

Project guidance: Extending
the Organisational Profile
Document (OPD) to cover
RDM



Developing an organisational profile for research data management services - a guide for HEIs

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Acknowledgements

This guide is an outcome of the Jisc Research Data Spring (RDS) supported pilot project to extend the Organisational Profile Document (OPD) to cover research data management (RDM). Jisc's Research Data Spring is part of the Research at Risk co-design challenge area and aims to find new technical tools, software and service solutions which will improve researchers' workflows and the use and management of their data.

The key objective of this pilot project was to agree within the RDM community a list of basic RDM infrastructure components in light of RCUK's Common Principles on Data Policy and specifically the Engineering and Physical Sciences Research Council (EPSRC) Policy Framework on Research Data and to make these infrastructure components more visible and easier to identify. The first phase of the pilot project ran from March to July 2015.

A second phase of the project began in September 2015 and has worked to flesh out the basic RDM profiles in 5 UK HEIs to get a better insight into how individual institutions are delivering specific infrastructure components. The second phase ran from September to November 2015.

Thanks to Adrian Cox, Project Manager, equipment.data Research & Innovation Services, University of Southampton and Chris Gutteridge, Systems Administrator, Electronics and Computer Science (ECS), University of Southampton for their contributions to this project.

Further details about the pilot project can be viewed at <http://www.dcc.ac.uk/projects/opd-for-rdm>. Further information on other RDS pilot projects can be viewed at <https://www.jisc.ac.uk/rd/projects/research-data-spring>

Developing an organisational profile for research data management services - a guide for HEIs

Purpose

The purpose of this guide is to help HEIs develop a profile of their research data management (RDM) infrastructure and services. It is important to be clear here that infrastructure refers to hardware and technical solutions but also to the range of policies, guidance, training and support that are provided within an institution. The infrastructure components listed in this guide have been developed in light of RCUK's Common Principles on Data Policy¹ and EPSRC's Policy Framework on Research Data².

Why do we need RDM infrastructure profiles?

- **Better understanding of what infrastructure is in place and how individual components are being delivered**

In many HEIs, a working group is established to identify user requirements for RDM infrastructure and to set about implementing new services. However, without a clear picture of the infrastructure components already in place and additional components that need to be implemented, it is likely that inefficiencies or duplication of effort may result. A basic profile for RDM infrastructure components will help HEIs to undertake an inventory of their existing services and support more coherently and efficiently.

- **Better visibility of services within the institution**

In most cases, RDM infrastructure is not delivered as a single end-to-end service but rather as a collection of individual components that are spread across institutional service units.

¹ <http://www.rcuk.ac.uk/research/datapolicy/>

² <https://www.epsrc.ac.uk/about/standards/researchdata/>

While there has been a great deal of progress among UK HEIs in implementing aspects of RDM infrastructure, it has proven quite difficult to make this infrastructure visible to staff across the institution or externally (for example, to funding bodies). By developing a basic research data management infrastructure profile, institutions can be clearer about what is in place and where there may be gaps that need to be filled.

- **Improved understanding of shared requirements**

By adopting a standardised approach to describing research data management infrastructure components, the UK HEI community will be better able to compare institutional approaches to delivering various RDM components and to learn from their peers about which approaches work best. In addition, a standardised approach will help to identify areas where additional investment is needed to establish shared regional, national and/or international services.

Background

Equipment.data was funded by EPSRC to improve visibility and utilisation of UK research equipment. As part of their work, equipment.data developed the Organisational Profile Document (OPD) as part of an auto-discovery infrastructure for the aggregation of equipment datasets. During the Jisc RDS pilot, the DCC and the Equipment.data group examined the feasibility of extending the Organisational Profile Document (OPD) to allow HEIs to be more transparent about the RDM infrastructure they have in place – particularly with respect to EPSRC compliance.

A key aim for this project is to help make details of infrastructure emerging across the UK – particularly that which has emerged as a result of Jisc support- more visible to peer organisations. The DCC worked with many of the Jisc Managing

Research Data (MRD) projects³ to gather and share details of the work done via the Evidence Gathering support project⁴, and with a wide range of UK HEIs to gather and share examples of good practice through the production of case studies⁵ and contributions to our ***Where are they now?*** blog series⁶. However, by extending the OPD to include RDM infrastructure information, the work supported by Jisc could have greater visibility increasing the potential for sharing of experiences and reuse of piloted approaches.

What RDM components should an institution ensure are in place?

