

ARDC Institutional Underpinnings

Element: Policy

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EXECUTIVE SUMMARY

Institutional Underpinnings is part of the ARDC's National Data Assets Initiative. In this program, 25 Australian universities are collaboratively developing a national Institutional Research Data Management (RDM) Framework. This Framework is intended to inform institutions' design of policy, procedures, infrastructure and services, and improve coordination of RDM within and between institutions. This output describes the initial findings of the research data management Policy element of the Framework, providing institutions with guidance to ensure that research data is managed according to legal, statutory, ethical, publisher and funding body requirements, such as those outlined in the Australian Code for the Responsible Conduct of Research. This output provides guidance on the steps involved in developing policy, such as establishing the required roles and responsibilities and the

cross-institutional consultation and communication required. This output also provides information on the recommended content for an effective institutional policy, and includes considerations for supportive underlying policy associated guidelines. Finally, the output outlines recommended approaches for the successful implementation of an institutional research data management policy. Recommendations for institutions and Calls to action are highlighted throughout the Element. Calls to action specifically identify the need for future collective action from institutions and the community. This initial research data management framework Policy output will be further developed through additional institutional consultation and will be complemented by activities to validate and test the outputs described within.

PURPOSE OF THE RESEARCH DATA POLICY

How institutions and researchers manage their data is increasingly important as universities look to increase the integrity, quality, impact and openness of research. Good research data also underpins public trust and confidence in research and is an integral part of responsible stewardship of research funds.

A research data policy is vital for institutions to ensure that research data is managed according to legal, statutory, ethical, publisher and funding body requirements. Institutional responsibilities include the provision of access to facilities for the safe and secure storage and management of research data, records and primary materials and, where possible and appropriate, to allow access and reference. The policy also provides safeguards against misconduct, such as data fabrication and data falsification.

For researchers, the policy provides for a framework for ensuring data created from research is accurate, authentic, verifiable, and ensures their ability to meet their responsibilities in relation to obligations under The Australian Code for the Responsible Conduct of Research (The Code)¹ and the holistic management of their data.

A good research data policy should support the institution's research strategy. This can relate, for example, to maximising the impact of research by publishing or sharing data, supporting Open and FAIR² outcomes, and creating a vibrant and collaborative research culture.

The policy, relevant infrastructure and tools will differ between institutions, and should be tailored to support both the nature of the research being undertaken, and the level of research data management (RDM) maturity achieved at the university. The RDM policy for the institution should be complemented

¹ "Australian Code for the Responsible Conduct of Research", 2018.

<https://www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018>

² <https://ardc.edu.au/resources/aboutdata/fair-data/>

by a suite of related policies and procedures around managing data, contributing to an effective research environment, and supporting collaborative, applied, and translational research.

Not always named as a policy

In some institutions, the RDM policy is set out as a guideline or principles, rather than a policy. This is dependent on processes and choices made at the university. Such a document will still meet institutional requirements under The Code and the TEQSA Guidance, which specify that an institution should have a suite of policies and procedures³.

Research data in the overall university data policy landscape

Institutions are responsible for managing and governing both research data and enterprise data. Some principles apply to both domains, for example compliance with legislation and cybersecurity, however there are significant issues that are relevant only to research data, for example data sharing and intellectual property ownership. The nature of these differences is such that a specific research data policy is important to provide institution support for effective RDM. There may need to be alignment or references to the policies for all data at the institution⁴.

Drivers for policy

Drivers for the RDM policy may vary between institutions, and individual needs should be considered, however the overarching drivers are likely to include:

- compliance with legislation and regulatory obligations
- meeting funding requirements
- meeting project specific requirements
- enabling and facilitating collaboration
- supporting the effective operation of the institution in managing risk
- supporting the research strategy, including through optimising engagement and impact including through increased citations
- increasing research impact through faster and easier access to research data
- increasing research efficiency by sharing results
- supporting research integrity through transparency and reproducibility
- building researcher capacity
- safeguarding against misconduct such as data fabrication and data falsification
- clarifying ownership, copyright and licensing provisions
- ensuring safe and secure storage, including protection of data and privacy

