# RESEARCH DATA MANAGEMENT POLICY

1 Introduction

1.1 Purpose

Researchers face growing demands regarding their research data management due to legal and funder requirements and evolving research practices. The University of Limerick acknowledges research data management as a fundamental building block to achieve research excellence and research integrity. The University supports the publishing of FAIR (Findable, Accessible, Interoperable, Reusable) datasets to enable:

- reproduction and validation of research results,
- further research,
- higher impact through attribution and citations.

Many existing university policies and procedures govern and impact the management of research data. This policy clarifies the roles, responsibilities, and procedures that are in place to enable researchers to manage research data to the highest standards throughout the research data lifecycle.
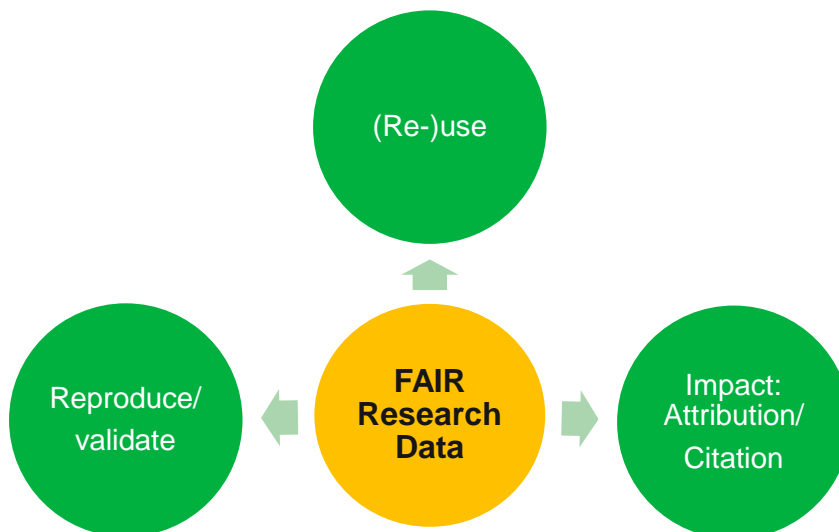
P1: Purposes and benefits of FAIR research data

1.2 Scope

1.2.1 To whom does the policy apply?

This policy applies to all current and former employees and students of the University, and to all current and former Adjunct, Emeritus and visiting personnel officially engaged in research work at the University and/or undertaking any research activity in the University's name.

1.2.2 In what situations does the policy apply?

The policy applies to all research conducted at the University of Limerick. Research conducted purely for examination purposes (for example taught post-graduate thesis or final year

projects) should follow best-practices in data management, but do not need to retain data sets after examination requirements are fulfilled.

Externally funded projects might need to follow further requirements regarding data management. The University is committed to comply with research data policies of its external research sponsors and will abide by terms and conditions agreed with third parties.

1.2.3 Who is responsible for ensuring that the policy (and any associated procedure) is implemented and monitored?

Principal Investigators (PIs) are responsible for making themselves familiar with and adhering to this policy, other applicable policies and guidelines, legislation or contractual obligations governing the research data of their project. They need to ensure that all personnel both from UL or from outside partners working on their project comply with these regulations as well. Where research involves the use of data owned by a third party, researchers must abide by licences or terms of use governing the data.

1.3 Definitions

1.3.1 Research data and research data sets

For the purpose of this policy, the University of Limerick defines the term research data as describing all data collected, created, reused and processed by researchers in the course of their work irrespective of medium or format. The term includes physical materials like samples or paper questionnaires and encompasses data in its various forms at all processing stages throughout the research life cycle. The purpose of research data in an active research project is the support of the research endeavour.

Research data sets are curated subsets of research data that are retained and/or published as FAIR data to enable reproducibility of research and the reuse of data. Artefacts required for reproducibility and reuse, for example processing steps, models, algorithms, analysing scripts, visualisations and data documentation form integral parts of research data sets.

