

Please note:

Most of the information in this report can also be found on the website https://forschungsdaten.info/fdm-im-deutschsprachigen-raum/oesterreich/

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Members of the WG "Austria Country Profile" (in alphabetical order):

Meghan Bohardt (University of Vienna), Paolo Budroni (TU Wien), Beate Guba (TU Wien), Stefan Hanslik (BMBWF), Ilire Hasani-Mavriqi (TU Graz), Christian Panigl (University of Vienna/ACOnet), Katharina Rieck (FWF – Austrian Science Fund), Barbara Sánchez Solís (TU Wien), Chris Schubert (TU Wien), Katrin Vohland (Natural History Museum Vienna).

Please note: The WG does not claim that the projects, activities, and infrastructures listed below are complete. This report represents a status quo. It is, however, updated on a regular basis and thus strives for the most accurate monitoring possible.



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Current policy on open and FAIR science

1. Is there a current policy on open and FAIR science in place?				
Yes	No	In planning		
X				

Open Science Policy Austria

In February 2022, the Open Science Policy Austria was adopted during a joint presentation to the Council of Ministers by the BMBWF, BMDW and BMK. Austria thus shows its commitment to the Open Science movement and the European Open Science Cloud (EOSC). The vision of Open Science is to make scientific processes more open and effective and to use both scientific excellence and open innovative and applied research to address current challenges, which are very comprehensively presented in the Policies of the EU Commission and in the framework of the Global Sustainability Goals (UN SDGs). More information and links to the policy document https://www.bmbwf.gv.at/Themen/HS-

<u>Uni/Hochschulgovernance/Leitthemen/Digitalisierung/Open-Science/Open-Science-Policy-Austria.html</u>:

- [Document in German]: https://www.bmbwf.gv.at/dam/jcr:69c653e7-e4e1-4996-9e96-ee1e61dffff4/PDF%20Version%20der%200pen%20Science%20Policy.pdf
- [Document in English]: https://www.bmbwf.gv.at/dam/jcr:d0dad6b6-b94d-4e3e-8c4e-da12091be9b4/Open%20Science%20policy%20Austria%20eng..pdf

Underlying legal framework

Data Governance Act: As of 24 September 2023, the European Data Governance Act is applicable in all European Member States. Goal: Promote the exchange of data, with due regard to GDPR regulation. The Act is part of the <u>European Data Strategy</u>. In Austria, the responsible body is the Federal Ministry of Finance (State Secretariat for Digitization and Telecommunications).

Directive on the re-use of public sector information (PSI), now called Open Data Directive:

The European Open Data and PSI Directive provides the legal basis for the re-use of public sector data and sets a minimum set of rules. Focus is on non-personal data that are made freely available in the public interest.

- The Commission Implementing Regulation lays down a list of specific high-value datasets and the arrangements for their publication and re-use became effective on 9 February 2023 (IR (EU) 2023/138). For details see:
 - o https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:0J.L_.2023.019.01.0043.01.ENG
- Some technical information for the implementation of the Directive in Austria:
 - o According to § 11 IWG 2022, open data and also high-value datasets must be linked to the Austrian data portal data.gv.at, unless this requires an unreasonable amount of effort (cf. adding data https://www.data.gv.at/daten/daten-hinzufuegen/), and for this purpose the data or datasets must be described in their core elements based on the Austrian standard metadata data.gv.at (cf. https://go.gv.at/ogdmetade). More detailed information on the provision of open data by the administration can be found in the Open Government Data (OGD) framework (cf. https://go.gv.at/ogdframede) and in the document "Wie erhöhen wir den Nutzen offener Daten in den nächsten 10 Jahren":https://go.gv.at/ogdframede) and in the document "Wie erhöhen wir den Nutzen-offener-Daten-in-den-naechsten-10-Jahren_20230619.pdf

A selection of relevant public sector data providers (see also Annex A):

- data.gv.at: https://www.data.gv.at/ is the central portal for public sector data
- Open Data Portal Austria: https://www.opendataportal.at. The Open Data Portal Austria serves as a central platform for open data in the areas of business, culture, NGO/NPO, research and civil society in Austria.
- GeoSphere-Austria Data Hub: https://data.hub.geosphere.at/
- Mobilitydata.gv.at platform: https://mobilitaetsdaten.gv.at/. Serves as national access point of Austria for mobility data and is an implementation of the national ITS-law. It's a centralised one-stop-shop



to simplify the connection of local data providers and international service providers substantially by granting access to information on existing data and use conditions (metadata)

- INSPIRE Geoportal Österreich: https://geoportal.inspire.gv.at
 - o Inspire.gv.at: https://www.inspire.gv.at/. Portal for spatial data.
- AMDC Austrian Micro Data Center [NB: not open data]:

https://www.statistik.at/services/tools/services/center-wissenschaft/austrian-micro-data-center-amdc. The Austrian Microdata Center of Statistik Austria offers data protectioncompliant access to microdata. The data remain at Statistik Austria; and only a virtual desktop infrastructure is provided for research projects. Administrative and register data from Statistik Austria and from other sources can be researched via the AMDC, provided that the datasets are released for use in the AMDC by the respective department.

Digital Austria Act

The Digital Austria Act passed on June 1, 2023. More information see: https://www.digitalaustria.gv.at/downloads.html and https://www.digitalaustria.gv.at/downloads.html and https://www.datenstrategie.at/de/consultation/51027

Open Science policies by funding organizations

The largest national funding agency for basic research, the Austrian Science Fund (FWF), is committed to supporting open and FAIR science through its open access policy for publications and research data (https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: https://www.fwf.ac.at/en/research-funding/open-access-policy/). 82% of all publications resulting from FWF projects are openly accessible. See also: <a href="https://www.fwf.ac.at/en/researc

The WWTF, the Vienna Science and Technology Fund, released an Open Science Policy in March 2022: https://wwtf.at/funding/our-principles/downloads/open-access-and-open-science-policy

Research data management policies in Austrian universities

11 universities in Austria have policies for research data management in place, encouraging in these policies open science practices and the adoption of the FAIR principles:

- Johannes Kepler University Linz
- Medical University Graz
- Medical University Innsbruck
- Medical University Vienna
- Graz University of Technology
- TU Wien
- University of Graz
- University of Innsbruck
- University of Music and Performing Arts Vienna
- University of Vienna
- WU (Vienna University of Economies and Business)

The Natural History Museum Vienna (NHMW) developed an <u>Open Science Strategy</u>. The Institute of Science and Technology Austria (ISTA) released a <u>Research Data Policy</u>.

Active projects with BMBWF co-funding

In June 2022, the BMBWF released the call "(Digitale) Forschungsinfrastrukturen". 28 projects are funded under this initiative, with a total investment of 40 million Euros. The following submissions on data-related topics were approved:

Austrian Research Information and Service Network (ARI&Snet):
 https://forschungsdaten.at/arisnet/. The project will establish an Austrian network infrastructure for research data management, shared services and accessible research information embedded in the European Open Science Cloud (EOSC). The project consortium, formed by 14 universities, FWF, WWTF, FFG and the Natural History Museum Vienna, aims to establish an association that



coordinates the concerns of the entire national research landscape based on a sustainable set of participation rules, rights and obligations of the participants. Project duration: 01.09.2023-30.06.2026.

- Cloud4GEO: In this project, a federated cloud infrastructure integrated into the EOSC will be developed for the interdisciplinary use of geoscientific data in research and education. The project will link existing storage and data processing capacities at the Earth Observation Data Center (EODC GmbH), GeoSphere Austria, the Vienna Scientific Cluster, and UIBK with computer systems of the participating universities, and extend them to achieve the collaborative use of satellite data, ground observations, and computer simulations. Access to and use of the data will be significantly simplified by a single sign-on procedure and new open source software solutions. This will enable scientists and students to work with large amounts of data in an interdisciplinary way. This is the basis for excellent research and education in such important cross-cutting topics as climate change and the energy transition.
- Shared RDM Services and Infrastructure: https://forschungsdaten.at/sharedrdm/. The goal of the project is to create a framework to offer selected tools and infrastructures in the field of Research Data Management (RDM) as shared services for Austrian universities and research institutions. This bundling of different expertise creates a sensible use of resources and promotes interoperability, standardization, and the connection to international initiatives. The project is carried out in the spirit of the EOSC initiative and thus contributes to an even more reliable and simpler reuse of research output. Project duration: 1.7.2023-30.6.2026. Project consortium: 12 Austrian universities.

