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PIANO NAZIONALE DI RIPRESA E RESILIENZA

Progetto NFFA-DI – PNRR Missione 4, "Istruzione e Ricerca" – Componente 2, "Dalla ricerca all'impresa" – Linea di investimento 3.1, "Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione" – Azione 3.1.1, "Creazione di nuove IR o potenziamento di quelle esistenti che concorrono agli obiettivi di Eccellenza Scientifica di Horizon Europe e costituzione di reti" – CUP B53C22004310006.

D5.3 – Second release of the Data Management Plan including the first batch of laboratory DMPs

WP5: COMMISSIONING OF ACCESS TO THE UPGRADES AND COMMUNITY BUILDING

Due Date: B10

nffa-di
Piano Nazionale di Ripresa e Resilienza

Consiglio Nazionale delle Ricerche | AREA SCIENCE PARK | POLITECNICO MILANO 1863 | UNIVERSITÀ DEGLI STUDI DI MILANO

- WORK PACKAGE DETAILS

Work Package ID: WP5

Work Package Title: Commissioning of access to the upgrades and community building

Work Package Leader: Massimo Cuscunà (CNR-NANOTEC)

- DELIVERABLE DETAILS

Deliverable ID: D5.3 – Second release of the Data Management Plan including the first batch of laboratory DMPs.

Deliverable Description: The present document represents an update and an integration to "D1.2 – Data Management Plan - First release". In particular, it includes a collection of the Laboratory Data Management Plans (Lab-DMPs).

The Lab-DMP is intended to be a living document in which information can be made available on a finer level of granularity through updates as the implementation of the project progresses, and when significant changes occur. The document is therefore versioned in order to keep track of changes and improvements.

The Lab-DMP describes the standards and methodologies for the collection and generation of Research Data that will be applied throughout the duration of the project, as well as the conditions for publishing such data. This document aims to facilitate the creation of common understanding and, where possible, common practices.

Person Responsible for the Deliverable: Salvatore Gambino (CNR-NANOTEC)

- INTERMEDIATE OBJECTIVE and KEY PERFORMANCE INDICATOR DETAILS

IO5.3: Personalized laboratory DMPs

KPI: Number of completed laboratory DMPs = 109

- REPORT DETAILS

Number of pages: 457

Version	Date	Author	Description/modification	Status
1	27/08/2024	S. Gambino	Drafting	Draft
2	16/09/2024	M. Cuscunà	Revision	Draft
3	14/10/2024	S. Gambino	Drafting	Final Document

For any further information, please contact: Massimo Cuscunà (CNR-NANOTEC), email: massimo.cuscuna@nanotec.cnr.it

Index

1. Abstract

The present document rapresents the update and an integration to "D1.2 – Data Management Plan - First release". In particular, it integrates the content of the previous document by including the Laboratory Data Managements Plans (Lab-DMPs), i.e. the second level of the strategy presented in the NFFA-DI DMP. Each Lab-DMP presents the information for the specific instrument (scientific data management produced within the NFFA-DI project, the roles and responsibilities of each person in charge of its data management, in particular in view of the "FAIR-by-design" approach implemented within the NFFA-DI project).

Moreover, the objective of this document is to describe the Research Data generated and processed during the entire project lifecycle, and how they will be managed, curated and preserved inside and outside the project.

Each Laboratory will provide a DMP (Lab-DMP) related to the management of their Research Data. The collection of Lab-DMPs that refers to the wide spectrum of Instruments and Measurement Techniques available throughout NFFA-DI nodes as of the 31/08/2024 is enclosed in this document (section 4).

Readers can consider each Lab-DMP as a living document, which can and will be updated throughout the entire project lifecycle. In order to keep track of different versions, the version number of each Lab-DMP is always included. All beneficiaries will be notified when a new version of the Lab-DMP is released.

2. Data Summary

The NFFA-DI project will generate data - including associated Metadata - in a wide range of R&D activities, including those needed to validate the results of the project that will be presented in Scientific Publications and those associated with reports and other documents. The format of the data and associated Metadata collected during NFFA-DI

activities will be mainly electronic and classified as previously reported in section 2.1 of the of the first version of NFFA-DI DMP (D1.2).

3. Glossary

In conjunction with the submission of the first version of NFFA-DI Data Management Plan (D1.2), an extensive glossary was produced with the aim of standardizing the terms used in the context of the NFFA-DI infrastructure. In the present section, we report the definitions included in the D1.2 (Annex 2) that are used within this document:

Additional Data: any other data that is not Publication Data but is directly related to it as specified in the Data Management Plan (for instance curated data not directly attributable to a publication, or related Raw Data).

Analyzed Data: identifiable Research Data which is a result of Raw Data processing obtained with the use of Data Analysis Software, typically after the end of an Experiment. It is typically a data file but it can be potentially a data stream, or other form of data relevant in a particular data management context. Analyzed Data is stored in a Data Repository which may be the same as Raw Data. Analyzed Data can be a part of a Dataset which may bear some semantics of what the data is and the origin/provenance of it.

Data Analysis: the identifiable action of processing Raw or Analyzed Data. The analysis may be performed using Data Analysis Software and may be combined in chains or workflows. Data Analysis includes data processing and data interpretation.

Data Curator: person tasked with reviewing, enhancing, cleaning, or standardizing Metadata and the associated data submitted for storage, use, and maintenance within a data center or repository. A Data Curator is an expert on the management and oversight of an organization's entire data to ensure compliance with policy and/or regulatory obligations

for long term preservation and to provide higher-level users with high quality data that is easily accessible in a consistent manner. A Data Curator could collect and publish data using domain-specific standard formats, ensuring the FAIRness of the data.

Data Management Plan (DMP): a formal document that outlines what to do with data during and after a research project. It describes the type of data that will be used for research, how this data is collected, organized, and stored, and in which formats. It details how data will be accessible and documented for sharing and reuse during and after the project is finished.

Data Repository: an operational information system for managing and organizing digital resources, particularly suitable for Datasets or Publication Data which are not likely to be altered again. The Data Repository contains Metadata about the Datasets, as well as given rules for data access. A Data Repository may be associated with a certain Institution or a group of them, or a certain Instrument or a group of them, or may be run by a third-party. A Data Repository may or may not be directly used by Research Users.

Dataset: collection of scientifically related Research Data which can be Raw Data, Analyzed Data, or other Datasets, each described by their related Metadata. The components of a Dataset remain individually identifiable within the Dataset.

Electronic Laboratory Notebook (ELN): computer program designed to replace paper Laboratory notebooks. It is used by Instruments Scientist and Research Users to document research, procedures, and workflow performed during an Experiment and typically related to a particular Instrument.

Equipment: any scientific tool, device or machine used in the course of an Experiment.

Experiment: identifiable activity with a clear start time and finish time conducted by a Research User who uses one or more Instruments to investigate or produce one or more Samples and collects Raw Data about it. Experiment consists of (or includes – in case of

Sample Preparation) one or a series of Measurements. Experiments can be a computer simulation (computational Experiment), or a combination of it with physical Measurements.

FAIR Data: data which meet the FAIR principles of findability, accessibility, interoperability, and reusability. The FAIR principles emphasize machine-actionability, i.e. the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention.

Instrument: identifiable Equipment that allows performing a Measurement, and generates Raw Data during an Experiment. An instrument is located in a Laboratory hosted by an Institution and used by one or more Instrument Scientists or Research Users. Instrument can be a software for computer simulation (a software module or/and a particular configuration of it).

