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Japan Science and Technology Agency (JST)

Implementation Guidelines: JST Policy on Open Access to Research Publications and Research Data Management

The revised “JST Policy on Open Access to Research Publications and Research Data Management” (hereinafter referred to as “JST Open Science Policy”) aims to reflect both the domestic and international situation and further promote Open Science.

Described below are common requirements related to implementing this policy in each program.

1. Open Access to Research Publications

The publications resulting from research projects funded by JST (hereinafter referred to as “research publications”) should be made Open Access in principle. In particular, peer-reviewed research articles (including review papers and conference papers that are accepted for publication in conference proceedings) should be made openly available within 12 months of publication.

Furthermore, peer-reviewed scholarly publications (those which are published in electronic journals, including the Author Accepted Manuscript) arising from research projects designated under the government policy or the related information must be published in information infrastructures such as institutional repositories immediately after publication in academic journals. (hereinafter referred to as "Immediate OA Compliance"). However, if implementing Immediate OA Compliance is difficult, the reasons for the difficulty shall be reported at the time of each annual research report through systems developed by the relevant ministries and funding agencies. In addition, if the reasons for the

difficulty in implementing Immediate OA Compliance are resolved, the scholarly publications shall be promptly published in information infrastructures such as institutional repositories.

Open Access refers to publishing scholarly information in a way that allows everyone to access it freely via the Internet without restrictions. The JST Open Science Policy is as follows:

[1] Make the Author Accepted Manuscript¹ and other relevant submitted versions openly available by utilizing an institutional repository² or other relevant mechanisms³.

[2] Publish research publications in journals committed to Open Access.⁴

Approach [1] is recommended, but [2] can be selected.

(1) Applicability

These requirements apply to all research publications submitted after the official announcement regarding the JST Open Science Policy onward.

¹ Refers to the accepted version of a journal article that has been peer-reviewed but not typeset or copyedited. When publishers accept manuscripts, they enter the editing process (e.g., page layout, logo placement) and then publish the Version of Record.

² Refers to an online archive system for preserving and disseminating digital intellectual output generated by institutes and universities. The list of institutional repositories can be found on the following website:

NII Institutional Repositories List (<https://www.nii.ac.jp/irp/list/>).

³ The approach to making the Author Accepted Manuscript openly available is generally called Green Open Access (Green OA).

⁴ The approach to publishing research publications in journals committed to Open Access is generally called Gold Open Access (Gold OA).

(2) Research Projects in scope

All research projects

Among research projects, the following research projects accepted in the Call for Proposals initiated from 2025 are subject to Immediate OA Compliance: The Strategic Basic Research Programs (except the Advanced Technologies for Carbon-Neutral (ALCA-Next) and the Cutting-edge Research and Development on Information & Communication Sciences (CRONOS)) and the Fusion Oriented REsearch for disruptive Science and Technology.

(3) Scope – Details of Research Publications

The JST's open access requirements apply to all research publications.

In particular, peer-reviewed research articles (including review papers and conference papers that are accepted for publication in a conference proceeding) should be made openly available within 12 months of publication.

Furthermore, research publications subject to Immediate OA Compliance include peer-reviewed scholarly publications (i.e., peer-reviewed research articles published in electronic journals, including the Author Accepted Manuscript).

(4) Approaches to Making Author Accepted Manuscript Openly Available

It is recommended that the Author Accepted Manuscript should be made openly available by uploading them to an institutional repository. Other approaches to making them openly available on websites run by universities, research institutes, or individual researchers are allowed; sharing preprints⁵ is also permitted.

⁵ A version of a paper that precedes publication in a peer-reviewed journal.

Since licensing conditions⁶ and the length of the embargo period⁷ specified by academic journals that accepted research publications need to be considered upon publication, in promoting the implementation of this policy, JST shall discuss it with publishers, if necessary.

(5) Approaches to Publishing Research Publications in Academic Journals Committed to Open Access

Publishing research publications in journals committed to open access is one approach to making them openly available. The other approach is to pay additional charges to the journal at the time of submission.

Publication charges or article processing charges (APCs) can be reimbursed as a research result publishing expense within the direct expense of a research project funded by JST.

(6) Other

In achieving Open Access, it is preferable to specify the terms of the copyright and the usage rules clearly when the reuse of the research results is allowed, in line with journal policies and the researcher's intention.

2. Handling Research Data

The researcher responsible for a research activity plan of a research project (i.e.,

⁶ The licensing conditions of academic journals are usually described in policies on copyright; they can usually be found on the websites of publishers and academic societies or in the following copyright directories:

SHERPA/RoMEO (<http://www.sherpa.ac.uk/romeo/index.php>)

Society Copyright Policies in Japan (<http://scpj.tulips.tsukuba.ac.jp/index/>)

⁷ Certain period at which access to the full text of publication in repositories is not allowed to users.

the Principal Investigator, hereinafter referred to as “PI”) shall define the research data subject to management and utilization (hereinafter referred to as “Research Data Subject to Management”)⁸ among all research data, and preserve and manage said the research data appropriately based on the Data Management Plan (hereinafter referred to as “DMP”).⁹

Among research data, the research data underlying research publications (research data that are required to be published from the viewpoint of ensuring transparency and reproducibility in the writing guidelines and publication regulations of electronic journals in which the scholarly publication is published) should be made openly available in principle.

