Helmholtz Open Science Newsletter of February 11, 2021

Dear colleagues,

This is the 84th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office.

For the first time – and from now on – the newsletter will also be published in **English**.

With this newsletter, we provide you with a regular overview of the most important open science developments. You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

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Helmholtz is Key Actor in the German Reproducibility Network

On February 1, 2021 the German Reproducibility Network (GRN) has been launched. This peer-led cross-disciplinary consortium aims to increase the trustworthiness and transparency of scientific research in Germany. Among the eight founding members are the Helmholtz Incubator Initiative Helmholtz Al and the Helmholtz Open Science Office.

The GRN is open for further members and offers various ways to participate.

More information can be found via os.helmholtz.de and reproducibilitynetwork.de.

Revised Open Access Criteria

All employees of the Helmholtz Association are asked to make their publications available and reusable as open access publications. This concerns publications arising from their work for Helmholtz and whether or not these publications were created individually or collaboratively with other researchers. For this purpose, the Helmholtz Centers provide open infrastructures and the option of covering potential open access publication fees. In December 2020, the working groups for library and information management (Arbeitskreise Bibliotheks- und Informationsmanagement) as well as open science (Arbeitskreis Open Science) thus revised the Kriterien für den Betrieb von Open-Access-Publikationsfonds und die Übernahme von Open-Access-Publikationsgebühren (i. e. criteria for the operation of open access publication funds and the coverage of open access publication fees). This revised document from 2020 replaces the document adopted in April 2016.

This document in particular contains recommendations for promoting open access, for the management of open access publication funds, and for the coverage of open access publication fees. The document specifically targets the Centers' administration and their libraries; however, the paper is also relevant for researchers at the Helmholtz Centers.

The revised document is available for download and online; an English translation is currently being drawn up and will be made available here shortly.

Open Access Monitor Germany – New Functions to Support Applications to the German Research Foundation (DFG)

The Open Access Monitor (OAM) offers additional filter functions to support applications for the new German Research Foundation (DFG) funding program "Open Access Publication Costs". The OAM displays the entire publication volume of German research institutions in scientific journals and thus enables – among other things – the estimation of necessary funding for future OA publishing (see Newsletter 82 and OAM project info).

The restructured filtering panel now provides additional functions:

- Hybrid journals included in OA transformation contracts are listed in the "Transformation Contracts" area.
- In the "Journal List" section, the "DFG Proposals" option provides a list of OA journals fed from the DOAJ and the Bielefeld Gold OA List. Mirror Journals are not included here.
- The section on Project DEAL has been moved from the menu on the left to the new Transformation Contracts filter on the right.
- Further filter options can be used to differentiate publishers and journals by closed/hybrid or golden open access.
- Additional columns are now offered in the table view and in the download.

These and other innovations in the web application are regularly documented in the Release Notes, viewable in the OAM under the menu item "Documentation". Detailed instructions for evaluations regarding the DFG funding program are available here and in the Open Access Monitor itself.

open-access.network: Helpdesk offers additional phone service

The Helpdesk of the BMBF-funded open-access.network project (see Newsletter 81) will be offering additional telephone consultation hours from February 2021. On Tuesdays and Thursdays from 2 to 4 p.m., urgent questions about open access can be answered directly by telephone. The telephone number +49 7531 88 33 66 provides access to experts in the field of OA who have many years of consulting experience. The helpdesk is primarily aimed at scientists and academics, who can here receive initial answers to their open access questions.

Outside of service hours, the Open Access Helpdesk can still be reached at help@open-access.network. The Helmholtz Open Science Office Office is involved as a project partner.

DeepGreen: Review and Outlook

Together with five other project partners, the Helmholtz Open Science Office has been involved in the DFG-funded DeepGreen project since the beginning of 2016. The project partners can look back on many positive developments and results of the project within open access transformation. Nationwide, 60 institutional open access repositories, some including integrated research information systems, and three subject-specific open access repositories, have been connected to DeepGreen's adaption of the Jisc Publication Router to receive scholarly publications automatically from, as of now, seven publishers. From the Helmholtz Association, the open access repositories of the Centers in Karlsruhe, Munich, and Potsdam have been connected. DeepGreen will transition to a pilot phase at the end of the project on February 28, 2021; the conditions of participation for the connected institutional repositories and subject repositories will remain unchanged.

In time for the upcoming transition, the DeepGreen team invites participants, interested parties, and people from the library management to a virtual kick-off event on March 2, 2021, to launch the future of DeepGreen. An extensive publication on licensing frameworks, requirements, and workflow recommendations, which was created in the DeepGreen project, can be found here.

RDA-DE 2021 Conference

The program and registration for this year's RDA Deutschland Tagung 2021 are open.

The RDA Deutschland Tagung 2021 is jointly organized by the Verein RDA DE and the Helmholtz Open Science Office. The conference will take place as an online event from February 22 to 26, 2021. Participation in the event is free of charge. The Research Data Alliance (RDA) aims to enable researchers and innovators to share data across technologies, disciplines, and regions in order to help tackle the great challenges faced by society. To this end, RDA is building the social and technical bridges that enable the open exchange and reuse of data.

FYI: The general meeting of RDA-Deutschland e.V. will take place February 24, 2021 at 5:00 p.m.; corresponding invitations to members of RDA DE will follow separately to members only. For two of the workshops an individual registration is required on top due to the limited number of participants; see program and registration.

Please note that most talks will be held in German.

Feel free to use the Twitter hashtag when discussing the conference: #RDAde2021

Review: PIDapalooza 2021

At the end of January 2021, the fifth (and first-time virtual) PIDapalooza took place, a festival for PID experts and enthusiasts (PID is short for persistent identifier). The Helmholtz Open Science Office was represented at the 24-hour event with its third-party funded projects ORCID DE and re3data COREF.

In the English-language session of re3data COREF "PIDs for research (data) repositories", the participants discussed how PIDs could be used to reference research (data) repositories while they enjoyed a delicious piece of cake and a nice cup of coffee or tea. Afterwards, the ORCID DE project invited all German-speaking participants to drink a smoothie together and take a look into the future of PID systems in Germany.

The slides have been published open access on Zenodo: PIDs for research (data) repositories and PIDs in Deutschland – Ein Future-Search-Ansatz. Recordings of the sessions can be found on YouTube: Session of re3data COREF and Session of ORCID DE.

Position Paper on Digital Services Now Available

In January 2021, the working group "Digital tools – software and services" of the priority initiative "Digital Information" of the Alliance of Science Organisations in Germany published the position paper "Digital services for science – where is the journey heading?" (PDF).

The publication provides suggestions for the operation and use of digital services with which research data and research software can be organized. In a podcast by the Open Science Radio Uwe Konrad from the HZDR – Helmholtz-Zentrum Dresden-Rossendorf further explains the objective of the present paper.

Library Consortium and Thieme Sign Transformative Open Access Agreement

The Thieme Group has signed a new transformative agreement with an expandable library consortium that currently includes nine academic libraries. ZB MED – Information Centre for Life Sciences and the central library of Forschungszentrum Jülich negotiated on behalf of the consortium. The agreement is valid from January 1, 2021 and allows the nine participating institutions to publish open access in four international Thieme journals ("International Journal of Sports Medicine", "Pharmacopsychiatry", "Thrombosis and Haemostasis", and "Methods of Information in Medicine") at no additional cost for authors. A similar pilot project from 2019 had been limited to the journal "Hormone and Metabolic Research." This new contract is intended to foster the gradual transformation from the existing subscription model into open access.

First General Assembly of the EOSC Association: Including Three Helmholtz Centers and a German on the Board

On December 17, 2020, the first general assembly of the EOSC Association, founded in October 2020 by 4 organizations, took place. During the general assembly 183 new members were admitted. Only legal entities can join. Of the current 187 members, 14 have their headquarters in Germany. From the Helmholtz Association, the following three Centres have joined: DESY, Forschungszentrum Jülich and KIT. The statutes of the EOSC Association allow governments of countries in which at least one member of the EOSC Association has its headquarters to mandate this member. The mandated member thus has the role of serving as a mouthpiece for this government.

This provision has great significance because a double majority, that of the ordinary members and that of the mandated members, is required for important votes of the general assembly. The German Federal Government seeks to mandate the NFDI Association. Because the NFDI Association did not have legal capacity at the end of the application period for members to be admitted in December 2020, the DFG has been mandated for the time being. The general meeting has elected the president, Karel Luyben, and eight board members. One of these board members is Klaus Tochtermann, the head of the ZBW.

Wellcome Trust Implements Plan S

The Wellcome Trust, one of the largest private foundations funding medical research, has become a member of cOAlition S in 2018 (see Newsletter 71); cOAlition S brings together research funders with the goal of implementing open access to publications from funded research projects. The Wellcome Trust has changed its open access terms for funded projects under Plan S (see Newsletter 75). This blog post describes that, as of January 2021, journal articles on funded projects must be made open access immediately upon publication via the Europe PMC repository and must carry an open Creative Commons license (CC BY, or in exceptional cases CC BY-ND).

To meet this requirement, both the green and the golden path of open access are permitted. The Wellcome Trust recommends the use of the "Journal Checker Tool" (see Newsletter 83) to find out which options are available for publications in a particular journal.

OASPA journals: CC BY licenses as standard

The Creative Commons CC BY license is the standard for open access publications. The OASPA – Open Access Scholarly Publishing Association informs annually under which licenses its members publish freely accessible articles in their journals. The current statistic was published in December 2020; it clearly highlights the role of CC BY as a standard. Remarkably, this applies above all to journals that are entirely open access. In hybrid journals of OASPA members, the proportion of articles with a CC BY license is significantly lower than in their pure open access journals. Here, restrictive Creative Commons licenses limiting subsequent reuse are often employed which is to be evaluated as problematic (e.g. CC BY-NC). This practice deserves special attention, as hybrid journals are currently in particular focus due to publish-and-read contracts. When faced with the choice, researchers should always choose CC BY. Research funders should therefore consider tying the coverage of publication fees to the use of a CC BY license, should this practice not already have been implemented.

Journal "Science" Open for Green Open Access

The publisher AAAS of the renowned scientific journal "Science" has announced that from January 2021, quality-assured author manuscripts (postprints) for publications in "Science" and several of the publisher's journals may be placed in a repository under an open licence (CC BY or CC BY-ND) in the green route of open access under certain conditions.

This change in the publisher's open access policy, initially during a one-year test phase, applies only to publications resulting from a research project funded under the terms of Plan S. "Science" thus fulfills a demand of the alliance of research funding organisations united in the cOAlition S for immediate open access to publications from funded projects. The cOAlition S welcomed the decision in a brief statement. By opening up to green open access in conjunction with an open licence, "Science" is thus taking a different path from the journal "Nature", which relies on gold open access – albeit at very high publication fees.

