

SciLifeLab FAIR Storage Guidelines for Applicants and Administrators

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This guide covers requirements, obligations, and information for Principal Investigators applying for access to SciLifeLab FAIR data sharing services with included storage resources. It is also aimed at SciLifeLab personnel handling SciLifeLab Rounds in the Swedish User and Project Repository, SUPR, or managing information about SciLifeLab Rounds and SciLifeLab resources.

This document is maintained and updated as deemed necessary by the Head of SciLifeLab Data Centre.

To report any inconsistencies, misprints, or lack of clarity, please email FAIRstorage@scilifelab.se.

The time to read this document is about 10 minutes.

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1 Information about SciLifeLab Rounds

Applications for resources are managed in Rounds, similarly to most other national e-infrastructure resources. Information concerning SciLifeLab Rounds is made available via the SciLifeLab website, <https://data.scilifelab.se/services/FAIRstorage>. The SciLifeLab website provides detailed information about SciLifeLab resources, the SciLifeLab Round, and how to apply.

Forms for project proposals are made available via SUPR, <https://supr.naiss.se/>. Additional information about SciLifeLab and non-SciLifeLab resources can also be found there.

2 Nomenclature and definitions

- **Co-Principal Investigator or Co-Investigator**
Co-PIs/Co-Is are key personnel with responsibilities similar to those of a PI on research projects. While the PI is ultimately responsible for conducting a research project, the Co-PI/Co-I is also obligated to ensure the project complies with applicable laws and regulations and institutional policy governing the conduct of sponsored research.
- **Member**
A member of a project is a Co-Investigator by another name.
- **Personal storage**
All users of SciLifeLab resources might have a small amount of personal storage space, where the user can store configuration files, et cetera. Personal storage is not considered project storage.
- **Principal Investigator/Applicant**
A Principal Investigator is denoted as *PI* or *applicant* below. A PI is an individual primarily responsible for the preparation, conduct, and administration of a research grant, cooperative agreement, training or public service project, contract, or other sponsored project in compliance with applicable laws and regulations and institutional policy governing the conduct of sponsored research.
- **Project**
A project is a set of resources within a round made available to a PI.
- **Proxy**
A proxy may carry out the duties of the PI on behalf of the responsible PI.
- **Rounds**
A round is a call comprising a set of resources for a given period, typically one year.
- **SciLifeLab FAIR Storage Allocation Board, FAB**
The *SciLifeLab FAIR Storage Allocation Board* is a body within the SciLifeLab Data Centre that is independently responsible for the evaluation of proposals for access to SciLifeLab storage resources. FAB is appointed by the SciLifeLab board.
- **SUPR**
The *Swedish User and Project Repository* is an online application database. SUPR is hosted by NAISS, the National Academic Infrastructure for Supercomputing in Sweden.

3 Applicable documents

Document name	Link
SciLifeLab FAIR Storage Guideline for Applicants and Administrators	https://data.scilifelab.se/services/FAIRstorage. <i>This document</i>
SciLifeLab FAIR Storage Review Guide	https://data.scilifelab.se/services/FAIRstorage.
SciLifeLab FAIR Storage User Agreement	https://data.scilifelab.se/services/FAIRstorage.
SciLifeLab Guidelines for Deletion of Project Storage	https://data.scilifelab.se/services/FAIRstorage.
SciLifeLab FAIR Storage Intended Use and Allocation	https://data.scilifelab.se/services/FAIRstorage.
SciLifeLab FAIR Storage approval process	https://data.scilifelab.se/services/FAIRstorage.
Applying for an account on Uppmax	https://data.scilifelab.se/services/FAIRstorage.
SciLifeLab Data Policy	https://www.scilifelab.se/wp-content/uploads/2022/06/SciLifeLab-data-policy.pdf

4 Intended use

The primary purpose of SciLifeLab’s FAIR storage resources is to support research to advance scientific knowledge and discovery within the field of Swedish data-driven life science. These resources are made available to individuals and teams committed to using them according to the FAIR principles.

SciLifeLab encourages researchers to use these resources for collaborative efforts by facilitating data sharing and collaboration within and beyond research groups. Data should be accessible to fellow researchers, fostering an environment of cooperation and knowledge exchange.

Researchers should adhere to established data repository standards and guidelines, making their data available through repositories that align with FAIR principles. SciLifeLab Data Centre support these initiatives via services such as assistance with writing a data management plan.

Resources are made available as stipulated in this document in adherence with the SciLifeLab Data Policy and SciLifeLab FAIR Storage Intended Use and Allocation.