³ The Tertiary Education Quality and Standards Agency (TEQSA), "Guidance Note: Research and Research Training", 5 July 2018. <https://www.teqsa.gov.au/latest-news/publications/guidance-note-research-and-research-training>

⁴ A good example of this is the [UNSW data and information governance framework](#)

- supporting ethical conduct and appropriate use, including of culturally sensitive and Indigenous data, including the CARE⁵ principles
- managing the cost of storage and services and ensuring the sustainability of these services
- identifying, nurturing and supporting best practice
- maximising the benefits of Open Research to the researcher and the institution including through adoption of the FAIR⁶ data principles

A policy framework is an efficient means to make compliance expectations from various sources explicit and clear in one place. This should include related policies, procedures and guidance on available services, infrastructure, storage and training. Best practice beyond meeting compliance requirements may also be considered.

Meeting regulatory, legal, funder and publisher requirements

Institutions and their researchers have regulatory, legislative and contractual obligations that they are required to meet. These are important matters for RDM and indicate the complexity of the landscape for policy and practice.

All research institutions are required to have some form of RDM policy, although the content of the policy itself may differ. The institution's RDM policy should assist researchers and the institution itself to comply with their obligations and requirements. The RDM Policy will sit within a framework of policy and other documents in an institution including intellectual property, employment agreements and documents implementing legislative requirements. The nature of any institution's decision on a RDM Policy will require consideration of these related documents in order to establish a policy that best meets the needs of an individual institution.

Regulatory

All institutions and their researchers are expected to comply with The Code. The Code states that it “outlines the expectations for the conduct of research in Australia or research conducted under the auspices of Australian institutions”. Australian institutions are also “strongly encouraged to follow the advice in the Guides” that are produced to support The Code. The Code is clear that institutions are expected to have a suite of policies and procedures related to RDM, however The Code is more concise than previous versions and generally more nuanced guidance is required at the institutional level.

The Managing Data and Information in Research guide, released with The Code which details how to comply with The Code, states:

“Institutional policies should include guidance for managing research data and primary materials that addresses the following:

⁵ <https://www.gida-global.org/care>

⁶ <https://ardc.edu.au/resources/working-with-data/fair-data/>

- ownership, stewardship and control
- storage, retention and disposal
- safety, security and confidentiality
- access by interested parties.”

As for the scope of the policy, the guide also states:

“Policies should apply to all research conducted under the auspices of the institution and may be influenced by the funding arrangements for the project.”

Clear definitions on what constitutes data and whether it is produced, used or held by the researcher, and who the policy applies to, including consideration of research students, adjuncts, honorary staff, emeritus staff and visitors are important for each institution to make clear.

TEQSA has requirements for appropriate corporate governance and are particularly significant for research data created by higher degree research (HDR) students. The TEQSA Guidance Note on Research and Research Training⁷ also requires universities to establish and implement “an institutional research training policy framework”. In this context, the policy framework is required to address “specific matters that institutions need to achieve in relation to:

- the rights and responsibilities of research students and supervisors
- monitoring the progress of research students
- communication of research outputs by students
- the resolution of disputes.”

Legislative

Legislation such as the Privacy Act (Cth), Privacy and Data Protection Act 2014 (Vic), Privacy and Personal Information Protection Act 1998 (NSW), Archives Act 1983 (Cth), State archives acts and the Health Records Act 2001 (Vic) require that researchers handle personal information in accordance with the relevant privacy principles. The Office of the Australian Information Commissioner provides a list of privacy laws in each state and territory⁸.

Other legal requirements, such as compliance with record keeping standards and intellectual property, including patent applications or the commercialisation of research may also be relevant.

Clinical trials (drug and device trials) are governed by the Therapeutic Goods Administration. The Guideline for Good Clinical Practice⁹ section R6E2 (GCP) requires full and verifiable capture of data and decades long retention of data for investigational medicinal products. Likewise, ISO 14155: 2011¹⁰

⁷ <https://www.teqsa.gov.au/latest-news/publications/guidance-note-research-and-research-training>

⁸ <https://www.oaic.gov.au/privacy/privacy-in-your-state>

⁹ <https://www.tga.gov.au/publication/note-guidance-good-clinical-practice>

¹⁰ <https://www.iso.org/standard/45557.html>

requires the same level of recordkeeping and long term data retention for investigational medical devices.

