The University of Glasgow recognises that there are increasing pressures to make research data openly available to validate research results, to increase impact, and to facilitate reuse to create new knowledge. The University of Glasgow is committed to supporting its researchers to meet these objectives by providing an environment that recognises and supports research excellence.

The University of Glasgow firmly believes that good research depends upon good research data management and acknowledges that research data management involves numerous stakeholders across the research data lifecycle. To this end, and to meet the EPSRC timeframes, the University has developed a draft Research Data policy that links to existing research policies as well as outlining research data responsibilities for key stakeholders within the university. For the context of the Research Data policy and the University’s EPSRC Roadmap, research data should be interpreted as any material (digital or physical) required to underpin research. For different disciplines this may include raw data captured from instruments, derived data, documents, spreadsheets & databases, lab notebooks, visualisations, models, software, images, measurements and numbers.

This latest version of the EPSRC Roadmap describes how the University of Glasgow has supported our own research principles and conformed to EPSRC expectations concerning the management and provision of access to EPSRC-funded research data.

1 http://www.epsrc.ac.uk/about/standards/researchdata/Pages/expectations.aspx
Expectation 1:

Research organisations will promote internal awareness of these principles and expectations and ensure that their researchers and research students have a general awareness of the regulatory environment and of the available exemptions which may be used, should the need arise, to justify the withholding of research data.

- EPSRC grant holders are contacted at key times during their award to remind them of their data management responsibilities.
- A range of Research Data Management (RDM)-related training is now available at the University of Glasgow for both staff and research students.
- An extensive range of RDM information is made available on the RDM Service webpages.
- Functionality to support RDM awareness is being designed into the new Research Management System.

Responsibility for compliance with this expectation resides with University Senior Management, the Research Strategy and Planning Committee (RPSC), the Research Data Management Service and Research Administrators at the College and School level.

Expectation 2:

Published research papers should include a short statement describing how and on what terms any supporting research data may be accessed.

- Researchers are informed of this requirement at RDM training events, via meetings with the RDM team and via the RDM service webpages and information leaflets.
- The University’s Enlighten: Research Data registry and repository has the functionality to mint DOIs which can be used in a data citation in a publication.

Responsibility for compliance with this expectation resides with Research Staff who author publications and with the Research Data Management Service.

Expectation 3:

Each research organisation will have specific policies and associated processes to maintain effective internal awareness of their publicly-funded research data holdings and of requests by third parties to access such data; all of their researchers or research students funded by EPSRC will be required to comply with research organisation policies in this area or, in exceptional circumstances, to provide justification of why this is not possible.

- The University of Glasgow has a Research Data Management Policy which was approved in draft form by RPSC. We anticipate presenting an updated version of this policy to RPSC for approval in November 2015.
- RSPC has also approved a recommendation to require the writing of Data Management Plans by EPSRC-funded researchers.
Responsibility for compliance with this expectation resides with the Research Planning and Strategy Committee and the Research Strategy and Innovation Office.

**Expectation 4:**

Publicly-funded research data that is not generated in digital format will be stored in a manner to facilitate it being shared in the event of a valid request for access to the data being received (this expectation could be satisfied by implementing a policy to convert and store such data in digital format in a timely manner).

- There is a mechanism whereby non-digital data can be stored in the University Records Centre and issued with an accession number which will facilitate discovery and recovery.
- Digitisation of data for sharing will be considered on a case-by-case basis.

Responsibility for compliance with this expectation resides with Research Staff, the University Records Centre and the Research Data Management Service.

**Expectation 5:**

Research organisations will ensure that appropriately structured metadata describing the research data they hold is published (normally within 12 months of the data being generated) and made freely accessible on the internet; in each case the metadata must be sufficient to allow others to understand what research data exists, why, when and how it was generated, and how to access it. Where the research data referred to in the metadata is a digital object it is expected that the metadata will include use of a robust digital object identifier (For example as available through the DataCite organisation - [http://datacite.org](http://datacite.org)).

- Research staff and made aware of this expectation via a range of channels.
- The University’s Data Registry holds publicly searchable metadata about datasets.
- Datasets deposited in the repository are issued with a Digital Object Identifier (DOI) which provides a robust and persistent link to the dataset.

Responsibility for compliance with this expectation resides with Research Staff and the Research Data Management Service.

**Expectation 6:**

Where access to the data is restricted the published metadata should also give the reason and summarise the conditions which must be satisfied for access to be granted. For example ‘commercially confidential’ data, in which a business organisation has a legitimate interest, might be made available to others subject to a suitable legally enforceable non-disclosure agreement.