Laboratory: place where one or more Instruments for Research Users are operated and the Measurement is performed (could also be virtual). In the context of the present deliverable, each laboratory corresponds to a single instrument of the NFFA-DI offer. For computer simulation, a Laboratory may include hardware or/and software platform or/and services that allow to order and manage computational experiments, so that the software platform serves the purpose of managing software modules that can be considered virtual Instruments. Examples: a laboratory, a beamline, a cleanroom, etc.

Measurement: the act of generating Raw Data for a Sample or a set of Samples during an Experiment using a particular Instrument under constant or varying controlled conditions, depending on the particular research context. Measurement is specific to Instrument: a research on the same Sample using a different Instrument implies a separate Measurement. Measurement can be a computer simulation, e.g. a particular run of a program using a particular model, configuration or input(s).

Metadata: set of descriptive, structural and contextual information describing the context, content and structure of Research Data and/or Datasets and their management through

time. It describes information pertaining to research projects, including (but not limited to) the context of the Experiment, the Research Users, the Data Analysis methods, and other logistical information. Metadata may include descriptions of how data and files are named, physically structured, and stored.

Metadata Standard: a Metadata Schema that fulfils the needs of a scientific community, has obtained consensus, and has been ratified as a standard by some official bodies, such as the National Institute of Standards and Technology (NIST), the Dublin Core Metadata Initiative or the NeXus Data Format. A Metadata Standard describes the information and the terms needed to properly define specific data and it favors interoperability. In the NeXus Data Format, a Metadata Standard is called "Application Definition".

Open Access (OA): practice of providing online access to scientific information that is free of charge to the end-user and reusable. 'Scientific' refers to all academic disciplines. In the context of research and innovation, 'scientific information' can mean: peer-reviewed scientific research articles (published in scholarly journals), or Research Data (data underlying publications, curated data and/or Raw Data). Open Access is granted by providing a suitable open License such as Creative Commons Licences (CC BY or CC0).

Open Format: open standard which specifies a file format. An Open Format is a file format for storing digital data, defined by a published specification, usually maintained by a standards organization, and which can be used and implemented by anyone. Open Formats are also called free file formats if they are not encumbered by any copyrights, patents, trademarks or other restrictions so that anyone may use the format at no monetary cost for any desired purpose.

Proposal: application of one (usually the Team Leader) or more Registered Users to get User Access in order to perform one or more activities, in one or more Laboratories using one or more Instruments for taking one or more Measurements of one or more Samples during one or more Experiments. Instrument, Measurement, Experiment and Sample can refer to computer simulation environments.

Publication Data: Dataset(s) generated in the NFFA-DI project needed to validate the Results presented in a Scientific Publication or appearing in it. Publication Data includes Raw Data, Analyzed Data and all the relevant Metadata on Measurement and Data Analysis to validate them.

Raw Data: Research Data which is the primary output of a Measurement, generated by a particular Instrument and collected during an Experiment by a Research User or Instrument Scientist, before any subsequent processing. Raw Data is typically in the form of a data file but it can be potentially a data stream, or other form of data relevant in a particular data management context. Raw Data is stored in a Data Repository which may be the same as Analyzed Data. Raw Data can be a result of a computer Experiment (simulation). Raw Data can be a part of a Dataset.

Research Data: information (particularly facts or numbers) collected to be examined and considered and to serve as a basis for reasoning, discussion, or calculation in a research context. Examples of Research Data include statistics, results of Experiments, Measurements, observations resulting from fieldwork, survey results, interview recordings and images. Raw Data and Analyzed Data are particular types of Research Data.

Research Data Policy: an identifiable expression of rules and regulations and sharing within NFFA-DI project. Data Policy may be applicable to Publication Data, Raw Data or/and Analyzed Data.

Research User: person who, after the approval of a Proposal, conducts an Experiment on one or more Laboratories using one or more Instruments in order to collect and analyze Research Data, or is interested in data collected or analyzed by other Research Users on the same or other Laboratories. Research Users may be assigned with a role, e.g. Team Leader and Team Members.

Result: any (tangible or intangible) output of the Project such as data, knowledge, or information — whatever its form or nature, whether it can be protected or not — that is

generated in the NFFA-DI project, as well as any rights attached to it, including intellectual property rights.

Sample: identifiable piece of material with distinctive properties (structural, chemical, dimensional and others), composed by one or more Sample Component(s), exposed to Instrument during Measurement within a defined period of time. Sample may stand for a model or configuration or data input (or any combination of these) in computer simulations.

Scientific Publication: any of the following contributions, peer-reviewed or not: article in a scientific journal (and related supporting information), monograph, book or book chapter, conference proceedings and 'grey literature' (i.e. informally published material not having gone through a standard publishing process, e.g. reports and highlights).

4. Lab-DMP Collection

Lab-DMPs have been organized and enclosed in the present document in respect of each operative unit (OU). We remark that the contents of the Lab-DMPs are going to be integrated and modified continuously over time, as the constant update is one of the innovative features that characterize NFFA-DI approach to an efficient management of a distributed infrastructure. Thus, the status described in the present deliverable refers to the catalogue composition at 31/08/2024 and might not be accurate at later times.

4.1 Lab-DMPs CNR-IOM (UO1)

Data Management Plan
CNR-IOM
Instrument Name: APE-HE

Created at: 2024-08-09 17:29:04.921428

Last modified at: 2024-08-09 17:29:04.921428

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Large-scale-facility

1.1.3. C) Technique

XAS

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

APE-HE

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piero Torelli

Email: piero.torelli@elettra.eu

1.2.2. B) Data Curator

Name : Piero Torelli

Email : piero.torelli@elettra.eu

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

5.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there

will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: CLUSTER_XPS

Created at: 2024-08-09 17:29:04.577844

Last modified at: 2024-08-09 17:29:04.577844

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XPS

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CLUSTER_XPS

1.1.5. E) Ancillary Equipment

UPS upgrade expected for Fall 2024..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Aleksandr Petrov,Giovanni Maria Vinai, Cinzia Cepek

Email: vinai@iom.cnr.it

1.2.2. B) Data Curator

Name : Giovanni Maria Vinai

Email : vinai@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

20.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there

will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: CLUSTER-CVD

Created at: 2024-08-09 17:29:04.829804

Last modified at: 2024-08-09 17:29:04.829804

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CLUSTER-CVD

1.1.5. E) Ancillary Equipment

PECVD also available..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Aleksandr Petrov,Giovanni Maria Vinai, Cinzia Cepek

Email: cepek@iom.cnr.it

1.2.2. B) Data Curator

Name : Giovanni Maria Vinai

Email : vinai@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, dat.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

2.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: CLUSTER-MBE-OXIDE

Created at: 2024-08-09 17:29:04.677042

Last modified at: 2024-08-09 17:29:04.677042

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MBE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CLUSTER-MBE-OXIDE

1.1.5. E) Ancillary Equipment

RHEED..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Aleksandr Petrov,Giovanni Maria Vinai, Cinzia Cepek

Email: petrov@iom.cnr.it

1.2.2. B) Data Curator

Name : Giovanni Maria Vinai

Email : vinai@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

20.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: CLUSTER-MOKE

Created at: 2024-08-09 17:29:04.799593

Last modified at: 2024-08-09 17:29:04.799593

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MOKE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CLUSTER-MOKE