The examples above are not definitive and there will be a range of legislation relevant to the research being undertaken at the university, and requirements may differ between jurisdictions. Such legislation should be referred to in the policy.

Call to action 1: Institutions are encouraged to collectively describe details of relevant legislation that impacts research data aspects in their state

Funders and Publishers

Funders may have their own requirements for RDM. The Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC) have integrity policies that require universities to develop and implement policies on RDM. Other funders may also have requirements that relate to how data are collected, stored, shared, owned, published or disposed of.

Since February 2014, the ARC has required researchers to outline how they plan to manage research data arising from ARC-funded research. The requirement includes the proper management of research data and primary materials by researchers, along with university policies addressing data ownership, storage, retention and “appropriate access...by the research community”¹¹.

Major funders also generally require that outputs, often including data, produced as a result of publicly funded research be made openly accessible through an institutional or discipline repository.

Many projects also have specific requirements related to data size, versioning, security, sharing, retention, backup and research data management plans (DMPs).

Publishers and other relevant bodies may also have requirements that should be considered or referenced in a RDM policy. The Committee on Publication Ethics (COPE) and International Committee of Medical Journal Editors (ICMJE) both require retention and long term storage of data underpinning publications. Specifically, the ICMJE “believes investigators have a duty to maintain the primary data and analytic procedures underpinning the published results for at least 10 years”¹².

Other stakeholders’ expectations

Different populations or organisations may have their own expectations on appropriate management and sharing of data that fall outside of legal requirements. Explicit understanding of these is crucial to build trust, enable future collaboration and meet individual and university accountability.

¹¹ <https://www.arc.gov.au/policies-strategies/strategy/research-data-management>

¹² <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/responsibilities-in-the-submission-and-peer-review-process.html>

ESTABLISHING AND UPDATING THE POLICY

Most institutions already have documented processes in place to draft, agree and sign off a new policy.¹³ The following is a summary of step in the process and related considerations for each step:

Recommendation 1: Steps to establishing a Policy	
Steps in the process	Related Considerations
1. Identify need for document	<p>Check the policy suite for what already exists, conduct a gap analysis and identification of related policies.</p> <p>Triggers to changing the policy can be:</p> <ul style="list-style-type: none"> • Changes to legislation and guidelines • Something going wrong • Request from researchers • Normal review cycle
2. Setting up a Roles and Responsibilities (RASCI) matrix of stakeholders and their roles in the policy/process	<p>Identify the policy owners and stakeholders. This will vary for each institution and may ultimately sit with a Deputy Vice Chancellor Research.</p> <p>This step is about identifying responsibilities and roles, not just the ownership of the policy, but also the roles in policy development and associated activities within the group responsible for developing the policy. Each institution will be operating under a different governance framework. This will determine who has the authority to make decisions related to or affecting research data at the enterprise level and who holds primary responsibility for RDM. An early step in policy development or revision is to refer to and understand the current delegations of authority and consider if the arrangement is still appropriate or propose changes.</p> <p>The roles identified for responsibilities will normally include:</p> <ul style="list-style-type: none"> • Data Executive • Data Owner • Data Custodian • Data Steward • Data Stakeholder <p>It is important to consult with relevant parties, e.g., research division, data governance, privacy, conduct and integrity, copyright, data</p>

¹³ An example can be found at: <https://www.gs.unsw.edu.au/policy/framework/index.html> and <https://documents.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow058645.pdf>