Further reading

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Helmholtz Open Science Newsletter of April 14, 2021

Dear colleagues,

This is the 85th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office in german and english language. With this newsletter, we provide you with a regular overview of the most important open science developments.

You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

For more information on the topic of open science: The internal mailing list os-pro-helmholtz "Helmholtz Open Science Professionals" supports members of the Helmholtz Association who are interested in open science topics, such as open access, open research data and open research software. In addition to information on current developments, practical discussions and information exchanges are facilitated. You can register for the mailing list here. (**Please note**: This list is only available for employees of the Helmholtz Association).

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1. Save the Date: Helmholtz Open Science Forum – Helmholtz in the Nationale Forschungsdateninfrastruktur (NFDI)

With the National Research Data Infrastructure (NFDI), the German federal and state governments are pursuing the goal of systematically making research data resources accessible to the German science system in accordance with FAIR principles so that they can be made available to third parties. The NFDI will be established as a network of consortia over a period of three years starting in 2019 in three successive funding phases.

To promote dialogue on the NFDI within the Helmholtz Association, the Helmholtz Open Science Office is hosting a digital Helmholtz Open Science Forum entitled "Helmholtz in the National Research Data Infrastructure (NFDI)" on May 4, 2021 from 10:00 am to 15:00 pm (in German). As an impulse for further discussion, the Helmholtz Open Science Office invites all interested members of the Helmholtz Association to this virtual Helmholtz Open Science Forum. In addition to an introduction by the NFDI Directorate, exemplary presentations will present the range of NFDI participation in Helmholtz (e.g., practical reports from approved consortia, dealing with NFDI from the perspective of a center, a research field and an incubator platform), also the interaction of NFDI and EOSC will be highlighted. At the core is the identification and discussion of Helmholtz-specific aspects in the realization of the NFDI.

Registration is now possible (only for members of the Helmholtz Association). Further information can be found on the event website; the final program will be available there shortly.

Save the Date: Helmholtz Open Science Forum – Research Software

On May 6, 2021 from 10:00 am to 12:45 pm, a workshop of the Helmholtz Forum Research Software will be conducted on the topic of "Policies for Research Software", which is increasingly relevant in research practice. The workshop (in German) is primarily aimed at policy makers and software development team leaders (e.g., from data centers, infrastructure, science management, libraries, law and technology transfer, or scientific software communities). The goal is to collaboratively develop a checklist for policy development and implementation in the centers.

A welcome address by Prof. Dr. Wolfgang Marquardt and compact impulse presentations will be followed by an interactive "hands-on" format. Based on previous preliminary work of the Task Group Research Software of the AK Open Science and individual Helmholtz Centers, an ongoing exchange process beyond the forum will be initiated to support the further implementation. Organizationally, the TG Research Software, the Helmholtz Platform HIFIS, and the Helmholtz Open Science Office are contributing jointly. The virtual event will be conducted with the Zoom video conferencing software and using a Miro online whiteboard.

Registration is now possible (only for members of the Helmholtz Association). Additional information can be found on the event website; the final program will be available there shortly.

3. Save the Date: 58th Online Seminar on the Open Access Monitor

The 58th Helmholtz Open Science Online Seminar will take place on Wednesday, April 28, 2021, from 3:00 p.m. to 4:00 p.m. Irene Barbers (Dipl.-Bibl., MA LIS), head of the Department of Literature Acquisition of the Central Library of Forschungszentrums Jülich, will report on how the Open Access Monitor can be employed to support the process of open access transformation. The event is open to all interested parties from the Helmholtz Association and other institutions. After Irene Barber's presentation there will be time for questions and an open discussion.

The one-hour online seminar will be held in German using the Zoom video conference software.

To participate in the event (free of charge), please register here in advance. Further information can be found on the event website.

4. Save the Date: 5th ORCID DE Workshop

On June 2, 2021, the fifth ORCID DE workshop will take place virtually, this time on the topic of "ORCID in publication and information infrastructures". Keynote presentations will provide information on the integration possibilities of ORCID in research information systems, research data repositories, and publication services. Afterwards, all participants are welcome to exchange ideas in moderated breakout room sessions on ORCID integration in concrete software solutions, such as DSpace, MyCoRe, OJS, and others. The program has already been published. Registration will possible shortly. Please note that the workshop will be held in German.

5. Open Science Enables Transfer of knowledge

The current edition of the journal System Erde, published by the GFZ German Research Centre for Geosciences, investigates the topic of knowledge and technology transfer and the various dimensions encapsulated by this process (not only) for GFZ. In particular, the opportunities offered by open science for such transfer are highlighted. (Please note that the journal is available in German only).

In the introductory article "Great Expectations: Wissenstransfer ist mindestens so vielfältig wie die Erwartungen daran" (i. e. Great Expectations: Knowledge Transfer is at least as manifold as one's expectations towards it") it is emphasized that "[open] source [...] is the foundation for a contemporary transfer of knowledge. Without unrestricted access to knowledge, knowledge transfer can only remain fragmentary. Open science is the term used to describe this cultural change. [...] Direct transfer options also result from the increasing number of open access publications and freely accessible preprint portals based on the example of arXiv. Research data are also increasingly made available to the public." (p. 9, System Erde, 11 (1), 2021, available at: https://doi.org/10.48440/GFZ.syserde.11.01.1, transl. by Lea Maria Ferguson, Open Science Office).

In the article "Perspektiven eines strategischen Wissens-und Technologietransfers am GFZ" (i. e. Perspectives on a strategic knowledge and technology transfer at the GFZ), the central role of open science in knowledge transfer for the Helmholtz Association is addressed, because "the focus on applicability and efficacy [of science] regarding society and the economy are firmly anchored in the mission of the Helmholtz Association. [...] Transfer also requires new methods, rules, and incentives, since science and innovation are increasingly guided by openness (from open science to open source and open innovation)." (p. 25, transl. by Lea Maria Ferguson, Open Science Office).

6. Helmholtz Funds Nine Innovative Metadata Projects

Nine projects are being funded in the first round of the Helmholtz Incubator Platform Helmholtz Metadata Collaboration (HMC) with a total of 3.45 million euros. Twelve Helmholtz Centers are involved, representing all six research areas of the Helmholtz Association. Twenty-six applications were submitted, out of which nine projects were proposed for funding in a competitive process by an international panel of experts. Over the next two years, the projects will address various topics in the context of metadata, including the development of interoperable metadata standards for image files, the harmonization of metadata standards between the research areas of health, environment and earth observation, and the development of a workflow platform for archiving all processes of a scientific project. The Helmholtz Metadata Collaboration is one of five platforms of the Helmholtz Incubator for Information & Data Science.

7. Draft for Comments on the DFG Funding Program "Information Infrastructures for Research Data"

The German Research Foundation (DFG) is currently preparing an update of the funding program "Information Infrastructures for Research Data" and has made a draft available for public comment here. Comments can be submitted until April 29, 2021.

8. RADAR4KIT - KIT's Research Data Repository

Since December 2020, the central research data repository "RADAR4KIT" has been available to all researchers at the Karlsruhe Institute of Technology (KIT). RADAR4KIT helps to improve and simplify research data management activities at KIT, such as publishing, managing, archiving data, or sharing it with others for all disciplines (see Newsletter 74). The service is based on the repository solution RADAR developed by FIZ Karlsruhe in a DFG project together with KIT's Steinbuch Centre for Computing (SCC), and runs exclusively on KIT's own infrastructure. Other universities and non-university institutions can now also set up comparable, locally operated service solutions. The collaboration between KIT and FIZ Karlsruhe builds on the long-standing and multifaceted cooperation between the two institutes.

9. Review: RDA DE 2021

The Helmholtz Open Science Office would like to thank all speakers and participants for the exciting discussions and inspiring ideas during the RDA DE 2021 (Research Data Alliance Germany) conference, which was co-organized by the Open Science Office again this year.

For the first time, the RDA DE conference was held purely online and also for the first time ever, approx. 550 participants have been recorded. For all interested parties, the released slides and accompanying materials of the conference are now publicly available via the event website.

We are pleased to announce that the next RDA DE Conference will take place in February 2022. Further details regarding the organization and format will be communicated closer to the date.

10. Review: Online Seminar with Heidi Seibold on "Open and Reproducible Research"

On the occasion of the 57th Helmholtz Open Science online seminar, Heidi Seibold (Helmholtz Al and Helmholtz Zentrum München) gave a talk on "Practical Steps Towards Open and Reproducible Research" on February 10, 2021. The one-hour online seminar was held in English and was open for all interested persons from the Helmholtz Association and other institutions. Around 170 participants, almost 80 pertaining to the Helmholtz Association, took part in the lecture and the ensuing open discussion.

The slides of the lecture can be found here (available under CC BY 4.0 International). For further information, please refer to the accompanying factsheet and the event website.

11. DeepGreen Enters Pilot Operation Phase

The Helmholtz Open Science Office was a project partner in the DFG-funded project DeepGreen. At the end of the project phase, DeepGreen hosted a workshop in March 2021 (see documentation, in German). Currently, DeepGreen distributes articles from seven publishers to over 60 institutions in Germany. Also, first articles are being delivered to subject repositories (e.g., to EconStor). Thus, a national open access service for Germany has successfully been established. The event marked both the conclusion of the five-year DFG project and the beginning of the pilot operation phase of DeepGreen, which will be funded by the Cooperative Library Network Berlin-Brandenburg, the Bavarian State Library, and the University Library of the Friedrich Alexander University Erlangen-Nuremberg for the next two years.

12. KIT Participates in BMBF Project on Service Models for Open Access Books

The Karlsruhe Institute of Technology (KIT) is involved as a project partner in the BMBF-funded project "TU9_Monos", which was selected as one of 20 projects in the "Guideline for Funding Projects to Accelerate the Transformation to Open Access" (in German).

The TU9_Monos project aims to develop sustainable models for future-proof open access infrastructures for the TU9 Alliance of leading technical universities in Germany. To this end, the project team is using a flexible approach to develop different service models for modular, integrated publication services. At least one library of the TU9 network will be enabled to independently support OA books on its own campus during the two-year project period. As a concrete case study, at least one new book publication will also be implemented in open access.

13. Website DEAL Operations

On the website Projekt DEAL one can find the elementary information on Project DEAL. Meanwhile, this has not only supplemented by information provided on the pages of the participating publishers; the MPDL Services GmbH now also provides the website DEAL Operations in order to successfully implement and optimally use the transformative agreements negotiated by Project DEAL.