In 2019, the national call "Digital and social transformation" was launched by the BMBWF with selected digitization projects at public universities for the period 2020 to 2024, including activities connected to FAIR and EOSC. (NB: This is an excerpt out of 34 projects in total - selection due to open science relevance):

- Austrian Data Lab and Services (ADSL): https://forschungsdaten.at/en/austrian-datalab-and-services/. The ADLS project was set up to promote and facilitate collaborative work between universities, especially in the fields of data science and high performance computing (HPC). It aims to provide easy access to a nationwide network of applications in a federal opt-in model. The focus was placed on increasing user-friendliness and saving time for researchers, teachers and students in the course of using computing resources.
- Austrian Neuro Cloud: https://uni-salzburg.elsevierpure.com/de/projects/austrian-neuro-cloud.
 Austria has an internationally competitive large-scale equipment infrastructure in the field of cognitive neuroscience, the potential of which is to be fully exploited through Austria-wide networking. The Austrian NeuroCloud will create a cross-location, open environment for the storage, management, and evaluation of neuro-cognitive data. The Austrian NeuroCloud thus creates a use case in the area of an extremely data-intensive research field that fulfills the vision of the European Open Science Cloud.
- Austrian Transition to Open Access II (AT2OA2): https://at2oa.at/en/home.html. The measures from the AT2OA project will be continued with the aim of concluding further Open Access (OA) agreements with publishers and setting up a data hub to process publication data from various sources. This can be used for Austria-wide OA monitoring, to support negotiations with scientific publishers, and to support the reporting system of the universities by making the data reusable for statistical verification systems, annual reports and the like. The use of alternative metrics will help answer the question of whether OA increases the visibility of scientific publications.
- codeAbility: https://codeability.uibk.ac.at/index-en.html. CodeAbility Austria creates teaching and learning environments in order to enable students of all subjects to receive high-quality and individual programming training.
- Digitale Landwirtschaft Interuniversitäres PhD-Kolleg und digitale Versuchsfarmen.
- Digital University Hub (DIH): https://www.digitaluniversityhub.eu/en/
- Digitize! Computational Social Sciences in the digital and social Transformation: https://digitize-transformation.at/en/. Digitize! is a cooperative digitization project in which various social sciences collaborate with data scientists, legal scholars and experts in research ethics.
- DiTAH Digitale Transformation der Österreichischen Geisteswissenschaften: https://www.ditah.at/. The aim of this project is to establish and prepare the methods and approaches developed in the Digital Humanities in such a way that they can be transferred into the everyday use of research and education in the humanities.



- Image+: https://www.angewandtekunstgeschichte.net/forschung/image-platform-for-open-art-education. Image+ Platform for Open Art Education is an Austrian image and image research platform to improve the quality of teaching.
- LEFO Lehr- und Forschungsinfrastruktur für Digitale Künste an Hochschulen (Infrastructures for Digital Arts Teaching and Research in Higher Education): https://www.donau-uni.ac.at/de/forschung/projekt/U7_PROJEKT_4294970090. This project focuses on new interactive interfaces and displays, which enable multimodal access to databases and multisensorial analysis of the archived works. Using the concept of "living archive", students, researchers and teaching staff will be able to actively work on the database.
- Open Education Austria Advanced: https://www.openeducation.at/. In this project, Austrian universities will jointly develop a national infrastructure for Open Educational Resources (OER) (project duration 01.03.2020-28.02.2024). It is an attempt to link services of e-learning centers, central IT services and libraries of the partner universities in order to support teachers in the creation of OER materials for self-study and teaching. The project aims at a gradual increase in the quality of teaching and learning, as well as the visibility of good-practice materials within the respective discipline.
- RIS Synergy: https://forschungsdaten.at/en/ris/. In order to digitise administrative processes, the IT systems of funding organisations and research institutions need to be connected, which would make it possible to improve data quality and conserve resources on all sides. New developments in the digital systems of the FWF (elane, PROFI, final project reports) offer an excellent opportunity.
- TransIT: https://www.tunnellinghub.at/#project. In the TransIT project (Platform for Digital Transformation in Civil Engineering and Tunneling), research groups are working in a multidisciplinary manner with complementary expertise on the implementation of digitization topics in civil engineering and tunneling. For this purpose, a virtual research platform, the Digital Tunneling Hub, is being created at the University of Leoben.

Completed projects with BMBWF co-funding (including former HRSM projects)

- Austrian Transition to Open Access: https://at2oa.at/en/home.html
- CCCA Data Centre, CCCA: https://ccca.ac.at. https://ccca.ac.at.
- e-Infrastructures Austria: https://e-infrastructures.univie.ac.at/
- e-Infrastructures Austria Plus: https://www.e-infrastructures.at/en
- FAIR Data Austria: https://forschungsdaten.at/en/fair-data-austria/
- GEOCLIM: https://wegcenter.uni-graz.at/en/research/arsclisys-research-group/projects/geoclim/.
- IDE@S: Innovative Data Environments: https://www.tugraz.at/projekte/ideas/home/
- Integriertes Datenmanagement: https://biotechmedgraz.at/en/programs/shared-infrastructure-call-2016/

Active EU projects fostering Open Science, FAIR and the EOSC (involving Partners from the Austrian RPOs)

- DISSCo: https://www.dissco.eu/. The Distributed System of Scientific Collections is a new world-class Research Infrastructure (RI) for Natural Science Collections. The DiSSCo RI aims to create a new business model for one European collection that digitally unifies all European natural science assets under common access, curation, policies and practices.
- EOSC Focus: https://eosc.eu/eosc-focus-project. The project provides support for the co-programmed EOSC Partnership in delivering its mission of establishing Open Science as the "new normal" and achieving the key objectives, which are outlined in the Memorandum of Understanding between the European Union and the EOSC Association (EOSC-A).
- Skills4EOSC: https://www.skills4eosc.eu/. This project's goal is to unify the current training landscape into a common and trusted pan-European ecosystem, in order to accelerate the upskilling of European researchers and data professionals in the field of FAIR and Open Data, intensive-data science and Scientific Data Management.
- EuroCC: https://www.eurocc-access.eu/. Goal: to develop in European countries National Competence Centers (NCC) in High Performance Computing (HPC), Big Data and Artificial Intelligence. This NCC will be the contact point for academia, industry and public organisations for collaborations in HPC, Big Data and Al projects, and the NCC will document, map and coordinate activities in these areas. Within the project, the tasks are (i) training and skills development, (ii)



- technology transfer/business development, (iii) academia-industry collaborations, (iv) mapping of HPC/Big Data/AI competences and (v) facilitation of access to expertise and resources.
- FAIRiCUBE: https://fairicube.nilu.no/. The project will pave the way for a crosscutting platform and framework for data ingestion, provision, analysis, processing, and dissemination, to unleash the potential of environmental, biodiversity and climate data through dedicated European data spaces. Focus will be on the development of tools that enable users who are not intimately familiar with the worlds of Earth Observation and machine learning to scope the requirements and costs of their desired analyses.
- TIER2 (enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility) will increase reproducibility of scientific research results that will bring trust, integrity, and efficiency to the European Research Area (ERA) and the global Research and Innovation (R&I) system. The project will boost knowledge on reproducibility, create tools, engage communities, implement interventions and policy across different contexts to increase re-use and overall quality of research results. TIER2 aims to build an evidence-based on the extent and efficacy of existing reproducibility practices and co-create new tools to enhance reproducibility across diverse contexts. https://tier2-project.eu/
- OSTrails: https://ostrails.eu (text from https://ostrails.eu/consortium-partners): Open Science Trails (OSTrails) aims to improve the way we plan, track, and assess scientific knowledge. It wants to go beyond current methods, working with different countries and themes to make existing systems better and connect key parts for research and innovation (R&I). The goal is to create a practical, open, and FAIR (Findable, Accessible, Interoperable, and Reusable) system for European scientific research. OSTrails involves major players in Data Management Plans, FAIR Assessment Tools, and Scientific Knowledge Graphs to set standards and make data plans more efficient across Europe.

Completed EU projects (including Partners from the Austrian RPOs)

- EOSC Future: https://eoscfuture.eu/
- EOSC-Pillar: https://www.eosc-pillar.eu/
- EOSC Secretariat: https://eoscsecretariat.eu/
- ON MERRIT: https://on-merrit.eu
- RDA Europe Adoption Grant: CCCA Subset & Dynamic Data Citation A Design Concept for OpenEO interface for climate projection data. Cooperation CCCA & TU Wien, 2019-2020
- SSHOC: https://sshopencloud.eu/

Networks fostering Open Science, Citizen Science, FAIR, EOSC, and PSI activities

- ABOL Austrian Barcode of Life ein Netzwerk für Biodiversität: https://www.abol.ac.at/
- Citizen Science Network Austria: https://www.citizen-science.at/netzwerk Österreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Mttps://www.citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Mttps://www.citizen-science.at/netzwerk Osterreich forscht: Mttps://www.citizen-science.at/netzwerk Osterreich forscht: Citizen-science.at/netzwerk Osterreich forscht: Mttps://www.citizen-science.at/netzwerk Osterreich forscht: Mttps://www.citizen-science.at/netzwerk Osterreich forscht: <
- dha digital humanities Austria: https://digital-humanities.at/de
- DOI-Service Austria: https://www.tuwien.at/bibliothek/doi-service-austria-orcid-austria moved to the new website: https://orcid-austria.org/
- e-IRG e-Infrastructure Reflection Group: https://e-irg.eu/
- Elixir (Austria is Observer since 2023): https://elixir-europe.org/ and https://elixir-europe.
- European Citizen Science Association (ECSA): https://ecsa.citizen-science.net/
- EOSC Support Office Austria: https://eosc-austria.at/
- GEO (Group on Earth Observation) GEO Data Working Group: Review on Data Sharing and Data Management Principles and crosswalk towards FAIR and Trust Principles. https://www.earthobservations.org/data_wg.php
- GO FAIR Austria office/FAIR Office Austria: https://www.fair-office.at
- KEMÖ Kooperation E-Medien Österreich: Austrian Academic Library Consortium (KEMÖ)
- Kulturerbe digital: https://www.kulturerbe-digital.at
- Kulturpool https://kulturpool.at/