	<p>management and eResearch, training administrators, library, IT, Office of General Counsel, etc.</p> <p>If there is a RDM or eResearch committee, it can be useful to have them review the policy. Identify key components of the policy and the policy development. This can involve persons that are responsible for: data ownership, active data systems, archive /repository, training, draft policy development, communication and documentation record keeping.</p>
3. Information gathering	In gathering information it can be useful to perform a gap analysis, or conduct user surveys, for example identifying what was missing in the old policy.
4. Document is drafted by an individual/department(s) with expertise in the area	<p>Benchmarking or identification of the key objectives of the policy. Ensure there is the capacity and support to do the policy drafting. Also consider ongoing resourcing implications and capacity e.g. for Research Office, eResearch & Research integrity.</p> <p>It is worth thinking about future expectations and developments and planning for these in the policy. The policy will require senior level buy-in so it is important to take that into account while drafting the policy, procedures and guidelines.</p>
5a. Ensure processes and systems align with policy	It can be useful to have a champion to ensure actions are completed. It is only possible to have a 'must' version of the policy and procedures once services and infrastructure are in place.
5b. Map out impact for other departments	Consult whether operational capacity in other departments is available and what the implications would be.
6. Communication plan on process of establishing policy	Communication, awareness raising and managing expectations during the consultation process is important, to take researchers and executives on the Journey. This is especially important when expected changes are significant. It can be helpful to draft FAQs for major concerns.
7. Consultation - Document is reviewed by all relevant stakeholders	It is worth sending it to existing committees, or if they don't exist, additional meetings might need to be set up. Stakeholders include users/researchers of the policy.
8. Consider external consultation	Examples of external organisations that could be consulted are: ARDC, leaders in policy and Open Research, international experts, perhaps an external consultant.
9. Consultation with	Which departments must be consulted for <i>any</i> new policy might vary

required Departments (eg Legal, Risk Management etc)	by institution. There is usually a standard list of departments that need to agree on all policies.
10. Once a document is drafted following the steps above, it is released for institutional-wide comment.	This period can vary, e.g., two weeks or up to a month.
11. Feedback from University-wide comments is incorporated.	Depending on the feedback received, do the relevant stakeholders need to be consulted again?
12. Approval process through standing committees	This will vary by university and may include Research and Research Training Committee, Academic Senate, etc. This will be dictated by the university governance structure.
13. Approval is given by policy owner and document is published	Also plan training for staff involved in the roll out and application of policy. An implementation and communications plan is often required in order to receive final approval to publish a Policy. The roll out can be led by another department than the policy owner.
14. FAQs for policy release	Compile common questions encountered during consultation processes and compile answers. Have clear reporting and escalation lines for emerging or other issues.

CONSIDERATIONS FOR A GOOD RESEARCH DATA POLICY

A good policy is framed in a way that relates to its key audience, for a research data policy this will primarily be researchers. The policy document hierarchy for most Universities is as follows:

1. Legislation
2. Policy
3. Procedures and Standards
4. Guidelines
5. Local Protocols

Policy documents are principle based documents with operational detail incorporated in procedures and guidelines. They are written and presented clearly and succinctly taking a holistic perspective.

There is also an ARDC [Guide](#)¹⁴ describing the content of an RDM policy.

Components of a research data policy

Institutional policy documents usually contain a number of key headings or components as follows.

Definition of Terms

A policy normally will contain a section that defines the terms used in the policy.

The definitions should contain a definition for research data itself. Neither The Code nor associated guides contain a definition for research data, and definitions set by universities vary.

Some institutions' policies apply only to data in a digital format, and others include primary and physical materials. Software and the code used to generate or analyse the data is included in some instances. [Appendix 1](#) provides examples of definitions from a range of Australian universities.

Further consideration should be given to the treatment of data supplied by third parties and secondary data. In general, any data used for research purposes should be included.

Other broad terms such as researcher and university should also be defined. These definitions vary but are strongly related to responsibilities (see Roles and Responsibilities discussion below).

When defining terms it is worth considering whether it is necessary to also define concepts like active research data, Indigenous data and Open Data. Some of these may be covered in a separate related policy or the definitions may form part of the RDM policy itself.