14. Discussion Paper on Digital Publishing Published

The working group "Scientific Practice" of the Alliance Priority Initiative "Digital Information" has published the discussion paper "Expanding Scholarly Practices of Publishing in the Context of the Digital Turn". The discussion paper has been published in German and in English; it reports on an expert dialogue with representatives from different scientific communities on the transformation of scholarly publishing in the wake of the digital turn.

15. Europe PMC Steps Up Indexing of Preprints

During the COVID 19 pandemic, the open access repository Europe PMC, which is operated on behalf of an alliance of research funders (see Newsletter 71, in German), has further intensified the indexing of preprints, which was started in 2018 in order to make medical research results easier to find and reuse. This involves indexing metadata and abstracts, and in some cases full texts, from about 20 preprint servers. Similar to other articles in Europe PMC, preprints are linked to the underlying research data and can be claimed with an ORCID iD. Preprints are clearly marked as such in Europe PMC to indicate that the article has not yet undergone peer review.

16. LIBER Wants #ZeroEmbargo on Publicly-Funded Scientific Publications

LIBER, the Association of Research Libraries in Europe, has presented a draft law on the use of publicly funded scientific publications. Accompanied by the #ZeroEmbargo campaign, the association calls for a zero embargo period for legal self-archiving on public open access repositories of publicly-funded scientific publications. This draft law builds on secondary publishing laws that have already come into effect in several European countries (France, Germany, Belgium, Italy, the Netherlands, and Spain). This website provides information about the draft and its origins.

17. Recent Publications on Research Software

The Task Force "Scholarly Infrastructures of Research Software" of the Architecture Working Group of the European Open Science Cloud (EOSC) Executive Board published the report "Scholarly infrastructures for research software" in December 2020, which develops a catalog of recommendations based on a representative panel survey comparing existing European infrastructures. In addition, the second version of the position paper "An environment for sustainable research software in Germany and beyond: current state, open challenges, and call for action" by the Society for Research Software (de-RSE e.V.) was made available at the end of January 2021. Furthermore, in March 2021 a pre-print on "Research Software Sustainability and Citation" was published with participation from the German Aerospace Center (DLR) and the position paper "Taking a fresh look at FAIR for research software" was published with participation of the RDA FAIR for Research Software (FAIR4RS) WG.

18. New OpenAIRE Project Launched: OpenAIRE Nexus

The work of the OpenAIRE (Advance) project will continue in 2021: Under the name "OpenAIRE Nexus", the European Commission is funding the development of a set of services to sustainably implement and accelerate Open Science in Europe.

To this aim, OpenAIRE Nexus onboards to the European Open Science Cloud (EOSC) fourteen services, provided by public institutions, e-infrastructures, and companies, structured in three portfolios: Publish, Monitor, Discover. The services are to be widely used in Europe and beyond and to be integrated within OpenAIRE Nexus to assemble a uniform open science scholarly communication package for the EOSC.

Recommended Reading

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Imprint

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Helmholtz Open Science Newsletter of June 16, 2021

Dear colleagues,

This is the 86th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office in german and english language. With this newsletter, we provide you with a regular overview of the most important open science developments.

You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

For more information on the topic of open science: The internal mailing list os-pro-helmholtz "Helmholtz Open Science Professionals" supports members of the Helmholtz Association who are interested in open science topics, such as open access, open research data and open research software. In addition to information on current developments, practical discussions and information exchanges are facilitated. You can register for the mailing list here. (**Please note**: This list is only available for employees of the Helmholtz Association).

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Recommended Reading

1. Save-the-Date: 59th Online Seminar on research data management

The 59th Helmholtz Open Science Online Seminar will take place on Wednesday, June 23, 2021 from 3:00 p. m. to 4:00 p. m. In this seminar, Prof. Dr. Frank Oliver Glöckner will present on the topic of research data management and focus on the context of biodiversity in the MOSAiC project.

Frank Oliver Glöckner is Head of Data at the AWI Computing and Data Center of the Helmholtz Centre for Polar and Marine Research, Professor of Earth System Data Science at University of Bremen and Head of PANGAEA (Data Publisher for Earth and Environmental Sciences).

The one-hour event will be held in English and will be conducted via the video conferencing tool Zoom. The seminar will not be recorded.

To participate in the event (free of charge), please register here in advance. Further information can be found on the event's website.

2. News from the re3data COREF project: Poster wins poster award of the 17th Research Data Alliance (RDA) Plenary

The poster submitted by the re3data COREF project won first place at the poster competition of the 17th Research Data Alliance (RDA) plenary meeting! The poster highlights the collaboration between re3data, the FAIRsFAIR project, and DataCite. It describes joint activities to help users find research data repositories that support FAIR data practices. The Research Data Alliance (RDA) is a community-driven initiative that aims to build the social and technical infrastructures to enable open sharing and the re-use of data. In addition, the COREF project contributed with a presentation at virtual EGU General Assembly 2021 in April 2021.

Currently, the project is conducting a survey on data quality management for operators of research data repositories listed in re3data. The study results will be made available to the public and will be incorporated into further revisions of the re3data metadata schema (concerning the planned version 4.0). Comments and feedback were recently solicited for the first revised version 3.1 of the schema. The draft for version 3.1 is currently being edited and will be implemented in a timely manner.

Regular updates from the re3data COREF project will now also be published via the new project blog. The re3data COREF project, in which the Helmholtz Open Science Office is involved, has received funding from the German Research Foundation (DFG) for three years, starting in January 2020, and is working on the further development of the re3data - Registry of Research Data Repositories service.

3. Updated list of research data repositories with Helmholtz participation on os.helmholtz.de

Since 2012, the Helmholtz Open Science Office has been involved in the operation of re3data - Registry of Research Data Repositories. This global service provides researchers, funding agencies, and other stakeholders with an overview of digital research infrastructures for making research data accessible. As of June 2021, the directory lists almost 2,700 repositories. Since January 2020, the DFG project re3data COREF is dedicated to the further development of re3data. An updated list of all research data repositories indexed in re3data with participation of Helmholtz Centers can be found on the Helmholtz Open Science Office's website (see Newsletter 83).

4. Online Course "Gute Wissenschaftliche Praxis" by KIT

The online course "Gute Wissenschaftliche Praxis" (i. e. good research practice) was developed under the joint project management of the KIT Library and the "Schreiblabor" at the House of Competence of the Karlsruhe Institute of Technology (KIT). In this online course, students learn about rules and standards within science that are already relevant during their studies and how research can be carried out honestly. The course is part of the nationwide project helpBW, which is based at these two KIT institutions.

The online course "Gute wissenschaftlichen Praxis" is available (in German only) for KIT members on the Lernplattform ILIAS; external interested parties can access it via the Plattform Open Courses KIT.

The German Research Foundation (DFG) recommends this online course and has included it in the portal "Wissenschaftliche Integrität" (i.e., scientific integrity; available in German only) as an example of teaching good research practice. The portal serves to elucidate the DFG Code of Conduct "Guidelines for Safeguarding Good Research Practice" by providing examples and materials that complement the recommendations by the DFG. The DFG committee "German Research Ombudsman" also provides a link to the online course developed at KIT. This committee serves scientists in Germany as a contact point regarding questions and conflicts concerning good research practice; the German Research Ombudsman also provides additional teaching materials (partly available in English). Further information (in German only): https://helpbw.de/2021/05/17/dfg-empfiehlt-den-onlinekurs-gute-wissenschaftliche-praxis.

5. DFG has signed DORA

In the DFG's "Code of Good Research Practice", the San Francisco Declaration on Research Assessment (DORA) is an important reference for guideline 5 "Dimensions of performance and assessment criteria". A core statement of DORA is: "Do not use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions." More than 2200 institutions and organizations worldwide have already signed the declaration. So far, however, the number of signatories from Germany has been small. The German Research Foundation (DFG) has now led the way by setting a good example.

6. Report of Forum on Indicators for Open Science Now Available

Open access, open research data, and open research software: These topics shape current open science discussions in the Helmholtz Association. The question is, which indicators can be used to identify the cultural change towards open science? And which incentives do certain indicators set for the development of open access? The virtual Helmholtz Open Science Forum addressed these and other questions under the heading "Indicators for Open Science" on January 20, 2021 (see Newsletter 83). In the course of the event and by means of impulse and practical lectures, indicators for open science were presented and discussed with a broad audience from the Helmholtz Association. A corresponding report has now been published and summarizes the lectures and discussions that took place to provide a basis for further developments of this topic for the Association.

The report is available here: https://doi.org/10.48440/os.helmholtz.024 (available in German only).

7. Review: Helmholtz Open Science Forum "Helmholtz in the National Research Data Infrastructure (NFDI)"

With the National Research Data Infrastructure (NFDI), the federal and state governments are pursuing the goal of systematically making research data resources accessible in accordance with the FAIR principles so that they can be made available to third parties. The NFDI will be established as a network of consortia in three successive funding phases over a period of three years starting in 2019.

To promote dialogue on the NFDI within the Helmholtz Association, the Helmholtz Open Science Office hosted a digital Helmholtz Open Science Forum entitled "Helmholtz in the National Research Data Infrastructure (NFDI)" with almost one hundred participants on May 4, 2021. In addition to an introduction by the NFDI Directorate, exemplary presentations highlighted the range of NFDI participation in Helmholtz (e. g., practical reports from approved consortia, describing the role of the NFDI from the perspective of a center, a research field, and an incubator platform); the interaction of NFDI and EOSC was also highlighted. Helmholtz-specific aspects in the realization of the NFDI formed the core of the discussion. Documentation of the forum will be made available in a timely manner.

8. Review: Helmholtz Open Science Forum "Research Software"

On May 6, 2021, the workshop "Policies for Research Software" was held in collaboration with the Task Group Research Software, the HIFIS platform and the Helmholtz Open Science Office. The virtual event with more than one hundred participants showed the great interest of all Helmholtz Centers in the topic. The target group (primarily policy makers and team leaders in software development, e. g., from data centers, infrastructure, science management, libraries, law and technology transfer, and scientific software communities) was broadly represented.

The detailed programme can be found on the event's website. After the welcome address by Wolfgang Marquardt and the impulse presentations, a productive dialogue was set in motion in four Zoom breakout sessions – thanks once again for the active participation!

The results were documented on virtual whiteboards and form the basis for a further exchange process. Within this process, all Helmholtz stakeholders are welcome to actively participate in the collaborative elaboration of a checklist for the development and introduction of a policy in the Helmholtz Centers – the Research Software Forum is looking forward to a continued and productive exchange of ideas!

9. Review: 58th Online-Seminar with Irene Barbers on the Open Access Monitor

On the occasion of the 58th Helmholtz Open Science online seminar on April 28, 2021, Irene Barbers (Zentralbibliothek des Forschungszentrums Jülich) presented how the Open Access Monitor can be used to support the transformation towards open access. The online seminar was held in German and was accessible to all interested persons. Around 210 participants, with more than 30 participants from the Helmholtz Association, attended the presentation and the ensuing open discussion.