- OANA Open Science Network Austria: https://www.oana.at (2012-2021; comment: restructured under the umbrella of uniko and under the title of "Open Science Austria (OSA)")
- OpenAIRE The National Open Access Desk (NOAD) is led by the University of Vienna. The NOADs are
 committed to supporting the adoption and implementation of Open Science in their national
 research environments. They nurture collaborations with national stakeholders and experts and
 leverage those connections to populate, curate, and update the content of their country pages on a
 regular basis. https://www.openaire.eu/os-austria
- Open Science Austria OSA: https://www.osa-openscienceaustria.at
- Open Science Lebenswissenschaften im Dialog: https://www.openscience.or.at/de
- ORCID Austria: https://www.tuwien.at/kooperationen/orcid/en/home/
- OSCA (Open Scientific Collections Austria; Portal OSCA Open Scientific Collections Austria) : https://osca.science/portal/
- Plattform Registerforschung: https://www.registerforschung.at/
- RDA Austria: https://www.rd-alliance.org/groups/rda-austria

Quality-assured Open Science, RDM and Data Stewardship trainings

- <u>Certificate Course Data Steward</u> at the University of Vienna, duration 2 semesters (part-time); scope 15 ECTS credits; language: English; costs: yes
- <u>Introduction into Research Data Management</u> at the TU Wien: Lecture for bachelor and master students; duration: 1 semester, scope 3 ECTS credits; language: English; costs: no
- <u>Data Stewardship</u> (part of Data Science curriculum) at the TU Wien: Lecture for master students from the Faculty of Informatics; duration 1 semester; scope: 3 ECTS creditsL; language: English; costs: no
- University course (certificate) <u>Universitätskurs Data Steward</u> at the Karl Franzens University Graz; 1 semester: 16 ECTS; language: German; costs: yes
- University course <u>Data Librarian</u> at the University of Innsbruck, duration 2 months, certificate, language: German; costs: yes

	1.1. Is there a current policy regarding publications in place?			
	Yes	No	In planning	
X				

According to the Open Science Policy Austria, open scholarly publishing must become the standard approach as soon as possible. To drive this momentum, research publications resulting from calls for projects that are publicly funded must be disseminated via open access platforms, be it in journals, books or via an open public repository. Austrian universities are encouraged to ensure that publications by researchers working there are also published under open licenses. To maintain these practices over time, the evaluation system for researchers and research institutions needs to be updated to reflect the principles and practices of open science. Changes in the way researchers are evaluated aim to give more weight to quality over quantity, as outlined in the proposals of the San Francisco Declaration on Research Assessment (DORA) and the principles of the Leiden Manifesto. The scientific community must regain control over the publishing process in general, in accordance with the principles that govern open science and bibliodiversity are required. It must focus its efforts on those stakeholders who are working to develop a less concentrated publishing environment that is consistent with the principles of open and ethical access. [Excerpt translated from the Open Science Policy Austria (page 10)]

Open access policies in Austrian research institutions

- At this point, there are several institutional OA policies in place (see https://www.oana.at/ueber-open-science/open-access-ressourcen/#c236283).
- Several Austrian institutions support alternative publication formats and platforms such as Open library of humanities, SciPost, DOAJ, OAPEN, Open Knowledge Maps: https://oapen.org/funders/7589935-fwf-austrian-science-fund



 Implementation of institutional publication servers: An overview (from 2018) is available in the following publication: Bauer, B., & Ferus, A. (2018). Österreichische Repositorien in OpenDOAR und re3data.org: Entwicklung und Status von Infrastrukturen für Green Open Access und Forschungsdaten. Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare, 71(1), 70–86. https://doi.org/10.31263/voebm.v71i1.2037

Strategy towards Plan S

- Since 2021, the Open Access Policy of the Austrian Science Fund (FWF), which is one of thefirstmembers of coAlition S, is in line with Plan S. The BMBWF supports Plan S (see e.g. Anfragebeantwortung durch den Bundesminister für Bildung, Wissenschaft und Forschung Dr. Heinz Faßmann zu der schriftlichen Anfrage (933/J) der Abgeordneten Dr. Helmut Brandstätter, Kolleginnen und Kollegen an den Bundesminister für Bildung, Wissenschaft und Forschung betreffend Plan S.
- Furthermore, a working group in the framework of the Forum of Austrian University Libraries (ubifo) is currently developing guidelines for an institutional implementation of Plan S at the Austrian universities

Other successful initiatives and projects promoting open access to publications in Austria

- The national funding agency FWF was one of the first funding agencies worldwide to establish an
 open access policy to publications in 2004: https://www.fwf.ac.at/en/research-funding/open-access-policy/open-access-to-peer-reviewed-publications/open-access-publication-models/. Today, almost all publications resulting from FWF grants see Austrian Science Fund (FWF) Open Access
 Compliance Monitoring) are open access.
- The Austrian Academic library consortium (KEMÖ) together with the FWF was the first consortium worldwide to negotiate a transformative open access agreement in 2014 and since then several open access agreements have been concluded so that Austrian researchers can publish their research results open access and free of costs. https://www.konsortien.at/
- In March 2022, the <u>Action Plan for Diamond Open Access</u> was published. The action plan proposes to develop and expand a sustainable, community-driven Diamond OA scholarly communication ecosystem. It is endorsed by the Austrian Science Fund (FWF).
- In 2016, a working group of the Open Science Network Austria (OANA) published the "Recommendations for the Transition to Open Access in Austria" which helped to further Open Access to publications in Austria.
- Ministry-funded project <u>Austrian Transition to Open Access II</u> (AT20A2): The measures from AT20A will be continued with the aim of concluding further Open Access agreements with publishers and setting up a data hub to process publication data from various sources. This can be used for Austria-wide OA monitoring and to support negotiations with scientific publishers and support the reporting system of the universities by making the data reusable for statistical verification systems, annual reports and the like.
 - Since January 2024, the AT20A2 project hosts wisskomm, a mailing list for all those involved in the scientific communication process, intended to provide a space for asking questions, addressing current challenges, exchanging views on practices, discussing suspected cases of predatory practices and sharing information and current literature.
 More information and registration: https://in-transition.at/de/mailingliste

1.1.1. If yes, does it include open access to publications?						
Yes No In planning						
X	X					
See above, 1.1. Is there a	current policy regarding	publications in place?				

1.2.	1.2. Is there a current policy regarding data / services in place?		
Yes No		No	In planning
X			



1.2.1. If yes, does it include open access to data? Yes X

According to the <u>Open Science Policy Austria</u>, the aim is to ensure that data generated by publicly funded research in Austria have to comply with the FAIR principles (findable, accessible, interoperable and reusable), that they have to be preserved and, whenever possible, made openly accessible to the public.

The goal is also to implement a mandatory open-access dissemination mandate for all data that has already been made available as part of publicly funded projects. Certain exceptions to this obligation will be allowed in accordance with the law, e.g., if the data in question are professional secrets, statistical secrets, labor and trade secrets, personal data, or content subject to copyright, as well as if the data are considered sensitive due to national security, defense, or public safety and health.

Considering the European Data Strategy, several European legal provisions regulate the reuse of research data, in particular the European Commission Recommendation on Access to and Preservation of Scientific Information (revised 2018), the revised Directive on Open Data and the Reuse of Public Sector Information (Open Data and PSI RL 1024/2019), and the EU Copyright Directive, which applies to publicly funded research data and to which Austria subscribes. The aim is that research data can be re-used for commercial and non-commercial purposes, as long as it has been publicly funded and if it has been made publicly available by researchers, research institutions or research funding bodies via an institutional or thematic archive.