- Access to each dataset is decided on a case-by-case basis in agreement with the depositing researcher and with reference to other co-owners of the data.
• Information indicating terms on which the data may be accessed is available in the Registry entry.
• A range of licensing options are available for datasets.
• The RDM Team are working with the University Ethics Committee to integrate considerations for data sharing into the ethics approval process.
• The Contracts Team have included a clause allowing for data sharing in collaboration agreements.

Responsibility for compliance with this expectation resides with Research Staff, The Research Data Management Service, The University Ethics Committee and the Contracts Team.

Expectation 7:

Research organisations will ensure that EPSRC-funded research data is securely preserved for a minimum of 10-years from the date that any researcher ‘privileged access’ period expires or, if others have accessed the data, from last date on which access to the data was requested by a third party; all reasonable steps will be taken to ensure that publicly-funded data is not held in any jurisdiction where the available legal safeguards provide lower levels of protection than are available in the UK.

• The University of Glasgow’s Code of Good Research Practice requires all researchers to retain research data for at least 10 years.
• The University Research Data Repository is backed by commercial long-term secure storage which is audited twice annually for compliance with the ISO27001 data security standard.
• Metrics are recorded on Registry landing page hits and data access requests which allow retention schedules for datasets to be adjusted to account for subsequent access.
• The University of Glasgow IT service is currently developing a Cloud Storage Policy which will apply to research data.
• Where possible, datasets lodged with external data repositories are recoded in the University Data Registry.

Responsibility for compliance with this expectation resides with Research Staff, the Research Data Management Service and IT Services.

Expectation 8:

Research organisations will ensure that effective data curation is provided throughout the full data lifecycle, with ‘data curation’ and ‘data lifecycle’ being as defined by the Digital Curation Centre. The full range of responsibilities associated with data curation over the data lifecycle will be clearly allocated within the research organisation, and where research data is subject to restricted access the research organisation will implement and manage appropriate security controls; research organisations will particularly ensure that the quality assurance of their data curation processes is a specifically assigned responsibility.
• Researchers are encouraged to write Data Management Plans for research projects. This recommendation was recently approved by RPSC.
• A range of information to support and help researchers manage their research data is available from the Research Data management Service and the associated webpages.
• Any researcher requiring specific advice can contact the Research Data Management Service directly via our email address.
• Links to information on suitable file formats are available on the RDM Service webpages.
• The RDM Team offer data deposit and archiving as a service to research staff.
• The RDM Team can mint DOIs for datasets, allowing researchers to include data citations in their publications.
• The RDM Service can offer advice and help with selection of data for deposit.

Responsibility for compliance with this expectation resides with Research Staff, the Research Planning and Strategy Committee and the Research Data Management Service.

Expectation 9:

Research organisations will ensure adequate resources are provided to support the curation of publicly-funded research data; these resources will be allocated from within their existing public funding streams, whether received from Research Councils as direct or indirect support for specific projects or from higher education Funding Councils as block grants.

• There is a Research Data Management support team now available at the University of Glasgow who can offer advice and support for all aspects of research data management. This resource is funded until December 2016 in the first instance.
• Research Data Management considerations are now being costed into new grant applications, making the cost of long-term archiving of data a sustainable expense.
• We are currently investigating how to recover RDM costs from grants.

Responsibility for compliance with this expectation resides with University Senior Management and the Research Planning and Strategy Committee.
Relevant University of Glasgow Policies and Resources:

Code of Good Practice in Research:  
http://www.gla.ac.uk/services/rsio/researchstrategypolicies/ourpolicies/codeofgoodpracticeinresearch/

PG Research Code of Practice:  
http://www.gla.ac.uk/services/postgraduateresearch/pgrcodeofpractice/

Animal Research Policy:  
http://www.gla.ac.uk/research/aims/ourpolicies/animalresearchpolicy/

Intellectual Property and Commercialisation Policy:  
http://www.gla.ac.uk/media/media_185772_en.pdf

Draft Research Data Management Policy:  
http://www.gla.ac.uk/media/media_232425_en.docx

IT Policies:  http://www.gla.ac.uk/services/it/informationsecurity/policies/

Data Protection and FoI Policies:  http://www.gla.ac.uk/services/dpfoioffice/policiesstrategies/

General Research Policies:  http://www.gla.ac.uk/research/aims/ourpolicies/

RDM Guidance:  http://www.gla.ac.uk/services/datamanagement/

Data Protection and FoI Guidance:  
http://www.gla.ac.uk/services/dpfoioffice/guidanceonresearch/