Resources made available are intended to be used as a data-sharing service in line with the FAIR principles and Open Science.

Applications will be reviewed and approved in accordance with these principles.

Research data management is governed by law and organisation-specific regulations. All users of SciLifeLab services and resources are required to inform themselves about, and adhere to, such laws and regulations.

5 The SciLifeLab FAIR Storage Round

SciLifeLab resources are continuously made available via an annual *SciLifeLab Round* in which applications can be made throughout the year. SUPR provides information about the resources and their current limits.

SUPR is used to allocate many resources, including nationally available resources. You may also find Rounds in SUPR that are not available to the general SciLifeLab user, e.g. for resources dedicated to a certain e-infrastructure.

5.1 Allocation period

The allocation period is limited to one year but is commonly extended over several years through continuation applications.

5.2 Review

Proposals are subject to review performed by a FAB representative. Review instructions are available via the SciLifeLab FAIR Storage review guide.

Reviews are taking place continually. Usually, applications are handled on a weekly basis, except during holidays and the summer months.

6 Ethical guidelines

The applicant is responsible for ensuring that research conducted at SciLifeLab resources adheres to Swedish legislation, as demanded by the SciLifeLab FAIR Storage User Agreement.

When applying for SciLifeLab resources, the applicant is responsible for ensuring that the required permissions and approvals are in place.

When conducting research, the PI must ensure that the project follows good research practices at all times.

7 Eligibility and qualification requirements

SciLifeLab provides storage resources for research within the field of Data-Driven Life Science affiliated with Swedish organisations. All researchers and technical personnel within life science research are qualified to apply

8 Commercial interests

Applicants may have commercial interests if the project benefits Swedish Data-Driven Life Science and adheres to all requirements (including data sharing and FAIR principles). However, projects with commercial interests or connections might be required to cover some or all associated costs.

Applicant may not have known commercial connections conflicting with the required objectivity, independence, and openness. If any commercial relations, in lieu of SciLifeLab terms and conditions, are at hand, the user or the grant administrator should inform SciLifeLab immediately (FAIRstorage@scilifelab.se).

Applicants are liable to declare in writing commercial interests or connections that may influence project proposals or approved projects in entirety or part to enable review and assessment of the compatibility of those with the requirements regarding objectivity, independence, and openness.

9 Public access

Proposals for SciLifeLab projects and approved SciLifeLab projects are public documents covered by the Public Access to Information and Secrecy Act. Applicants intending to apply for patents should note that SciLifeLab proposals cannot be confidential. Information about approved projects may be made available via the SciLifeLab website. Sensitive personal information is not published.

The purpose of the service is the increased availability and scientific- and societal impact of research results. Research results obtained by using SciLifeLab resources should be made publicly available. Applicants are liable for following SciLifeLab's requirements on objectivity, independence, and openness, as specified above.

10 Prerequisites

A Data Management Plan initiated via SciLifeLab's Data Stewardship Wizard (<https://dsw.scilifelab.se>) is a mandatory prerequisite for applying for SciLifeLab FAIR Storage resources. Researchers are required to maintain documentation, metadata, and Data Management Plans to enhance the findability and reusability of their data and other research outputs. Proper documentation and management of research data are integral for SciLifeLab storage resource allocations (for more information see <https://data-guidelines.scilifelab.se/>).

Storage allocations need to be linked from start of the project with a Persistent Identifier, e.g. a Digital Object Identifier (DOI), that makes it possible to follow research outputs as they are made available during the course of the project. All such identifiers should be included in the Data Management Plan and added/updated as new outputs are made available. If possible, include Persistent Identifier in the Data Management Plan before applying.

When applicable, data from previous projects must have been made available in suitable repositories. SciLifeLab Data Centre and NBIS will support this process via the SciLifeLab Data Management team (data-management@scilifelab.se).

A data processing agreement (DPA) must be present to be able to store data that is sensitive in a GDPR sense. This includes, for example, human phenotype data linked to health, or any human genomic sequence information, regardless of degree of identifiability. The DPA must be between the data controller, normally the organisation of the PI, and the organisation of the specific storage resource, and the legal ground and purpose of the data processing must be specified.

Establishing a new DPA will require legal work for both data processor and controller, and should be done well in advance of planned access to the resource. If an agreement needs to be set up, please contact FAIRstorage@scilifelab.se in advance.

11 Resources

SciLifeLab makes several data sharing services with included storage resources available aimed at different usage scenarios.