1.1.5. E) Ancillary Equipment

in-situ MOKE, temperature range 4 K - 450 K. preparation LEED, sputtering, annealing, Auger. MBE GROWTH.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Aleksandr Petrov,Giovanni Maria Vinai, Cinzia Cepek

Email: vinai@iom.cnr.it

1.2.2. B) Data Curator

Name : Giovanni Maria Vinai

Email : vinai@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

20.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: INSPECT_XPS

Created at: 2024-08-09 17:29:04.547912

Last modified at: 2024-08-09 17:29:04.547912

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XPS

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

INSPECT_XPS

1.1.5. E) Ancillary Equipment

LEED, RGA, sputtering, growth via low pressure CVD (un to 10-5mbar), e-beam deposition, MBE.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Cinzia Cepek

Email: cepek@iom.cnr.it

1.2.2. B) Data Curator

Name : Cinzia Cepek

Email : cepek@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, dat.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: Instrument for SEM at CNR-IFN-TN

Created at: 2024-08-09 17:29:05.112712

Last modified at: 2024-08-09 17:29:05.112712

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Magneto-transport

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Instrument for SEM at CNR-IFN-TN

1.1.5. E) Ancillary Equipment

AC Resistance, Hall Effect, Electro-Optical and Magneto-optical measurements.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Giorgio Biasiol

Email: giorgio.biasiol@cnr.it

1.2.2. B) Data Curator

Name : Giorgio Biasiol

Email : biasiol@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: IOM - HMMBE

Created at: 2024-08-09 17:29:04.707801

Last modified at: 2024-08-09 17:29:04.707801

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MBE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IOM - HMMBE

1.1.5. E) Ancillary Equipment

RHEED, Pyrometry/Reflectometry.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Giorgio Biasiol

Email: giorgio.biasiol@cnr.it

1.2.2. B) Data Curator

Name : Giorgio Biasiol

Email : biasiol@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: IOM_SPRINT_TR-PES

Created at: 2024-08-09 17:29:04.982563

Last modified at: 2024-08-09 17:29:04.982563

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IOM_SPRINT_TR-PES

1.1.5. E) Ancillary Equipment

LEED-Auger, Valence band photoemission (with UV lamp).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Gian Marco Pierantozzi

Email: pierantozzi@iom.cnr.it

1.2.2. B) Data Curator

Name : gian marco pierantozzi

Email : pierantozzi@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

dat.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

30.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: IOM_SPRINT_TR-SPIN

Created at: 2024-08-09 17:29:05.013105

Last modified at: 2024-08-09 17:29:05.013105

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IOM_SPRINT_TR-SPIN

1.1.5. E) Ancillary Equipment

LEED-Auger, Valence band photoemission with UV lamp.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Gian Marco Pierantozzi

Email: pierantozzi@iom.cnr.it

1.2.2. B) Data Curator

Name : gian marco pierantozzi

Email : pierantozzi@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

15.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: IOM-MBE

Created at: 2024-08-09 17:29:04.737852

Last modified at: 2024-08-09 17:29:04.737852

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MBE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IOM-MBE

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Silvia Rubini

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:05.143882

Last modified at: 2024-08-09 17:29:05.143882

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Large-scale-facility

1.1.3. C) Technique

ARPES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

LEED, STM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Ivana Vobornik and Pierantozzi Gianmarco

Email: vobornik@iom.cnr.it

1.2.2. B) Data Curator

Name : Ivana Vobornik

Email : vobornik@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5, txt, dat, VG-Scienta-Omicron.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:05.082408

Last modified at: 2024-08-09 17:29:05.082408

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Magnetometry

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

Vibrating Sample Magnetometer (VSM), AC Susceptometer (ACS).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Giorgio Biasiol

Email: giorgio.biasiol@cnr.it

1.2.2. B) Data Curator

Name : Giorgio Biasiol

Email : biasiol@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:05.051033

Last modified at: 2024-08-09 17:29:05.051033

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

LEED.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Riccardo Cucini

Email: cucini@iom.cnr.it

1.2.2. B) Data Curator

Name : Riccardo Cucini

Email : cucini@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5, dat, VG-Scienta-Omicron.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: SSI_XPS

Created at: 2024-08-09 17:29:04.768432

Last modified at: 2024-08-09 17:29:04.768432

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MBE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

SSI_XPS

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Silvia Rubini

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: STRAS_SPLEEM

Created at: 2024-08-09 17:29:04.891136

Last modified at: 2024-08-09 17:29:04.891136

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

LEEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

STRAS_SPLEEM

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandro Sala

Email: sala@iom.cnr.it

1.2.2. B) Data Curator

Name : Alessandro Sala

Email : sala@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: STRAS_SPLEEM

Created at: 2024-08-09 17:29:04.860407

Last modified at: 2024-08-09 17:29:04.860407

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PEEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

STRAS_SPLEEM

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandro Sala

Email: sala@iom.cnr.it

1.2.2. B) Data Curator

Name : Alessandro Sala

Email : sala@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: STRAS-LT-STM

Created at: 2024-08-09 17:29:04.638969

Last modified at: 2024-08-09 17:29:04.638969

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

STM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

STRAS-LT-STM

1.1.5. E) Ancillary Equipment

LEED, TDS, sputtering, CVD, RGA.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Cinzia Di Giorgio

Email: digiorgio@iom.cnr.it

1.2.2. B) Data Curator

Name : Alessandro Sala

Email : sala@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

VG-Scienta-Omicron.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

500.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

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4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-IOM
Instrument Name: STRAS-VT-STM

Created at: 2024-08-09 17:29:04.608743

Last modified at: 2024-08-09 17:29:04.608743

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-IOM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

STM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

STRAS-VT-STM

1.1.5. E) Ancillary Equipment

LEED, CVD, RGA.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Cinzia Di Giorgio

Email: sala@iom.cnr.it, digiorgio@iom.cnr.it

1.2.2. B) Data Curator

Name : Alessandro Sala

Email : sala@iom.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

NeXus.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

50.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.2 Lab-DMPs CNR-INF@MI (UO2)

Data Management Plan
IFN-Milano
Instrument Name: ASTRO

Created at: 2024-08-09 17:29:04.078295

Last modified at: 2024-08-09 17:29:04.078295

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Milano

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

ASTRO

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: CIRIOLO ANNA GABRIELLA

Email: michele.devetta@cnr.it

1.2.2. B) Data Curator

Name : Michele Devetta

Email : michele.devetta@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Milano
Instrument Name: IFN-MI_BB-HRR-TR-THz

Created at: 2024-08-09 17:29:04.138633

Last modified at: 2024-08-09 17:29:04.138633

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Milano

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IFN-MI_BB-HRR-TR-THz

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Eugenio Cinquanta

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Milano
Instrument Name: IFN-MI_HHG

Created at: 2024-08-09 17:29:04.168761

Last modified at: 2024-08-09 17:29:04.168761

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Milano

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IFN-MI_HHG

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Davide Faccial

Email: davide.facciala@cnr.it

1.2.2. B) Data Curator

Name : Michele Devetta

Email : michele.devetta@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

2000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

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3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

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4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

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4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

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Data Management Plan
IFN-Milano
Instrument Name: IFN-MI_HRR-VIS-VUV-HHG

