ACEAS Data Management Planning

User Guide

Access the **ACEAS Data Management Plan template**

1. Introduction

A data management plan (DMP) is a formal document that outlines how data are to be handled both during a research project, and after the project is completed. The goal of a data management plan is to consider the many aspects of data management, metadata generation, data preservation, and data analysis before the project begins; this helps to ensure that data are well-managed in the present and prepared for preservation in the future.

ACEAS partner institutions each have their own data management plan policies, procedures, and platforms. These should be followed by researchers as specified by their respective institutions, but an ACEAS-specific plan should also be submitted so that ACEAS data managers and line managers are aware of every researcher's data needs. This Guide provides information to assist in the completion of the ACEAS Data Management Plan template. If required, separate guidance can be provided for the UTAS Research Data Portal or for the DMPTool platform that is used by other ACEAS partner institutions - contact the ACEAS data managers at the email address below.

Data management plans are dynamic documents and should be revisited at regular intervals during the life of a research project, depending on the nature of the project and the need to update information. Note that the ACEAS template provides space on the front page for tracking versions of the DMP - remember to complete these details when updating the Plan and remember to alert your collaborators to any updates. When saving your completed DMP follow the naming format in the example below:

> 'ACEAS Program 2 DMP – Smith, Jane - 20230927.docx'.

If you have any questions about completing a data management plan or about metadata storage in the IMAS Portal or other repositories, or if you are ready to submit completed ACEAS data management plans or your latest DMP update, please contact the ACEAS data manager at:

> IMAS.DataManager@utas.edu.au

2. People

2.1. Names

Names are generally **not** used as points of truth for identity as they are often expressed in a variety of forms, but it is nevertheless important to capture the form that will be used for authorship in research data records.

Use the format 'Family Name, Given Name(s)' or 'Family name, Given Name Initial(s) for the primary name format at least; e.g., 'Smith, Jane Alice' or 'Smith, Jane A.' Some countries' name formats may be confusing and be reversed by some editors during publication, so it is useful to note these as alternate formats – should this be necessary simply insert additional rows below the provided name field in the template.

If you have any questions about naming conventions, please contact the ACEAS data manager.

2.2 ORCiD

ORCiDs are mandatory at UTAS for completing DMPs in the Research Data Portal and metadata records in the IMAS Data Portal, reflecting their use in UTAS administration as the source of truth for research identity, and they are strongly advised for use in all research output publication. Most other ACEAS partner institutions also mandate the use of ORCiDs. If you do not have an ORCiD you can register at:

> https://orcid.org/signin.

2.3 Affiliation(s)

An affiliation in the context of a research project is a formal association with a research organisational unit as either a professional researcher or as a higher degree research candidate. Space is provided for up to two institutional affiliation names. If you have affiliations with more than two institutions, insert another affiliation field row below the current rows in the template and use a separate row for each affiliation.

3. Project Details

3.1 Project title

The project title for your DMP will generally reflect the one used for your funding application, your Project Plan, or similar documents. The DMP title may be similar or identical to your grant or project titles. If you are creating a new title, it should be a clear and concise description of the project.

As an aside, note that when creating published data/metadata records from the project, it is useful to have differences between publication titles and dataset titles – this helps to avoid confusion between different research outputs. Discuss with your data manager if you require assistance.

3.2 DMP ID number

If you use the online 'DMPTool' or a similar application, they will generate ID numbers for DMPs created within the platforms – the ID number for any DMP created elsewhere can be entered here. If you have not used an online platform to create a DMP this field can be left blank.

3.3 Project start and end dates

The start and end dates assist both the research team and the metadata repository managers to plan for data handling during the life of the project. Select both a start date and an end date for your project. The dates don't need to be exactly accurate but should reflect reasonable spans for the project.

3.4 Field of Research (FoR) and Socioeconomic Objective (SEO) codes

FoR codes are used for institutional/governmental reporting and planning purposes, and SEO codes are used for institutional reporting to the Bureau of Statistics. Enter at least one six-digit FoR and SEO code and up to three codes each, separated by commas. A full list of FoR/SEO codes and their descriptions can be found at:

https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc/latest-release#data-downloads

3.5 Keywords

Keywords are critical for reporting purposes and for making your data discoverable to third parties when the data are lodged in repositories and data records are created. Enter as many relevant keywords as you like, separated by commas. Consider including at least one keyword from the GCMD keyword viewer:

https://gcmd.earthdata.nasa.gov/KeywordViewer/scheme/all?gtm_scheme=all

3.6 Project description

Describe the pertinent details for your project, including relevant background, aims, and intended outputs. If you have other documents related to your project such as a project plan, a publication plan, an authorship/collaboration agreement, or other similar documents they can be referred to/linked to here.

3.7 Project methodologies

Describe the methodologies/procedures for your project, including:

- o data acquisition processes and instrumentation
- o links or reference(s) to relevant published papers and standard operating procedures
- o anticipated analysis procedures (if you have a formal analysis plan you should refer/link to it here)

You should also consider any best practice documentation that may relate to your project, and in particular provide references or links to any relevant methodological procedures described by the UNSECO Oceans Best Practice System (OBPS). The OBPS repository can be searched here:

https://search.oceanbestpractices.org/

4. Data Storage Requirements and Restrictions

4.1 File information

Note the expected total volume size of your data files, and the file types expected to be used. Consider whether your file types are resilient to future obsolescence. Discuss with your line manager or data managers if you have any concerns or would like advice on strategies to protect against file type obsolescence.