Purpose of policy

Most policies contain a short section on the purpose of the policy. An example of the Purpose of Policy section from the University of Wollongong is:

- To provide guidance regarding the management of research data and primary materials throughout the research data lifecycle
- To outline the requirements articulated in The Australian Code for the Responsible Conduct of Research regarding the responsibilities for the management, storage, access, retention and disposal of research data and primary materials

Institutional aims and values

¹⁴ Australian Research Data Commons. (2021). Institutional Research Data Management Policies and Procedures. Zenodo. <https://doi.org/10.5281/zenodo.5784765>

Policies can contain references to the strategic aims and values of the university, like supporting the reproducibility of research, verifying research findings, sharing information with the public, ethical conduct in conducting research or providing transparency to the research conducted at the university.

These aims and values can be supported by referring to existing external principles and guidelines like the FAIR principles and the CARE principles.

Roles and responsibilities

This section addresses at a very high level the positions and roles outlined in the policy or associated procedures and the elements that each is responsible for. The overarching responsibility of implementing and maintaining the policy and who takes responsibility for the policy should be detailed, usually in procedures and guidelines including defining delegations and authority.

This section, or the associated procedures, should also include responsibilities of the researcher, supervisor and the institution as defined in the Definition of Terms section, and include delegations where relevant.

Where roles in the policy include positions such as Data Custodian, Data Owner, or Responsible Manager, these should be defined in the Definition of Terms section as arrangements will vary between institutions, departments and research groups.

Responsibility for identifying project specific legislation should also be considered.

It is also important to describe the responsibilities of the university under this policy. For example:

The institution is responsible for:

- providing infrastructure necessary and appropriate for the safe and secure storage of research data and primary materials and records
- relevant training in best practice RDM, including training in the effective use of research data infrastructure

It can be useful to identify a Responsible Officer for implementing and exercising the responsibilities in the policy, and to outline the responsibilities of specific parts of the institution to provide services, for example training, storage, or ethics guidance.

Worth highlighting are the variations of role definitions across institutions and the different considerations. Below are a few examples.

There is some variation between universities in the definition of a researcher. The University of New England defines a researcher as a Researcher Person (or persons) who conducts, or assists with the conduct of, research. Such a broad definition will include PhD and Masters by Research students, and honours students. Research assistants may also be included. Universities should consider whether their definition should also apply to supernumeraries (adjuncts, honoraries, emeritus staff) and visitors.

Macquarie University's Research Data Management Policy¹⁵ identifies several roles which include Research Data Custodian, Research Data Steward, Authorised User, Principal Investigator and Research Integrity Advisor. The role of Research Data Custodian over a data set may be transferred over time.

Victoria University requires that "Responsible Owners/Managers/Custodians of the data and materials" be identified on a Research Data and Materials Plan when accessing storage. These can be data managers, principal or chief investigators, heads of school, however, at least one of these contacts should be based at the university.

The term Data Owner can be a complex term. This will vary by arrangement at the institution: in some cases this will be the researcher, in some cases the contractual parties, in other cases the institution. In some cases this can be a team or a board that is responsible for the data collection. This role is harder to transfer and does in itself not provide clarity on the associated responsibilities.

Research data governance

Research Data Governance is not always a separate heading in the policy. However it is important to consider who can make decisions about the research data collection and who will have access to the collection. This does not have to be an individual and can be covered by a committee.

Documentation and metadata

Throughout the research process, metadata and documentation will be collected and should be stored alongside the research data itself. This will allow the responsible persons and the institution to make decisions regarding the data throughout the research process and when sharing the data. This can also help inform decision making on retention and disposal of the data. It is important to clarify expectations placed on researchers in this area.

The University of Wollongong's Research Data Management Policy¹⁶ provides an example for wording regarding collecting and storing metadata.

Metadata is the information describing the attributes of an item or resource that enables it to be identified, retrieved and managed over time.

- *Administrative metadata may consist of dates, file size, type, creator details, location, licensing information and retention periods to assist with the management of the dataset.*
- *Descriptive metadata provides information for ease of discovery and retrieval such as an abstract, title, keywords, categories, versions and unique identifiers.*

¹⁵ <https://policies.mq.edu.au/document/view.php?id=300>

¹⁶ <https://documents.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow116802.pdf>

Supplementary contextual information should be captured to enable the reuse and interpretation of the data.