Created at: 2024-08-09 17:29:04.199068
Last modified at: 2024-08-09 17:29:04.199068
Version: v0
Partially based on: D1.2 NFFA-DI Data Management Plan First Release
Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Milano

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IFN-MI_HRR-VIS-VUV-HHG

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Davide Faccial
Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Milano
Instrument Name: IFN-MI_TR-THz

Created at: 2024-08-09 17:29:04.108432

Last modified at: 2024-08-09 17:29:04.108432

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Milano

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IFN-MI_TR-THz

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Eugenio Cinquanta

Email: eugenioluigi.cinquanta@cnr.it

1.2.2. B) Data Curator

Name : Michele Devetta

Email : michele.devetta@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter. There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.3 Lab-DMPs CNR-INF@TN (UO3)

Data Management Plan
IFN-Trento
Instrument Name:
IFN@TN_RIE_PlasmaPro 100 Cobra

Created at: 2024-08-09 17:29:02.410377

Last modified at: 2024-08-09 17:29:02.410377

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RIE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IFN@TN_RIE_PlasmaPro 100 Cobra

1.1.5. E) Ancillary Equipment

SEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Chiappini

Email: email missing

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Trento
Instrument Name: Oxford; ICP-CVD PlasmaPro100

Created at: 2024-08-09 17:29:02.471288

Last modified at: 2024-08-09 17:29:02.471288

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Oxford; ICP-CVD PlasmaPro100

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Navaz Awi

Email: andrea.chiappini@cnr.it

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Trento
Instrument Name: Oxford_ICP-CVD_PlasmaPro100

Created at: 2024-08-09 17:29:02.372077

Last modified at: 2024-08-09 17:29:02.372077

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RIE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Oxford_ICP-CVD_PlasmaPro100

1.1.5. E) Ancillary Equipment

SEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Navaz Awi

Email: email missing

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Trento
Instrument Name: Ratith; Velion 150 System

Created at: 2024-08-09 17:29:02.502409

Last modified at: 2024-08-09 17:29:02.502409

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

FIB

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Ratith; Velion 150 System

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Navaz Awi

Email: email missing

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Trento
Instrument Name: Tescan; Vega

Created at: 2024-08-09 17:29:02.532531

Last modified at: 2024-08-09 17:29:02.532531

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Tescan; Vega

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: name missing

Email: email missing

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IFN-Trento
Instrument Name: Tescan;Nisaba

Created at: 2024-08-09 17:29:02.440664

Last modified at: 2024-08-09 17:29:02.440664

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IFN-Trento

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

EBL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Tescan;Nisaba

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Navaz Awi and Carpentiero Alessandro

Email: email missing

1.2.2. B) Data Curator

Name : Alessandro Carpentiero

Email : alessandro.carpentiero@cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.4 Lab-DMPs CNR-IMM@BO (UO4)

Data Management Plan
IMM-Bologna
Instrument Name: ADT 7100 Dicing Saw

Created at: 2024-08-09 17:29:02.749399

Last modified at: 2024-08-09 17:29:02.749399

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Dicing-saw

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

ADT 7100 Dicing Saw

1.1.5. E) Ancillary Equipment

optical microscope, SEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: CCP-RIE SENTECH

Created at: 2024-08-09 17:29:02.910404

Last modified at: 2024-08-09 17:29:02.910404

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RIE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CCP-RIE SENTECH

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: CVD system for graphene deposition

Created at: 2024-08-09 17:29:02.626159

Last modified at: 2024-08-09 17:29:02.626159

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CVD system for graphene deposition

1.1.5. E) Ancillary Equipment

SEM, optical microscope.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: DC SPUTTER MAGNETRON MODEL MRC 8603

Created at: 2024-08-09 17:29:02.817712

Last modified at: 2024-08-09 17:29:02.817712

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PVD sputtering

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

DC SPUTTER MAGNETRON MODEL MRC 8603

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Ivan Elmi

Email: email missing

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: DEEP REACTIVE ION ETCHING ALCATEL A601E

Created at: 2024-08-09 17:29:02.848926

Last modified at: 2024-08-09 17:29:02.848926

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RIE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

DEEP REACTIVE ION ETCHING ALCATEL A601E

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: name missing

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: DRY ETCHER TEPLA

Created at: 2024-08-09 17:29:02.879452

Last modified at: 2024-08-09 17:29:02.879452

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RIE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

DRY ETCHER TEPLA

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Furnace LPCVD for LTO

Created at: 2024-08-09 17:29:02.565335

Last modified at: 2024-08-09 17:29:02.565335

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Furnace LPCVD for LTO

1.1.5. E) Ancillary Equipment

spectrophotometer.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Furnace LPCVD for Polycrystalline silicon

Created at: 2024-08-09 17:29:02.595694

Last modified at: 2024-08-09 17:29:02.595694

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Furnace LPCVD for Polycrystalline silicon

1.1.5. E) Ancillary Equipment

spectrophotometer.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Furnace LPCVD for Silicon nitride

Created at: 2024-08-09 17:29:02.687801

Last modified at: 2024-08-09 17:29:02.687801

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Furnace LPCVD for Silicon nitride

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Furnace LPCVD for TEOS

Created at: 2024-08-09 17:29:02.718943

Last modified at: 2024-08-09 17:29:02.718943

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Furnace LPCVD for TEOS

1.1.5. E) Ancillary Equipment

spectrophotometer.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: MASK ALIGNER MA 6/BA 6 Karl SuSS DUV

Created at: 2024-08-09 17:29:02.940907

Last modified at: 2024-08-09 17:29:02.940907

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

UVL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

MASK ALIGNER MA 6/BA 6 Karl SuSS DUV

1.1.5. E) Ancillary Equipment

optical microscope, mechanical profilometer.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: maccagnani@bo.imm.cnr.it

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: PECVD system

Created at: 2024-08-09 17:29:02.656846

Last modified at: 2024-08-09 17:29:02.656846

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

PECVD system

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Piera Maccagnani

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: RF SPUTTER MODEL MCR 8622

Created at: 2024-08-09 17:29:02.787587

Last modified at: 2024-08-09 17:29:02.787587

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PVD sputtering

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

RF SPUTTER MODEL MCR 8622

1.1.5. E) Ancillary Equipment

optical profilometer.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Ivan Elmi

Email: email missing

1.2.2. B) Data Curator

Name : Piera Maccagnani

Email : maccagnani@bo.imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Wafer bonder SB6 4” - SuSS MICROTECH”

Created at: 2024-08-09 17:29:03.002085

Last modified at: 2024-08-09 17:29:03.002085

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

wafer bonder

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Wafer bonder SB6 4 - SSS MICROTECH

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Ivan Elmi

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Wafer bonder SB6 6 - SSS MICROTECH

Created at: 2024-08-09 17:29:02.971753

Last modified at: 2024-08-09 17:29:02.971753

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

wafer bonder

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Wafer bonder SB6 6 - SSS MICROTECH

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Ivan Elmi

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Bologna
Instrument Name: Zeiss-RAITH CrossBeam 340 SEM/FIB/EBL

Created at: 2024-08-09 17:29:03.032923

Last modified at: 2024-08-09 17:29:03.032923

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Bologna

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

FIB

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Zeiss-RAITH CrossBeam 340 SEM/FIB/EBL

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Nicola Gilli

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.5 Lab-DMPs CNR-IMM@CT (UO5)

