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Open Access Policies of Research Funders: The Case Study of the Austrian Science Fund (FWF)

Authors: Yaşar Tonta, Güleda Doğan, Umut Al and Orçun Madran, Hacettepe University

Reviewers: Marina Angelaki and Victoria Tsoukala, EKT, and Alma Swan, EOS

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Summary

Founded in 1967, the Austrian Science Fund (Fonds zur Förderung der wissenschaftlichen Forschung, FWF) is the main funder of “non-profit-oriented research designed to generate new insights and to expand and advance scholarly knowledge”. Its mission is “to support the ongoing development of Austrian science and basic research at a high international level”. FWF’s annual budget is about 200 million euro. FWF supports more than 600 projects and funds the salaries of about 4,000 researchers in Austria. FWF-funded projects generate 14% of Austrian scientific output that gets published in high impact international journals between 2001 and 2010.

FWF is the first public research funding agency in the world to develop a policy (2004) and mandate Open Access to scholarly publications since 2008. FWF’s green OA policy (revised in December 2014) covers all FWF-funded peer-reviewed journal articles, monographs, other innovative publications and research data in both sciences and social sciences and humanities. Authors or publishers must deposit the final peer-reviewed copies of publications in the institutional or subject repositories with no exception or waiver. The maximum embargo period allowed is 12 months for both sciences and social sciences and humanities.

FWF also supports gold and hybrid Open Access options and pays for article processing charges (APCs) up to 2,500 euro for gold OA journals and up to 1,500 euro for hybrid journals. Journals supported with APCs must be listed in either Directory of Open Access Journals (DOAJ) for gold Open Access journals, or Web of Science or Scopus for hybrid journals. FWF funds stand-alone publications and monographs, too, and requires CC-BY license or its equivalent for all FWF-funded publications. FWF monitors the compliance to its OA policy through final project reports and keeps a meticulous track of the embargo periods of funded papers.

FWF has been instrumental in promoting Open Access in Austria and elsewhere. It commissions scientific studies and surveys to explore Open Access issues and funding models. FWF adopted the Principles on the Transition to Open Access to Research Publications initiated by Science Europe. It supports Europe PubMedCentral (EPMC), arXiv, Open Access Publishing in European Networks (OAPEN) Foundation, and DOAJ; pays for one third of costs of Austria’s partnership with SCOAP3, negotiates with publishers (IoP Publishing, Taylor & Francis, and Springer) to lower subscription/licensing fees for journals and to get rebates for APCs; and publishes the Open Access testimonials of scientists to promote Open Access to gain public support.

The effectiveness of FWF’s Open Access policy is due primarily to its comprehensive, multipronged strategy complemented by supporting actions (e.g., green Open Access mandate, support of Open Access publishing through APCs and stand-alone funds, monitoring of compliance, among others). Aligned with the European Commission’s Horizon 2020’s Open Access policy, it could serve as an informative PASTEUR4OA case study for other research funders to further explore and develop similar ones for their respective institutions.

1. Introduction

The **Austrian Science Fund** (Fonds zur Förderung der wissenschaftlichen Forschung) was established in 1967 in Vienna as an independent legal entity under Austrian federal law (Research Funding Act)¹ to fund “non-profit-oriented research designed to generate new insights and to expand and advance scholarly knowledge”.²

The mission of the Austrian Science Fund (hereafter FWF) is “to support the ongoing development of Austrian science and basic research at a high international level” so that it “makes a significant contribution to cultural development, to the advancement of . . . knowledge-based society, and thus to the creation of value and wealth in Austria”.³ One of FWF’s main objectives is to “strengthen Austria’s international performance and capabilities in science and research as well as the country’s attractiveness as a location for high-level scientific activities, primarily by funding top-quality research projects . . . and by enhancing the competitiveness of Austria’s innovation system and its research facilities”.⁴

A member of **Science Europe**, FWF is the most important Austrian funding organization supporting basic research.⁵ FWF received 211 million euro in 2014 from the federal government to fulfill its mission, and funds the salaries of about 4,000 scholars with grants.