The slides of the presentation can be found here (available under CC BY 4.0 International). For further information, please refer to the event's website; the accompanying factsheet will be published there shortly.

10. Review: 5th ORCID DE Workshop

On June 2, 2021, the fifth ORCID DE Workshop on "ORCID in Publication and Information Infrastructures" took place. More than 370 participants from Germany, Austria, and Switzerland attended the event to learn about the integration possibilities of ORCID in current research information systems, research data repositories, and publication services such as OJS and open access repositories.

This overwhelming participation shows that the need for information about ORCID and its implementation possibilities remains high. The program can be found on the event's website (in German); the slides of the speakers and presenters of the breakout room sessions are published on Zenodo in the group "ORCID DE". Please note that the workshop was held in German.

The ORCID DE project would like to thank all participants, speakers and presenters for this exciting workshop!

ORCID DE project partners are DataCite, the German National Library (DNB), the Helmholtz-Centre Potsdam – GFZ German Research Centre for Geosciences, the German National Library of Science and Technology Hannover (TIB), and the Bielefeld University Library. The project was initiated by the Deutsche Initiative für Netzwerkinformation (DINI) and is funded by the German Research Foundation (DFG).

11. On our own behalf: Job offer

The Helmholtz Open Science Office at the Helmholtz-Centre Potsdam – GFZ German Research Centre for Geosciences is hiring. We are looking for an officer (f/m/d) for the collaboration in the BMBF project EcoDM – Ecosystem Data Management and in the Helmholtz Open Science Office. Applications can be handed in until June 20, 2021. Further information on the job description: https://www.gfz-potsdam.de/karriere/stellenangebote/job-detail/5265/

12. Helmholtz Metadata Collaboration (HMC) publishes new project call

Nine projects have been selected for funding in the first project call of the Helmholtz Incubator Platform Helmholtz Metadata Collaboration (HMC) with a total of 3.45 million euros – half of which is provided by the Helmholtz Initiative and Networking Fund. Twelve Helmholtz Centres are involved representing all six research areas of the Helmholtz Association. Each project will run for 24 months.

The mission of all projects is to promote metadata generation and enrichment activities within the Helmholtz Association. This includes, but is not limited to, stimulating metadata generation using interoperable metadata standards, vocabularies, and/or ontologies, as well as adapting or developing tools for data enrichment (e. g., automated metadata generation for describing datasets and workflows) and metadata quality and curation assessment measures (see Newsletter 85).

The new annual Helmholtz Metadata Collaboration (HMC) call for proposals for 2021 was released on June 7, 2021. Applications can be submitted until August 16, 2021.

13. KIT Develops Tool for Quality Assessment of Research Software

Although research software is of central importance for gaining new insights, time pressure and lack of money can lead to quality deficiencies during development. Computer scientists at the Karlsruhe Institute of Technology (KIT) and the Heidelberg Institute for Theoretical Studies (HITS) have designed the SoftWipe tool for the automated assessment of software quality and published their results in the Nature Scientific Reports journal. It is a pipeline written in Python3 that compiles and executes software to detect programming errors and calculate a quality score between 0 (bad) and 10 (very good).

14. The SoftWert Project Promotes a Transfer-Oriented Use of Scientific Software

The BMBF-funded project "SoftWert - Methodenbaukasten zur Verwertung von wissenschaftlicher Software" is a cooperation between Deutsches Elektronen-Synchrotron (DESY), the Helmholtz Center Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE), the Potsdam Institute for Climate Impact Research (PIK) of the Leibniz Association, and Saarland University to create "a set of methods for the transfer of scientific software from basic research to other research centers and areas of application within research, but also to industrial applications". The project sees a high demand for re-usability, partly also in combination with valuable research data and technologies. However, transfer is often significantly hampered by legal and ethical requirements and accordingly much potential is lost from developed software. Within the project, suitable methods for the transfer-oriented handling of scientific software in scientific institutions will be developed, tested, established, and made accessible in the form of guidelines, as well as prototypically implemented in institutions of the Helmholtz and Leibniz Association and leading universities.

15. Law passed to transpose DSM Directive into German copyright law

On June 7, the Act on the Adaptation of Copyright Law to the Requirements of the Digital Single Market, the latest amendment to the German Copyright Act, came into force. This law transposes EU Directive 2019/790 April 17, 2019 on copyright and related rights in the digital single market and amending Directives 96/9/EC and 2001/29/EC (hereinafter DSM Directive) into German law. The central concern of the European legislator was to increase the participation of rights holders in the profits of the major Internet platforms. This is to be achieved by strengthening the rights holders vis-à-vis the owners of these platforms. Until now, the latter have been protected from liability for copyright infringement through the unlicensed making available of copyrighted content. This protection is removed by the DSM Directive. In this context, the problem of upload filters and the concern about "overblocking" have been the subject of controversial discussion (cf. https://irights.info/artikel/referentenentwurf-des-bmjv-leitet-entscheidende-phase-fuer-umfassende-urheberrechtsreform-ein/30351).

For the scientific community, the DSM Directive and its implementation in German law are particularly significant in that the Directive obliges the Member States to include certain exceptions (permissions) for education and science in their copyright laws. In the German Copyright Act currently in force, these barriers already exist in Sections 60a et seq. However, in the last amendment to the Copyright Act, the German legislator had limited the validity of these exceptions up to and including February 2023. As a result of the DSM Directive, the German legislator was now obliged to remove this time limit for a part of the restrictions for education and science enshrined in the German Copyright Act. During the legislative process, the representatives of the scientific community and also the Bundesrat lobbied for the removal of time limits for all exceptions for education and science. This demand was met at the end of a difficult decision-making process. This increases legal certainty for science.

16. Reuse of public sector data – implementation of the EU Open Data Directive into German law

In July 2019, the EU Directive 2019/1024 of the European Parliament and of the Council of June 20, 2019 on open data and the re-use of public sector information (hereinafter the Open Data Directive) came into force. It is to be transposed into German law by two acts, the Act Amending the E-Government Act (2nd E-Government Act) and the Act on the Use of Public Sector Data (Data Use Act). The proposals for the two complementary laws are being litigated in the parliamentary process with a single draft bill (Bundestag Printed Paper 19/27442). Within the German government, the Federal Ministry of the Interior, for Building and the Home Affairs (2nd eGovernment Act) and the Federal Ministry for Economic Affairs and Energy (Data Utilization Act), each have lead responsibility for one of the two laws. In the Bundestag, the Interior Committee is the lead committee.

The two laws are key components of the German government's open data strategy. In order to offer the interested public the opportunity to ask questions about the draft laws or to discuss them, both (partial) laws were presented on February 22, 2021 and April 30, 2021 in a joint public online event by the Helmholtz Open Science Office and the RDA-DE e.V. by the two responsible heads of department, Eileen Fuchs (BMI) and Andreas Hartl (BMWi).

In both events, the high number of participants, about 170 participants each, highlighted the great interest in this legislation. It also became clear from the lively discussion that many of those affected do not feel sufficiently informed. The legislative process has not yet been completed, although the EU member states are obliged to transpose the Open Data Directive into national law by July 17, 2021.

17. Royal Society sets targets for open access journal conversion

The Royal Society has announced in May 2021 that four of its traditional journals will be fully converted to open access once the proportion of published open access articles increases to 75 %. This commitment will apply to the "hybrid" journals Biology Letters, Interface, Proceedings A, and Proceedings B. The transition is driven primarily by the expansion of "read-and-publish" agreements with major research institutions, which allow their research results to be published as open access articles in the Society's journals.

For these journals, the Royal Society will seek the status of "transformative journals" from cOAlition S. This requires a commitment to convert the journals to OA from the 75 % threshold, to introduce transparent pricing and to increase the proportion of OA articles each year (see Newsletter 80).

18. Broad participation of the Helmholtz Open Science Office at the 109th German Librarians' Day (109. Bibliothekartag)

The Helmholtz Open Science Office is represented with several contributions at the 109th Librarians' Day this year, which will take place from June 16-18, 2021:

In the session "Autor*innenidentifikation und ORCID-Monitoring" on Thursday, June 17, from 9:00 a.m. to 10:00 a.m., Antonia Schrader and her colleagues from the ORCID DE project will talk about "Author Identification with ORCID at Scientific Institutions in Interaction with the GND" and present the newly developed ORICD DE monitor.

In the session "Repositorien: Verzeichnis und Betrieb" on Friday, June 18, 1:30 p. m. to 3:00 p. m., Nina Weisweiler will introduce the service re3data - Registry of Research Data Repositories and provide interesting updates from the re3data COREF.

In the session "Gute wissenschaftliche Praxis" on Friday, June 18, from 2:40 p. m. to 3:40 p. m., Lea Maria Ferguson will talk about "Good Research Practice and Open Science: On the Role of Libraries concerning the DFG Code".

Recommended Reading

Ausschuss für Wissenschaftliche Bibliotheken und Informationssysteme der Deutschen Forschungsgemeinschaft (2021). Datentracking in der Wissenschaft: Aggregation und Verwendung bzw. Verkauf von Nutzungsdaten durch Wissenschaftsverlage (Informationspapier). Deutsche Forschungsgemeinschaft. https://www.dfg.de/download/pdf/foerderung/programme/lis/datentracking_papier_de.pdf

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Helmholtz Open Science Newsletter of August 11, 2021

Dear colleagues,

This is the 87th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office in German and English language. With this newsletter, we provide you with a regular overview of the most important open science developments.

You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

For more information on the topic of open science: The internal mailing list os-pro-helmholtz "Helmholtz Open Science Professionals" supports members of the Helmholtz Association who are interested in open science topics, such as open access, open research data and open research software. In addition to information on current developments, practical discussions and information exchanges are facilitated. You can register for the mailing list here. (**Please note**: This list is only available for employees of the Helmholtz Association).

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Recommended Reading

Obituary – Jutta Graf

It is with great sadness that we were learned that Dr Jutta Graf (longtime head of 'Scientific Information' at DLR, previously site manager in DLR Oberpfaffenhofen) passed away unexpectedly on July 28, 2021.

Jutta Graf has been an active stakeholder in the field of open science in the Helmholtz Association since 2004. She was a member of the group that developed a roadmap for the implementation of the Berlin Declaration after it had been signed by the Helmholtz Association. With the declaration, open access as well as the topic of research data gained center stage for Helmholtz; in the years that followed, she focused on the management of research data. Since then, and through her longstanding commitment while chairing the open science working group, Jutta Graf has campaigned intensively for the promotion of open science in the Helmholtz Association.