Data Management Plan
IMM-Catania
Instrument Name: IMM_CT-CVD-1

Created at: 2024-08-09 17:29:04.299910

Last modified at: 2024-08-09 17:29:04.299910

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CVD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM_CT-CVD-1

1.1.5. E) Ancillary Equipment

APT (to be installed GEN 2025), Ellipsometry.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Giovanni Mannino

Email: giovanni.mannino@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM_CT-PVD-MS

Created at: 2024-08-09 17:29:04.514968

Last modified at: 2024-08-09 17:29:04.514968

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PVD sputtering

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM_CT-PVD-MS

1.1.5. E) Ancillary Equipment

Ellipsometry, XRD, XRR, TEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandra Alberti

Email: alessandra.alberti@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan IMM-Catania Instrument Name: IMM-CT_ELLIPSOMETER-1

Created at: 2024-08-09 17:29:04.452528

Last modified at: 2024-08-09 17:29:04.452528

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ellipsometry

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_ELLIPSOMETER-1

1.1.5. E) Ancillary Equipment

XRD, XRR, CVD, TEM, SEM, STEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Giovanni Mannino

Email: giovanni.mannino@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

30.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_FIB-1

Created at: 2024-08-09 17:29:04.261745

Last modified at: 2024-08-09 17:29:04.261745

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

biotechmanage_accounts

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_FIB-1

1.1.5. E) Ancillary Equipment

APT (installation foreseen Gen 2025), TEM, STEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Antonino Mio

Email: antonio.mio@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_SEM-1

Created at: 2024-08-09 17:29:04.422179

Last modified at: 2024-08-09 17:29:04.422179

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_SEM-1

1.1.5. E) Ancillary Equipment

APT(to be installed GEN 2025), TEM, STEM, SRP.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Silvia Scalese

Email: silvia.scalese@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

30.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_SRP_1

Created at: 2024-08-09 17:29:04.391088

Last modified at: 2024-08-09 17:29:04.391088

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Spreading Resistance -profiling

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_SRP_1

1.1.5. E) Ancillary Equipment

TEM, SEM, STEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Markus Italia

Email: marcus.italia@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

30.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_TEM-1

Created at: 2024-08-09 17:29:04.483014

Last modified at: 2024-08-09 17:29:04.483014

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

TEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_TEM-1

1.1.5. E) Ancillary Equipment

APT (to be installed GEN 2025), FIB, XRD.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Antonio Massimiliano Mio

Email: antonio.mio@cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

500.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_THEORY_1

Created at: 2024-08-09 17:29:04.231493

Last modified at: 2024-08-09 17:29:04.231493

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MULTI-SCALE PROCESS SIMULATION FROM THE MACRO TO THE ATOMIC SCALE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_THEORY_1

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Antonino La Magna

Email: antonino.lamagna@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5, txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_XRD_1

Created at: 2024-08-09 17:29:04.360441

Last modified at: 2024-08-09 17:29:04.360441

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XRD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_XRD_1

1.1.5. E) Ancillary Equipment

XRR, TEM, STEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandra Alberti

Email: alessandra.alberti@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
IMM-Catania
Instrument Name: IMM-CT_XRR_1

Created at: 2024-08-09 17:29:04.329944

Last modified at: 2024-08-09 17:29:04.329944

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

IMM-Catania

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XRR

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

IMM-CT_XRR_1

1.1.5. E) Ancillary Equipment

XRD, APT(to be installed GEN 2024), TEM, STEM.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandra Alberti

Email: alessandra.alberti@imm.cnr.it

1.2.2. B) Data Curator

Name : Antonino La Magna

Email : antonino.lamagna@imm.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.6 Lab-DMPs CNR-ISM (UO6)

Data Management Plan CNR-ISM Instrument Name: ISM-ROMA_Photoluminescence-Spectrometer

Created at: 2024-08-09 17:29:03.097701

Last modified at: 2024-08-09 17:29:03.097701

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-ISM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Optical-luminescence

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

ISM-ROMA_Photoluminescence-Spectrometer

1.1.5. E) Ancillary Equipment

Criostat (12 K).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Catone Daniele (daniele.catone@cnr.it) and Toschi Francesco (francesco.toschi@cnr.it) and Ammirati Giuseppe (giuseppe.ammirati@artov.ism.cnr.it)

Email: stefano.turchini@ism.cnr.it

1.2.2. B) Data Curator

Name : Stefano Turchini

Email : stefano.turchini@ism.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

11.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan CNR-ISM Instrument Name: ISM-ROMA_Transient Absorption Spectrometer

Created at: 2024-08-09 17:29:03.066308

Last modified at: 2024-08-09 17:29:03.066308

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-ISM

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Ultrafast-Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

ISM-ROMA_Transient Absorption Spectrometer

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Turchini Stefano (stefano.turchini@ism.cnr.it) Catone Daniele Toschi Francesco Ammirati Giuseppe

Email: stefano.turchini@ism.cnr.it

1.2.2. B) Data Curator

Name : Stefano Turchini

Email : stefano.turchini@ism.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.7 Lab-DMPs CNR-Nanotec@LE (UO7)

Data Management Plan
CNR-NANOTEC
Instrument Name: ALD Sentech

Created at: 2024-08-09 17:29:04.046393

Last modified at: 2024-08-09 17:29:04.046393

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-NANOTEC

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ALD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

ALD Sentech

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Massimo Cuscun 

Email: massimo.cuscuna@cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name:
Cathodoluminescence-SPARC Delmic

Created at: 2024-08-09 17:29:02.178760

Last modified at: 2024-08-09 17:29:02.178760

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Cathodoluminescence

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Cathodoluminescence-SPARC Delmic

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Massimo Cuscun

Email: massimo.cuscuna@cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: CELIV - Setup

Created at: 2024-08-09 17:29:02.338904

Last modified at: 2024-08-09 17:29:02.338904

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CELIV

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

CELIV - Setup

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Salvatore Gambino

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: FIB/SEM Zeiss Auriga-Raith Elphy pattern generator and metalorganic precursor

Created at: 2024-08-09 17:29:02.212301

Last modified at: 2024-08-09 17:29:02.212301

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

FIB

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

FIB/SEM Zeiss Auriga-Raith Elphy pattern generator and metalorganic precursor

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Massimo Cuscun

Email: massimo.cuscuna@cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: Malvern PANalytical X'Pert Pro MRD diffractometer

Created at: 2024-08-09 17:29:02.244959

Last modified at: 2024-08-09 17:29:02.244959

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XRD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Malvern PANalytical X'Pert Pro MRD diffractometer

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: David Maria Tobaldi

Email: david.tobaldi@nanotec.cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

20.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: Malvern PANalytical X'Pert Pro MRD diffractometer

Created at: 2024-08-09 17:29:02.276898

Last modified at: 2024-08-09 17:29:02.276898

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XRR

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Malvern PANalytical X'Pert Pro MRD diffractometer

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: David Maria Tobaldi

Email: david.tobaldi@nanotec.cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

20.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: SEM Zeiss Merlin - EDX/STEM

Created at: 2024-08-09 17:29:02.147535

Last modified at: 2024-08-09 17:29:02.147535

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

SEM Zeiss Merlin - EDX/STEM

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Massimo Cuscun

Email: massimo.cuscuna@cnr.it

1.2.2. B) Data Curator

Name : Massimo Cuscuna

Email : massimo.cuscuna@nanotec.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff, bmp.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-Nanotec
Instrument Name: TOF - Setup