- *Structural metadata explains how the data is organised and how it relates to other collections, for example, indexes, chapters, database fields, page numbers and XML schemas.*

Metadata must accompany the research data for as long as it is retained, and should be updated as necessary.

Any process, software program or code used to generate or analyse the research data should be documented and recorded in the metadata.

RDM planning

It is useful to have a principle in the policy regarding [RDM planning](#), whether it is mandated for specific types of data and research, or for all research. Some funders and institutions require DMPs to be developed and lodged as part of the RDM planning process, although the detail is usually included in a related procedure.

Storage

This section of the policy describes what research data storage the institution provides and any expectation regarding the use of these storage services. That can include use of institution, project, discipline, national or personal storage facilities.

Access management controls and cybersecurity

This section of the policy describes expectations for providing access to data. This includes considerations for providing access to [sensitive data](#), including culturally sensitive data, human data or data that is commercial in confidence. It can be useful to provide a classification of data types in a procedure, with associated storage and management solutions.¹⁷

Reuse and sharing of data

This section describes what is expected of researchers relating to the sharing and reuse of their data. This can elaborate on what data may be shared, when, how, and with whom. This can include recommendations on copyright, publishing and the use of specific licences¹⁸. It can also be useful to provide guidance to researchers on appropriate acknowledgment on reusing other's data.

Retention and disposal of data

¹⁷ See for example the [UNSW Data Classification Standard](#)

¹⁸ Australian Research Data Commons. (2019). ARDC Research Data Rights Management Guide. Zenodo. <https://doi.org/10.5281/zenodo.5091580>

This section of the policy describes the expectations for minimal retention periods and [retention and disposal](#) of research data and records. It may also outline expectations regarding longer retention beyond the minimum for specific collections or under specific circumstances. The policy should include considerations and arrangements for the permanent disposal of data.

Related legislative requirements

The policy will need to include references to related legislative requirements. This includes:

- the relevant state or territory¹⁹ or the national²⁰ Privacy Act
- any relevant data breach reporting obligations
- Commonwealth/state/territory legislation relating to retention and disposal of records
- funder requirements such as The Australian Code for the Responsible Conduct in Research (2018), the Guide for Managing Data and Information²¹
- ethics guidelines like the National Statement on Ethical Conduct in Human Research²² and the AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research²³
- TEQSA's Higher Education Standards Framework (Threshold Standards)²⁴ (sections 4.1 together with 5.2 and 6.)
- relevant project specific legislation, including international legislation to be met at the project level

Relationship to other policies and procedures

The policy should provide a clear framework that points off to other related policies and more detailed procedures. These procedures contain more detail and can be adjusted as infrastructure or processes change at the institution. It is worth considering where each of these procedures fit into the lifecycle of the research process and the lifecycle of the data.

A number of example related policies are listed here, from more frequently mentioned to less frequently mentioned. The naming and scope of these policies will differ across institutions.

- | | |
|--|--|
| ● Intellectual Property Policy & Procedure | ● Collaborative Research Standard |
| ● Privacy Policy | ● Research Code Complaints, Breaches & Investigation |
| ● Open Access Policy | ● Research Misconduct Policy |
| ● Records and Information Management Policy | ● Enterprise Architecture Policy |
| ● ICT Information Management & Security Policy | ● Administrative Access Scheme Policy |

¹⁹ <https://www.oaic.gov.au/privacy/privacy-in-your-state>

²⁰ <https://www.legislation.gov.au/Series/C2004A03712>

²¹ <https://www.nhmrc.gov.au/file/14359/download?token=L5GTBw96>

²² <https://www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018>

²³ <https://aiatsis.gov.au/research/ethical-research/code-ethics>

²⁴ <https://www.teqsa.gov.au/higher-education-standards-framework-2021>

- Cybersecurity
- Research Integrity Policy
- Ethics Policies
- Authorship Policy
- Copyright Policy
- Data Governance Policy
- Right to Information Policy
- Data Storage Policy
- Publication and Dissemination Standard
- Information Classification & Handling Policy
- Authorship policy

The RDM policy should reference these policies and there should be a reference back from the related policy.