Furthermore, the European Data Strategy published in 2020 is intended to drive forward the creation of a single market for data. The aim is to increase the exchange and use of data within the EU and across sectors for the benefit of researchers, companies, and public administrations. This approach also forms the basis of the new European Research Area (ERA) to build a common science and technology space for the EU. Open Science and Open Data are essential tools for improving collaboration between researchers and innovators to enhance Austria's attractiveness as a location for the world's best talents. [Excerpt translated from the Open Science Policy Austria (page 8)]

Open Data as funding requirement

The Austrian Science Fund (FWF) expects open access to research data collected and/or analyzed using FWF funds for projects approved from 1 January 2019 onward: https://www.fwf.ac.at/en/research-funding/open-access-to-research-data/. Open access is mandatory for research data on which the research publications of the project are based. Further, since 2019, the FWF has a mandatory policy on research data management in place: https://www.fwf.ac.at/en/research-funding/open-access-policy/research-data-management/

The WWTF states in its policy that it "does not require that all research data be made available. However, WWTF strongly encourages grantees to provide shareable research data according to each calls' specifications and requirement". More information see: https://wwtf.at/upload/wwtf_open-science-policy_09032022.pdf

1.3. Is there a current policy regarding research evaluation in place?			
Yes	No	In planning	
X			

According to the Open Science Policy Austria, new ways of evaluating research will be explored, especially to accommodate open science practices. Publish-or-perish environments will be broken up and avoided. Open peer review practices are to be implemented in order to make the evaluation of scientific output more transparent. Despite years of intense criticism of so-called journal-based metrics, the impact factor of prominent journals still plays a significant role in the scientific community, especially when it comes to career planning. Increased transparency of evaluation processes of researchers and their applications should be ensured. Austria respects the goals of the San Francisco Declaration on Research Assessment (DORA), an international initiative that aims to establish metrics for evaluating scientific work. On the European level, the Leiden Manifesto should be mentioned in this context, which formulates similar intentions in the European context. [Excerpt translated from the Open Science Policy Austria (page 4)]



DORA - San Francisco Declaration on Research Assessment

In 2012, a set of recommendations that addresses the need to change the way of how output of scientific research is evaluated by funding agencies, academic institutions, and other parties, was published and is referred to as the San Francisco Declaration on Research Assessment (DORA Declaration). The Austrian Science Fund (FWF) and several Austrian research institutions signed the San Francisco Declaration on Research Assessment (DORA): See: Austrian signatories.

Hongkong Principles for assessing researchers

The Hongkong Principles were formulated and endorsed at the 6th World Conference on Research Integrity in June 2019. The principles aim to help research institutions to minimise incentives that invite to engage in questionable research practices or worse. The Austrian Science Fund (FWF), WIFO and the Austrian Agency for Research Integrity endorsed the principles.

COARA - Coalition for Advancing Research Assessment

In July 2022, the agreement on reforming research assessment was published after a Stakeholder Assembly bringing together the 350+ organisations from 40+ countries having expressed interest in being involved in advancing research assessment. The Austrian Science Fund (FWF) and several Austrian research institutions commit to COARA and to working on the advancement of the current scholarly assessment system. See: <u>Austrian signatories</u>

FTEVAL

Note: The Austrian Platform for Research and Technology Policy Evaluation (FTEVAL) is concerned with issues of research evaluation in Austria:

- https://www.fteval.at/content/home/plattform/about/index.jsp?langId=2
- https://repository.fteval.at
- Code of conduct: https://repository.fteval.at/387/ and principles: https://www.fteval.at/content/home/standards/fteval_prinzipien/index.jsp?langId=2

FTEVAL is an association whose members are institutions from the fields of research, technology and innovation (RTI). It includes government ministries, agencies, research funding organisations, research institutes and consulting firms. Membership is open to all those involved in commissioning or carrying out evaluations in the field of RTI. The aim of the association is to further develop the culture and practice of evaluation in Austria in the field of RTI. The fteval platform regards evaluation as central to ongoing improvement and strategic focus in RTI policy. A "good" culture of evaluation is both a prerequisite for and a result of "good" – i.e., efficient, transparent, and fair – policies. As declared in the mission statement: "The mission of the Austrian Platform for Research and Technology Policy Evaluation is to promote the quality, transparency and adequate coverage of evaluations, to improve strategic planning of research, technology and innovation (RTI) policy in Austria. The existing evaluation culture is evolving continuously, in consultation with decision makers in Austrian RTI policy."

Related Publication

• [available in German only] Janger, J. and T. König (2020). Forschungspolitik in Österreich. Zentrale Ansatzpunkte für eine Leistungssteigerung in der Grundlagenforschung

1.4. Is there a current policy regarding open learning in place?			
Yes	No	In planning	
X			

According to the <u>Open Science Policy Austria</u>, the aspect of how knowledge is taught is also inseparably linked to an open society and an open science. The dissemination of knowledge is closely linked to the concept of open data.

Measurements:

Austria would like to make its contribution to making the learning materials created in Austria publicly
accessible in open formats in whatever form, for example on the basis of established open data
standards. In a first step, the relevant repositories will be linked and thus made publicly accessible.



In this way, Austria would like to make learning content available to the scientific community on the one hand, and on the other hand make learning more flexible and adapt it to individual needs.

• Universities and other extramural research institutions are therefore called upon both to create infrastructures to be able to deposit OER and to share them with others. Staff working at universities and universities of applied sciences should be encouraged to post and share their content in open formats where possible and appropriate.

The Forum New Media Austria (FNMA) has already prepared "Recommendations for the Integration of Open Educational Resources at Universities in Austria". The currently running project "Open Education Austria Advanced", in which several universities are involved, deals with the implementation of a corresponding infrastructure. Website: https://fnma.at/

[Excerpt translated from the Open Science Policy Austria (page 11)]

Active projects funded by the BMBWF

In 2019, a national call "Digital and social transformation" was launched by the BMBWF with selected digitization projects at public universities for the period 2020 to 2024, including activities connected to digitalization in teaching and learning. (NB: This is an excerpt - selection according to learning reference):

- iMooX: https://imoox.at/mooc/?lang=en. iMooX is currently operated by the TU Graz and is to be expanded both technically and organisationally. At present, cooperation is taking place by offering individual MOOCs. In the future, all participating universities are to offer any number of MOOCs to the Austrian educational landscape. Through a central Austria-wide platform, all universities can universities can participate equally and the costs for maintenance and and operation can be minimised. "iMooX as a Service" is the declared goal.
- Open Education Austria Advanced: https://www.openeducation.at/. Goals: Solutions for Open Education Resources (OER) in the Austrian higher education sector: OERHub as a central metasearch engine for OER from the higher education area; creation of local infrastructures at the partner universities; freely accessible qualification offers for OER certification for universities & teachers; knowledge transfer & dissemination between participating and interested universities.

Completed projects funded by the BMBWF

- Learning Analytics: https://learning-analytics.at/home/
- PASSt Predictive Analytics Services für Studienerfolgsmanagement

Yes	No	In planning			
X					
2.1. Is funding or criteria for funding mentioned (with regards to EOSC)?					
Yes	No	In planning			
X					
In the June 2022 call "(Digitale) Forschungsinfrastrukturen" released by the BMBWF there were clear references to EOSC. EOSC relevance also played a role in the selection criteria.					
references to EOSC.		ole in the selection criteria.			
references to EOSC.	EOSC relevance also played a re	ole in the selection criteria.			

Austrian Federal Ministry of Education (BMBWF)

• Contact at administrative level (Open Science Policy, EOSC at ministry level): Stefan Hanslik, Austrian Federal Ministry of Education, Science and Research, Head of Unit, Department V/3a; contact: stefan.hanslik@bmbwf.gv.at

Open Science Austria (OSA)



- Contact person: Lola Karner, Officer for Open Science Austria (OSA), at the Austrian University Conference (Uniko); lola.karner@uniko.ac.at
- Website: https://www.osa-openscienceaustria.at

2.3. Is there a national contact point for EOSC?

·		
Yes	No	In planning
X		

National structure/Mandated Organisation/Key coordination structure of EOSC in Austria

The Austrian EOSC initiative started in 2021 after the foundation and first General Assembly of the EOSC Association.

The ACONET Association[1] is the signatory of the Memorandum of Understanding with the EOSC Association and thus the Austrian EOSC Mandated Organisation. To carry out the work this entails towards the implementation of EOSC, however, ACONET Association has created a dedicated body, the EOSC Support Office Austria (EOSC SOA). ACONET Association's role can therefore be understood as legal representative with no operational plans or executive power over the EOSC-related tasks in Austria. This is done by the EOSC SOA, whose members include Austrian research performing organisations. Founded in 2021, EOSC SOA thus acts as the coordinator of EOSC activities in the country and as closest link to the EOSC Association. Its operational goals translate those of the EOSC Association into the national context. Contact: Ilire Hasani-Mavriqi, ilire.hasani-mavriqi@tugraz.at

[1] Not to be confused with the National Research and Education Network (ACOnet), originally funded by the Austrian Ministry of Science within the framework of the ACONET Association and was established in 1990 under the responsibility of TU Wien. Since 1992 ACOnet has been operated by the University of Vienna.

EOSC Support Office Austria (SOA)

<u>EOSC SOA</u> is managed by the Management Board, chaired each year by a member of the organization on a rotational basis. Since November 2023, Tereza Kalova (tereza.kalova@univie.ac.at) from the University of Vienna has been the Board's chair.

The "EOSC Austria Annual Activity Report 2023/2024" describes the achievements from June 2023 through June 2024. For more information see: https://zenodo.org/records/13839287

- Contact EOSC SOA and/or sign up for the SOA Newsletter: contact@eosc-austria.at
- Website: https://eosc-austria.at/

EOSC Association Steering Board representative: Stefan Hanslik, Head of Unit of Technical Science at the Federal Ministry of Education, Science and Research (BMBWF)

Email: stefan.hanslik@bmbwf.gv.at



3. Current e-infrastructure that has the potential to be federated / accessible to the EOSC

General remarks

Austria has several organisations that offer generic and discipline-specific e-infrastructure services.