💡 *SciLifeLab provides compute resources and hosting of services and data through other services, e.g., SciLifeLab Serve at <https://serve.scilifelab.se/>. For a complete catalogue, please see <https://data.scilifelab.se/>.*

11.1 Storage resources

SciLifeLab aims to provide several storage resources that can be applied to via SUPR. Please refer to <https://data.scilifelab.se/services/FAIRstorage> for further details.

11.1.1 Spirula

Spirula is a CEPH-based storage resource accessible via an S3 interface and closely integrated with resources at UPPMAX in Uppsala, e.g. NAISS SENS. Spirula caters for sensitive and non-sensitive data. Data stored in Spirula is in general not directly accessible by other UPPMAX compute services, but can easily be moved to project accounts for compute services. Please see <https://data.scilifelab.se/services/FAIRstorage> for details.

11.1.2 KTH storage

This storage will be made available at a future date.

11.1.3 LiU storage

This storage will be made available at a future date.

12 How to apply for access

SciLifeLab uses an online application database, SUPR, to keep track of applications for storage capacity. Proposals should be filled out electronically via a form at <https://supr.naiss.se/>.

For a complete overview of the application process, please refer to the SciLifeLab approval process document.

12.1 Apply for a project allocation on one or more SciLifeLab resources

It is paramount that applications include intended usage and the characteristics of the storage resources intended to be used. In case of doubt, consult SciLifeLab (FAIRstorage@scilifelab.se) for assistance regarding the choice of resources.

FAB evaluates the applications.

The applicant should provide the mandatory information below. Additionally, the applicant may provide non-mandatory information using the proposal form.

For storage projects, the SciLifeLab Data Policy applies, as does the SciLifeLab Guidelines for Deletion of Project Storage.

💡 *First-time users should opt for the first application option in SUPR, alternative 1, filling in the form from scratch. If you re-apply for SciLifeLab resources, there is a second option, alternative 2, for your convenience, allowing you to clone an existing proposal to form the basis for the application.*

⚠️ *For recurring proposals/continuation of project, do not forget that the Data Management Plan, including Digital Object Identifiers to research outputs, needs to be up to date and will be part of the review process.*

⚠️ *For recurring proposals/continuation of project, do not forget to link application to earlier project.*

The following sections corresponds to forms and fields in SUPR that applicants need to fill out as part of the application.

12.1.1 Principal Investigator information

The PI shall provide the mandatory information regarding the following items.

- a) Name
- b) E-mail
- c) Position
- d) Gender
- e) Department¹ (if applicable, fill in SciLifeLab association, else leave empty)
- f) Organisation (e.g Uppsala Universitet)

12.1.2 Basic information

The applicant is required to submit information:

- a) **Project title**
Title of the proposed project.
- b) **Webpage**
If applicable, optional
- c) **Affiliation**
Name of university, institute or similar
- d) **Description (Abstract)**
Use the form for *Abstract* to describe the project in English (maximum 500 words).
- e) **Resource usage**
Please provide a general description of how you intend to use the storage, e.g. data flows.

Please refer to the SciLifeLab FAIR Storage Review Guide for information about how applications are evaluated.

It is mandatory to use SciLifeLab's Data Stewardship Wizard (<https://dsw.scilifelab.se>, for more information please see instructions at [8 \(11\)](https://dsw-</div><div data-bbox=)

appendix.scilifelab.se/dmp-guide/). It is mandatory to identify repository for project research output. It is optional to use SciLifeLab Data Repository (other repositories of choice are also valid).

For sensitive data, a DPA is mandatory.

- a) Include a link to your Data Management Plan.
 - b) If applicable, include a Persistent Identifier (PID), e.g. a Digital Object Identifier (DOI).
 - c) Include estimated size (GiB) and estimated number of files (number).
 - d) Include information whether a DPA is needed (and if it exists).
- f) **Classification¹**
- Classify the project according to Vetenskapsrådets classification codes.
- g) **Requested Duration and Start Date**
- a) Requested Duration
This is currently fixed as 1 year.
 - b) Requested Start Date
Indicate at what date access to storage is requested.

There can be no guarantee that storage will be available at a certain date. The decision will be made during the review process. If the start date and requested date diverge significantly, the PI will be notified during the review process.

12.1.3 Resources

- a) Select resource
 - i. Estimated size (GiB)

13 Decision

The decision regarding the application will be communicated to the PI and documented in SUPR.