Institutions may have related procedures and guidelines that set out in detail what processes are in place and how a researcher can meet the expectations. A number of examples are listed here, from more frequently mentioned to less frequently mentioned. The naming and scope of these policies will differ across institutions.

- Records and Information Management Procedures
- Authorship Procedures
- Human Research Ethics Procedures
- Research Data Management Guidelines
- Research Data Management Procedures
- Research Data Sensitivity, Security & Storage Guidelines
- Data Management Guiding Principles
- Research Integrity & Misconduct Procedures
- Right to Information Procedures
- Lab Notebooks Guidelines
- Engagement of Cloud Computing Services Procedures
- Information infrastructure & use regulations
- Administrative Access Scheme Procedures
- Animal Ethics Committee Procedures
- Biosafety Procedures
- Information Privacy Procedures
- Information Asset and Security Classification Procedure
- Cloud Computing Procedures
- Intellectual Property Guidelines
- Data Governance Framework
- Higher degree research confirmation

RECOMMENDATIONS FOR PROCEDURES

A RDM policy may be accompanied by procedures. A procedure can be used to detail how a researcher is expected to meet the requirements of a policy and can help establish some of the mechanisms by which an institution can track compliance. Good procedures can contain (best practice) examples to support researchers to provide a clearer picture of what is expected of them in practice. Standards and procedures are generally easier to approve and change than a policy, so processes that are subject to regular change are better formed as a procedure rather than contained in the policy. These procedures, and other resource sheets, may be referenced from the policy.

Procedures related to sensitive data

Procedures related to the management of [sensitive data](#) are valuable documents that often contain a data classification schema. This is very useful for researchers to make decisions on appropriate places to store their data and mechanisms to provide access to these data.

Sensitive data must be handled in a manner appropriate to the nature of its sensitivity. It is often focused on human subject data but may also consider data related to, for example, archaeological sites, corporate entities, or endangered species.

Procedures should include the nature of permission and consent. That includes the importance of metadata capture and information management so consent is recorded and approvals are clear including respecting the desires of participants and communities.

Procedures should also address consent around the use of third party data where those whose data has been collected cannot necessarily directly consent to its use, for example data collected from Facebook and Twitter.

Sensitive data procedures may also include privacy guidelines and outline the difference between de-identified, re-identified, re-identifiable and anonymized data, and the potential needs of third parties. The principles related to sensitive data may be set out in the RDM policy, or in a separate policy. Procedures relating to sensitive data classifications can be referenced from this section in the policy.

APPROACHES FOR SUCCESSFULLY IMPLEMENTING THE POLICY

Most institutions have documented processes to implement a new policy.²⁵ It is possible that some change and communication support is required to support and encourage uptake. Monitoring and review of the policy should also be factored in.

The following are recommended steps to implement a policy and related considerations.

Recommendation 2: Steps to implementing a Policy	
Steps	Related Considerations
1. Ensure broad consultation during policy development	Consultation log provides a record of engagement and input critical to the development of the communications plan
2. New policy is approved	Target communication to the relevant areas who are required to

²⁵ An example of this can be found at: <https://www.gs.unsw.edu.au/policy/documents/policyframeworkprocedure.pdf>

	implement new processes (in accordance with communications plan)
3. Communications plan responsibility	The policy sponsor is responsible for monitoring the implementation process and ensuring staff are provided with appropriate information and training.
3. Complete and agree on Implementation Project Plan	<p>The implementation plan is generally prepared prior to the announcement of the new policy. There may be a standard template for policy implementation that can be used. This usually covers elements such as:</p> <ul style="list-style-type: none"> ● Stakeholders ● support, advice, guidance or training ● awareness/Internal Communications plan ● timing of expected changes (e.g., prospective policy requirements and phased progressive release of procedural requirements) ● responsibilities for actions ● general sensitivities or barriers to communication and ● risks and mitigations identified against implementation
4. Supplementary materials are complete and integrated in existing systems and workflows	Materials are constantly updated and evaluated and communicated as issues emerge.
5. Culture change	<p>Consider measures to incentivise compliance, for example provisioning data storage, which is usually more effective than penalising non-compliance. Where training plays a role in culture change, ensure this is delivered in context.</p> <p>Policy is an important element for culture change activities, which may form a separate initiative.</p>
6. Audit/compliance	<p>Any audit should be agreed by the policy sponsor and would normally be held either before the commencement of the policy or as a part of the post implementation audit after implementation of the policy. The audit may identify organisational maturity or evaluate compliance with the policy.</p> <p>Timing of the audit and checking against the objective of the policy is important. Having control over that makes it much more useful. Performing an audit is quite resource intensive.</p> <p>When the University is undertaking a TEQSA re-accreditation an assessment of the effectiveness of the policy may be relevant.</p>