A large number of Austrian research institutions offer institutional publication servers for open access to research publications. In addition, there is a growing number of public institutions providing institutional data repositories. Access to content is generally open and free of charge at point of use. Use of the systems is subject to the applicable policies and terms of use of each system. There is currently no central access point (central entry point) to Austrian research results. Many of the systems, however, synchronise with data hubs such as DataCite, OpenAIRE, and BASE. The infrastructure landscape is based on distributed systems. For an overview, see Annex A (data repositories) and Annex B (publication repositories).

3.1. Data and computing infrastructures

Aggregating portal of services

BMBWF research infrastructure database: The public database of the BMBWF provides an overview of national research infrastructures. It serves as an information platform and may be used to find and offer research infrastructures for new cooperation projects:
 https://forschungsinfrastruktur.bmbwf.gv.at/en

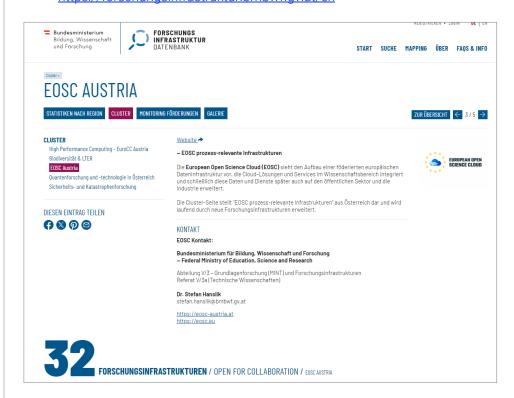


Image: Screenshot from Forschungsinfrastruktur website, Clustering for "EOSC Austria". Status as of 30.09.2024: 31 Services, https://forschungsinfrastruktur.bmbwf.gv.at/en/cluster/eosc-austria_4



QR-Code for BMBWF database: EOSC RI Cluster.



Infrastructures providing domain specific (data) services

- AUSSDA (The Austrian Social Science Data Archive) https://aussda.at/en/ is a data infrastructure for the social science community in Austria and offers a variety of research support services, primarily data archiving and help with data re-use. AUSSDA is the national Service Provider within CESSDA ERIC.
 - The new Teaching and Learning Dataverse provides a collection of data that is particularly useful for teaching. Selected by members of AUSSDA's User Advisory Board and educators teaching social science research methods, AUSSDA vouches for the usability of these data in courses. https://data.aussda.at/dataverse/teaching/
- BBMRI ERIC https://www.bbmri-eric.eu/. BBMRI-ERIC is a distributed research infrastructure of biobanks and biomolecular resources. For its Member States, it provides expertise and services on a non-economic basis and facilitates access to collections of partner biobanks and biomolecular resources. BBMRI-ERIC is established for an unlimited period of time. The Central Executive Management Office is located in Graz, Austria.
- CCCA-DC (<u>www.data.ccca.ac.at</u>): Storage connected to the EODC cloud and VSC. The portfolio of the CCCA-DC, mainly the research data content will be migrated to the GeoSphere Austria Data Hub (<u>https://data.hub.geosphere.at</u>), planned for Q1/Q2 2024.
- CLARIN http://digital-humanities.at/en. The Austrian Academy of Science is participating in CLARIN (ACDH-OEAW): Digital Humanities Austria (dha) is an open network of institutional partners in Austria joining efforts to realize a new understanding of humanities research in a digital environment. These efforts are an integral part of the Austrian commitment to the research infrastructure consortia CLARIN-ERIC and DARIAH-EU, pan-European communities of practice organized as networks of centres sharing resources, tools and knowledge.
- CyVerse Austria https://www.tugraz.at/sites/cat/home/. Provides life scientists with powerful computational infrastructure to handle huge datasets and complex analyses, thus enabling data-driven discovery. The extensible platforms provide data storage, bioinformatics tools, image analyses, APIs, and more. CyVerse Austria uses open source code from CyVerse US (University of Arizona).
- EODC. <u>www.eodc.eu</u> Operates a virtualised, distributed earth observation (EO) data centre, providing collaborative IT infrastructure for archiving, processing, and distributing EO data. Together with its multi-national partners from science, the public and private sectors EODC fosters the use of satellite-derived geoinformation. Its focus ranges from scientific research to operational services in the areas of water resources and land monitoring, agricultural applications, and humanitarian aid and civil security. Infrastructures characteristics: Multi-Petabyte-scale storage (discs and tape) connected to the EODC cloud and to EODC.
- Ethnographic Data Archive. https://eda.univie.ac.at/. The Ethnographic Data Archive (EDA) offers support for research data management, digitization and long-term archiving of primarily ethnographic and qualitative data. Ethnographic research places high demands on methodological knowledge, but also on reciprocity, reflexivity and ethics. For these reasons, the archiving and subsequent use of ethnographic data entails major challenges of a pragmatic, ethical and legal nature. The research-supporting Ethnographic Data Archive (EDA) has the task of digitizing data from ethnographic research and making it available through long-term archiving in Phaidra. EDA is a service for members of the University of Vienna. This service is available for current and historical research, as well as for ongoing and completed projects, etc.



- GEOCLIM Long Term Archive: EODC & CCCA-DC implemented a tape-based long-term archive on two locations at TU Wien and VSC
- GeoSphere Austria Data Hub https://data.hub.geosphere.at/. Provides high quality datasets for research and public & commercial use. [News:]
 GeoSphere Austria Data Hub uses the CCCA migration for the extension to the DataCite schema and aligned DOIs with available data.
- GeoSphere Austria TETHYS RDR is a research data repository, which
 specialises in collecting and storing geoscientific research data and making it
 available to the public. [NEWS:] TETHYS RDR got the approval by CORE
 TRUST SEAL in March 2024.
- GeoSphere Austria Data Hub (https://data.hub.geosphere.at/) provides high quality datasets for research and public & commercial use. [News:]
 GeoSphere Austria Data Hub uses the CCCA migration for the extension to the DataCite schema and aligned doi's with available data.
- GeoSphere Austria TETHYS RDR is a research data repository, which specialises in collecting and storing geoscientific research data and making it available to the public. [NEWS:] TETHYS RDR got the approval by CORE TRUST SEAL in March 2024.
- Kulturpool https://kulturpool.at/ was released. The portal allows to find digitalisates (2D, 3D, audio, ...l) from museums, archives, and libraries. The access to the original is via the webpage of the respective institution.
- OSCA (Open Scientific Collections Austria; Portal OSCA Open Scientific Collections Austria) https://osca.science/portal/: Released the first version of the portal for collection data from natural sciences and geological sciences
- Open Knowledge Maps A non-profit providing Al-driven visual discovery of research publications. Most recently, the Consortium of Swiss Academic Libraries (CSAL) joined as a member of Open Knowledge Maps. The partnership is further enhanced by the participation of the Swiss Library Service Platform (SLSP), the operator of Switzerland's national library platform, swisscovery, which will bring Open Knowledge Maps visualisations to over 500 libraries. This widespread support from the Swiss research community will strengthen Open Knowledge Maps and its open infrastructure as a part of the European Open Science Cloud (EOSC).

Network Infrastructures

- ACOnet the Austrian NREN (<u>www.ACO.net</u>)
 - o high performance network infrastructure (contract and infrastructure renewal finished June 2023)
- member of GÉANT
- ACOnet Identity Federation (eduID.at member of eduGAIN)
- Austrian Quantum Fiber Network (AQUnet)
 - FFG R&D infrastructure funding project coordinated by the ACONET Association
 - o intended to complement and enable the (new) ACOnet backbone infrastructure for CLONETS and EuroQCI-related research
- EGI At the beginning of 2022, ACONET Association joined the EGI Foundation
 - o The EGI is a European federation of e-Infrastructures, providing services, data, processing capabilities and knowledge from its partners to the scientific community. Its decentralised federated cloud architecture has been created as an 'Infrastructure as a Service' (laaS), was built around open standards and is driven by the requirements of a scientific community. Scopes are to facilitate the (joint) access to general/specialised ICT resources for interested users at pan-European scale, to offer related training and thus to promote collaborative science and to increase the effectiveness of existing resources. While the first steps of this upcoming collaboration between EGI and Austrian entities will have to be