Created at: 2024-08-09 17:29:02.307953

Last modified at: 2024-08-09 17:29:02.307953

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-Nanotec

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

TOF

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

TOF - Setup

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Salvatore Gambino

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.8 Lab-DMPs CNR-Spin (UO8)

Data Management Plan
CNR-SPIN
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:03.952102

Last modified at: 2024-08-09 17:29:03.952102

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PVD sputtering

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: name missing

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:03.982649

Last modified at: 2024-08-09 17:29:03.982649

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Thermal Evaporation

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: name missing

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: Not inserted

Created at: 2024-08-09 17:29:04.013879

Last modified at: 2024-08-09 17:29:04.013879

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XRD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Not inserted

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: name missing

Email: email missing

1.2.2. B) Data Curator

Name : nan

Email : nan

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: PLD-large-AREA

Created at: 2024-08-09 17:29:03.822826

Last modified at: 2024-08-09 17:29:03.822826

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PLD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

PLD-large-AREA

1.1.5. E) Ancillary Equipment

In-situ High-Pressure RHEED: a differential pumping system allows the use of RHEED for growth pressure up to few 10-1 mbar..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: sambri alessia

Email: fabio.miletto@spin.cnr.it

1.2.2. B) Data Curator

Name : Fabio Miletto Granozio

Email : fabio.miletto@spin.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: PLD-MODA

Created at: 2024-08-09 17:29:03.792517

Last modified at: 2024-08-09 17:29:03.792517

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PLD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

PLD-MODA

1.1.5. E) Ancillary Equipment

In-situ High-Pressure RHEED: a differential pumping system allows the use of RHEED for growth pressure up to few 10-1 mbar..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: sambri alessia

Email: fabio.miletto@spin.cnr.it

1.2.2. B) Data Curator

Name : Fabio Miletto Granozio

Email : fabio.miletto@spin.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

100.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: SPA-LEED

Created at: 2024-08-09 17:29:03.853265

Last modified at: 2024-08-09 17:29:03.853265

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SPA-LEED

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

SPA-LEED

1.1.5. E) Ancillary Equipment

The Spot Profile Analysis Low Energy Electron Diffraction instrument (SPA?LEED) is a special LEED designed to allow high resolution reciprocal space mapping of ordered surfaces. This LEED is used for the thorough analysis of defect structures on single crystal surfaces. The technique enables precise quantitative analysis of lateral and vertical lattice constants, terrace/islands size and height NA distribution, ordering parameters in phase transitions etc. The main part of the SPA LEED is an octopole which enables the scanning of the diffracted beam over a detection assembly, thus improving the signal to noise ratio and resolution compared to conventional, screen and camera based systems. The LEED instrument is UHV connected to the RHEED-assisted PLD chamber..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Marco Salluzzo

Email: marco.salluzzo@spin.cnr.it

1.2.2. B) Data Curator

Name : Fabio Miletto Granozio

Email : fabio.miletto@spin.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

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3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

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4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: VT-AFM Omicron-GMBH

Created at: 2024-08-09 17:29:03.883892

Last modified at: 2024-08-09 17:29:03.883892

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

STM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

VT-AFM Omicron-GMBH

1.1.5. E) Ancillary Equipment

The UHV Omicron VT?AFM system is designed to operate as scanning tunneling microscope, atomic force microscope, and hybrid scanning probe microscopes, in a temperature range between 300K?1000K. The max scan area is 8x8 ?m2 with a spatial resolution below 0.1 nm. The vertical resolution is 0.01 nm. The VT?AFM is capable to operate in a variety of spectroscopic modes: I?V and G(V) (conductance) spectroscopy in STM and contact AFM modes Electrostatic force microscopy Magnetic force microscopy Kelvin probe microscopy Piezoforce microscopy The UHV (P<10?11mbar) surface anaysis chamber is equipped a manipulator having 5 degrees of freedom, heatable up to 1000&#65533;C. The STM is connected in UHV to the RHEED-assisted PLD chamber..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Marco Salluzzo

Email: marco.salluzzo@spin.cnr.it

1.2.2. B) Data Curator

Name : Fabio Miletto Granozio

Email : fabio.miletto@spin.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv, tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
CNR-SPIN
Instrument Name: XPS-OMICRON

Created at: 2024-08-09 17:29:03.921783

Last modified at: 2024-08-09 17:29:03.921783

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

CNR-SPIN

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XPS

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

XPS-OMICRON

1.1.5. E) Ancillary Equipment

X?ray Photoelectron Spectroscopy (XPS) measurements are performed by employing a dual anode x?ray source DAR400 Omicron. X?ray energies are 1486.6eV (Mg K) and 1253.6 eV (Al K). Perpendicular and shallow angle configurations, the latter being most sensitive to the surface chemical composition can be used. The photoemitted electrons are detected by a 5 channel hemispherical NA spectrometer. Using the same detector system but a UV lamp SPEC UVS 10/35 for the radiation, Ultraviolet Photoelectron Spectroscopy (UPS) can be also performed. The XPS system is connected in UHV to the RHEED-assisted PLD chamber..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Marco Salluzzo

Email: marco.salluzzo@spin.cnr.it

1.2.2. B) Data Curator

Name : Fabio Miletto Granozio

Email : fabio.miletto@spin.cnr.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.9 Lab-DMPs Area (UO9)

Data Management Plan
Area-Science-Park
Instrument Name: PlasmaFIB-FESEM Tescan AMBER X

Created at: 2024-08-09 17:29:03.728570

Last modified at: 2024-08-09 17:29:03.728570

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Area-Science-Park

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

FIB for tem

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

PlasmaFIB-FESEM Tescan AMBER X

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Regina Ciancio and Liguori Laura

Email: regina.ciancio@areasciencepark.it

1.2.2. B) Data Curator

Name : Floriana Morabito

Email : floriana.morabito@areasciencepark.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

4000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Area-Science-Park
Instrument Name: TEM JEOL JEM-F200

Created at: 2024-08-09 17:29:03.759448

Last modified at: 2024-08-09 17:29:03.759448

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Area-Science-Park

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

TEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

TEM JEOL JEM-F200

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Regina Ciancio

Email: regina.ciancio@areasciencepark.it

1.2.2. B) Data Curator

Name : Floriana Morabito

Email : floriana.morabito@areasciencepark.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

3200.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.10 Lab-DMPs Polifab (UO10)

Data Management Plan
Polifab
Instrument Name:
POLIFAB_AFM_keysight 5600LS

Created at: 2024-08-09 17:29:02.020532

Last modified at: 2024-08-09 17:29:02.020532

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

AFM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_AFM_keysight 5600LS

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Stefano Bigoni

Email: stefano.bigoni@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

500.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_ALD_BENQ TFS 200

Created at: 2024-08-09 17:29:01.670430

Last modified at: 2024-08-09 17:29:01.670430

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ALD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_ALD_BENQ TFS 200

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Scaccabarozzi and Villa Matteo

Email: andrea.scaccabarozzi@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_ARPES SPECS

Created at: 2024-08-09 17:29:01.733543

Last modified at: 2024-08-09 17:29:01.733543

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ARPES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_ARPES SPECS