7. Post implementation review	<p>The purpose of the review would be to understand whether the policy is being implemented and is achieving its intended aims/purpose. The review needs to be carefully planned and should be the responsibility of the policy sponsor.</p> <p>It can be useful to use the risk and mitigation initiatives identified in the Policy Implementation Plan.</p>
8. Stakeholder consultation / survey of users	This is generally part of the post-implementation review.

Call to action 1: Institutions are encouraged to share with one another examples of their post implementation review processes

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APPENDIX 1: EXAMPLES OF DEFINITIONS OF RESEARCH DATA

University of New England

Research Data means data as facts, observations, computer results, measurements or experiences on which an argument, theory or test is based. Data may be numerical, descriptive or visual. Data may be raw or analysed, experimental or observational. Data include records that are necessary for the reconstruction and evaluation of reported results of research and the events and processes leading to those results, regardless of the form or the media on which they may be recorded.

Macquarie University

Data means research data, which includes primary materials or information held in any digital format or media, or anything that can be digitised, on which an argument, theory, test or hypothesis, or another research output is based. Data may also include other 'digital research objects' such as analytical code that support research outcomes. Research data may be in the form of facts, observations, images, computer program results, recordings, questionnaires/surveys, biographies, audio files, physical specimens or artefacts, measurements, experiences or various other forms. Data may be numerical, descriptive, visual or tactile and could be raw, cleaned or analysed. Data referred to in this Policy does not include the information about research performance or statistical research data which is used by Macquarie University for planning and budget purposes or that which is reported to government agencies, e.g., Excellence in Research for Australia (ERA).

Swinburne University of Technology

Research data may take many different forms, and may include primary research data, spreadsheets, questionnaires, notebooks, photographs, films, models, test responses and samples. The code used to generate or analyse the data may also be included.

University of New South Wales

Research data are the original sources or material that have been created or collated to conduct a research project. They can be digital or non-digital. The response to a particular research question is based on the analysis of research data.

University of Wollongong

The data, records, files or other evidence, irrespective of their content or form (e.g. in print, digital, physical or other forms), that comprise research observations, findings or outcomes, including primary materials and analysed data. Research data referred to in this policy relates to data generated in research projects and is to be distinguished from the information about research performance and statistical research data which is used for planning and budgeting purposes.

Victoria University

Research Data: Facts, observations or experiences on which an argument, theory or test is based. Data may be numerical, descriptive or visual. Data may be raw or analysed, experimental or observational. Data includes: laboratory notebooks; field notebooks; primary research data (including research data in hardcopy or in computer readable form); questionnaires; audiotapes; videotapes; models; photographs; films; test responses. Research collections may include slides; artefacts; specimens; samples. Provenance information about the data might also be included: the how, when, where it was collected

and with what (for example, instrument). The software code used to generate, annotate or analyse the data may also be included.

APPENDIX 2: FURTHER RESOURCES

- List of all university data policies²⁶
- ARDC guide for Institutional Data Policies²⁷
- UNSW's Data Classification Standard²⁸
- UNSW's Research Data Management guidance for researchers²⁹

²⁶ <https://sites.google.com/ardc.edu.au/rdmcommunity/resources/institutional-policy>

²⁷ https://docs.google.com/document/d/1E2wObBlbO48FJZH_JAI01giUreK0Alo9/edit

²⁸ <https://www.datagovernance.unsw.edu.au/data-classification-standard>

²⁹ <https://research.unsw.edu.au/research-data-management>