We will miss her dearly and will keep her honorable memory in our thoughts.

1. open-access.network Informs Universities of Applied Sciences

The Helmholtz Open Science Office held a total of 16 regional events for scientists in the workshop series "Introduction to Open Access and Copyright", as part of the BMBF-funded open-access.network project and in collaboration with universities of applied sciences throughout Germany. Between September 2020 and May 2021, participants in these online workshops were able to deepen their knowledge of open access to scientific publications and copyright law and discuss use cases from their own practice. The management of the host universities also made use of the offer for advisory sessions on topics such as the introduction of an OA policy, the integration of OA into publication workflows, and the establishment of a fund for OA publication fees at the university.

Other information services offered by open-access.network include a help desk (see Newsletter 84) and a forum. The Helmholtz Open Science Office is involved in the project as a partner.

2. Study on 15 years of open access in Germany

A valuable study on the development of Open Access has been conducted at Forschungszentrum Jülich in the period from 2005 to 2019. The work by Irene Barbers and Philipp Pollack looks at the publication output and its development in the area of open access in Germany based on the databases by Unpaywall and Dimensions. One result: "The open access share increases by about 20 percentage points in all federal states during the observation period. In 2005, it is between 20 % and 30 %, depending on the federal state, and rises to over 40 % in almost all states by 2019." The study has been developed in the SynOA project, which received funding from the German Federal Ministry of Education and Research (BMBF). SynOA developed the Open Access Monitor Germany, which is now being operated and further expanded in the follow-up project OAM (see Newsletter 86).

3. Open Access Monitor - New Interface

The Open Access Monitor Germany – OAM (funded by the BMBF), operated by the Central Library of Forschungszentrum Jülich, has been available for use by academic institutions and all interested parties since 2019 (see Newsletter 72). As a freely accessible tool, the OAM provides a representation of the publication volume and costs of German academic institutions in scientific journals and thus supports institutions in promoting the Open Access transformation. The interface of the OAM has now been redesigned and offers significant improvements in functionality, performance and usability. For feedback and questions, please contact our colleagues at info@open-access-monitor.de.

4. Open Access in the Joint Initiative Monitoring Report 2021

The 2021 Monitoring Report (in German) of the Joint Science Conference (GWK) on the Joint Initiative for Research and Innovation, which has just been published, provides information on – among other aspects – activities of the science organizations to implement open access (OA) to scientific publications. For the Helmholtz Association, page 13 of the report states on the recording of the OA share in accordance with the Open Access Policy of the Helmholtz Association:

"The Helmholtz Association has also continuously increased its OA share during the pact period to most recently 60 %, based on the publication year 2018, thus meeting the target of 60 % set by the Open Access Policy of the Helmholtz Association."

5. DFG Paper on "Data Tracking in Science" published

The Committee on Academic Libraries and Information Systems (AWBI) of the German Research Foundation (DFG) published an information paper on "Data tracking in research" on June 18, 2021. The paper focuses on the "aggregation and use or sale of usage data by scientific publishers." According to its conclusion, data tracking could fundamentally contradict scientific freedom and informational self-determination, endanger scientists, and hinder the freedom of competition in the field of information supply. Therefore, the paper encourages a deeper engagement with the topic and a broad discourse within all levels of science.

6. ORCID DE Project Develops Tool to Analyze the Dissemination of ORCID iD: The ORCID DE Monitor

At the 109th Bibliothekartag, the DFG-funded project ORCID DE – within which the Helmholtz Open Science Office is also involved – firstly presented the ORCID DE Monitor. The ORCID DE Monitor is a tool for analyzing the use of ORCID iDs in the scientific publication landscape. With the development of the ORCID DE Monitor, the project responds to the increasing demand for analyses of the dissemination of ORCID iDs in the field of digital scholarly communication.

The ORCID DE Monitor is available via https://monitor.orcid-de.org/en. The user interface and analysis functionalities will be further enhanced and optimized during the project progress. More information is available in the blog post via http://orcid-de.org (in German only).

7. Save the Date: Online Seminar on "ROR" | GRID Passes the Torch to ROR

The ORCID DE project will organize an online seminar on "Research Organization Registry (ROR): Benefits and Advantages of an open Organization ID," on August 18, 2021, from 10:00 am to 11:00 pm. The event will focus on ROR ID, an open and community-driven identifier for academic organizations. With the discontinuation of GRID (Global Research Identifier Database) at the end of the year, whose data ROR has mirrored since its start in 2019, the importance of ROR as the core identifier for scientific organizations is increasing.

All interested parties are cordially invited to join the upcoming free ROR online seminar. Please register in advance. The online seminar will be held in German. For more information, see the blog post on the ORCID DE project website (in Germany only).

8. Save the Date: 60th Online Seminar on "Preregistration"

The 60th Helmholtz Open Science Online Seminar will take place on Tuesday, September 21, 2021 from 3:00 pm to 4:00 pm. In this seminar, Prof. Dr. med. Ulrich Dirnagl will present on the topic of "Preregistration: The Panacea for Trustworthy and Useful Science?". Ulrich Dirnagl is Professor of Clinical Neuroscience and serves as Director of the Department of Experimental Neurology at Charité Berlin. Since 2017 he is also the founding director of the QUEST Center for Responsible Biomedical Research at the Berlin Institute of Health. The one-hour online seminar will be held in English and will be conducted via the video conferencing tool Zoom. The seminar will not be recorded.

To participate in the event (free of charge), please register here in advance. Further information can be found on the event's website.

9. Save the Date: Helmholtz Participation in CampusSource Conference and Award

On September 16, 2021, the fall meeting of the CampusSource e. V. funding association will take place. The main language of the conference is German. At the conference, the Helmholtz Open Science Office will give a presentation on "Good scientific practice and open science publishing: What scientists should pay attention to". Our colleagues from KIT will introduce the tool "Softwipe" (we reported on the tool in Newsletter 86).

More information and the preliminary program can be found here (only in German). To register for the free online conference, click here.

In addition, the campusSOURCE Award 2022 will be announced at the conference. The prize will be awarded by the campusSource e. V. in cooperation with de-RSE e.V. and the Helmholtz Open Science Office in 2022.

10. Review: 59th Online Seminar on Research Data Management and new BMBF project for MOSAiC data

On the occasion of the 59th Helmholtz Open Science Online Seminar, Prof. Dr. Frank Oliver Glöckner, Head of Data at the AWI Computing and Data Center, spoke about research data management in the context of biodiversity and the MOSAiC project. About 100 interested people from the Helmholtz Association and other institutions attended. The slides of the talk can be downloaded here and the corresponding factsheet can be found here (available under CC BY 4.0 International). For more information, please see the event page.

It was also recently announced that the German Federal Ministry of Education and Research (BMBF) is funding the development of a series of analytical tools by the Alfred Wegener Institute, DKRZ Hamburg and DLR Jena under the title "M-VRE: The MOSAiC – Virtual Research Environment", that will initially allow researchers, and subsequently also the general public, to access and work with the Arctic data online. Thus, the Arctic data will be made universally accessible. Click here for the press release.

11. Updated Briefing on Good (Digital) Research Practice and Open Science

The briefing "Good (Digital) Research Practice and Open Science" has been updated: https://doi.org/10.48440/os.helmholtz.027 (in German only).

Background: The "Guidelines for Safeguarding Good Research Practice" published by the Deutsche Forschungsgemeinschaft (DFG) have been in effect since August 1, 2019. Open science aspects are important for many of these guidelines (see Newsletter 83). The Helmholtz Open Science Briefing highlights the relevance of open science for the implementation of the guidelines at the Helmholtz Centers and offers practical recommendations. For further information also this talk at the 109th Bibliothekartag: "Gute wissenschaftliche Praxis und Open Science: Zur Rolle der Bibliotheken im DFG-Kodex" (i.e., good research practice and open science: on the role of libraries in the DFG code; slides in German only).

The online portal "Research Integrity", offered by the DFG, is now also available in English: wissenschaftliche-integritaet.de/en.

12. Updated metadata schema for the "Registry of Research Data Repositories" and other news from the project re3data COREF

The international service re3data, which the Helmholtz Open Science Office has been involved in since 2012, provides descriptions of research data repositories based on a detailed metadata schema. The registry improves the visibility of repositories and helps users find suitable repositories for storing and searching research data. As of August 2021, a new version 3.1 of the metadata schema has been released by the re3data COREF project.

Automatic access to repository descriptions in re3data is provided via the web interface or via API. As part of re3data COREF, two exemplary templates have been developed that outline uses of the re3data API. These can be downloaded via a GitHub repository.

On July 13, 2021, the re3data team participated in the FAIRsFAIR webinar "Using registries to improve the visibility of your repository service", which was specifically aimed at research data repository operators. The slides and a recording of the seminar are available on the event website.

The re3data COREF project was also represented with a presentation at the 109th German Librarians' Day.

13. Broad participation from Helmholtz in the National Research Data Infrastructure (NFDI)

In July 2021, the Joint Science Conference (GWK) announced its funding decision on applications for consortia in the second round of the National Research Data Infrastructure (NFDI). With this initiative, the federal and state governments are pursuing the goal of systematically opening up research data resources for the German science system in accordance with FAIR principles so that they can be made more accessible to third parties. The NFDI will be established as a network of consortia over a period of three years; the process has begun in 2020 and comprises three successive funding phases. On May 12, 2021, the third and final call for funding for consortia in the NFDI was published.

In May 2021, the Helmholtz Open Science Office hosted an internal forum around the topic "Helmholtz in the National Research Data Infrastructure (NFDI)". The report is available for download.

As of today, 15 of a total of 19 approved NFDI consortia in the first and second rounds involve 18 different Helmholtz Centers:

- DAPHNE4NFDI (participation from Helmholtz: DESY, FZJ, HZB, HZDR, HEREON, KIT)
- DataPLANT (participation from Helmholtz: FZJ)
- FAIRmat (participation from Helmholtz: FZJ, HZB, HZDR, KIT)
- GHGA (participation from Helmholtz: CISPA, DKFZ, DZNE, HMGU, HZI)
- NFDI4BioDiversity (participation from Helmholtz: AWI, UFZ)
- NFDI4Cat (participation from Helmholtz: KIT)
- NFDI4Chem (participation from Helmholtz: KIT, UFZ)
- NFDI4DataScience (participation from Helmholtz: AWI)
- NFDI4Earth (participation from Helmholtz: AWI, DLR, FZJ, GEOMAR, GFZ, HEREON, KIT, UFZ)
- NFDI4Health (participation from Helmholtz: MDC)
- NFDI4Ing (participation from Helmholtz: FZJ, DLR, KIT)
- NFDI4Microbiota (participation from Helmholtz: DLR, FZJ, GFZ, HMGU, HZI, KIT, MDC, UFZ)
- NFDI-MatWerk (participation from Helmholtz: FZJ, HEREON, KIT)
- PUNCH4NFDI (participation from Helmholtz: DESY, DLR, FZJ, GSI, HZDR, KIT)
- Text+ (participation from Helmholtz: FZJ)

In addition, Helmholtz is involved in three GAIA-X lighthouse projects that aim to advance the development of data-driven business models, Al-based services, and the establishment of European data spaces. The 16 winning consortia of the GAIA-X funding competition hosted by the German Federal Ministry of Economics and Technology were announced at the end of June 2021.