In 2014, FWF approved about 25.5% of the grant proposals submitted and allocated 211 million euro for 691 projects. FWF funding was distributed by research disciplines as follows: life sciences: 37.7%, natural and technical sciences: 42.2%, and social sciences and humanities (20.1%).⁶

FWF funds research proposals in science, engineering and the humanities and supports the efforts of universities and research centres through its competitive grant programs for stand-alone projects, as well as for international and priority research programs. Top researchers, especially promising young scientists, are supported so that they can compete with their colleagues for the European and international grants. Researchers in specific fields and subjects are funded through private funds as well.⁷

FWF:

- **is the main funder of basic research in Austria with about 200 million euro annual budget;**
- **supports over 600 projects and funds 4,000 researchers;**
- **produces 14% of Austrian scientific output that gets published in high impact international journals.**

Scholarly papers produced from FWF-funded projects are usually published in prestigious international journals with high citation impact. FWF funds 14% of the Austrian papers that

¹ <http://www.fwf.ac.at/en/about-the-fwf/history-of-the-fwf/>

² <http://www.fwf.ac.at/en/about-the-fwf/legal-foundation/>

³ <http://www.fwf.ac.at/en/about-the-fwf/corporate-policy/>

⁴ *Ibid.*

⁵ https://en.wikipedia.org/wiki/Austrian_Science_Fund; and <http://www.fwf.ac.at/en/research-funding/fwf-programmes/>

⁶ FWF Annual Report 2014.

https://www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-Jahresberichte/fwf-annual-report-2014.pdf, pp. 20-24.

⁷ See FWF’s support programs at <http://www.fwf.ac.at/en/research-funding/fwf-programmes/>

appear in journals indexed by Web of Science while they receive 20% of the total citations. For instance, an average paper funded by the FWF and published between 2001 and 2010/11 received 21.6 citations, 35% more than an average international paper did, which is totally in line with FWF's mission of "supporting 'Austrian science and basic research at a high international level'"⁸.

2. FWF's Existing Open Access Policy

As one of the earliest signatory institutions to the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (November 5, 2003),⁹ FWF developed its first policy recommending its grantees to provide Open Access to FWF-funded research output in 2004. This policy then became an Open Access (OA) mandate in 2008.¹⁰ FWF's OA policy has been last revised in December 2014 to align it with the current pattern of funders' policies in Europe as well as to reflect the most recent developments in the OA scene. What follows is the details of [FWF's existing OA policy](#) as given in its web site (December 19, 2014).

FWF has a mandatory green OA policy covering all peer-reviewed manuscripts including journal articles, monographs, book chapters, etc. in sciences as well as in social sciences and the humanities (SSH). It requires the authors of FWF-funded research to self-archive their accepted manuscripts (prior to copy-editing and production) in any suitable institutional or subject repository listed in the Directory of Open Access Repositories ([OpenDOAR](#)). FWF has no institutional repository of its own but asks the authors to deposit their papers in institutional or subject repositories such as arXiv. As FWF funds [Europe PubMedCentral \(EPMC\)](#), [researchers from the life sciences have to deposit their papers there](#).¹¹ As for monographs and other stand-alone publications, FWF deposits them not only in its [e-book library](#)¹² but also in the Open Access Publishing in European Networks ([OAPEN](#)) Library on a contractual basis,¹³ thereby ensuring both short- and long-term Open Access to them.

Deposit is mandatory, cannot be waived, and is a precondition for the evaluation of research grants from 2016 onward. FWF-funded publications "have to be deposited (by the author or by the publisher) in repositories with sustainable access at the time of publication."¹⁴ The ability of FWF to have a mandatory and rather strict policy also relies on the fact that several Austrian universities possess repositories. Moreover, [e-Infrastructures Austria](#) coordinates the "development of Repository infrastructures for digital resources in research and science

⁸ Erik van Wijk and Rodrigo Costas-Comesaña, *Bibliometric study of FWF Austrian Science Fund 2001-2010/11*. Leiden University: Center for Science and Technology Studies (CWTS), (2012). DOI: 10.5281/zenodo.

http://www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-Selbstevaluation/Bibliometric-Study-FWF-2001-2010-Originalstudie.pdf, pp. 2-4.