1.3.2 FAIR data

FAIR data[1] refers to data sets that are made available to the research community to enable the reproduction of results and the reuse of data. FAIR data is a subset of research data that is made:

- **Findable** with sufficient descriptive information via a data repository.
  The repository needs to give the dataset a persistent identifier, for example a DOI (Digital Object Identifier) and support its indexing by search engines. The requirement can for example be fulfilled with UL's Research Repository.
- **Accessible** via the clear statement of access conditions.
  The default expectation is to make the data openly available; however, access restrictions can be imposed to ensure data protection, third party confidentiality obligations, security, statutory controls (e.g. export controls) or the protection of intellectual property rights. Reasons for access restrictions need to be stated and procedures and conditions to gain access to the data need to be outlined.
- **Interoperable** with the use of standards and documentation.
  The aim is to make data fit to be compared to or combined with other data through the use

---

[1] The FAIR principles were first outline by Wilkinson, M., Dumontier, M., Aalbersberg, I. et al (2016). The FAIR Guiding Principles for scientific data management and stewardship. Sci Data 3, 160018. https://doi.org/10.1038/sdata.2016.18. They have been widely adopted by research communities, funders and policy makers since.

of community agreed formats, standards and vocabularies. Where no such standards exist, documentation needs to be sufficient to reproduce and reuse the data.
- **Reusable** through documentation and licenses.
  Documentation need to outline how data was generated, so that an assessment of the quality of the data is possible. Licences are important to allow reuse of data and need to be applied to the data by the repository upon publication.

1.3.3 Principal Investigator

A Principal Investigator is an employee of the University who has primary responsibility for the design, implementation, completion and/or management of a research project. They are the budget holder on funded projects. Such employees may be working under the auspices of externally-funded research projects. For research projects conducted by students, their supervisor acts as Principal Investigator for the purpose of this policy.

2 Context

2.1 Legal and Regulatory Context

This policy enables the University to conform to the EU "Open Data and re-use of Public Sector Information Directive" (transposed into Irish law in 2021) which explicitly includes publicly funded research data. The directive mandates the release of data in free and open formats and stipulates that "data should be open by default and design".

This policy also aligns the University with the aim of "Enabling FAIR research data" in the National Framework on the Transition to an Open Research Environment. FAIR data is also mandated by many research funders.

This policy acknowledges the key role of research data in ensuring research integrity as outlined in the European Code of Conduct for Research Integrity, the National Policy Statement on Ensuring Research Integrity in Ireland and UL's Research Integrity Policy.

2.2 Other Context

2.2.1 Data Protection and Research Ethics

Data Protection legislation, including the EU General Data Protection Regulation and the Data Protection Acts, apply to the processing of personal data for research purposes. Where research involves the processing of personal data, such processing must be in line with the Data Protection Principles as outlined in the University Data Protection Policy.

Research data management needs to align with the guidelines and regulations on ethical research at the University to ensure that research is carried out to the highest possible standards.

2.2.2 Records Management

Research data are records of research activity and need to be managed in line with the Records Management Policy and the Records Classification & Retention Schedule of the University

2.2.3 IT Security, Acceptable Use and Risk Management

The University is committed to complying with all applicable privacy and information security laws and regulations. Research data processed and stored in research projects are subject to the IT Security Policy, the Acceptable Usage Policy and the Risk Management Policy of the University.

2.2.4 Export Controls

The European Union operates a system of controls on the export of sensitive items from the member states. The Department of Enterprise, Trade and Employment is the national competent authority with responsibility for administering and enforcing these controls in Ireland. The sharing and publication of research data must comply with EU and national export control laws and regulations.

3 Policy Statements

3.1 Research Data Management

Research data is an integral part of the research process and researchers need to manage it throughout the research life cycle. Each researcher is responsible for managing their own research data. Overall responsibility of projects lies with the Principal Investigator. While some tasks in research data management can be shared and outsourced to partners, collaborators or service providers, Principal Investigators retain overall accountability.

3.2 Data management planning

Drafting and implementing a Data Management Plan (DMP) from the beginning of a research project is the best practice tool to ensure adherence to the FAIR principles and to enable data reuse, reproducibility of research and to maximise research impact. Each data management plan should contain information on the following topics[2]:

1 Data description and collection
2 Data documentation and quality
3 Storage and backup during the active research phase
4 Relevant legal, data protection and ethical requirements
5 Data publication and long-term preservation
6 Data management responsibilities

Research funders might have additional requirements regarding data management plans and might follow templates with a different structure.