14. Researchers at KIT publish open source software "EYCALC"

Open source is emerging as the standard for software from the scientific community. This is how Researchers at Karlsruhe Institute of Technology (KIT) have published the free and open source software EYCALC (Energy Yield Calculator): This software allows for the precise calculation of the energy yield of perovskite tandem solar cells. The simulation software is suitable for all conventional, but above all for the first time for new types of solar cell architectures with a high level of complexity. As an open source tool, EYCALC is available to all users; the software is available on GitHub (GPLv3 licensed). Further information on the project can be found here.

15. Amendment of Copyright Law: Extension of Exceptions for Education and Science

The German Copyright Act contains a number of so-called exceptions that permit the use of copyrighted works for education and research purposes subject to certain conditions. The validity of these permissions was limited until the end of February 2023 in the last amendment to the Copyright Act in 2017.

In order to transpose the European Digital Single Market Directive (2019/790) into German law, the law has now been amended again. The complete removal of the copyright barriers for education and science applicable in Germany, which was threatened due to the time limit, would have violated the new EU directive. The German legislator therefore had to at least partially repeal the current time limit. The Alliance of Science Organizations advocated a complete deletion of the time limit without replacement. This position prevailed, i.e., the time limit was deleted without replacement. The deleted time limit had been combined with a request to the BMJV for an evaluation of the effect of barriers to education and science. This procedure is currently being carried out.

For many years, there has been a struggle in Germany over the design of the copyright restrictions for education and science. The German legislator reacted to the existing contradictions of interests by formulating increasingly complicated provisions on exceptions, which were no longer in line with the requirement of legal clarity. Within the framework of the last amendment of copyright law in 2017, the legislator dared to make a new start. The restrictions for education and science were combined in subsection 4 – "Legally permitted uses for education, science and institutions" – and fundamentally reformulated and made much more comprehensible. At the same time, the period of validity of this new subsection is limited until the end of February 2023.

16. Second Open Data Law

In 2003, the European legislator for the first time passed a directive (2003-98) that obligated the member states to make public administration information easily and inexpensively accessible, especially for the use by companies. In Germany, this directive was implemented in 2006 with the Information Reuse Act (Informationsweiterverwendungsgesetz). The European directive was amended in 2013 and 2019. Both amendments expanded the scope of the directive. The 2019 directive included research data for the first time. This most recent directive to promote the accessibility of information at public bodies has now been transposed into German law by the German legislature with the "Act to Amend the E-Government Act and to Introduce the Act for the Use of Public Sector Data." In Germany, this legal regulation on making research data accessible does not affect universities and non-university research institutions; however, it does affect e.g., departmental research institutions.

17. Save the Date: DINI Annual Meeting 2021 on the Sustainability of Information Infrastructures

The 22nd annual conference of the German Initiative for Network Information (DINI) will take place from October 5-6, 2021. This year's annual conference will focus on the challenges surrounding the sustainable operation of information infrastructures for research, teaching, and knowledge transfer. The Helmholtz Open Science Office is involved by contributing to DeepGreen and ORCID DE. The annual meeting will be accompanied by a poster exhibition. The call for posters ends on September 1, 2021.

18. Save the Date: RDA DE Tagung 2022

The RDA DE Conference 2022 will take place from February 21 to 25, 2022, once more as an online event. The Helmholtz Open Science Office is thrilled to host the conference again next year together with RDA Deutschland e.V. Information on the event will be published on the event's website in due time.

19. France Adopts its Second National Strategy for Open Science

On July 6, 2021, Frédérique Vidal – the French Minister of Higher Education, Research and Innovation – presented the second "Plan national pour la science ouverte", which will cover the period from 2021 to 2024 and continues and extends France's first National Plan for Open Science 2018-2021. The new plan is closely aligned with the European Union's open science activities and promises to triple the budget for open science from 5 million to 15 million euros per year. In addition to open access and open research data, the scope is now extended to the field of open research software. A national research data platform "Recherche Data Gouv" will also be established. France has set itself the goal of achieving an open access quota of 100 % for all research publications by 2030.

Similar efforts are underway in the Slovak Republic, where a National Strategy for Open Science 2021-2028 has been adopted in June 2021 (available in English from September 2021). In Switzerland, a national open research data strategy has been adopted in July 2021, complementing Switzerland's existing national open access strategy and the associated action plan. In line with the German government's overarching data strategy, a five-year open data strategy has been adopted in Germany at the beginning of July 2021, enhancing the focus on public administrative data.

20. G7 Countries Emphasize the Importance of Open Science

The science ministries of the G7 countries addressed the topic of open science in July 2021. The "G7 Research Compact" states: "As our nations and communities start to recover from the pandemic and build resilience for future shocks, we will continue to work with our research and business communities to remove barriers to the open and rapid sharing of knowledge, data and tools, to the greatest extent possible, recognising the importance of research security in particular in cutting-edge fields, and to promote open science and increase open, safe and transparent dissemination of science to citizens, and to strive to minimise technology-related risk."

This general commitment to open science is supported by two actions that address the aspects of (1) open research data and (2) research assessment. On research assessment, the statement declares: "Explore incentives, including enhancements to research assessment that foster recognition and reward collaboration across all disciplines and topics to drive a culture of rapid sharing of knowledge, data, software, code and other research resources. Investigate how open science practices help achieve increasingly robust, reliable and impactful research outcomes".

21. On our own behalf: Helmholtz Open Science Office now also on LinkedIn

The OS Office supports the Helmholtz Association in shaping the cultural change towards open science: The OS Office promotes the dialogue on open science in the present newsletter, on Twitter, via our further services and now also on LinkedIn: https://www.linkedin.com/company/helmholtz-open-science-office

Recommended Reading

Association of American Universities (AAU) & Association of Public and Land-grant Universities (APLU). (2021). Guide to accelerate public access to research data. https://www.aau.edu/accelerating-public-access-research-data

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Helmholtz Open Science Newsletter of October 13, 2021

Dear colleagues,

This is the 88th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office in German and English language. With this newsletter, we provide you with a regular overview of the most important open science developments.

You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

For more information on the topic of open science: The internal mailing list os-pro-helmholtz "Helmholtz Open Science Professionals" supports members of the Helmholtz Association who are interested in open science topics, such as open access, open research data and open research software. In addition to information on current developments, practical discussions and information exchanges are facilitated. You can register for the mailing list here. (**Please note**: This list is only available for employees of the Helmholtz Association).

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Recommended Reading

1. Series of Articles on Open Science at Helmholtz published

In a three-part series of articles (in German languague only) on the Helmholtz Association website, Dr. Heinz Pampel of the Helmholtz Open Science Office provides an overview of current Open Science activities at Helmholtz. Under the title "Open Data for Research", the first article looks at the topic area of Open Research Data. The second article, "Open Research Articles", summarizes the current state of Open Access. The third and final part addresses "Open Source in Research". (All articles are published in German.)

2. Open Access to Dissertation by Helmholtz

Hermann von Helmholtz is the namesake of the Helmholtz Association. As a polymath, he researched phenomena in optics, acoustics, geology, meteorology, and thermodynamics. August 31, 2021, marked the 200th anniversary of his birth. To mark this anniversary, numerous Helmholtz activities this year are themed "200 years of Helmholtz - Inspired by challenges".

Helmut Kettenmann, neuroscientist at the Max Delbrück Center for Molecular Medicine in the Helmholtz Association, has translated the dissertation, which Hermann Helmholtz submitted in Latin to Friedrich Wilhelm University in Berlin in 1842 at the age of 21, into German and English for the first time, as well as provided an introduction and commentary on the dissertation, together with classical philologist Julia Heideklang from Humboldt University and neurobiologist Joachim Pflüger at Freie Universität Berlin.

The work has been published as an Open Access publication and, in keeping with the Helmholtz Association's Open Access activities, can be accessed via the Digital Object Identifier (DOI) https://doi.org/10.18452/23281 on the Open Access repository of Humboldt-Universität zu Berlin, as the successor institution of Friedrich Wilhelm University.

3. Save the Date: Helmholtz Open Science Forum on the NFDI

With the National Research Data Infrastructure (NFDI), the German federal and state governments are pursuing the goal of systematically making research data resources accessible to the German scientific system – in accordance with the FAIR principles so that these research data resources can be made available to third parties. The NFDI will be established as a network of consortia over a period of three years in three successive funding phases. Numerous NFDI consortia are now being realized with substantial Helmholtz participation; the Helmholtz Centers are also actively involved in the realization of the EOSC.

To promote further dialogue on the NFDI within Helmholtz, the Helmholtz Open Science Office is hosting a second Helmholtz Digital Open Science Forum, "Helmholtz in the National Research Data Infrastructure (NFDI)", on December 8, 2021, from 10:00 a.m. to 3:00 p.m. Registration for the upcoming event is now open for employees of the Helmholtz Association (further information and preliminary program).

This will be the second event in a series of Helmholtz Open Science Fora on the topic of the National Research Data Infrastructure (NFDI). The first event was held in January 2021; a report documents this event (in German only).

4. Checklist for Policies for Sustainable Research Software Published

As a follow-up to the Helmholtz Open Science Forum "Policies for Research Software" in May 2021, the "Checklist to support Helmholtz Centers in implementing policies for sustainable research software" has been developed. This checklist, published in September 2021, is aimed at decision-makers at the Helmholtz Centers who are involved in the implementation of policies for sustainable research software. The checklist supplements a model guideline that already provides the Centers with a guiding and reusable template for the creation of regulations for the sustainable use of research software. The checklist can be found at: https://doi.org/10.48440/os.helmholtz.031

5. Save the Date: 61st Online Seminar and International Open Access Week 2021

This year's theme of the International Open Access Week will be "It Matters How We Open Knowledge: Building Structural Equity". This motto highlights the UNESCO Recommendation on Open Science and its call for equitable participation for all producers and consumers of knowledge. The International Open Access Week is a time for the wider community to coordinate in taking action to make openness the default for research and to ensure that equity is at the center of this work. Further information can be found on the website of the International Open Access Week. The themed week takes place from October 25 until October 31, 2021.

