FWF's Special Research Programmes, a training and education plan for junior researchers has been mandatory since 2011 and is also examined in the review process. The FWF's information strategy has been mentioned repeatedly in other contexts and should be emphasised here once again. This strategy covers a broad range of information and training activities, from general overview events to intensive personal coaching.

Measures related to training:

- The FWF funds approximately 1,700 jobs for doctoral candidates each year. In DK programmes, the training and education of doctoral candidates employed in the project is an explicit objective of the funding programme and is implemented by the coverage of training costs, a mandatory support and supervision plan/dissertation agreements for doctoral candidates, etc. The FWF has started a **discussion of the extent to which the training aspects implemented in its Doctoral Programmes should be emphasised in all other FWF programmes** and, subsequently, what measures can be taken in order to reinforce this aspect.

²⁷ www.fwf.ac.at/en/service/wwf-job-market/

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