1.1.5. E) Ancillary Equipment

Preparation chamber (deposition of metals by e-beam evaporation, Ar sputter-etch, thermal treatment).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Christian Rinaldi

Email: christian.rinaldi@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, dat.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_Dicing Saw Disco DAD341

Created at: 2024-08-09 17:29:02.112919

Last modified at: 2024-08-09 17:29:02.112919

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Dicing-saw

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_Dicing Saw Disco DAD341

1.1.5. E) Ancillary Equipment

Wafer mounting and wafer cleaning stations.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Stefano Bigoni

Email: stefano.bigoni@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_DWL Heidelberg DWL66+

Created at: 2024-08-09 17:29:01.890050

Last modified at: 2024-08-09 17:29:01.890050

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

DWL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_DWL Heidelberg DWL66+

1.1.5. E) Ancillary Equipment

Spin coaters, hot plates, wet benches, optical microscopy, plasma asher.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Chiara Nava

Email: chiara.nava@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_EBL Raith Elphy Plus

Created at: 2024-08-09 17:29:01.826702

Last modified at: 2024-08-09 17:29:01.826702

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

EBL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_EBL Raith Elphy Plus

1.1.5. E) Ancillary Equipment

Spin coaters, hot plates, wet benches, optical microscopy, plasma asher.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Elisa Sogne

Email: elisa.sogne@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_ESCA Specs

Created at: 2024-08-09 17:29:01.702443

Last modified at: 2024-08-09 17:29:01.702443

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ESCA

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_ESCA Specs

1.1.5. E) Ancillary Equipment

Preparation chamber (deposition of metals by e-beam evaporation, Ar sputter-etch, thermal treatment).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Christian Rinaldi

Email: christian.rinaldi@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, Other.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_Heidelberg MLA100

Created at: 2024-08-09 17:29:01.920941

Last modified at: 2024-08-09 17:29:01.920941

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

DWL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_Heidelberg MLA100

1.1.5. E) Ancillary Equipment

Spin coaters, hot plates, wet benches, optical microscopy, plasma asher.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Chiara Nava

Email: chiara.nava@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_Mask Aligner Karl Suss MA6/BA8

Created at: 2024-08-09 17:29:02.082543

Last modified at: 2024-08-09 17:29:02.082543

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Optical-Lithography

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_Mask Aligner Karl Suss MA6/BA8

1.1.5. E) Ancillary Equipment

Spin coaters, hot plates, wet benches, optical microscopy, plasma asher.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Chiara Nava

Email: chiara.nava@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_MBE-Chalcogenides

Created at: 2024-08-09 17:29:01.638637

Last modified at: 2024-08-09 17:29:01.638637

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MBE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_MBE-Chalcogenides

1.1.5. E) Ancillary Equipment

RHEED.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Matteo Cantoni and GIAMPIETRI ALESSIO

Email: matteo.cantoni@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_Oxford Plasmalab 100

Created at: 2024-08-09 17:29:01.858092

Last modified at: 2024-08-09 17:29:01.858092

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ICP

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_Oxford Plasmalab 100

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Scaccabarozzi

Email: andrea.scaccabarozzi@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_PLD
Neocera Pioneer 180

Created at: 2024-08-09 17:29:01.602197

Last modified at: 2024-08-09 17:29:01.602197

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

PLD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_PLD Neocera Pioneer 180

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Cattoni and MATTEO VILLA

Email: andrea.cattoni@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_RF probe station

Created at: 2024-08-09 17:29:01.796157

Last modified at: 2024-08-09 17:29:01.796157

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

RF VNA characterization

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_RF probe station

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: CESURA FEDERICO

Email: riccardo.bertacco@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, csv.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_SEM LEO 1525

Created at: 2024-08-09 17:29:02.052284

Last modified at: 2024-08-09 17:29:02.052284

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_SEM LEO 1525

1.1.5. E) Ancillary Equipment

EDX, pattern generator.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Elisa Sogne

Email: elisa.sogne@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

tiff.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

500.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_TR-MOKE

Created at: 2024-08-09 17:29:01.764090

Last modified at: 2024-08-09 17:29:01.764090

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MOKE

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_TR-MOKE

1.1.5. E) Ancillary Equipment

RF electrical excitation (needed stripline/coplanar waveguide lithographed on the sample).

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Daniela Petti

Email: daniela.petti@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name: POLIFAB_Yamamoto electroplating

Created at: 2024-08-09 17:29:01.983852

Last modified at: 2024-08-09 17:29:01.983852

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Electrochemical deposition

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIFAB_Yamamoto electroplating

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Scaccabarozzi

Email: andrea.scaccabarozzi@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

nan.

2.1.2. B) Is it an open format (or at least editable with an open software)?

nan.

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
Polifab
Instrument Name:
POLIGAB_NanoFrazor Explore

Created at: 2024-08-09 17:29:01.952620

Last modified at: 2024-08-09 17:29:01.952620

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

Polifab

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

T-SPL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

POLIGAB_NanoFrazor Explore

1.1.5. E) Ancillary Equipment

Spin coaters, hot plates, wet benches, optical microscopy, plasma asher.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Edoardo Albisetti

Email: edoardo.albisetti@polimi.it

1.2.2. B) Data Curator

Name : Andrea Cattoni

Email : andrea.cattoni@polimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

html.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

4.11 Lab-DMPs UNIMI (UO11)

Data Management Plan
UniMi-Fisica
Instrument Name: crio-STM

Created at: 2024-08-09 17:29:03.665614

Last modified at: 2024-08-09 17:29:03.665614

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

STM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

crio-STM

1.1.5. E) Ancillary Equipment

UHV preparation chamber,  Low Energy Electron Diffraction spectroscopy, HT surface electron cleaning, surface characterization..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Giugni

Email: andrea.giugni@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

csv, Other.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

hdf5.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: MIMag-SEMPA

Created at: 2024-08-09 17:29:03.604503

Last modified at: 2024-08-09 17:29:03.604503

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SEM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

MIMag-SEMPA

1.1.5. E) Ancillary Equipment

UHV preparation chamber,  Low Energy Electron Diffraction spectroscopy, HT surface electron cleaning, surface characterization..

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Giugni

Email: andrea.giugni@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

csv, Other.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

hdf5.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: MIMag-SFEMPA

Created at: 2024-08-09 17:29:03.573411

Last modified at: 2024-08-09 17:29:03.573411

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Scanning Field Emission Microscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

MIMag-SFEMPA

1.1.5. E) Ancillary Equipment

pulsed and CW magnetic field immersion tool, UHV preparation chamber,  Low Energy Electron Diffraction spectroscopy, HT surface electron cleaning, surface characterization.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Giugni

Email: andrea.giugni@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

csv, Other.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

hdf5.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Reflectron TOF

Created at: 2024-08-09 17:29:03.382892

Last modified at: 2024-08-09 17:29:03.382892

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

Mass Spectroscopy

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Reflectron TOF

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Paolo Piseri

Email: paolo.piseri@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

nan.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_AMM

Created at: 2024-08-09 17:29:03.291208

Last modified at: 2024-08-09 17:29:03.291208

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

AMM - ATOMS AND MOLECULES IN MOTION

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_AMM

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Guerra Roberto

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_QE

Created at: 2024-08-09 17:29:03.199264

Last modified at: 2024-08-09 17:29:03.199264

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MP - MAGNETIC PROPERTIES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_QE

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Achilli Simona and Molteni Elena