⁹ <http://openaccess.mpg.de/319790/Signatories>

¹⁰ Falk Reckling, *Austrian Science Fund (FWF) Open Access Policy 2015*. (30 March 2015).

<https://zenodo.org/record/16455#.Vbu4OZNCreR>

¹¹ EPMC contains the full-texts of over 6,600 FWF-funded papers among its collection of *circa* three million freely available full-text articles. See FWF Annual Report 2013, *loc. cit.*, p. 30.

¹² <http://www.fwf.ac.at/en/service/fwf-e-book-library/>

¹³ FWF funds OAPEN, a non-profit foundation publishing Open Access academic books and helping publishers and libraries to disseminate their Open Access books (<http://oapen.org/about?page=join>). See its 2014 annual report for further information: <http://oapen.org/about?page=downloads&subpage=annualreport2014>

¹⁴ Reckling, *loc. cit.*, p. 30.

throughout Austria to securely archive and publish digital publications, multimedia objects and other digital data resulting from research and education.”¹⁵

FWF also supports gold and hybrid OA through publishing either in an Open Access venue (gold) or in a subscription venue (hybrid), and provides funding for publishers’ article processing charges (APCs). Gold OA journals receiving FWF funds must be listed in the Directory of Open Access Journals (DOAJ)¹⁶ while hybrid journals or proceedings books must be listed in the Web of Science or Scopus databases.

FWF’s OA policy also covers research data, and recommends that “whenever legally and ethically possible, all research data and similar materials which are collected and/or analyzed using FWF funds have to be made openly accessible” through an appropriate repository either immediately after research results are published or within two years after the end of any project if data is not used in publications. Deposited datasets have to be citable and re-usable without any restrictions.¹⁷ In 2016, FWF will initiate pilot programs on Open Access to research data¹⁸ and is likely to strengthen its policy in the near future by providing further financial support and developing mechanisms to monitor its uptake.

To increase the quality and transparency of the selection process of the projects and the evaluation of their outcome, “FWF supports Open Access not only to research results arising from FWF-funded projects, but also to evaluations, studies and other research policy-related services commissioned by the FWF”. These studies as well as data sets are readily available through FWF’s web site and “sustainably archived in the repository Zenodo”.¹⁹

In summary, FWF mandates green Open Access with a lot of inducement for gold and hybrid Open Access options by providing needed funds and recommends Open Access to research data whenever possible.

Embargo period

FWF’s OA policy specifies an embargo period of up to 12 months for both sciences and SSH. If publishers’ embargo periods are longer, the authors are advised to consult the [SHERPA/RoMEO](#) database for publisher copyright and self-archiving policies and find alternative publishing venues. The full-texts of all manuscripts are required to be made freely available at the end of publishers’ embargo periods of up to 12 months.

Licensing

All FWF-funded publications have to be made available through Creative Commons Attribution Licence (CC BY) or its equivalent (for funded articles since 2014 and for stand-

¹⁵ <http://e-infrastructures.at/en/startpage>

¹⁶ DOAJ is funded, in part, by FWF.

¹⁷ <http://www.fwf.ac.at/en/research-funding/open-access-policy/>

¹⁸ Falk Reckling, personal communication (14 October 2015).

¹⁹ FWF Rules on Quality and Transparency Evaluations, Studies and Research Policy-related Services (n.d.) <https://www.fwf.ac.at/en/research-funding/decision-making-procedure/evaluation-standards/quality-and-transparency-rules-for-evaluations/>. See also Extended FWF Rules on the Quality and Transparency of Evaluations, Studies and Research Policy-related Services (25 August 2015), https://www.fwf.ac.at/en/news-and-media-relations/news/detail/nid/20150825-2139/?tx_rsmnews_detail%5Bref%5D=l&cHash=b0235d8e508037f1d61f72dc6efbb7a5

alone publications since 2015). In 2014, almost two thirds (65%) of the funded publications complied with FWF's OA policy, a 150% increase compared to the 26% compliance rate of 2013. Whereas in 2013, 66% of the publications were not attached with a Creative Commons licence, in 2014 only 14% of the articles were published without a licence."²⁰

FWF's financial support for Open Access

(a) *Article Processing Charges (APCs)*: FWF pays for publishers' article processing charges (APCs). FWF's OA policy introduces price caps for both gold (up to 2,500 euro per paper) and hybrid (up to 1,500 euro per paper) Open Access APCs. FWF will not make additional payments to cover any other publication charges (e.g., fees for publishing colour figures). Authors can claim APCs at any time during the project or up to three years after the project ends. Where the APCs required are higher than allowed by FWF, authors are advised either to look for alternative publishing venues or use other means to fund the cost.