The Helmholtz Association again participates in the International Open Access Week with various events and activities at the Centers that are summarized here.

The Helmholtz Open Science Office correspondingly offers the 61st Helmholtz Open Science Online Seminar on Wednesday, October 27, 2021 from 3:00 p. m. to 4:00 p. m. In the talk "Open Access Publishing – Zooming in on Copyright and CC Licenses", we will look into open access publishing options for researchers and zoom in on the topics of copyright and CC Licenses. After the presentation by Dr Christoph Bruch, there will be ample opportunity for open discussion. The 90-minute event will be held in English and will be conducted via the video conferencing tool Zoom; the seminar will not be recorded. Questions can be submitted in advance via this pad. To participate in the event, please register here (free of charge).

6. Review: Open Access Days 2021

At this year's Open Access Days, September 27 to 29, 2021, which once again took place virtually, the Helmholtz Open Science Office was again widely represented. In three slots, reports were given on current developments in the projects Deep Green and ORCID DE (see abstract and presentation slides on ORCID DE Monitor and survey results (only in German)). In addition, Dr. Christoph Bruch (Helmholtz Open Science Office) and Fabian Rack (FIZ Karlsruhe) presented the German Creative Commons FAQs to generate feedback and suggestions. The open.access.network project presented its poster "Open Access Helpdesk: Behind the Scenes" in the poster session of the conference.

The recorded presentations (such as the presentation by ORCID DE on "Organizational IDs: integral part of the OA transformation? Survey Results on Dissemination and Use at Scientific Institutions in Germany" (in German only)) will soon be available via the TIB AV Portal. The presentation slides, posters and materials for the Open Access Days 2021 can already be found on Zenodo.

7. New Web Portal open-access.network Launched

In September, the web portal open-access.network has been launched as an extensive information service on the topic of Open Access. At a relaunch party during Open-Access-Tage 2021, the newly designed website was released and presented to the public for the first time. The information on offer for researchers, OA newcomers and professionals ranges from basic information on OA and offerings for various scientific disciplines to financing and legal issues. The new portal was completely revised and expanded by the BMBF-funded open-access.network project of the same name. It replaces the "Information Platform Open Access", which has already existed since 2007. Other information and networking services offered by open-access.network include a help desk (see Newsletter 84) and a forum. The Helmholtz Open Science Office is involved in the project as a partner.

8. Review: 60th Online Seminar on "Preregistration"

On September 21, 2021, the 60th Helmholtz Open Science Online Seminar "Preregistration: The panacea for trustworthy and useful science?" took place. The speaker Prof. Ulrich Dirnagl, MD, is Professor of Clinical Neuroscience and Director of the Department of Experimental Neurology at Charité Berlin. Since 2017, he is the founding director of the QUEST Center for Responsible Biomedical Research at the Berlin Institute of Health, which is one of the founding members of the German Reproducibility Network (GRN), in which the Helmholtz Open Science Office is also involved. The term "preregistration" describes a practice that is particularly well established in the field of biomedical research: Planned studies are made available and persistently referenced in a public repository before they begin. This practice is intended to ensure the trustworthiness and reproducibility of scientific results, enable the protection of ideas at an early stage, and facilitate the coordination of one's research. The presentation slides can be downloaded here. For more information, please see the event page.

9. re3data COREF Milestone reached: "Conceptual Model for User Stories" and "Stakeholder Survey und Workshop Report"

The re3data COREF project has reached an important milestone with the publication of the Conceptual Model for User Stories for re3data – the Registry of Research Data Repositories. The model is based on the results of a stakeholder survey and three workshop sessions. Participants were asked about the ways they already use re3data and how they would like to use re3data in the future. The results and findings of the survey, presentations, and discussions are documented and have been published in the re3data Stakeholder Survey and Workshop Report. The model describes the history, governance, and current technical infrastructure of re3data. The results of the report were consulted in restructuring the model's main section concerning target groups and user stories. Both documents allow the project team to recalibrate re3data according to current and future needs of the community.

On September 23, 2021, the new model was presented in a lightning talk at Open Science Fair 2021. The presentation is available for download.

From October 19 to 21, 2021, the Gateways 2021 conference will take place. The re3data COREF project will be represented with a working session entitled "Introducing re3data – the Registry of Research Data Repositories". Participation in the conference is free of charge.

10. Review: 22nd DINI Annual Conference "Shaping the Future"

The 22nd annual conference of the German Initiative for Network Information (DINI) took place online from October 5 to 6, 2021. This year's annual conference focused on the challenges surrounding the sustainable operation of information infrastructures for research, teaching, and knowledge transfer. The conference language was German. The Helmholtz Association was represented again this year with several contributions. On Tuesday, October 5, 2021, Dr. Sven Rank of Forschungszentrum Jülich GmbH presented on the topic of process and organizational development for a digital science company (Abstract in German). This presentation was followed by a keynote by Dr. Fabian Trinkel, also from FZ Jülich, on the topic of sustainability management in the Helmholtz Association (Abstract in German) on Wednesday, October 6, 2021. The third-party funded projects open-access.network, Deep Green and ORCID DE, in which the Helmholtz Open Science Office is involved, also presented themselves at the conference. For more information, please see the programme.

11. Save the Date: German Reproducibility Day

On Tuesday, November 16, 2021, the German Reproducibility Network (GRN) invites you to the first "German Reproducibility Day" from 1:00 p. m. to 5:00 p.m. The German Reproducibility Day is dedicated to all stakeholders of the scientific landscape in Germany and beyond. This first event of the GRN aims to raise general awareness around the topic of reproducible science and to discuss the relevance of reproducible and robust research for the scientific community. It will be highlighted why a strong network of initiatives promoting open research in Germany is necessary and what mission and roles this network can take on in the future. The event will be held in English and will be conducted via the video conferencing tool Zoom (registration). For more information, please see the preliminary programme.

12. Call for Application: campusSOURCE Award 2022

The submission for applications for the campusSOURCE Award 2022 is open until December 15, 2021. The campusSOURCE Award 2022 is intended to honor individuals or teams who make significant contributions to supporting scientifically active persons, who develop research software and thereby enable new and innovative research software solutions. The idea is to focus on individuals and teams in academia who are not exclusively and full-time involved in research software development. In total, a prize money of 17,000 EUR is available. The campusSOURCE Award 2022 is supported by campusSOURCE e. V., the Helmholtz Open Science Office, and the Society for Research Software de-RSE e.V. For more information, please see the Call for Application.

13. Scientific Society Switches to Open Access

The American Astronomical Society (AAS) has announced that it will transition its portfolio of traditional journals entirely to open access beginning in January 2022. The previously subscription-based "hybrid" journals Astronomical Journal, Astrophysical Journal, Astrophysical Journal Letters, and Astrophysical Journal Supplement Series will in the future offer scientists open access options for publishing their research in astronomy and related disciplines. Under the new OA model, subscription fees and paywalls will be completely eliminated. The new publication policy is also explained in a FAQ list and featured in a video. "The OA article describing the the Event Horizon Telescope's observations of the 'shadow' of a black hole has been downloaded an astounding 340,000 times by people all over the world," said an AAS representative. "The transition of all our journals from hybrid to fully OA in January will provide this same wide audience access to the entire cosmos."

14. Recommendation of cOAlition S on Open Access for Academic Books

In a recent statement, the cOAlition S published five recommendations on how to handle and promote open access books. According to the statement, it is recommended that all academic books, based on original research that was directly supported with funding from cOAlition S organisations, should be made available via open access. It is also recommended that Creative Commons licenses be granted for academic book publications to ensure unproblematic re-use. Furthermore, cOAlition S states that any embargo periods on academic books should be as short as possible and never exceed 12 months. Finally, cOAlition S funders should financially support open access for academic books through their funding schemes and open access publishing business models via dedicated arrangements.

15. EU Report on Open Access Published

The EU Commission has published the report "Monitoring the open access policy of Horizon 2020" assessing the success of open access conditions for text publications and research data from EU-funded projects under the Horizon 2020 research framework program, which ended last year. According to the report, 83 % of Horizon 2020 text publications were made open access, i.e. published in open access journals or books (OA gold) or published via repositories as secondary publications (OA green). An annual increase in the open access rate was observed, from 65% in 2014 to 86% in 2019. However, further potential could be unlocked concerning text and data mining e.g., via the adoption of the most open Creative Commons licenses CC BY or CC 0; currently around half of the publications still have restrictive open licenses such as CC BY-SA and BY-NC. Article processing charges for open-access journal articles averaged 2,200 EUR compared with around 2,600 EUR for hybrid journals. In the follow-up program Horizon Europe, hybrid OA publications will no longer be allowed according to Plan S rules.

16. Study on the regulation of data access rights for science and research

In August, the "Study on the Regulation of Privileged Access to Data for Science and Research by Regulating Research Clauses in the Health, Online Economy, Energy and Mobility Sectors" (in German), prepared by Prof. Dr. Louisa Specht-Riemenschneider on behest of the German Federal Ministry of Education and Research, was published. The vast majority of research projects involve data analysis. In many cases, this data is generated as part of the project in question. Often, however, the pursuit of a research interest requires access to data that is in the control of third parties. Because the volume of data is increasing rapidly due to digitization and the possibilities for analyzing it are also growing steadily, the question of whether or under what conditions researchers should be granted access rights to certain data has gained in importance. The study examines the regulatory objectives as well as detailed legal issues – both abstractly and illustrated by case studies from the health, online economy, mobility and energy sectors –, and formulates recommendations.

17. New Study on the Impact of Open Source Software and Hardware

Open Source is increasingly used in digital technologies and has become mainstream across all sectors of the software industry over the past decade. The study "The impact of Open Source Software and Hardware on technological independence, competitiveness and innovation in the EU economy" analyses the economic impact of Open Source Software (OSS) and Open Source Hardware (OSH) and examines global policy efforts to utilize and magnify the benefits of OSS. The analysis estimates a cost-benefit ratio of above 1:4 and predicts that an increase in OSS contributions would lead to additional ICT start-ups in the EU. Case studies reveal that by procuring OSS instead of proprietary software, the public sector could reduce the total cost of ownership, avoid vendor lock-in and thus increase its digital autonomy. The study was commissioned by the European Commission's DG CONNECT and published in September 2021; it is available here.

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Helmholtz Open Science Newsletter of December 15, 2021

Dear colleagues,

This is the 89th Helmholtz Open Science Newsletter brought to you by the Helmholtz Open Science Office in German as well as in English. With this newsletter, we provide you with a regular overview of the most important open science developments.

You can find the current newsletter and the newsletter archive on the Helmholtz Open Science Office website.

We appreciate you forwarding this newsletter to anyone interested.

