

MOSAiC Data Policy

The Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC) is a collaborative, international project to address pressing scientific questions in the central Arctic. The project's success, and its ultimate impact on science and society, relies upon professional coordination and data sharing across the participants. A transparent Data Policy is essential to achieve MOSAiC science objectives, to facilitate collaboration, and to enable broad use and impact of the MOSAiC data legacy.

Objective of the Data Policy

The purpose of this Data Policy is to codify the goals and principles of MOSAiC's research data life-cycle from production, documentation, sharing, usage and re-usage. This ensures that common procedures for data gathering, archiving and publication, as well as metadata and quality management are commonly implemented. By participating in the MOSAiC project, all members of the MOSAiC consortium agree to and comply with this Data Policy. By doing so, participants ensure that MOSAiC is a successful and resource-effective research project that also supports data accessibility, interoperability and re-usage following the FAIR data principles.

This policy aims to:

1. Ensure proper storage, backup and archiving of MOSAiC data in a central system.
2. Promote the visibility and accessibility of MOSAiC data for scientific and other applications.
3. Ensure the fair and equitable use of MOSAiC data and uphold the rights of individual scientists and institutions.
4. Enable the organized and timely analysis of the data.
5. Encourage the rapid publication and dissemination of scientific data, results and knowledge, to support the involvement of a broad user community.

1. Sign and send back MOSAiC Data Policy



Note:

The MOSAiC Data Policy is to be signed by every individual member of MOSAiC. All persons who want to create MOSAiC data and all persons wanting to access/use MOSAiC data before 1st of January 2023, regardless of the fact if they participate in the cruise or not.

Please download and sign the data policy and **send a scanned version** to the MOSAiC Registration Office

- **email subject 'MOSAiC Data Policy Signature'**
- send email to registration@mosaic-expedition.org
- add your MOSAiC **team coordinator in CC**
- **state the project name** (as stated in the endorsement letter or for AWI-projects, the AWI project name) that you are participating in for MOSAiC.

Please refer to the table below for the list of contacts to copy the signed Data Policy to.

MOSAiC Teams	Team Coordinator or Alternative	Email
Aircraft Operations	Andreas Herber	andreas.herber@awi.de
Atmosphere	Peter von der Gathen	peter.von.der.gathen@awi.de
BGC	Ellen Damm	ellen.damm@awi.de
Ecosystem	Allison Fong	allison.fong@awi.de
Sea Ice	Marcel Nicolaus	marcel.nicolaus@awi.de
Modeling	Annette Rinke	annette.rinke@awi.de
Ocean	Benjamin Rabe	benjamin.rabe@awi.de
Remote Sensing	Thomas Krumpfen	thomas.krumpfen@awi.de
Media	Katharina Weiss	katharina.weiss@awi.de

For questions regarding the data policy please contact Stephan Frickenhaus (Stephan.Frickenhaus@awi.de).

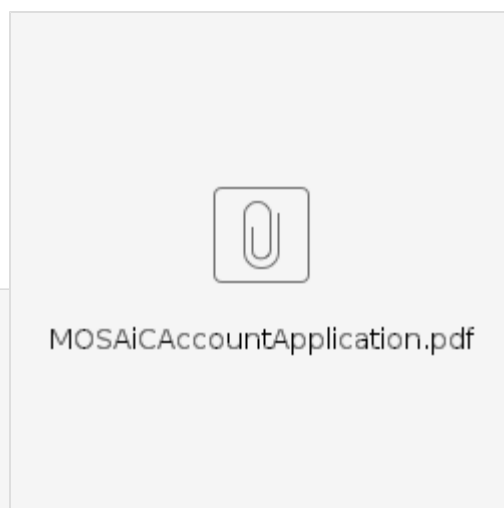
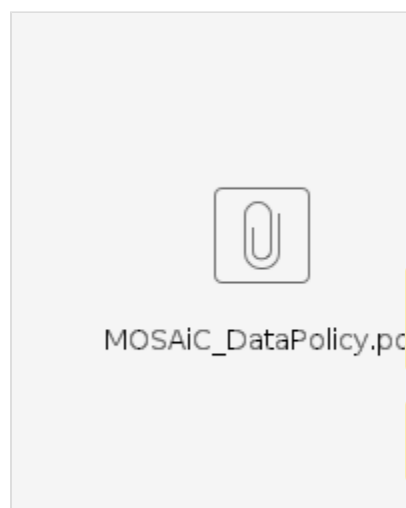
2. Get a MOSAiC Account

Once your MOSAiC membership is verified you will receive an email from eaccount@awi.de with a form attached similar to the example below:

Please fill in the form attached to the email from eaccount@awi.de and send it back to eaccount@awi.de!