(b) *Offsetting deals*: APCs are sometimes paid to the publishers directly, as FWF makes special agreements with some publishers (e.g., IOP Publishing, RCS and Taylor & Francis) to reduce fees, implement reimbursement and embargo policies and monitor compliance.²¹ It has already secured one such three-year pilot project (2014-2016) with IOP Publishing to get "country-based reductions in journal subscriptions, in line with increases in author- or institution-pays contributions for Open Access".²² In 2015, FWF signed an offsetting deal with the publisher Taylor & Francis for hybrid Open Access.²³ Where such agreements exist between FWF and publishers, authors are notified during the submission process.

(c) *Open Access Publishing*: FWF and the Austrian Library Consortium have signed an agreement with Springer so that scholars working at 34 Austrian research institutions may, starting from January 2016, publish Open Access in more than 1,600 Springer journals "without having to worry about financial terms and conditions or administrative requirements". This so-called Compact License is seen as a pioneering agreement in that it "paves the way for a full transition of the academic publishing system to Open Access".²⁴ FWF also funds eight OA journals in SSH²⁵ and provides funding of up to 18,000 euro for stand-alone publications in new formats such as apps, wiki- and web-based publications, and annotated scientific databases,²⁶ provided that publishers certify their peer review process.

FWF's Open Access APC costs from funded projects

In 2013, FWF paid almost 2.4 million euro to publishers to cover the APCs of 1,120 FWF-funded research papers.²⁷ Elsevier received more than 40% of the total amount (982

²⁰ Falk Reckling and Katharina Rieck, Austrian Science Fund (FWF) publication cost data 2014. (21 April 2015). <http://dx.doi.org/10.6084/m9.figshare.1378610>, p. 4.

²¹ Reckling, *loc. cit.*

²² <http://ioppublishing.org/newsDetails/Austria-open-access>

²³ Reckling, *loc. cit.*

²⁴ Falk Reckling, "Open Access publishing at Springer" (interview and opinion). *scilog - the magazine of the Austrian Science Fund FWF* (22 September 2015). <http://scilog.fwf.ac.at/en/article/2835/open-access-publishing-at-springer>

²⁵ FWF Annual Report 2013, *loc. cit.*, p. 31. See p. 71 for the eight journal titles being funded.

²⁶ <https://www.fwf.ac.at/en/research-funding/fwf-programmes/stand-alone-publications/>

²⁷ Falk Reckling and Margit Kenzian, Austrian Science Fund (FWF) publication cost data 2013. (2014). <http://dx.doi.org/10.6084/m9.figshare.988754>

thousand euro for 409 papers). The fee paid ranged between 117 euro and 4,474 euro, average being 2,118 euro per paper. FWF paid an additional 270 thousand euro to publishers for traditional publication costs (e.g., page charges, colour figures, submission fees) of some 250 papers.

In 2014, FWF paid more than 3.4 million euro for Open Access publication costs, of which 67% were paid for APCs of 1,176 OA journal articles while 28% were spent for 68 OA monographs.²⁸ The average APCs paid for gold OA journals was 1,287 euro per paper.²⁹ This is very similar to what German institutions in general and the Max Planck Society in particular paid in 2014 (1,282 euro and 1,258 euro per paper, respectively).³⁰ Note that the average APC paid for hybrid journals was much higher (2,300 euro per paper). FWF payments to hybrid journal publishers constituted 73% of the total OA costs whereas gold OA journal publishers received only 13%. Almost half (47%) of the FWF's OA funds went to three publishers: namely, Elsevier, Wiley-Blackwell and American Chemical Society.³¹ "Further, for the top two the number of Hybrid Open Access costs far exceeds the payments for Gold Open Access and Other costs (95% of Elsevier's costs were Hybrid OA; 85% of Wiley-Blackwell)."³² The average costs of almost all hybrid journal publishers exceeded the price limit per paper (1,500 euro) set by FWF's OA policy whereas all gold OA journal publishers were within the limit (2,500 euro per paper).