Responsibility for drafting and implementing a DMP for a research project lies with the Principal Investigator. They are responsible for ensuring adherence to DMPs throughout projects with multiple researchers and partners. The DMP is a "living document" that needs to be updated if circumstances change.
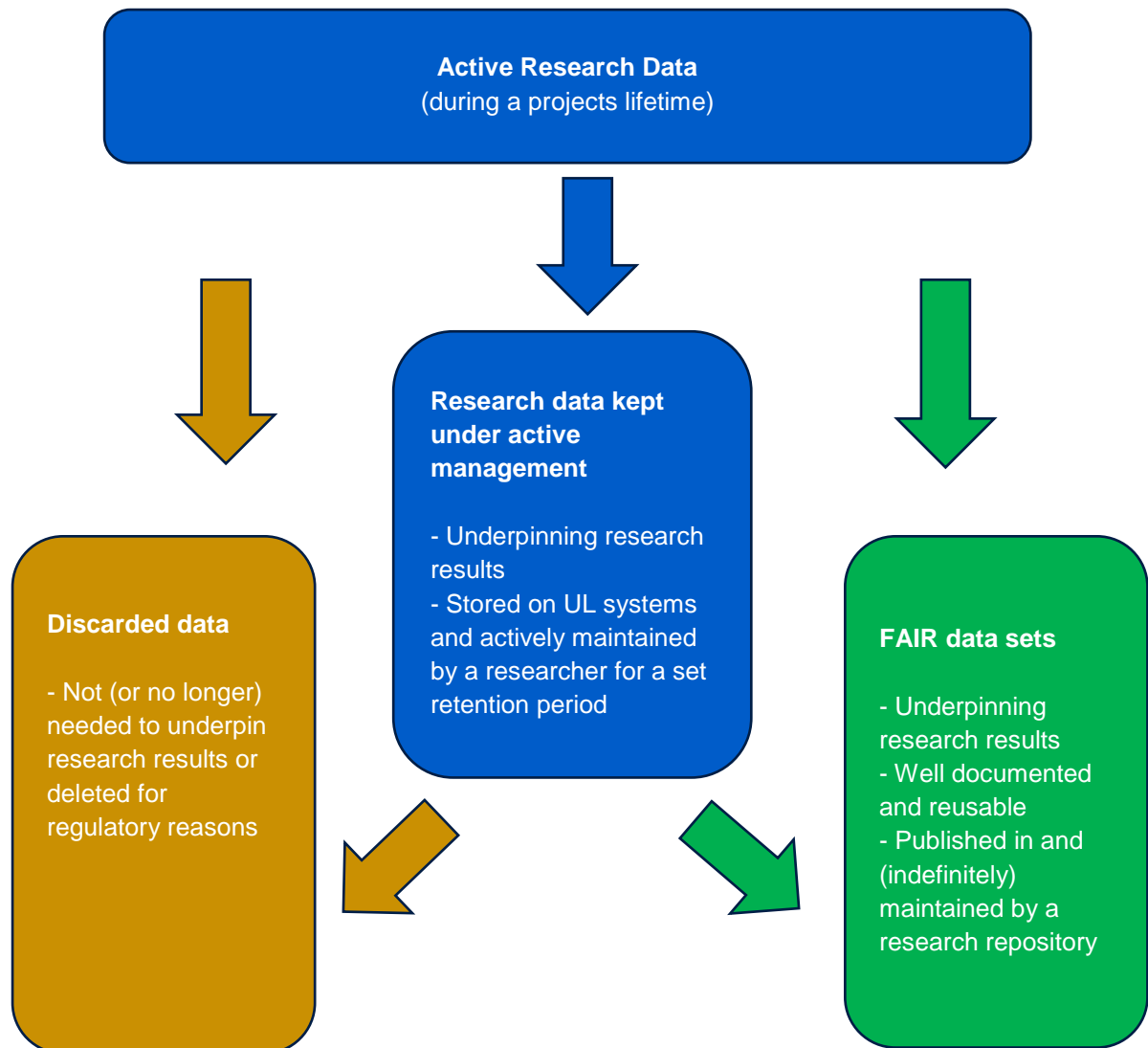
3.3 FAIR data principles

The University of Limerick commits to compliance with the FAIR principles for research data beyond their active use in research projects and enables its researchers to meet the criteria for their research data sets. FAIR data ensures reproducibility of research, enables re-use and maximizes impact of data as a research output in their own right and in support of other publications. Datasets are to be made available via a suitable research repository that assigns a persistent identifier (e.g. DOI) to the data set. Data sharing will follow the principle "as open as possible, as closed as necessary." FAIR data sets are a published resource and do not need to be actively managed after publication.

3.4 Retention of research data beyond the end of research projects

If research data cannot be made available as FAIR data after the end of a research project, it has to remain under active data management by the Principle Investigator or another designated person for the durations outlined in the Records Classification and Retention

---

[2] This widely adopted structure is recommended and underpinned with many more details by Science Europe (2021). Practical Guide to the International Alignment of Research Data Management - Extended Edition. https://doi.org/10.5281/zenodo.4915862.

