Research Data Management Policy

1. Preamble

The definitions of "research data" and of "affiliates of the University of Milan" that are considered for the purposes of this Policy are specified in the attached document N.1.

The University of Milan acknowledges the fundamental importance of research data as valuable scientific results. Therefore, the University recognizes the relevance of records management for supporting the principles of quality and integrity in scientific research and is committed to pursuing the highest standardsof data collection, storage and preservation.

The University of Milan adheres to the principles of Open Science and in particular it encourages and protects the sharing of scientific publications and data produced by its staff with public funding according to the "as open as possible as closed as necessary" principle. In particular, the University of Milan encourages the sharing of scientific data according to the FAIR (Findable, Accessible, Interoperable, Reusable) paradigm.

The University of Milan acknowledges that reliable and easily retrievable research data are the foundation of every research project and that they are necessary for the verification of the soundness and reliability of research methods and results as well as for their reproducibility.

The University of Milan recognizes that research data are the heritage of universities once the scientific project that produced them is concluded and represent – in the long term as well – a precious resource for research, teaching and, in turn, the progression of society.

2. Scope

This policy applies to all research activities of the University of Milan that produce data. In the event that the research has been funded by third parties and/or there are specific agreements regarding the collection, processing and management of data, their access and storage. It is maintained that the agreements must comply with existing legal and contractual provisions.

3. Handling research data

In compliance with the current legislation on the protection of personal data¹ and intellectual property, as well as with the provisions contained in the Statute and regulations of the University of Milan, and without prejudice to specific research funding agreements with third parties and/or other agreements with third parties, research data are managed and, in relation to publication, are stored and made freely available for use for the purposes of scientific and historical research or public interest, according to the principle "as open as possible as closed as necessary". Research data shall be archived as soon as possible and in any case no later than 30 days after the scientific publications describing them, without prejudice to specific indications by the Departments. The members of the University of Milan shall use software platforms that are suitable and, where required by the nature of the data, compliant with the regulations in force on the protection of personal data, preferably relying on the public archives of reference for the thematic area to which they belong. In particular, they will adhere to the "good practices" in data and metadata sharing promoted by the research infrastructures identified by ESFRI (European Strategy Forum on Research Infrastructures) as "Landmarks" for the various thematic areas and, in general, to compliance with the FAIR principles.

The University of Milan recognises that research data, even at the end of the scientific project that produced them, besides being an asset of the university institution, represent a resource - even in the long term - for research, university teaching and the progress of society. In general, research data must be collected, managed and archived in accordance with the standards in force in a correct, complete and reliable manner, respecting their integrity and documenting as comprehensively as possible the ways in which they were obtained in order to facilitate their reproducibility.

They must be made findable, accessible, interoperable and, where possible, available for subsequent use (FAIR principles).

If no third party rights, legal requirements or property laws prohibit it, research data can receive a freelicense for open use (for instance Creative Commons) granting traceability and credit to the original source.

The minimum archive duration for of the data storage period is 10 years.

In the event that it is necessary to destroy or delete all or part of the research data (e.g. for ethical or legal reasons)

¹ https://www.unimi.it/it/ateneo/normative/privacy

and without prejudice to the interests of third parties funding the research and of any third parties, this action must be traceable and the relevant documentation and justification transparent and accessible.

4. Responsibilities, Rights, Duties

1. The responsibility for research data collection, handling and maintenance storage is shared by the affiliates to the University of Milan and the University itself, each within its competence and jurisdiction and in compliance with the Ethical Code.

Affiliates of the University of Milan are responsible for the management of research data and datasets, that is: In particular, but not only, when these derive from project activity is required:

- Collection, documentation, archiving, access, use and storage (or proper destruction) of research data and research-related records. This comprises the definition of protocols and responsibilities within a joint research project that must be included, as far as possible/required, in a *Data Management Plan* (DMP)²
- Drafting and updating of the DMP (see Guidelines on and models of DMP provided by the University of Milan) and definition of the use of data rights after project completion.
- The identification and adoption of practices that ensure data security and integrity over time;
- Granting due acknowledgment (e.g. by inclusion among the authors of the publications describing them), both at individual and institution level, to those who have contributed to collecting, obtaining, and analysing data.

It is the task of the manager of a research project both to define which of the collected data are to be stored and shared and to ensure their proper handling by other project collaborators, also taking into account the duties resulting from contracts with third parties.

2. The University of Milan is responsible for:

- Appointing support staff and providing affiliates with adequate resources, tools and infrastructures both, in terms of software and hardware for data storage and in compliance with this policy and to the legislation referred to.
- Providing for assistance and support in the drafting of DMPs.
- Offer training courses on research data management according to international standards
- Develop services to enable the deposit, archiving and preservation of research data and maintain their accessibility during and after the end of the research project
- Ensure the conditions for the contents of the policy to be fully respected

In order to guarantee the full application of the policy, taking into account the specificities of the individual areas and disciplinary fields, the departments shall adopt a policy on the management of research data which, in accordance with the University policy, shall guide their members in the use of the most appropriate data management and sharing tools for the specific discipline..

The departmental policies on the management of research data will be made available to the University Open Science Commission, which will be able to suggest changes to the departments aimed at standardising and rationalising the management of data between related departments.

5. Validity Date

The Research Data Management Policy entered into force on the 1° of October 2022 and will updated everytwo years.

The Academic Senate approved the policy on the 13th of September 2022.

² A data management plan (DMP) is a document, which depicts the entire lifecycle of research data and can be updated if needed. Data management plans assures that research data are accessible, traceable, available, authentic, citable, and that they adhere to clearly defined legal parameters and appropriate safety measures governing subsequent use. In their ideal form, DMPs will be in a machine actionable format.



Annex 1

Definition of research data

Research data are factual records, which may take the form of numbers, symbols, text, images or sounds, which are used as primary sources for research, which are commonly accepted in the research community as necessary to validate research findings.

Definition of affiliates to the University of Milan to whom this policy applies

Professors, researchers, PhDs, research fellows, interns, technical and administrative personnel involved in research activities.

In support of the definition of research data employed in the Policy, three references are mentioned:

a) <u>LERU Roadmap for Research Data</u> (LERU Research Data Working Group, Advice PaperNo. 14 – December 2014):

"Research data, from the point of view of the institution with a responsibility for managing the data, includes: All data which is created by researchers in the course of their work, and for which the institution has a curational responsibility for at least as long as the code and relevant archives/record keeping acts require, and third-party data which have originated within the institution or come from elsewhere."

b) The Australian **Griffith University**:

"Research data are factual records, which may take the form of numbers, symbols, text, images or sounds, which are used as primary sources for research, which are commonly accepted in the research community as necessary to validate research findings."

c) The **University of Minnesota**:

"Research data are data in any format or medium that relate to or support research, scholarship, or artisticactivity. They can be classified as:

- Raw or primary data: information recorded as notes, images, video footage, paper surveys, computer files, etc.
- Processed data: analyses, descriptions, and conclusions prepared as reports or papers
- Published data: information distributed to people beyond those involved in data acquisition and administration

Important documents for policy evaluation: https://www.force11.org/group/fairgroup/fairprinciples Lists the principles that institutions should follow

http://learn-rdm.eu/en/research-data-management-toolkit-now-available/ collects the documentation relied upon for policy development (guidelines of the European project led by LERU)