FWF supported about one third of all articles that resulted from FWF-funded projects through gold and hybrid Open Access options,³³ indicating that close to 5,000 papers are produced and published each year through FWF grants.

Policy monitoring

FWF monitors compliance to its Open Access policy through the final reports of funded projects, where authors are required to list the articles published and to indicate the type of Open Access provided for each.³⁴ Starting from 2016, principal investigators (PIs) who do not make their peer-reviewed publications Open Access cannot apply for further funding from FWF.³⁵ Persistent addresses and links to the full-texts of publications should be provided. [Digital Object Identifiers \(DOIs\)](#), [PubMedCentral](#), [arXiv](#), [SSRN](#) (Social Science Research Network), [RePEC](#) (Research Papers in Economics), and [DataCite DOIs](#) are among the preferred persistent addresses that should last at least ten years or more.

²⁸ Reckling and Rieck, *loc. cit.*, p. 3

²⁹ Reckling and Rieck, *loc. cit.*, p. 9.

³⁰ Ralf Schimmer, Kai Karin Geschuhn and Andreas Vogler, Disrupting the subscription journals' business model for the necessary large-scale transformation to Open Access. (A Max Planck Digital Library Open Access Policy White Paper) (28 April 2015).

http://pubman.mpg.de/pubman/item/escidoc:2148961:7/component/escidoc:2149096/MPDL_OA-Transition_White_Paper.pdf, p. 6

³¹ *Ibid.*, pp. 4-6.

³² *Ibid.*, p. 8.

³³ <http://www.fwf.ac.at/de/forschungsfoerderung/open-access-policy/monitoring-open-access/>

³⁴ For more information, see "The Guidelines for Final Reports on FWF-funded Projects" (n.d.)

https://www.fwf.ac.at/fileadmin/files/Dokumente/Antragstellung/Meitner-Programm/m_endberichtsvorgaben.pdf, p. 6.

³⁵ Reckling, personal communication (October 14, 2015).

Authors are required to acknowledge the FWF support in all papers and presentations by citing the FWF grant number. FWF keeps track of the funded papers and strictly monitors if they are made Open Access immediately after the embargo period.³⁶ Starting from January 1, 2016, it will be compulsory for applicants to use ORCID (Open Researcher and Contributor ID) numbers.³⁷

FWF's OA policy:

- *is one of the first green OA research funder mandates developed in the world;*
- *ensures Open Access to all FWF-funded peer-reviewed journal articles as well as monographs and other innovative publications;*
- *asks authors or publishers to deposit the final peer-reviewed copies of publications in the institutional or subject repositories with no exception or waiver;*
- *supports gold and hybrid OA options and pays for article processing charges (APCs);*
- *specifies an embargo period of up to 12 months for publications in all fields;*
- *asks authors to find alternative publishing venues if the embargo period is longer;*
- *asks authors to provide persistent addresses that would last at least 10 years;*
- *funds stand-alone publications and monographs as well as Open Access journals;*
- *requires CC-BY license or its equivalent for all FWF-funded publications;*
- *monitors compliance through final project reports and asks authors to acknowledge FWF support in all publications and presentations.*

3. Policy support

FWF has been playing an active role to promote Open Access in Austria as well as in the international arena. FWF has recently strengthened its Open Access policy by introducing a more strict mandate supported with proper funding mechanisms for green, gold and hybrid Open Access and expects to reach 100% Open Access publishing by 2020.³⁸ Earlier in 2012, FWF initiated the establishment of the [Open Access Network Austria](#) (OANA) together with Universities Austria not only to create awareness on Open Access among researchers and policy makers but also to develop policies on funding and Open Access publication models.³⁹ One of OANA's working groups is currently preparing recommendations for Austria to transition to nearly 100% gold Open Access publishing by 2025.⁴⁰

In the past, FWF commissioned a bibliometric study to find out the scientific impact of the FWF-funded research covering more than 13,000 papers published between 2001 and 2010. "The results of the study show a high performance of FWF supported output in most fields of science and that it plays a predominant role in the Austrian and international scientific landscape."⁴¹

³⁶ Reckling and Kenzian, *loc. cit.*; see also

http://figshare.com/articles/Austrian_Science_Fund_FWF_Publication_Cost_Data_2013/988754

³⁷ <https://www.openaire.eu/newsletter-items/austria-open-access-policy-for-fwf-funded-projects>

³⁸ Reckling, personal communication (14 October 2015).