Furthermore, research data underlying scholarly publications arising from research projects designated under the relevant government policy (hereinafter referred to as “scientific data”) or the related information must be published in information infrastructures such as institutional repositories immediately after publication in academic journals. However, if implementing Immediate OA Compliance is difficult, the reasons for the difficulty shall be reported at the time of each annual research report through systems developed by the relevant ministries and funding agencies. In addition, if the reasons for the difficulty in implementing Immediate OA Compliance are resolved, the scientific data shall be promptly published in information infrastructures such as institutional repositories.

Research Data Subject to Management other than research data underlying research publications expects to be made openly available. However, Research Data Subject to Management recognized as requiring special considerations regarding publication, such as exemption of publication, should be treated appropriately. In addition, the PI shall create the metadata, according to the rules set by JST, on the Research Data Subject to

⁸ Research Data Subject to Management are defined as all data generated from publicly funded research and development that can be managed in an electronic form, including research notes and memos; data directly obtained from experiments, observations, and/or simulations; processed data; and research data underlying research publications.

Reference: Introduction of Evaluation System for the Management and Utilization of Research Data. https://www8.cao.go.jp/cstp/kenkyudata_hyouka.pdf

⁹ If affiliated institutions or research communities implement guidelines or rules regarding the preservation and management of research data, refer to those as well. https://www8.cao.go.jp/cstp/kenkyudata_hyouka.pdf

Management.

(1) Applicability

These requirements are applied to all research projects for which proposals have been called for from the official announcement of the JST Open Science Policy onward.

(2) Research Projects in Scope

All research projects

Among research projects, the following research projects accepted in the Call for Proposals initiated from 2025 are subject to Immediate OA Compliance: The Strategic Basic Research Programs (except the Advanced Technologies for Carbon-Neutral (ALCA-Next), the Cutting-edge Research and Development on Information & Communication Sciences (CRONOS)), and the Fusion Oriented REsearch for disruptive Science and Technology.

(3) Development of DMP

The DMP explains the procedures for managing research data generated as research results from research projects implemented by researchers. Specifically, it refers to the descriptions of policies and plans for preservation, management, publication/non-publication of research data, restrictions, etc.

The PI¹⁰ shall develop a DMP and is required to submit the DMP upon request from JST.

The DMP should include the following items:

- Policies on preserving and managing Research Data Subject to Management
- Policies on open/closed Research Data Subject to Management
- The framework for providing methods and channels for Research Data Subject to Open¹¹

¹⁰ It is anticipated that the PI will develop the DMP; however, other researchers are allowed to do so if it is deemed that they would be better suited to this task.

¹¹ Research Data Subject to Open are research data among Research Data Subject to Management that are planned to be made openly available.

- Anticipated methods of reusing Research Data Subject to Open
- Plans to be addressed to promote the reuse of Research Data Subject to Open

(4) Preservation and Management of Research Data Subject to Management

Considering the possibility of continuously preserving data upon completion of the research project and the importance of preserving and managing Research Data Subject to Management in advancing research data sharing, the appropriate preservation and management of the research data is required in line with the DMP.

(5) Make Research Data Subject to Management Openly Available

(Definition of “openly available”)

“Openly available” in this policy means the publication of research data without any restrictions on users. However, among Research Data Subject to Management, some cases need special consideration in making them openly available. Such cases should be exempt.

Regarding the reuse of Research Data Subject to Management, the steps for handling research data include the following generally¹². In this policy, “openly available” refers to [3].

[1] Designate data as not open to the public.

[2] Share data exclusively among constituent members of research groups¹³ or make

¹² Academic Information Committee, subcommittee of the Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu4/036/attach/1378756.htm)

¹³ Share data exclusively among participants of the research projects and/or within a collaborative research group.

them available only to specific individuals or groups¹⁴.

[3] Open to the public.

Specify the method of handling research data in the DMP, including data that is not open to the public, considering the characteristics of research, surrounding circumstances, and progress of research, as well as economic and social contributions.

(Exceptions in Making Research Data Subject to Management Openly Available)

The Academic Information Committee, the subcommittee of the Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology, lists the following research data to be exempted from publication.⁸

- Examples of data that should not be published:
 - Data related to confidentiality, trade secret, national interest, or national security¹⁵
 - Data collected for commercial and industrial use
 - Data possessed by private enterprises
 - Data that should be restricted in terms of publication under joint research agreements and similar entities
- Examples of data that should be restricted from publication:
 - Data that should be protected in terms of privacy protection
 - Data that should be protected in terms of proprietary interest

Agreement between related parties should be respected (e.g., handling of research data resulting from joint research funded both publicly and privately and research projects

¹⁴ Permit access to research data only to persons whose IDs have been registered or approved based on their applications (except for participants and research collaborators involved in research projects).