During the first phase of the Jisc Research Data Spring pilot⁷, a list of 11 RDM components was compiled with input from the international RDM community. These represent good practice in RDM infrastructure provision, informed by RCUK data policy principles and expectations. The profile itself is not a mechanism for compliance with these expectations but is instead a tool to help HEIs demonstrate the scope of the services they provide. It is worth mentioning here that the components listed need not be developed or delivered in house. In many cases HEIs are looking to third party services providers to deliver some components of their RDM infrastructure.

The following components indicate the desirable scope of RDM infrastructure provision:

- Means of raising staff awareness of funders' research data requirements
- Research data policy

³ <https://www.jisc.ac.uk/rd/projects/managing-research-data>

⁴ <http://mrdevidence.jiscinvolve.org/wp/>

⁵ <http://www.dcc.ac.uk/resources/developing-rdm-services>

⁶ <http://www.dcc.ac.uk/drupal/blog>

⁷ <http://www.dcc.ac.uk/projects/opd-for-rdm>

- Strategy or implementation plan for research data services
- RDM advice and support services
- Active data storage
- Persistent identification for datasets
- Data register or catalogue
- Data access procedures
- Secure data access
- Institutional publications repository (if it includes research data or metadata)
- Data repository for longer term access and preservation

Using your profile

Once you have developed your basic RDM infrastructure profile, make use of it! Below are a few ideas for using your profile. Make your profile easily visible to those who need to be aware of the range of RDM infrastructure and services within your institution.

- Your RDM infrastructure profile is an excellent resource to help Research Office staff to sign-post researchers to specific units for assistance in managing their research data.
- Use your profile to help you develop institution-specific guidance for inclusion in DMPonline. Researchers find local advice and guidance invaluable when completing their DMPs for specific funders.
- Your basic RDM profile can be fleshed out to help you understand how your institution is delivering services (number of staff involved, effort required). This knowledge will be crucial when you are looking to develop sound business cases for sustaining your fledgling services.
- Ensure that different support units within the organisation know about the profile and have access to it. ICT, ethics

teams, the Library, and the Research Office should be aware of the RDM infrastructure available but also consider making your senior management and finance department aware of what is on offer.

- Use your profile as a means of comparing like for like with your peers. By comparing approaches to delivering individual components, HEIs will be better able to avoid pitfalls and to make their services more effective and efficient.

Top Tips

When mapping various infrastructure components and services to the basic profile, consider the appropriate level of granularity. For instance, your organisation may have a dedicated page relating to data management which includes links to the Research Data policy but also to additional resources and contextual information. This may be a more useful link to include in your profile than a direct link to the policy itself.

Make sure that the profile has an overall 'owner' but also that the units responsible for delivering specific components are included in regular reviews and updates. You'll want to ensure that the links and information are current and accurate.

Consider how you will make your profile visible for best impact. Will it be visible to all staff and students or shared only with support units?

Using the OPD to make research data management infrastructure profile more visible

An Organisation Profile Document (OPD) is a basic RDF file that contains the organisation's full name, homepage, logo, dataset location and contact information for openly published datasets e.g. research equipment and facilities. Several HEIs have

captured additional organisational information in their OPDs by using the Linking You⁸ vocabulary. There is great potential to make use of this structure to make the basic RDM infrastructure profile visible to all those who may need to know what infrastructure is in place (e.g., staff in the research office).

What are the benefits of having an OPD?

- over 40 HEIs already have OPDs in place
- builds upon existing infrastructure
- easy to implement solution
- HEIs can update and maintain profile locally
- profiles made visible by opd.data.ac.uk make the data accessible to third party data publishers
- establishes trust as the information is published in a standard format

Many HEIs already have an OPD⁹ in place to comply with EPSRC's requirements around equipment sharing¹⁰. You can check if your organisation has an OPD using one of two methods. If your institution is publishing research equipment you can check on <http://equipment.data.ac.uk/status>. Otherwise go to <http://opd.data.ac.uk>. If your organisation does not yet have an OPD, you can find out more about developing one by reading the OPD guide¹¹. A handy step by step online tutorial¹² has also been developed to assist HEIs to develop their OPDs.

Conclusions

Developing a basic RDM profile will help any organisation to make their research data management infrastructure and services more visible to anyone who needs to know what

⁸ <http://lincn.eu/toolkit>

⁹ <http://opd.data.ac.uk/>

¹⁰ <https://www.epsrc.ac.uk/research/facilities/equipment/initiatives/sharing/>

¹¹ <http://equipment.data.ac.uk/guides/opd>

¹² http://opd.data.ac.uk/workshops/getting_started

support is in place. More importantly, you'll more easily identify gaps in infrastructure and service provision and be better able to plan strategically for improvement.