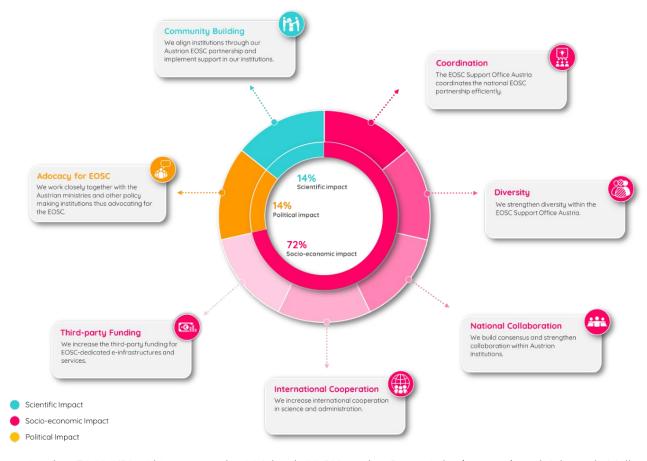


	discussed in 2022, several Austrian partners already participate together with EGI in the H2020 project EGI-ACE (coordinated by the EODC Earth Observation Data Centre, Vienna), developing an EOSC Compute platform and contributing to the implementation of the EOSC Data Commons. In this context, PaaS' will be provided to the EOSC, including data spaces with analytics tools and federated access services.
3.2. HPC infrastructures	 The Austrian e-infrastructures became part of the EuroHPC JU via assembly of an AT HPC Competence Centre and membership to the CINECA Consortium implementing LEONARDO MACH-2 – The massively parallel shared memory supercomputer "MACH-2" is operated in the frame of a project by the Johannes Kepler University (JKU) Linz on behalf of a consortium of several Austrian universities and research institutions. VSC – The Vienna Scientific Cluster is a collaboration of several Austrian universities that provides supercomputer resources and corresponding services to their users, it is operated by TU Wien.
3.3. Repositories and main components of the e-Infrastructure in Austria	 Data and computing infrastructures, data repositories, and publication servers, please refer to Annexes A and B. PID-Services DOI-Service Austria: https://www.tuwien.at/bibliothek/doi-service-austria-orcid-austria ORCID Austria: https://www.tuwien.at/kooperationen/orcid/en/home/



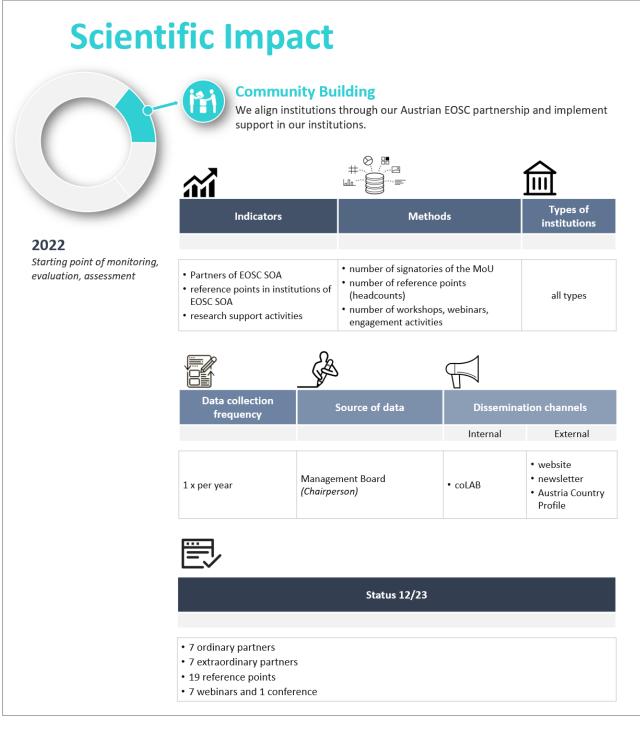
4. Key Performance Indicators (KPIs) of the Austrian EOSC initiative

The EOSC Support Office Austria Working Group "Key Performance Indicators (KPIs)" has identified specific objectives for the Support Office. The KPI graphics below are updated. They refer to the EOSC Support Office Austria and illustrate the objectives and achievements of the Austrian EOSC initiative as of 31 December 2023.



Graphic: EOSC-KPIs: Objectives at the SOA-level. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





Graphic: EOSC-KPIs: Scientific impact – Community Building. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





• 5 standardised processes

• 1 transparent voting process

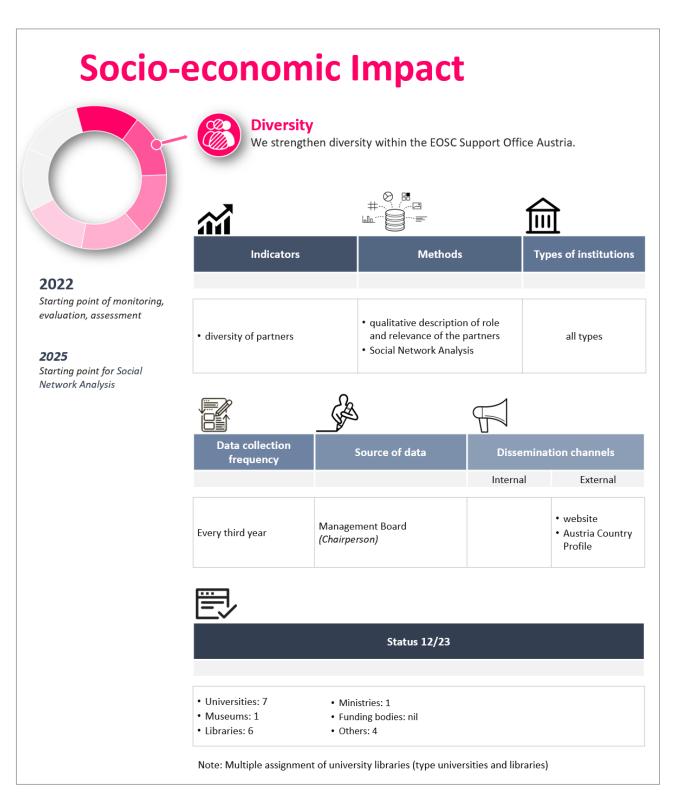
• 42 regular meetings (in total)

• 1,5 FTEs back office staff funded by the BMBWF for 3 years (01.07.2022-30.06.2025)

Status 12/23

Graphic: EOSC-KPIs: Socio-economic impact – Coordination. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





Graphic: EOSC-KPIs: Socio-economic impact – Diversity. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)



Diversity of EOSC SOA

Academy of Fine Arts Vienna: Austria's most traditional art university has been an important institution for artists and scholars for over 325 years; furthermore, the Academy's Paintings Gallery and Graphic Collection rank among Austria's most significant art collections; fields of special expertise: arts and cultural heritage, heritage science

ACOnet: Austrian NREN, connecting more than 200 research and educational institutions with GÉANT and the Internet, and operating the R&E identity federation edulD.at, which is part of eduGAIN.org; fields of special expertise: high-performance networking, AAI

CCCA: Multi-institutional network for Austrian climate research, the consequences of climate change for society, the economy and the environment, climate mitigation and adaptation strategies; fields of special expertise: FAIR and open climate data and information

FAIR Office Austria: One of the official national GO FAIR Offices; fields of special expertise: FAIR data management

Federal Ministry of Education, Science and Research (BMBWF): Representing the interests of Austria as a location for science, research and business on the international stage; fields of special expertise: knowledge transfer, research structures at national and international level

JKU Linz: University with strong regional roots and an international orientation in the fields of Social and Economic Sciences, Law, Science and Technology and Medicine; fields of special expertise: open access, data stewardship, the Austrian Social Science Data Archive (AUSSDA)

NHM Vienna: With a collection of more than 30 million objects, the Natural History Museum Vienna is one of the world's leading natural history museums and one of the largest non-university research centres in Austria; field of special expertise: biodiversity, scientific collections, citizen science

Open Knowledge Maps: Non-profit organisation dedicated to improving the visibility and discoverability of scientific knowledge for science and society; fields of special expertise: findability, data visualisation, machine learning

TU Graz: Offering 18 bachelors and 33 masters study programmes across all technology and natural science disciplines and 14 English-speaking doctoral schools; TU Graz takes a proactive approach to digital transformation in all parts of the university's operations; fields of special expertise: data stewardship, technical interoperability

TU Wien: Austria's largest research and educational institution in the field of technology and natural sciences; fields of special expertise: e-infrastructures, vocabulary services, persistent identifiers (PIDs), geodata and earth observation, FAIR metrics, data quality, management and visualisation, citizen science

Ubifo: Network of Austrian university library managers; fields of special expertise: open access, repositories, digital preservation

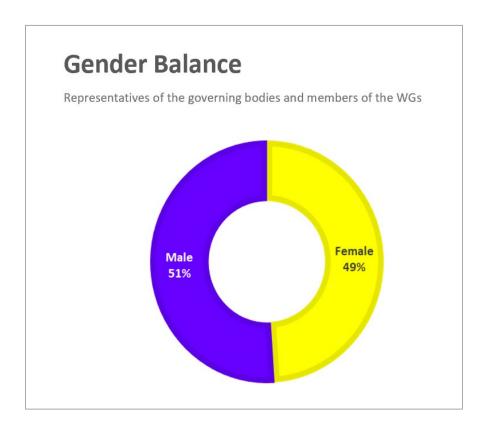
University of Vienna: One of the oldest and largest universities in Europe; with 184 regular degree programmes, it has the most diverse range of courses in Austria; fields of special expertise: data science, data stewardship, Phaidra, the Austrian Social Science Data Archive (ASSDA)

University of Graz: Austria's second oldest university and one of the largest in the country. With 30,000 students and 4,700 employees, it makes a decisive contribution to the vibrant life of the Styrian capital; fields of special expertise: data stewardship, open educational resources