For more information on the topic of open science: The internal mailing list os-pro-helmholtz "Helmholtz Open Science Professionals" supports members of the Helmholtz Association who are interested in open science topics, such as open access, open research data and open research software. In addition to information on current developments, practical discussions and information exchanges are facilitated. You can register for the mailing list here. (**Please note**: This list is only available for employees of the Helmholtz Association).

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Recommended Reading

Impulse of the Helmholtz Open Science Office Published: Open Science and Digital Transformation Go Hand in Hand

1. A Standard for Open Science: UNESCO Recommendation on Open Science

At the end of November 2021, the UNESCO member states adopted their "Recommendation on Open Science". This now provides a common standard for defining open science. The Recommendation also makes suggestions for the further promotion of open science as a basis for excellent science. To this end, the following fields of action are addressed and further elaborated:

- Promoting a common understanding of open science, associated benefits and challenges, as well as diverse paths to open science
- · Developing an enabling policy environment for open science
- · Investing in open science infrastructures and services
- Investing in human resources, training, education, digital literacy and capacity building for open science
- Fostering a culture of open science and aligning incentives for open science
- Promoting innovative approaches for open science at different stages of the scientific process
- Promoting international and multi-stakeholder cooperation in the context of open science and with a view to reducing digital, technological, and knowledge gaps

With the adoption of the Recommendation, further implementation in the member states is recommended.

2. International Science Council Votes for Reform of Scientific Publishing

The International Science Council (ISC), a non-governmental organization representing more than 200 scientific organizations from the natural and social sciences worldwide, voted by a large majority in October 2021 to reform the scientific publishing system. The adopted resolution calls for the further development of the scholarly publishing system based on eight principles previously developed by ISC members in a discussion process and published in the report "Opening the record of science: making scholarly publishing work for science in the digital era."

These principles include implementing universal open access to scholarly publications and the underlying data, and licensing them with free licenses for reuse, including for text and data mining. Geoffrey Boulton, Member of the ISC Governing Board and Chair of the ISC's project on the Future of Scientific Publishing, said: "The endorsement of these fundamental principles demonstrates that the diverse calls for reform of scholarly publishing are reaching critical mass and intensity." At the same time, in a statement of its own, the organization of European academies of sciences and humanities ALLEA (All European Academies) pointed towards unequal structures in academia that are reinforced by the current publication system.

3. Coalition Agreement: Open Science is on the Agenda

The current coalition agreement between SPD, the Greens, and FDP negotiates, among other aspects, the digital modernization of Germany. More openness is expected from public administration, science and, to a certain extent also, business. The combination of digitization and openness is intended to serve as a tool for achieving a broad range of goals, such as accelerating the performance of science, the innovativeness of the economy or democratizing access to data. In the scientific community, such a "cultural change" is currently particularly associated with open science. The coalition agreement states: "We want to strengthen open access and open science". The coalition announces a research data law, a science-friendly copyright law, and open access as a standard for research publications, as well as a renewal of the commitment to building up the NFDI and the EOSC.

4. DPG Position Paper on the Future of Scientific Publishing

On November 13, 2021, the Board of Directors of the German Physical Society (DPG) adopted a "Position Paper on the Future of Scientific Publishing", in which the society clearly commits itself to open-science-based, i.e., open and science-driven, publication infrastructures. According to the paper, researchers should assume more decision-making authority and responsibility, especially with regard to the career-relevant evaluation of research results. In addition, demands are formulated for the design of open access publication models and for ensuring cost and data transparency for publishers. Reforms should ensure that the entry threshold for new players and models in the publishing sector is lowered in order to counteract monopolization tendencies.

5. Open Access Monitor Reports with Data for the Years 2018 to 2020 Available

In December 2021, the Open Access Monitor (OAM) has provided all major scientific institutions in Germany with publication reports on their publication volumes. The OAM team of the Central Library of Forschungszentrum Jülich supports the institutions in their open access activities by sending out the OAM reports. The analyses in these reports encourage the discussion of the transformation of scientific publishing towards open access. With its new interface, the OAM offers numerous additional filtering and clustering options as well as an expanded chart selection for the institution's own publication analyses (see also Newsletter 87).

6. Save the Date: Helmholtz Open Science Practice Forum Research Data Management

Research data management (RDM) is a relevant topic at all Helmholtz Centers. To share best practices and to foster the RDM community within the Association, the Helmholtz Open Science Office will host the first "Helmholtz Open Science Practive Forum Research Data Management", online, on February 3, 2022, from 10:00 am to 3:00 pm. In this Helmholtz-internal forum, different approaches from Helmholtz Centers to organize RDM will be presented as examples. In addition, the focus will be placed on concrete service offerings regarding RDM. Furthermore, networking activities with external actors, e.g., in the context of NFDI, EOSC, or RDA, will be highlighted. The practical forum is designed to provide sufficient time for discussion, as community building is a key concern of the event.

Further information and the registration for employees of the Helmholtz Association can be found on the event website.

7. Review: 61st and 62nd Helmholtz Open Science Online Seminars

On October 27, 2021, the 61st Helmholtz Open Science Online Seminar "Open Access Publishing – Zooming in on Copyright and CC Licenses" took place, on the occasion of the International Open Access Week 2021 (see Newsletter 88). Our colleague from the Helmholtz Open Science Office, Christoph Bruch, gave an overview of open science publishing basics and then zoomed in on the topics of copyright – especially concerning the writing and publication process – as well as Creative Commons licenses. A particular focus was on the question of how to make use of these licenses to "free" one's own research to successfully engage in open science. The slides of the presentation can be downloaded here. For more information, please see the event's page.

On December 9, 2021, the 62nd Helmholtz Open Science Online Seminar "The IPCC FAIR Data Guidelines from the perspective of the IPCC Data Distribution Centre (DDC)" took place. Martina Stockhause from the German Climate Computing Center (DKRZ) reported on the sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC). Martina Stockhause described the tasks of the IPCC Data Distribution Centre (DDC), in particular the DDC partner DKRZ, and its contribution to the implementation of the FAIR Data Guidelines. DKRZ has been operating the DDC reference data archive for IPCC climate model data since 1997. The slides of the presentation can be downloaded here. For more information, please see the event's page.

8. Review: German Reproducibility Day

To further raise awareness of the topic of reproducibility among scientists, the German Reproducibility Network (GRN) organized the first *German Reproducibility Day* on November 16, 2021 (Save-the-Date). Among the founding members of GRN are the Helmholtz Open Science Office and the incubator platform Helmholtz AI (more here).

The goal of the English-language online event was to discuss the role of the network of local and topic-specific initiatives and to set impulses for the further development of GRN as well as to introduce the GRN to a broad public. Marcus Munafo from the UK-RN was invited to open the event with his keynote on the experiences of the UK-RN. Afterwards, members of the network reported on best practices from their respective scientific disciplines. In the following panel session, representatives of the German Research Foundation (DFG), the publisher PLOS, the Forschungszentrum Jülich and the Freie Universität Berlin, among others, exchanged ideas. On behalf of the GRN, the Helmholtz Open Science Office would like to thank all participants and speakers for their participation.

9. Review: ORCID DE Online Seminar on "Persistent Identifier in Publication and Affiliation Policies"

The project ORCID DE – the Helmholtz Open Science Office is one of the project partners – organized an online seminar on the topic of "Persistent Identifier in publication and affiliation policies" on December 7, 2021 (Save-the-Date, in German). The event examined the use of persistent identifiers, such as ORCID iD and ROR ID, in the policies of research facilities. After an introduction to the concept, structure, and necessity of such policies, the existing policies from Technische Universität Berlin, Technische Universität Braunschweig, and Humboldt-Universität zu Berlin were presented as best practice examples (Documentation, in German). The animate participation of more than 230 people demonstrates the great interest in this topic, which will be taken up again in the project.

10. Review: 2nd Helmholtz Open Science Forum on "Helmholtz in the National Research Data Infrastructure (NFDI)"

To promote the dialogue on the National Research Data Infrastructure (NFDI) in the Helmholtz Association, the Helmholtz Open Science Office hosted a second digital Open Science Forum on December 8, 2021 under the motto "Helmholtz in the National Research Data Infrastructure (NFDI)". The Helmholtz Centers are actively involved in the process of setting up the NFDI – as applicants and participants of the consortia and as members of the NFDI e.V. association, which was founded in 2020.

A report from the NFDI Directorate was followed by contributions from the Helmholtz Incubator Platforms HMC and HIFIS and of the newly founded EOSC Task Forces on interactions with the NFDI. Furthermore, insights into the interaction between NFDI and the Helmholtz research programs as well as on the integration of the Helmholtz Association into the NFDI association structure were presented.

This event is the second Helmholtz Open Science Forum on the NFDI; a first event was held in January 2021. The Helmholtz Open Science Office will continue to actively promote and support the dialogue on the NFDI within the Helmholtz Association.

11. NFDI und GAIA-X: "FAIR Data Spaces" Launched

The BMBF-funded project "FAIR Data Spaces" aims to strengthen the networking of National Research Data Infrastructure (NFDI) and GAIA-X. The networking of data infrastructures from business and science is indispensable for strengthening Europe as a business and science location. Networking at the national level is a first step. Ultimately, data spaces must be developed on a European level and globally in such a way that they meet the different ethical, legal, and technical standards and that they remain or become capable of interaction.

12. Citation of Software Code Enabled

Since August 2021, the citation of software code is enabled for platforms, such as GitHub, Zenodo, GitLab, Zotero, and JabRef. The launch of this new feature is intended to address the need and desire of developers worldwide to be able to accurately cite their software code and receive credit for it. Using the Citation File Format, developers can now create a file that contains information about how others should cite their work. In addition, the online initialization service cffinit was developed to assist researchers and developers in creating the citation file.

The format has been developed by Jurriaan Spaaks of the Dutch eScience Center and the German developer Stephan Druskat of DLR who is also active in de-RSE e. V. Further information can be found here.

13. Season's Greetings

The Helmholtz Open Science Office team wishes you Happy Holidays and a Happy and Healthy New Year!

With best wishes from Roland Bertelmann, Christoph Bruch, Lea Maria Ferguson, Janina Richter, Heinz Pampel, Antonia Schrader, Paul Schultze-Motel and Nina Weisweiler.

You can find our digital holiday greeting card on our website.

Recommended Reading

Impulse of the Helmholtz Open Science Office Published: Open Science and Digital Transformation Go Hand in Hand

Open science uses the potential of digitization to promote the accessibility and re-use of scientific products and thus to promote sustainability, reproducibility and ultimately excellence in scientific work. As a plea for effective adaptation to the changing circumstances in academia and optimal use of the newly arised opportunities, the Helmholtz Open Science Office has published an impulse entitled "Open Science and Digital Transformation Go Hand in Hand." Download the paper (in German).

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