4.2 Data storage services

Document all the data storage services that you intend to use. These may include but not be restricted to physical media such as notebooks, and digital media such as OneDrive, Dropbox, desktop/laptop hard drives, USB drives, and/or cloud services amongst others. All ACEAS researchers should check that their institution's storage services are suitable for – and approved for – sharing data with external ACEAS collaborators.

There are several important considerations that should be addressed when documenting the storage services of choice:

- o   How often the data will be backed up and to which locations?
- o   How many copies will be made?
- o   Who is responsible for back-up and recovery?

4.3 Collaborators' access to data

If your project includes collaborators from other institutions, describe how each will be able to securely access the data. If individual collaborators do not have access to the data storage services listed above, describe the method(s) of data provision and the precautionary process(es) that will be used to protect sensitive data.

4.4 Personal or potentially identifiable content

If your data identify individuals at any stage of the research, you will need to follow the relevant federal, state, and institutional privacy requirements. List the relevant requirements that you have identified for your jurisdiction(s), and how you intend to comply with them.

Relevant Australian federal and state privacy links:

https://www.oaic.gov.au/privacy/australian-privacy-principles

https://www.ag.gov.au/rights-and-protections/privacy

https://www.arc.gov.au/about-arc/program-policies/conflict-interest-and-confidentiality-policy

https://www.nhmrc.gov.au/sites/default/files/documents/attachments/Management-of-Data-and-Information-in-Research.pdf

https://www.nhmrc.gov.au/sites/default/files/documents/reports/australian-code-responsible-conduct-research.pdf

https://www.abs.gov.au/about/data-services/data-confidentiality-guide

https://www.ipc.nsw.gov.au/guide-privacy-laws-nsw

https://www.oic.qld.gov.au/about/privacy

https://ovic.vic.gov.au/privacy/resources-for-organisations/privacy-officer-toolkit/privacy-law-an-overview/

https://www.tas.gov.au/stds/pip.htm

https://www.oaic.gov.au/privacy/privacy-legislation/state-and-territory-privacy-legislation/state-and-territory-privacy-legislation

4.5 Confidentiality and contractual obligations

If your data are covered by commercial confidentiality or contractual obligations, state them and detail how you will address them.

4.6 Other sensitive information

If your data contain other sensitive information, for example the locations of threatened or endangered species or implications for Indigenous/cultural ownership and rights, include their details and describe how your storage selection will safeguard this information.

4.7 Intellectual Property

Note who owns the intellectual property rights to the data, and under which agreement(s) this has been determined. Links to Agreements can be included.

5. Data Publishing

5.1 Anticipated Research Data Output(s)

In addition to research publications, research projects should generate one or more research datasets. List the types of data output that are anticipated, and their provisional titles. These outputs may include:

- Image, audiovisual, or sound files
- Datasets
- Data papers
- Online/interactive resources
- Models
- Software

5.2 Location(s) of published data

During the life of the project you may wish to archive or publish versions of your data. List the service(s) that you will use. Note: IMAS staff should **NOT** use the UTAS Research Data Portal for data publication but should instead use the IMAS Data Portal, which is harvested by aggregation services such as the Australian Ocean Data Network. ACEAS staff external to IMAS may also use the IMAS Data Portal, especially if their own institutions' data repositories are not ISO 19115 compliant, to generate metadata that are compliant with international standards.

5.3 Data not publicly available

If you are not going to make your data, or parts thereof, publicly available for sensitivity/confidentiality reasons, provide a justifiable rationale for this. Note that open access to data is the mandated UTAS default, and ACEAS researchers have a responsibility under Article III 1.c of the Antarctic Treaty to make their data publicly available.

5.4 Data embargoed prior to publication

If you have a need to embargo your final data, please note the end date for the duration of the embargo. Data deposited in repositories should be embargoed for no longer than 12 months.

5.5 Creative Commons licence

Note the form of Creative Commons (CC) licence that you intend to assign to your published data. Descriptions of CC licences can be found here:

https://creativecommons.org/about/cclicenses/

Note that ACEAS strongly encourages the use of an Attribution 4.0 International (CC BY 4.0) licence and discourages the use of other types of CC licence.

6. Additional information

If you wish to add information to your data management plan beyond that requested by the fields provided in the ACEAS template, feel free to add it at the end of the template in whichever form is most convenient.

7. Additional links

Research Data Alliance's Discipline Specific Guidance for data management plans:

> https://santoshilam.github.io/Discipline_Specific_Guidance_for_DMPs/intro.html

> https://santoshilam.github.io/Discipline_Specific_Guidance_for_DMPs/3_chapter/chapter3.html

Australian Research Data Commons DMP policies and standards:

> https://ardc.edu.au/resource/ardc-persistent-identifiers-policy/

> https://ardc.edu.au/resource/fair-data/

> https://ardc.edu.au/resource/fair-data-self-assessment-tool/

> https://ardc.edu.au/resource/research-data-management-framework-for-institutions/

Antarctic Treaty:

> https://www.ats.aq/e/key-documents.html

> https://documents.ats.aq/keydocs/vol_1/vol1_2_AT_Antarctic_Treaty_e.pdf

ARC policies on responsibilities in the conduct of research:

> https://www.arc.gov.au/about-arc/program-policies/research-integrity/australian-code-responsible-conduct-research-2018

> https://www.arc.gov.au/sites/default/files/2023-05/Management-of-Data-and-Information-in-Research.pdf

Online DMP tools

> https://dmptool.org/

> https://rdp.utas.edu.au/#/DataManagementPlans

>> (For UTAS-based staff only – if the Research Data Portal DMP module is used, enter the ID number as described in Section 3.2)