Vetmeduni Vienna: Third-oldest institution of its kind worldwide; committed to a multidisciplinary approach in the area of "One Health", the university has a strong interest in appropriate infrastructures for Big Data beyond

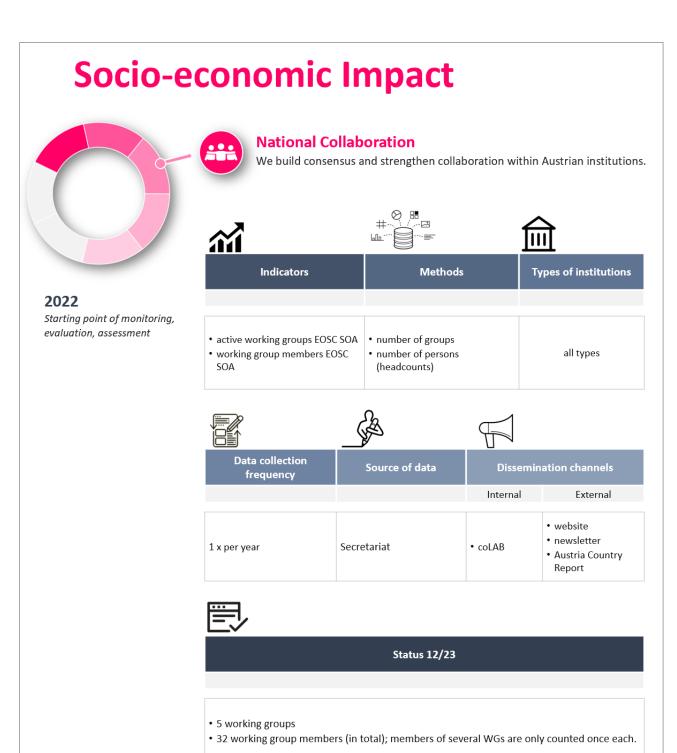


the national alliances in corresponding international initiatives; fields of special expertise: sustainability in teaching, research and campus management



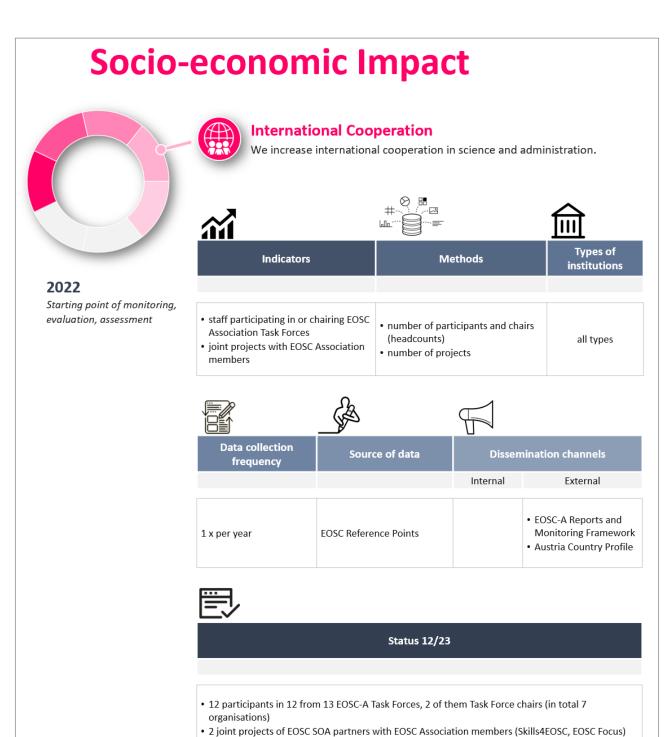
Graphic: EOSC-KPIs: Gender Balance. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





Graphic: EOSC-KPIs: Socio-economic impact – National Collaboration. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





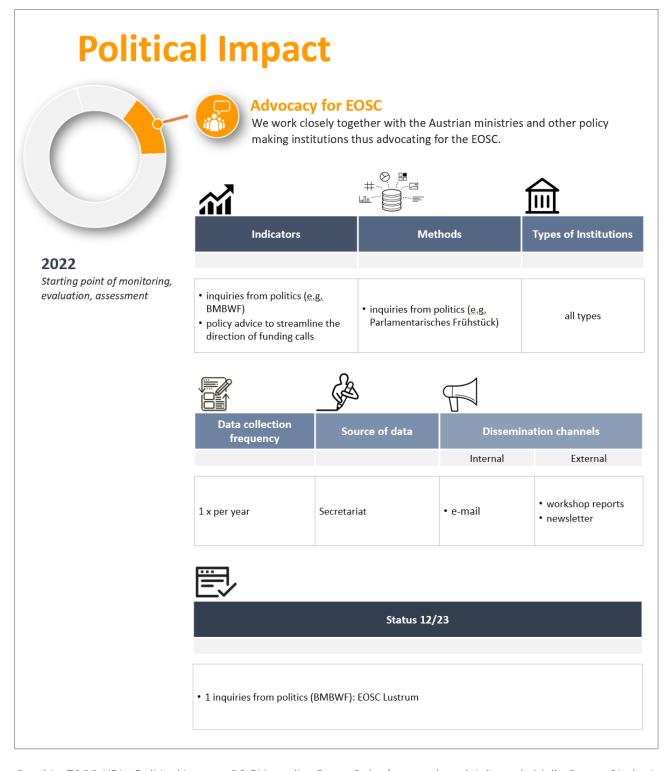
Graphic: EOSC-KPIs: Socio-economic impact – International Collaboration. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





Graphic: EOSC-KPIs: Socio-economic impact – Thirdy-party Funding. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)





Graphic: EOSC-KPIs: Political Impact. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)



Consequence for a service of service and service

Graphic: EOSC-KPIs: Overview at the SOA-level. CC-BY, credits: Beate Guba (concept), and Juliana de Mello Castro Giroletti (graphic)



Annex A

Data repositories/data centers/data portals

At the moment, 54 "Austrian" repositories are registered by OpenDOAR (https://v2.sherpa.ac.uk/view/repository_by_country/Austria.html) and 47 data repositories by re3data (https://www.re3data.org/search?query=&countries||=AUT|).

Below there is an excerpt of available data repositories and/or data centres in Austria (NB: not all listed on the re3data platform).

Name of repository	Type (repository/ data centre/data portal/service)	Link	Comment
Cross-disciplinary/Institutional			
Data Repository of the International Institute of Applied Systems Analysis (IIASA-DARE)	Repository	http://dare.iiasa.ac.at/	
Digital Repository KUG-PHAIDRA (University of Music and Performing Arts Graz – KUG)	Repository	https://phaidra.kug.ac.at/	
Institutional Repository of the University of Art and Design Linz	Repository	https://phaidra.ufg.at/	
Institutional Repository of the University of Applied Arts	Repository	https://phaidra.bibliothek.uni-ak.ac.at/	
IST Austria Research Explorer	Repository	https://research- explorer.app.ist.ac.at	
PHAIDRA @ FH St Pölten	Repository	https://phaidra.fhstp.ac.at/	
mdw Repository	Repository	https://repo.mdw.ac.at	
NHM Forschungsdaten- Repositorium	Repository	http://datarepository.nhm- wien.ac.at	
NHM Git Account	Repository	https://github.com/nhmvienna	Github
Phaidra - Repository of the University of Veterinary Medicine, Vienna	Repository	https://phaidra.vetmeduni.ac.at	
TU Graz Repository	Repository	https://repository.tugraz.at/	
TU Wien Research Data	Repository	https://researchdata.tuwien.at	
Universität Innsbruck - Data Repository	Repository	https://researchdata.uibk.ac.at	
University of Vienna PHAIDRA	Repository	https://phaidra.univie.ac.at	
Disc		ecific	
ARCHE - A Resource Centre for the HumanitiEs	Repository	https://arche.acdh.oeaw.ac.at	Core Trust Seal (CTS)



AUSSDA Dataverse	Repository	https://data.aussda.at/	Core Trust Seal (CTS) - obtained again - valid until 2026
CCCA - Climate Change Center Austria	Repository	https://data.ccca.ac.at	
EODC - Earth Observation Data Centre	Data centre	https://www.eodc.eu/	
Geisteswissenschaftliches Asset Management System (GAMS)	Repository	https://gams.uni-graz.at	Core Trust Seal (CTS) - obtained again - valid until 2027
Kulturpool	Data portal/Service	https://kulturpool.at/	Digital objects from museums, libraries and archives. The access to the original is via the webpage of the respective institution.
Tethys RDR - Geologische Bundesanstalt (GBA), Data Publisher for Geoscience Austria	Repository	https://www.tethys.at/	Core Trust Seal (CTS)
	Topic spe	cific	
Thanados - The Anthropological and Archaeological Database of Sepultures	Repository	https://thanados.net/	
	Public Sector In	formation	
Open Data Austria - data.gv.at	Repository	https://www.data.gv.at/	Central Austrian portal for public sector data. Data are provided to European portal data.europa.eu. The basis for data.gv.at is the cooperation agreement between the federal government, cities, provinces and municipalities - with the stipulation to plan, implement, operate and further develop a joint portal.