¹⁵ Give attention to Rules for Security Export Control System based on the Foreign Exchange and Foreign Trade Act (<http://www.meti.go.jp/policy/anpo/>).

undertaken at a public research center involving the participation of the private sector).

(Methods to Make Research Data Openly Available)

For promoting the reuse of research results, Research Data Subject to Open is published in a database preferably considered as the standard in each domain to make them openly available: a research data platform¹⁶ provided by the National Institute of Informatics, universities' institutional repositories, existing public databases, and repositories provided by academic societies. In some cases, academic journals to which research publications are submitted may suggest repositories fit to upload research data.

(Embargo)

In making Research Data Subject to Open openly available, some cases may require an embargo period and delay to protect the rights of researchers who generate the research data and prevent any obstruction to their research activities. In that case, the decisions to set the specific embargo periods depend on researchers.

(6) Specify Rules for Usage of Research Data Subject to Open

In terms of ensuring incentives for researchers who generate data, the rules for the usage of Research Data Subject to Open by others should be specified and facilitate the reuse of the Research Data Subject to Open without causing any disadvantages for the researchers.

For promoting the reuse of Research Data Subject to Open, selecting appropriate methods and formats used in managing the Research Data Subject to Open is important, and attention to ensure that research data is managed with the recommended practices and formats for data and metadata in certain research domains should be given.

¹⁶ “Overview of NII Research Data Cloud” (National Institute of Informatics Research Center for Open Science and Data Platform) <https://rcos.nii.ac.jp/service/>

(7) Creation of Metadata on Research Data

The PIs shall create the metadata, according to the rules set by JST, on Research Data Subject to Management. Metadata is generally defined as the data which consists of a set of information for describing other data. This includes items such as “name,” “summary,” “administrator and his/her contact information,” “location,” “plans for preservation, publication, and sharing of research data,” etc.

3. Publication of Scholarly Publications and Scientific Data in "Information Infrastructures such as Institutional Repositories" in Immediate OA Compliance

Regarding the publication of scholarly publications and scientific data in "information infrastructures such as institutional repositories," if institutional repositories are available at the affiliated institutions, scholarly publications and scientific data shall, in principle, be published in the institutional repositories. However, publishing by other means specified under the relevant government policy¹⁷ is also allowed.

Note that scholarly publications and scientific data to be published shall correspond to the Version of Record or the Author Accepted Manuscript.

4. Other

JST may ask for researchers' cooperation in monitoring the achievement status for the handling of research results.

5. Reference Documents

- “Promoting Open Science in Japan - Opening up a new era for the advancement of Science,” Expert Panel on Open Science, based on Global Perspectives, Cabinet Office (<http://www8.cao.go.jp/cstp/sonota/openscience/>).

¹⁷ For other means specified under national policy, refer to the following document: "Basic Policy for Achieving Immediate Open Access for Academic Papers and Other Scholarly Works" (decided by the Integrated Innovation Strategy Promotion Council on February 16, 2024). https://www8.cao.go.jp/cstp/openscience/r6_0221/hosaku.pdf

- “Promoting Openness of Academic Information (A Summary of Deliberations),” Academic Information Committee, Subdivision on Science, Council for Science and Technology, Ministry of Education, Culture, Sports, Science and Technology (http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu4/036/houkoku/1368803.htm).
- “The Publication of Research Data for Promoting Open Access of Academic Information” (Draft), Academic Information Committee, Subdivision on Science, Council for Science and Technology, Ministry of Education, Culture, Sports, Science and Technology (http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu4/036/attach/1378756.htm).
- “Tsukuba Communiqué,” G7 Science & Technology Ministers’ Meeting in Tsukuba, Ibaraki (http://www8.cao.go.jp/cstp/kokusaiteki/g7_2016/20160517communique.pdf).
- “The Basic Idea of Management and Utilization of Publicly Funded Research Data,” Cabinet Office Council for Science, Technology and Innovation (<https://www8.cao.go.jp/cstp/tyousakai/kokusaiopen/sanko1.pdf>)
- Common Metadata Elements in the "Basic Policy on the Management and Utilization of Research Data Funded by Public Funds" (https://www8.cao.go.jp/cstp/common_metadata_elements.pdf)
- “About Revising Common Metadata Elements” (https://www8.cao.go.jp/cstp/openscience/r6_0730/siryos3-1.pdf)
- Basic Policy Toward Achieving Immediate Open Access for Scholarly Papers and Other Works. (https://www8.cao.go.jp/cstp/oa_240216.pdf)
- Specific Measures for the Implementation of the "Basic Policy for Achieving Immediate Open Access for Academic Papers and Other Scholarly Works" (decided by the Integrated Innovation Strategy Promotion Council on February 16, 2024) (https://www8.cao.go.jp/cstp/openscience/r6_0221/hosaku.pdf)
- FAQ on the Basic Policy for Achieving Immediate Open Access for Academic Papers and Other Scholarly Works, and Specific Measures for the Implementation of the Basic Policy for Achieving Immediate Open Access for Academic Papers and Other Scholarly Works (updated on October 8, 2024) (https://www8.cao.go.jp/cstp/oa_houshin_faq.pdf)