During the second phase of the RDS pilot, we have developed a series of guiding questions to help HEIs to better understand *how* they are delivering of the infrastructure components. Questions focus around understanding the unit(s) responsible for delivering particular services, staffing allocated to these delivering services, and whether funding for staff and infrastructure comes from short term or more sustainable funding. Once HEIs have a better picture of how their RDM infrastructure and services are being delivered, they are better equipped to plan for the expansion and longevity of emerging RDM services across the sector.

Appendix 1: RDM Profile worksheet

Complete the worksheet below by providing links to institutional pages and/or resources for each of the infrastructure components in the space provided. It is important to make infrastructure and support service easy to find and use. If you struggle to provide a link to a specific bit of infrastructure during this exercise, bear in mind that this may mean that research support staff and researchers at your institution will have trouble as well. This may indicate a quick win in terms of removing any ambiguity about service provision and/or improving the awareness of specific institutional infrastructure. Once you have completed this table you will need to refer to the OPD guide and/or online workshop to learn how to make this information discoverable.

Research Organisation Description		
RDM profile component	Record HEI Link - insert your URLs in the space provided	Guidance
Means of raising staff awareness of funders' research data requirements		Provide a link to an information page on funders' policies. This could be internal or external (E.g., DCC's policy overview table)
Research data policy		Provide a link to research data policy or aspirational statement
Strategy or implementation plan for research data services		Provide a link to research data strategy page or roadmap
RDM advice and support services		Provide a link to page describing data management planning guidance and/or support services at this organisation
Active data storage		Provide link(s) to active research data storage information page(s). There may be multiple options at Research Group/School/College/Central levels.
Data register or catalogue		Provide a link to your internal research data registration homepage. This may be provided via the data repository and/or CRIS.
Persistent identification for datasets		Provide a link to any page(s) detailing schemes used to identify digital data items (e.g., DataCite).
Data access procedures		Provide a link to any information provided about research data access.
Secure data access		Provide a link to any information provided about secure data access and governance.
Institutional publications repository (if it includes research data or metadata)		Provide a link to your institutional repository homepage
Data repository for longer term access and preservation		Provide a link to your research data repository homepage. This may be an extension of your publications repository, a separate data repository or a pointer to an external data repository service (E.g., Zenodo).

Appendix 2: Research Organisational Section for OPD

For those with an OPD already, simply complete the worksheet below by providing links to institutional pages and/or resources for each of the infrastructure components in the space provided (red text). Once completed, please copy and paste the information in the second column adding these new links to your institution's OPD under the existing "Linking you" terms, identified by the "lyou:" prefix¹³. This will allow it to be aggregated and made visible via the website¹⁴ and accessible to wider organisations and data providers¹⁵.

Research Organisation Description		
RDM profile component	Record HEI Link - insert your URLs in the space provided (replace the red text)	Guidance
Means of raising staff awareness of funders' research data requirements	lyou:research-funders-policies<URL>	Provide a link to an information page on funders' policies. This could be internal or external (E.g., DCC's policy overview table)
Research data policy	lyou:research-data-policy<URL>	Provide a link to research data policy or aspirational statement
Strategy or implementation plan for research data services	lyou:about-strategy<URL>	Provide a link to research data strategy page or roadmap
RDM advice and support services	lyou:research-data-management-planning<URL>	Provide a link to page describing data management planning guidance and/or support services at this organisation
Active data storage	lyou:research-data-active-storage <URL>	Provide link(s) to active research data storage information page(s). There may be multiple options at Research Group/School/College/Central levels.
Data register or catalogue	lyou:research-data-catalogue <URL>	Provide a link to your internal research data registration homepage. This may be provided via the data repository and/or CRIS.
Persistent identification for datasets	lyou:research-data-item-identifier-scheme-homepage<URL>	Provide a link to any page(s) detailing schemes used to identify digital data items (e.g., DataCite).
Data access procedures	lyou:research-data-access<URL>	Provide a link to any information provided about research data access.
Secure data access	lyou:research-data-secure-access<URL>	Provide a link to any information provided about secure data access and governance.
Institutional publications repository (if it includes research data or metadata)	lyou:research-publications-repository<URL>	Provide a link to your institutional repository homepage
Data repository for longer term access and preservation	lyou:research-data-repository-long term<URL>	Provide a link to your research data repository homepage. This may be an extension of your publications repository, a separate data repository or a pointer to an external data repository service (E.g., Zenodo).

¹³ , see example <https://raw.githubusercontent.com/cambridgeuniversity/opd/master/cambridge.ttl>"

¹⁴ <http://opd.data.ac.uk>

¹⁵ See example published OPD <http://opd.data.ac.uk/checker?homepage=http%3A%2F%2Fwww.cam.ac.uk%2F>"