For storage, FAB may prematurely terminate, extend, or change the allocation within the limits of the round. FAB administers any such changes after consultation with the PI. Such decisions shall be communicated with the PI and documented in SUPR.

FAB reserves the right to grant a project allocation that differs from the request in the application. Requested allocations may be reduced in size or assigned to another resource. They may also be adjusted if they appear unreasonably large or the allocation size is not sufficiently motivated. A request may be merged with another request or existing allocation if the research activities (or groups) are identical or highly similar.

Decisions by FAB are final and cannot be appealed, e.g. to the SciLifeLab Director.

¹ This is used for statistical reasons.

14 Upon approval

Once an application is approved, a project will be established on the resources for which allocations are granted.

The applicant (PI) will be responsible for this project and must oversee the usage of the allocated resources. The PI must specify and approve users to let them use the project allocation. Those users are known as *members* or *co-investigators*. The PI must ensure that resources are used solely for the activities specified in the approved application. The project allocation is communal for all users connected to the project.

The use of resources is subject to the SciLifeLab User Agreement. For certain resources, additional terms and conditions might apply.

The PI should inform FAB about affiliation changes (FAIRstorage@scilifelab.se). The data controller is the organisation registered in the application unless agreed upon otherwise. If the PI resigns or becomes inaccessible, the organisation may appoint a successor, or FAB reserves the right to delete the project according to the SciLifeLab Data Policy and SciLifeLab Guidelines for Deletion of Project Storage after the project ends.

14.1 Applying for an account on the resource(s) to be used

Once the allocation is granted, the applicant may need to apply for an account at the resource provider (e.g Uppmax) to access storage.

For resources at Uppmax, see the document *Applying for an account on Uppmax*.

15 While using FAIR storage

It is important that the Data Management Plan is actively maintained and updated during the storage project lifecycle and that research outputs are made available continually at a PID/DOI specified in the DMP.

Data should be published in data-type specific repositories, such as the ones offered at EMBL-EBI (<https://www.ebi.ac.uk>), or general data repositories such as Figshare or Zenodo. SciLifeLab offers an institutional Figshare instance at <https://figshare.scilifelab.se>.

SciLifeLab provides a number of other data services that may be of interest for a researcher that is publishing the results of a study, including the SciLifeLab Data Repository that can be used to publish supplemental information or to publish aggregated data and information relating to a published study, or SciLifeLab Serve that can be used to publish (for example) computational apps, notebooks, AI models and web services. Please see <https://data.scilifelab.se/> for a catalogue.

15.1 Acknowledging the use of SciLifeLab resources

When utilising SciLifeLab resources for research, such as the SciLifeLab FAIR Storage, researchers are required to acknowledge their use in accordance with SciLifeLab guidelines. The following acknowledgement statement should be used:

This research was supported (in part) through the storage resources provided by SciLifeLab (DOI: <https://doi.org/10.13039/501100009252>; ROR: <https://ror.org/04ev03g22>).

Researchers should also provide these identifiers (DOI: <https://doi.org/10.13039/501100009252>; ROR: <https://ror.org/04ev03g22>) via their research management and manuscript system, if possible.

In the case resources are used for preservation and citation purposes, often related to article publication and supporting reproducibility, e.g. the SciLifeLab Protocols.io service, researchers should cite the resource and identifier (e.g., DOI) in their Availability Statement and References.

Failure to follow SciLifeLab guidelines for acknowledging the use of SciLifeLab resources will be considered during the review process. SciLifeLab frequently monitors the use of its resources and captures this information for review and reporting purposes.

16 When a storage project ends

When a storage project ends, it is typical to extend it by applying for a continuation project.

16.1 Data Management Plan (DMP) and FAIR research outputs required for Continuation

An ongoing storage project may be continued, provided that adherence to the intended use can be shown in an actively maintained and updated Data Management Plan, and that research outputs are made available continually at a PID/DOI specified in the DMP in a way that demonstrates the commitment to FAIR principles as the main purpose of the resource.

16.2 End of storage and transfer to data sharing

When a storage project ends without continuation, it no longer has the right to use SciLifeLab storage resources.

The PI is informed, and the functionality of the project storage area will decrease for 90 days, after which deletion may commence. To make room for new projects, we kindly ask that data is removed as soon as possible. The *SciLifeLab Guidelines for Deletion of Project Storage* regulates the deletion process.

After the storage project ends, data should either be deleted, moved or be fully published.

SciLifeLab offers research data management support (data-management@scilifelab.se) for questions regarding data publishing or other related issues.