³⁹ FWF Annual Report 2013, *loc. cit.*, p. 31.

⁴⁰ Reckling, personal communication (14 October 2015).

⁴¹ Wijk and Costas-Comesaña, 2012, *loc. cit.*, p. 5.

In 2013, FWF commissioned a survey among the Austrian scientific community in which more than two thirds of scientists (67.9%) indicated that there is a high or very high need to promote Open Access.⁴² Based on the outcome of this survey, FWF, along with [Wellcome Trust](#), [the Research Councils UK \(RCUK\)](#), [Jisc](#), [the Luxembourg National Research Fund \(FNR\)](#) and [the Max Planck Institute for Gravitational Physics](#), commissioned another study to review the current market for APCs and to identify policy options for funders and other stakeholders.⁴³ The final report contains scenarios to stimulate further discussion and debate on APCs and on transition to Open Access publishing. FWF also took part in crafting the [Principles on the Transition to Open Access to Research Publications](#) initiated by Science Europe and adopted it in 2013.

FWF:

- ***promotes Open Access in Austria and elsewhere;***
- ***commissions studies on the scientific impact of FWF-funded research and Open Access funding models;***
- ***adopts the Principles on the Transition to Open Access to Research Publications initiated by Science Europe;***
- ***supports arXiv and Open Access journals, and pays for one third of costs of Austria's partnership with SCOAP3;***
- ***negotiates with publishers to lower subscription/licensing fees for journals and to get rebates for APCs.***

Since 2014, FWF is covering one third of the total cost of the [SCOAP3 Initiative](#) (Sponsoring Consortium for Open Access Publishing in Particle Physics) in Austria to make the papers published in high energy physics journals Open Access through the [SCOAP3 Repository](#). As mentioned earlier, FWF funds DOAJ, OAPEN, and EPMC. Since 2014, FWF also funds the arXiv repository, which has over a million papers in physics, mathematics, computer science and related fields. Researchers can make their papers (pre-prints or post-prints) freely available through arXiv. “As early as 2011, the FWF began to offer funding for the costs of publishing works from FWF-funded research in the journal *Astronomy & Astrophysics*, meaning that those publications are freely available in arXiv.”⁴⁴ Moreover, FWF obtained initial funding from the Austrian Federal Ministry of Science and Research for eight Open Access journals in social science and humanities. “The initiative targeted media owners operating in Austria and enabled them to submit funding applications for the establishment of new Open Access journals and for conversion from classic subscription models to Open Access.”⁴⁵

⁴² <https://www.fwf.ac.at/en/news-and-media-relations/news/detail/nid/20150114-2101/>

⁴³ Bo-Christer Björk and David Solomon, Developing an effective market for Open Access article processing charges (March 2014).

http://www.wellcome.ac.uk/stellent/groups/corporatesite/@policy_communications/documents/web_document/wtp055910.pdf, p. 7.

⁴⁴ FWF Annual Report 2013, *loc. cit.*, p. 31.

⁴⁵ FWF Annual Report 2013, *loc. cit.*, pp. 31, 71.

FWF, together with the Austrian Academic Consortium, negotiated with IOP Publishing a new Open Access funding model that reduces the cost of publishing FWF-supported papers in IOP journals. This is similar to the deals struck between publishers and scientific communities elsewhere. The Dutch and the UK scientific communities will get rebates for the total cost of licensing of Springer and Wiley journals, respectively, between 2015 and 2017 since they will pay APCs for papers to be published in the hybrid journals of these two publishers.⁴⁶

“Openness is the normative essence of science and scholarship. It is the precondition that results can be replicated, verified, falsified, and reused for scholarly as well as practical applications. Therefore, it is the intrinsic duty of every research funder to enforce the transition to full Open Access politically and financially.”