Download MOSAiC Data Policy

MOSAiC Data Policy (in the version of September 19th 2019)



Please be informed that some time may pass before we get back to you after you have handed in the Data Policy since the registration requires verification of membership and involves several departments.



After sending back the eaccount-form you will obtain your user credentials to access the MOSAiC Data Services at <https://mosaic-data.org/>.

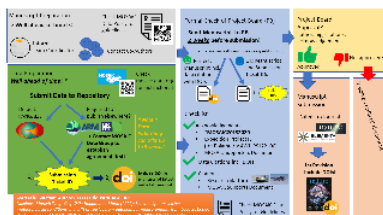
More information on MOSAiC User accounts can be found under [Get MOSAiC User Account](#).

Cite as:

Immerz, Antonia, et al. (2019) MOSAiC Data Policy. <http://doi.org/10.5281/zenodo.4537178>

Preparing MOSAiC manuscripts

See [Internal Guidelines for MOSAiC Scientific Publications](#).



In short: Recommended MOSAiC manuscript preparation flow chart.

MOSAiC Data Publication

In short (*dos, don'ts* and *keep in minds*)

Why do I have to publish “my” MOSAiC data?

Each PI / lead author assures both raw and primary (processed) data are published, which will guarantee their Findability, Accessibility, Interoperability and Reusability (FAIR data principles).

See MOSAiC [Data Policy](#) for details.

What is data publication?

Data publication is a published data set or data collection equipped with a complete set of metadata. It is fully citable by having a title, authors, abstract and a persistent identifier (usually DOI). It can have but need not have a reference to a scientific paper publication.

Data publication isn't sharing data at MOSAiC Central Storage (MCS).

Data publication isn't adding a data table as a supplement to a published scientific paper.

Where do I publish “my” MOSAiC data?

The default repository for MOSAiC is PANGAEA.

My national funding agency requires depositing data in a special national repository. What should I do? These cases are handled as exceptions (see [Data Policy](#)) and a legitimate reason for not publishing the data in PANGAEA. At the moment, written agreements have been signed with several repositories: [Arctic Data Center \(ADC\)](#), [Atmospheric Radiation Measurement \(ARM\) data center](#), [British Oceanographic Data Centre \(BODC\)](#), [UK Polar Data Centre](#) and [Centre for Environmental Data Analysis \(CEDA\)](#). When archiving data in these repositories, it is always important to acknowledge the MOSAiC project (see [Data Policy](#)). The agreements assure FAIR data publication and future findability of MOSAiC data from a single access point (portal to project and data).

Other exceptions are possible for special data types (e.g., genomics, source code, high volume model data), for which PANGAEA is not a suitable repository and a dedicated community repository exists which fulfills the FAIR criteria. When archiving data in these repositories, it is always important to acknowledge the MOSAiC project (see [Data Policy](#)). Otherwise, findability of MOSAiC data from a single access point (portal) cannot be assured in the future. If you are unsure if this applies, [contact the PANGAEA team](#).

PANGAEA does not assign or link own DOIs to data sets published somewhere else.

When do I submit and publish “my” MOSAiC data?

Submit your quality controlled data sets as early as possible and before they are used for a paper. In PANGAEA, the data can be password protected, which means only metadata are accessible, but data itself cannot be viewed or downloaded. However, PANGAEA editors can already provide a temporary access key for reviewers. While data set status is “in review”, the content can still be changed, and the DOI is provided already for use in your manuscript.

Cite your data sets in any paper which is using them. Remember, data sets have full citations which can be used just like any other references.

Like paper publication, data publication involve editorial work, which requires time (sometime up to several weeks). Do not wait with the submission of data for publication for the last minute. No data citation will be possible before the data are actually archived in the repository.

How do I approach data publication?

[Raw data publishing](#) will be a semi-automatic process and the responsible PIs should provide necessary metadata and initiate the data archiving from MCS to PANGAEA.

Primary data publication (calibrated data, data ready made for a paper publication) needs to be always initiated by the authors by opening a [data submission ticket in PANGAEA](#) or other designated repository, if exceptions apply.

If the raw data wasn't published with PANGAEA at the time of primary data publication yet, and is needed, [contact the PANGAEA team](#) for initiating the raw data publication.

During data publication instruct the editors in your data repository to create links to other versions of data (e.g., raw data), especially when they were or are being published in another repository.

All published data must include a funding acknowledgment of MOSAiC in the following form: "Multidisciplinary drifting Observatory for the Study of the Arctic Climate (MOSAiC)" with the tag "MOSAiC20192020". Additionally, the Project ID given for specific expedition must be mentioned. For the Polarstern expedition this is "AWI_PS122_00". Additional attributions like specific award /grant numbers might be added.