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

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4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_QE

Created at: 2024-08-09 17:29:03.168781

Last modified at: 2024-08-09 17:29:03.168781

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SGSEP- Structural and ground-state electronic properties

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_QE

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Achilli Simona and Molteni Elena

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_SIESTA

Created at: 2024-08-09 17:29:03.230269

Last modified at: 2024-08-09 17:29:03.230269

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

MP - MAGNETIC PROPERTIES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_SIESTA

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Achilli Simona and Molteni Elena

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_SIESTA

Created at: 2024-08-09 17:29:03.130811

Last modified at: 2024-08-09 17:29:03.130811

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

SGSEP- Structural and ground-state electronic properties

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_SIESTA

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Achilli Simona and Molteni Elena

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name:
Theory_UMI_TRANSIESTA_1

Created at: 2024-08-09 17:29:03.260656

Last modified at: 2024-08-09 17:29:03.260656

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

TP - TRANSPORT PROPERTIES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_TRANSIESTA_1

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Simona Achilli

Email: simona.achilli@unimi.it

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: Theory_UMI_YAMBO

Created at: 2024-08-09 17:29:03.321515

Last modified at: 2024-08-09 17:29:03.321515

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

ESP - EXCITED-STATE PROPERTIES

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

Theory_UMI_YAMBO

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Achilli Simona and Molteni Elena and Sangalli Davide and Onida Giovanni

Email: email missing

1.2.2. B) Data Curator

Name : Elena Molteni

Email : elena.molteni@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

1000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: UNIMI_Bioscope Catalyst

Created at: 2024-08-09 17:29:03.696242

Last modified at: 2024-08-09 17:29:03.696242

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

AFM

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

UNIMI_Bioscope Catalyst

1.1.5. E) Ancillary Equipment

thermostatic heated (<40&#65533;C) liquid cell; inline optical microscope; kit for electric current measurements.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Alessandro podest&#65533;

Email: alessandro.podesta@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

250.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

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4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: UNIMI_CBD

Created at: 2024-08-09 17:29:03.414031

Last modified at: 2024-08-09 17:29:03.414031

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

CBD

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

UNIMI_CBD

1.1.5. E) Ancillary Equipment

Quartz-Microbalance Thickness Monitor.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Paolo Piseri

Email: paolo.piseri@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

txt, png.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: UNIMI_DOUBLE VMI

Created at: 2024-08-09 17:29:03.352076

Last modified at: 2024-08-09 17:29:03.352076

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Large-scale-facility

1.1.3. C) Technique

Electron-Ion-Coincidence

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

UNIMI_DOUBLE VMI

1.1.5. E) Ancillary Equipment

nan.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Paolo Piseri

Email: paolo.piseri@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

50000.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name: UNIMI_Leybold EA11

Created at: 2024-08-09 17:29:03.543222

Last modified at: 2024-08-09 17:29:03.543222

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

XPS

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

UNIMI_Leybold EA11

1.1.5. E) Ancillary Equipment

Ion-gun, RGA.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Paolo Piseri

Email: paolo.piseri@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

HDF5, txt.

2.1.2. B) Is it an open format (or at least editable with an open software)?

Yes..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

10.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

Yes. All the publications will report in their metadata the d.o.i. of the related data and metadata.

3.2.3. C) Will any scientific output related to data such as presentation or posters be open access registered with a d.o.i.?

Yes. Any scientific output will be uploaded on a trusted open access repository such Zenodo.

3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

On OFED raw data linked to a scientific publication or to published datasets will be preserved for 10 years while the others will be preserved for 5 years or less according to the related needs and costs.

4.2. 2. Backups

4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.

Data Management Plan
UniMi-Fisica
Instrument Name:
UNIMI_MICROWRITER ML3 BABY

Created at: 2024-08-09 17:29:03.634850

Last modified at: 2024-08-09 17:29:03.634850

Version: v0

Partially based on: D1.2 NFFA-DI Data Management Plan First Release

Technique and Instrument Names correspond to those inserted into the NFFA-DI Catalogue

1. I. ADMINISTRATIVE INFORMATION

1.1. 1. Installation Information

1.1.1. A) Operative Unit

UniMi-Fisica

1.1.2. B) Facility Type

Laboratory

1.1.3. C) Technique

DWL

1.1.4. D) Instrument Name (Software Name for Theory and Simulation)

UNIMI_MICROWRITER ML3 BABY

1.1.5. E) Ancillary Equipment

inline digital optical microscope, spinner, chemical fume hood.

1.2. 2. Contacts

1.2.1. A) Instrument Scientist

Name: Andrea Giugni

Email: andrea.giugni@unimi.it

1.2.2. B) Data Curator

Name : Paolo Piseri

Email : paolo.piseri@unimi.it

2. II. DATA AND METADATA COLLECTION

2.1. 1. Data Collected

2.1.1. A) Raw data file format

OASIS.

2.1.2. B) Is it an open format (or at least editable with an open software)?

No..

2.1.3. C) If it is a proprietary format not FAIR compliant, in which open format will data be converted?

nan.

2.1.4. D) Average amount of data produced in 8 hours (MB)

250.0.

2.2. 3. Metadata collection

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

2.2.1. A) Do you collect all the metadata produced by your instruments?

Yes.

2.2.2. B) Do you collect additional metadata by an open source laboratory notebook?

Yes. The metadata schema is based on Nexus and NOMAD standards and data and metadata are saved in Nexus format.

2.2.3. C) Do you use a well defined standard to name your samples?

Yes. Likely the chosen repository will be NOMAD.

2.2.4. D) Do you use a well defined metadata schema and format?

Yes.

3. III PUBLICATION PHASE

All the answers below have to be understood in the NFFA-DI project context, that is the implementations required by the project are developing the scenario described below.

3.1. 1. Data and metadata publication

3.1.1. A) Will data and related metadata be published on an open and trusted repository with a d.o.i.?

Yes.

3.1.2. B) Will published processed data and related metadata be licensed?

Yes by the most suitable licence.

3.2. 2. Scientific publications

3.2.1. A) Will any scientific publication arising from data and related metadata be published on an open access peer review journal or uploaded on an open access repository?

Yes. All the scientific publications after peer review will be at least uploaded on an open access repository such Zenodo.

3.2.2. B) Will any scientific publication have a clear data provenance?

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3.2.4. D) Will scientific publication or any other scientific document (presentation, poster, etc.) be licensed?

Yes. They will be licenced with the most suitable open licence.

4. IV. DATA AND METADATA STORAGE AND PRESERVATION

4.1. 1. Storage

4.1.1. A) Where will raw data be stored ?

Raw data will be stored both locally and on the infrastructure datalake named OFED.

4.1.2. B) How long will raw data be preserved ?

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4.2.1. A) Which backup policy will be applied to published data or raw data related to published data?

Raw data related to published datasets as well as raw data published will undergo the same backup policy of the digital infrastructure.

4.2.2. B) Which backup policy will be applied to not published data or raw data not related to published data?

Not published datasets will be saved on a distributed file system equipped with erasure code 8+2 the failure domain is the Datacenter.There is no backup for this data but different types of redundancy will be set up based on the size of the data: for datasets size lower than 20 GB there will be redundancy between the OUs and the Data Lake while for those larger than 20 GB there will be no redundancy unless different policies defined on a case-by-case basis via Lab-DMP.