-- Dr. Falk Reckling, Director,
Department of Strategic Analysis,
Austrian Science Fund (FWF)

FWF also publishes the [Open Access testimonials](#) of respected scientists and researchers in all disciplines in its web site to draw attention to the importance of making publications freely available over the Internet for scientific development, which should increase the OA awareness to gain the support of the general public.

4. Conclusion

Our analysis clearly shows that the Austrian Science Fund (FWF) has developed one of the most effective OA policies as a public research funder and is progressing towards its goal of reaching 100% Open Access publishing by 2020. For, FWF has a mandatory green OA policy and also supports gold and hybrid Open Access options through APCs as well as Open Access publishing. Final manuscripts have to be deposited in repositories by no later than their publication time. Deposit cannot be waived and non-compliance may not be eligible for further support from FWF. FWF’s current OA policy is substantially in line with the European Commission’s Horizon 2020 policy in that FWF requires its grantees to provide Open Access to all FWF-funded publications as well as recommends Open Access to research data. All types of publications including journal articles, monographs, innovative web-based publications and scientific databases are supported in both sciences and social sciences and humanities as long as they are peer-reviewed. FWF monitors the compliance of authors through final project reports and keeps track of publishers’ embargo periods as well as the license types (e.g., CC-BY) for each and every FWF-funded publication.

The FWF was one of the first research funders making its Open Access publications costs data openly available for journal articles (2013) as well as for monographs and books (2014). FWF paid publishers about 3.4 million euro in 2014 for Open Access publication costs. Although FWF introduced higher price cap for APCs for gold Open Access (2,500 euro per paper), almost three quarters of FWF funds went to hybrid journal publishers. FWF signed license agreements with a number of publishers including Springer, IOP Publishing, RSC and Taylor & Francis to offset the Open Access publishing costs and get rebates for the APCs.

⁴⁶<http://vsnu.nl/files/documenten/Domeinen/Onderzoek/Open%20access/Open%20access%20newsletter%20121614.pdf>; and <http://eu.wiley.com/WileyCDA/PressRelease/pressReleaseId-114824.html>

It is hoped that the openness and willingness of FWF and other research funders (e.g., Wellcome Trust and several institutions in Germany⁴⁷) to share OA costs data would encourage not only research funders but also other research performing institutions paying APCs to do the same. This will make it easier to find out and compare the average APCs paid to gold OA and hybrid journal publishers on both micro and macro levels and develop more comprehensive and efficient Open Access policies on a broader scale. More importantly, it will facilitate to repurpose the money invested in the current system and transition to full Open Access publishing that can be achieved without financial risks and added expense.⁴⁸

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APPENDIX

History of the development of FWF's OA policy

FWF's OA policy has been included among the eight case studies reported by Chris Armbruster along with its activities until 2010.⁴⁹ The short timeline of the development of FWF's OA policy based on several sources is given below:

- 2001: Started to provide funds to cover OA costs to FWF-funded research output;
- 2003 November 5: Became one of the first research funding agencies signing the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities;
- 2004: Developed its first policy recommending OA to FWF-funded research output;
- 2005: Issued the first deposit request;
- 2008 December: Policy became an OA mandate, first of its kind among research funders;
- 2009: Developed its stand-alone publications program;
- 2010: Became a partner of Europe PubMedCentral;
- 2011: Open Access to FWF-funded monographs became mandatory;
- 2014 December 19: Revised its OA policy to align it with the European Commission's Horizon 2020 OA policy.

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For further information please contact: yasartonta@gmail.com

⁴⁷ See Schimmer, Geschuhn and Vogler, *loc. cit.*

⁴⁸ Schimmer, Geschuhn and Vogler, *loc. cit.*, p. 7.

⁴⁹ Chris Armbruster, Implementing Open Access: Policy case studies (October 14, 2010).

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1685855, p. 27; see also: Chris Armbruster, "Open access policy implementation: first results compared," *Learned Publishing*, 24(4): 311-324, October 2011.