	Open Government Data Vienna	https://digitales.wien.gv.at/op en-data/	Data Portal Vienna
	Open Government Data Graz	https://data.graz.gv.at/graz/	Data Portal Graz
Open Data Portal Austria	Data portal	https://www.opendataportal.at	Central platform for open data in the areas of business, culture, NGO/NPO, research and civil society in Austria
GeoSphere Austria Data Hub	Repository	https://data.hub.geosphere.at/	Weather, climate, environment and geophysics data. Metadata exchanged with the portal Open Data Austria (data.gv.at)
Inspire Geoportal Österreich	Data portal	https://geoportal.inspire.gv.at/ metadatensuche/inspire	Geodata
Mobilitätsdaten Österreich	Data portal	https://mobilitydata.gv.at/	Mobility data
INSPIRE Österreich	Data portal	https://www.inspire.gv.at/	Austrian spatial data infrastructure
AMDC - Austrian Micro Data Center	Data centre	https://www.statistik.at/servic es/tools/services/amdc- mikrodaten-fuer-die- wissenschaft	Data only available via Remote Research Environment of Statistik Austria for a limited period of time
Basemap	Data portal	https://basemap.at/	Administrative base map (geodata) of Austria
Österreichischer Kataster	Data portal	https://kataster.bev.gv.at/	Austrian land register
Die Graphenintegrations-Plattform GIP	Service	https://www.gip.gv.at/	Public sector reference system for transport infrastructure data
Unidata	Data Portal	https://unidata.gv.at/	Datawarehouse Hochschulbereic h



Other				
Austrian State Archives	Data centre	http://www.oesta.gv.at/		
BRZ - Austrian Federal Computing Center	Data centre	https://en.brz.gv.at/		
Statistik Austria	Data centre	https://www.statistik.at/		
Vorarlberger Landesbibliothek - Volare	Repository	https://pid.volare.vorarlberg.at		



Annex B

Publication/document servers

At the moment, 54 "Austrian" repositories are registered by OpenDOAR (https://v2.sherpa.ac.uk/view/repository_by_country/Austria.html) and 47 data repositories by re3data (https://www.re3data.org/search?query=&countries[]=AUT).

NB: Not all existing repositories are registered in a directory.

Name of repository	Link	Comment			
Institutional publication/document servers					
]a[repository	https://repository.akbild.ac.at				
BOKU:epub	http://epub.boku.ac.at/				
DOOR	https://door.donau-uni.ac.at/				
Austrian Institute for Health Technology Assessment Repository for Publications	https://eprints.aihta.at/	Former known as LBI HTA			
Elektronisches Publikationsportal der Österreichischen Akademie der Wissenschaften	https://verlag.oeaw.ac.at/produkte/oe aw-publikationen/c-116				
ePLUS (Open Access Publikationsserver der Universität Salzburg)	http://eplus.uni-salzburg.at				
ePubWU Institutional Repository (ePubWU)	http://epub.wu.ac.at				
FHpub	https://fhpub.fh-vie.ac.at				
FWF-E-Book-Library	https://e-book.fwf.ac.at/				
IIASA PURE	http://pure.iiasa.ac.at/				
INIS Repository	http://inis.iaea.org/search				
IRIHS - Institutional Repository at IHS	https://irihs.ihs.ac.at				
IST Austria Research Explorer	https://research-explorer.app.ist.ac.at				
Institutional Repository of the Mozarteum University	http://repository.moz.ac.at				
JKU ePub	http://epub.jku.at/				
Kirchlicher DokumentenServer der AKThB und des VkwB (KiDokS)	https://kidoks.bsz-bw.de/home				
MedUni Wien ePub	https://repositorium.meduniwien.ac.a t				
Online Publikationsserver der Fachhochschule Vorarlberg	https://opus.fhv.at				
People @ FH Burgenland	https://people.fh-burgenland.at/				



https://publik.tuwien.ac.at/start.php?lang=2				
https://netlibrary.aau.at/				
https://pub.mdw.ac.at				
https://repositum.tuwien.at				
http://openlib.tugraz.at/				
http://diglib.uibk.ac.at/				
http://uscholar.univie.ac.at/				
http://unipub.uni-graz.at/				
https://phaidra.univie.ac.at/				
State and county library servers				
http://digi.landesbibliothek.at/				
Discipline specific publication/document servers				
http://architektur- informatik.scix.net/cgi- bin/works/Home				
http://cumincad.architexturez.net/				
http://sammelpunkt.philo.at:8080/				
http://www.fluorophores.tugraz.at/				
http://www.PiezoMat.org/				
https://risc.jku.at/publications/				
Other				
https://repository.fteval.at				
http://eiop.or.at/erpa/				
	https://netlibrary.aau.at/ https://pub.mdw.ac.at https://pub.mdw.ac.at https://openlib.tugraz.at/ http://openlib.tugraz.at/ http://uscholar.univie.ac.at/ http://unipub.uni-graz.at/ https://phaidra.univie.ac.at/ State and county library servers http://digi.landesbibliothek.at/ ne specific publication/document server http://architektur- informatik.scix.net/cgi- bin/works/Home http://cumincad.architexturez.net/ http://sammelpunkt.philo.at:8080/ http://www.fluorophores.tugraz.at/ http://www.PiezoMat.org/ https://risc.jku.at/publications/ Other https://repository.fteval.at			



Annex C

Publications related to Open Science, RDM, FAIR, and EOSC

- Austrian Mandated Organization / EOSC Support Office Austria. Interim Activity Report 2023/2024: https://doi.org/10.5281/zenodo.13839287
- Positionspapier zum Begriff "wissenschaftliche Forschungszwecke" (Datenverarbeitung zu Forschungszwecken und die Tragweite des Forschungsprivilegs im Datenschutz): https://www.datenschutzkonferenz-online.de/media/dskb/2024-09-11_DSK_Positionspapier%20_Wissenschaftliche_Forschungszwecke.pdf
- Redaktion von forschungsdaten.info. "Forschungsdatenmanagement in Österreich: Forschungsdaten veröffentlichen". forschungsdaten.info, 26. Juli 2024. https://forschungsdaten.info/fdm-im-deutschsprachigen-raum/oesterreich/forschungsdaten-veroeffentlichen/
- Betriebsmodelle für RDM-Tools und Services: Erfahrungen im Projekt Shared RDM Services & Infrastructure (2024) https://forschungsdaten.at/wp-content/uploads/2024/07/Poster_BusinessModels-2.pdf
- Škorjanc, Ž. (2023). Analyse der rechtlichen Rahmenbedingungen für Open Science in Österreich (Oktober 2023). Zenodo. https://doi.org/10.5281/zenodo.10410431
- Zeitschrift für Hochschulentwicklung, Sonderheft Forschung (November 2023): Digitalisierung in der Forschung - Projekte österreichischer Hochschulen 2020-2024. https://www.zfhe.at/index.php/zfhe/issue/view/82
- EOSC Austria Annual Activity Report 2022/2023. Zenodo. https://doi.org/10.5281/zenodo.8063171
- Rat für Forschung und Technologieentwicklung. Bericht zur wissenschaftlichen und technologischen Leistungsfähigkeit Österreichs 2023. https://fti-monitor.rfte.at/docs/pdf/L100012.pdf
- Community-driven Governance of FAIRness Assessment" is one output of the TF FAIR Metrics & Data Quality that is being submitted to Open Research Europe, https://doi.org/10.5281/zenodo.7390482
- Data Stewardship at Austrian Universities (2022): This report, in the form of a toolbox, presents data steward models, together with the required competences and training. It allows universities to choose the appropriate implementation strategy based on their characteristics needs. It is available for download under this Link..
- Empfehlungen für eine nationale Open Science Strategie in Österreich / Recommendations for a National Open Science Strategy in Austria (Final version including comments and annotations of the public consultation). 2020. Zenodo. https://doi.org/10.5281/zenodo.4109242
- EOSC Pillar: Survey for research infrastructures and their FAIRness level. It addressed Austrian RI organisations, universities, and policy makers (2019/2020). The report was published and is available at: https://doi.org/10.5281/zenodo.39373181.
 - o The data of the study is available at:
 https://data.aussda.at/dataset.xhtml?persistentId=doi:10.11587/VOSVGKFTI-Strategie 2030,
 Gesamtöst. Universitätsentwicklungsplan 2022–2027, UniNEtZ-Optionenbericht
- Mayer, Katja (2022) Open Access im Wandel. Infrastrukturen, Monitoring und Governance als zentrale Elemente einer erfolgreichen Transformation. Baseline Report zur Open Access Transformation in der Wissenschaft. Technischer Bericht. Wien. https://repository.fteval.at/596/
- National survey of researchers and their data: In 2015, 36.000 researchers at Austrian universities were asked about their practices and requirements for research data management. Results:
- Researchers and Their Data. Results of an Austrian Survey (PDF Full Report/en): https://phaidra.univie.ac.at/detail_object/o:409318
 - o Executive Summary: Researchers and Their Data. Results of an Austria-wide survey (en): http://phaidra.univie.ac.at/detail_object/o:408001