Schedule to ensure that research results are reproducible. The relevant research departments, institutes, schools, centres and groups need to enable active data management and have to ensure that responsibilities for data management are handed over to another designated person if a researcher leaves the University or retires. Research data produced by students in projects purely undertaken for examination purposes (for example taught post-graduate thesis or final year projects) do not need to be retained beyond the requirements of the examination procedures.

Active Research Data
(during a projects lifetime)

Research data kept under active management

- Underpinning research results
- Stored on UL systems and actively maintained by a researcher for a set retention period

Discarded data

- Not (or no longer) needed to underpin research results or deleted for regulatory reasons

FAIR data sets

- Underpinning research results
- Well documented and reusable
- Published in and (indefinitely) maintained by a research repository

P2: Retention of Research Data

3.5   Support services for research data

The University of Limerick support its researchers with their research data management tasks throughout the whole research life cycle through training, consultancy, and the provision of services, infrastructure, tools, material and software. Details are outlined under 4.

4 Related Procedures for Research Data Management

4.1 Library support for research data

The research data manager in the library provides resources, training and consultations on research data management and FAIR data; they also review and advise on research data management plans.

The library maintains and supports the use of UL's Research Repository as a means by which staff can share their publications and other research outputs with the wider research community and the public. The repository enables the publication and long-term preservation of FAIR datasets.

4.2 ITD services

The Information Technology Division maintains a list of applicable Policies and Procedures and advises on tools and services in line with UL Policies and Procedures. The Cloud Governance Group reviews the suitability of cloud -based services and tools from an IT security, data protection and legal point of view.

A range of support services, information resources, and consultations in regard to data storage and research infrastructure can be accessed via TOPdesk.

4.3 Data protection

The University Data Protection Officer provides support to researchers in ensuring compliance with Data Protection requirements in the context of their research and provides and maintains relevant resources.

4.4 Records management

The Corporate Secretary offers support and maintains guidance and resources on Records Management to ensure employees in all functional areas manage university records, including research data, in compliance with UL's Records Management Policy.

4.5 Research ethics and research integrity

The University of Limerick Research Ethics Governance committee (ULREG) is concerned with research related policies, procedures and governance. The Office of the Vice President of Research (OVPR) oversees the implementation of the University Research Integrity Policy and the Procedure for Managing Allegations of Misconduct in Research and facilitates training as well as giving advice and guidance.

All research ethics applications are considered at Faculty level by Research Ethics Committees (RECs).

Support and guidance about research integrity are provided by the UL Research Integrity Officer and the Research Integrity Champions in each faculty.

4.6   Intellectual property rights

Research data can contain valuable Intellectual Property (IP) rights. The Technology Transfer Office (TTO) supports researchers in protecting and commercialising IP stemming from research projects through advice, guidance, support measures (for example filing patents) and training.

4.7   Compliance with funder requirements and research agreements

Research funders can impose conditions regarding research data management through grant agreements and relevant terms and conditions. Research agreements between research partners may also contain clauses affecting data management and data publication. The OVPR, Corporate Secretary's Office, Glucksman Library and other units support researchers to comply with conditions set by funder requirements and research agreements.

4.8   Faculty and departmental support

Faculties, institutes, schools and departments enable researchers to manage their research data in accordance with this policy. They ensure that all research data that is not published as FAIR data is actively managed by a current member of staff and that responsibilities are handed over in case a researcher leaves the University.

5 Related Documents

5.1 Related Policies

- Acceptable Usage Policy
- Data Protection Policy
- IT Security Policy
- Intellectual Property Policy
- Procedure for Managing Allegations of Misconduct in Research
- Records Management Policy
- Research Infrastructure Policy
- Research Integrity Policy
- Risk Management Policy

5.2 Resource for guidance and support

Support service for	Maintained by	Resource
Research Data Management	Library	Library Guide on Research Data Management
Research Repository	Library	UL's Research Repository Library Guide on the Repository
ITD services	ITD	ITD Policies and Procedures TOPdesk
Data Protection	Data Protection Officer	Data Protection and Research
Records Management	Corporate Secretary	Records Management
Research Ethics	Research Ethics Governance Committees (ULREG and Faculty Committees)	Guidelines & Forms

Links are correct at time of writing, but might be subject to change.

6   Document Control

Document Version	Version 1
Document Owner	Library & Information Services Division, LISD
Approved by	Executive Committee
Date	24 July 2024
Approved by	Governing Authority
Date	24 September 2024
Effective Date:	24 September 2024
Scheduled Review Date:	24 September 2027