



Research Data Management (RDM) strategy

Library Service

Context

Cranfield University introduced a [Management of Research Data policy \(pdf\)](#) in 2012 and has since set up a strong foundational RDM service. With a core service now in place covering guidance, training, and a data repository, we are nearing EPSRC compliance.

Whilst the EPSRC expectations provided a clear structure to plan towards, the UK HE sector has advanced with respect to RDM and in July 2016, the [Concordat on Open Research Data \(pdf\)](#)¹ was published. Developed by RCUK, HEFCE, Universities UK, and the Wellcome Trust, it represents the sector best practice principles, to ensure that:

“research data gathered and generated by members of the UK research community is made openly available for use by others wherever possible in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the costs involved.”

Additionally, the Joint Code of Practice for Research² is used by a number of other funding bodies relevant to Cranfield and we sign up to their principles when research projects are undertaken under the auspices of these funders. The code states:

“The location of all project records, including critical data, must be recorded. They must be retained in a form that ensures their integrity and security, and prevents unauthorised modification, for a period to be agreed with the Funding Body.”

At Cranfield University, we aspire to best practice and to follow expectations that we can be respected as an institution with a strong reputation for transparent, reproducible, and rigorous research, whilst responsibly protecting our IP and ensuring legal and ethical compliance to maintain our invaluable commercial partnerships. Indeed, the recent independent [RISE analysis \(docx, internal-only\)](#) of our RDM service commended our developments to date whilst also outlining opportunities, which are taken into account in this strategy.

The strategy recognises the different contexts we work within, to deliver tailored provision for public, commercial, and sensitive data. It will enable us to progress our service development in line with the University corporate plan and the ten principles of the Concordat to ensure a strong reputation in the eyes of both public funders and private collaborators. As open data (where legally and ethically responsible) becomes the default position within research, working to uphold Concordat principles ensures both our strength in upcoming REF exercises, and also supports the aims of 415i.

¹ <http://www.rcuk.ac.uk/media/news/160728/>

² <http://www.bbsrc.ac.uk/documents/joint-code-of-practice-for-research-pdf/>

³ 10.1371/journal.pone.0000308, <http://hdl.handle.net/2027.42/78307>, 10.7717/peerj.175, hprints-00714715v2

- 400: by enhancing our research reputation among peers within the UK and internationally, with the adherence to best or sector-leading practice in research data management;
- 10: by providing researchers with training giving them the knowledge and skills needed for their career;
- 5: by better planning our services over the medium- to long-term so that cost-efficient RDM processes are in place, enabling sharing and the exploitation of valuable data;
- i: by increasing our impact and influence by promoting Cranfield's unique offerings in the sphere of research outputs, and with the release of open data to increase staff citations³.

Strategy

The University Open Access policy recognises the importance of access to research outputs, both publications and data⁴:

“Cranfield University supports the principles and objectives of open access and is committed to making all forms of output from its research, including published research data, available freely and accessibly in ways that allow them to be used and re-used for the benefit of wider society. Open access to research papers (and data) allows greater visibility to research undertaken at Cranfield, can help to stimulate new research opportunities as well as increase citations and helps to optimise personal and institutional impact.”

Cranfield University recognises that research data that is better managed, more discoverable and available for re-use will contribute to increased research impact, enhanced research practice (including collaboration) and improved research outcomes. The University aims to ensure that all research data should be made openly available where allowed and in particular to fulfil compliance requirements and community expectations. It also acknowledges commercial and governmental data sensitivity and provides support for all researchers to determine access levels that ensure data is as open as possible but as closed as necessary and under appropriate security.

This strategy supports the University corporate plan strategic priorities for Cranfield to be recognised for outstanding transformational research that meets the needs of business, government and wider society and to be renowned for our impact and influence – regionally, nationally and internationally, set within an effective framework of efficient and cost-effective processes.

The following strategic themes for the management of research data have been identified in response to the University corporate plan:

- Excellence and impact;
- Integrity and professionalism;
- Effective asset protection;
- Effective infrastructure;
- Skills and knowledge.

⁴ “Research data” is primarily “the evidence that underpins the answer to the research question”, i.e. that which can be used to validate findings. Research data may be quantitative or qualitative, in a multitude of formats (numerical, textual, audio-visual, models, code), digital or physical, created in a variety of ways (e.g. by experiments, observations, simulations), and raw or derived. However, we also have a responsibility to preserve other retained research data, i.e. data evaluated to be of value for preservation after each project; this therefore also falls into the scope of this strategy.

Strategic themes and aims

The research data management strategy can be structured into five themes, with aims given for each strategic theme, which can then be used to guide our operational planning.⁵

Excellence and impact	Integrity and professionalism	Effective asset protection	Effective infrastructure	Skills and knowledge
Supports: 4, i of 415i; Concordat principle 1.	Supports: 4 of 415i; Concordat principles 5, 6, 8.	Supports: 5, i of 415i; Concordat principle 2.	Supports: 4, 5, i of 415i; Concordat principles 3, 4, 7.	Supports: 4, 1 of 415i; Concordat principle 9.
<ul style="list-style-type: none"> • More research data is discoverable and reusable, and data reuse is increased, thus improving measures of research quality and impact. • Systems and policies in place to make data FAIR (findable, accessible, interoperable, reusable). 	<ul style="list-style-type: none"> • Managing data well is acknowledged as a key part of research integrity and professional practice. • Compliance with funders and other external codes of conduct is improved. • Research data management services are increasingly integrated with other services and units. 	<ul style="list-style-type: none"> • The research data service caters for the varied needs of researchers and their partners. • An advisory service supports a clear framework of data access levels and security, both to enhance industrial partnerships and to assure security of sensitive data. 	<ul style="list-style-type: none"> • Improved systems and facilities to enable efficient data access, storage, management and preservation; to assure the retention and exploitation of data and associated IP. • Efficient planning for the financial sustainability of data management and preservation systems. 	<ul style="list-style-type: none"> • Researchers are given the knowledge and skills to manage data effectively, to ensure increased impact and influence on society. • Training opportunities meet the needs of researchers from different disciplines and at different levels from postgraduate onwards.

⁵ Informed by Monash University's CC-BY 3.0 [Research Data Management Strategy](#).

Progress monitoring

In support of this strategy (and Concordat principle 10), regular reviews will be undertaken to ensure we are progressing towards these aims. The strategy is agreed for a three-year period and progress will be reviewed annually, with a report submitted to Research Committee at the end of each calendar year.

Contacting us

For further advice about any aspect of research data management, please contact our Research Data Manager.

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You can view this guide online and find more RDM information on the intranet:
<https://library.cranfield.ac.uk/knl/research-data-management>

Document control

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