Doctoral Data Management Plan: Guidance for Reviewers

University of Bath requirements for a Data Management Plan
All doctoral students are required to write a Data Management Plan (DMP) by Confirmation (QA7 11.91), and the University of Bath Research Data Policy2 stipulates that all new projects must have a Data Management Plan. This guidance is design to facilitate the process of review of the Doctoral DMP. The DMP is a living document and should therefore be reviewed regularly throughout the research project.

Training and support for Data Management Plan development
The Library Research Data Service provide guidance through their webpages, individual consultation (research-data@bath.ac.uk), and run regular training on all aspects of research data management. The Research Data Management: Planning training session is a hands-on two-hour session designed to guide Doctoral students through the process of developing their DMP using the Doctoral DMP Template. There is a Research Data Service Data Management Plan wiki with full guidance and example wording.

1 Overview
This section is factual and should reflect the scope of the project. The Data Steward is identified in this section as the most senior member of University of Bath supervisor. The responsibilities of the Data Steward are provided in the guidance to the University of Bath Research Data Policy (Section 2, guidance points 2.1-2.7; Section 4, guidance point 4.6; Section 6).

2 Compliance
2.1 University policy requirements
This section must include the University of Bath Research Data Policy2. There is guidance on the Research Data Service Data Management Plan compliance wiki on the University policies and codes that might be relevant to the research. There should be brief summary of how the student will manage their data in accordance with the policies.

2.2 Legal requirements
This section should include links to national or international legislation that must be complied with during the course of the project with regards to the management of the research data. The Research Data Service Data Management Plan compliance wiki has a summary of the main UK laws that apply to research data. There should be a brief summary of how the student will manage their data in accordance with these laws.

2.3 Contractual requirements
The student should summarise any contractual requirements (funder, industrial partner, collaborators) that relate to the management of their research data in this section.

---

2 University of Bath Research Data Policy: http://www.bath.ac.uk/research/data/policy/
3 Gathering data

3.1 Description of the data
This section should include the following information:

- The type of data that will be used (qualitative / quantitative).
- The formats of the data that will be collected and the formats that they need to be saved in for future preservation.
- The volume of data that will be generated. This is to help them to plan storage needs with you if they are generating large volumes of data.

3.2 Data collection methods
The student should provide a brief summary of the methods of data collection.

3.3 Development of original software
If applicable, a good answer to this question should indicate:

- The type of software the project will create e.g. script, model, module, library, prototype application, software product;
- The programming language that will be used;
- Whether the software will be uniquely fitted to the project or potentially useable in new contexts.

4 Working with data

4.1 Short- and medium-term data storage arrangements
The student should demonstrate that they have considered:

- the safe storage of their data (preferably X: or H: drive) and storage consider storage options for high volume data
- back-up of their data
- security of their data

4.2 Control of access and sharing with collaborators
If the student is working with any type of sensitive data (personal data, commercially sensitive data, politically, or environmentally sensitive data) they should consider their obligations to keep the data secure, and limit access to the data.

4.3 File organisation and version control
The student should outline how they will organise their folders and files, the file-naming convention that they will use and how they will keep track of versions.

4.4 Documentation that will accompany the data
We are encouraging doctoral students to document their data in a readme file. We are also encouraging them to fully annotate any code that they write.
5 Archiving data

5.1 Selection of data to be retained and deleted at the end of the project
This section should state, at a minimum, that the following data will be preserved long-term:

- Data underpinning publications or results reported within their thesis;
- Data that would be impossible or prohibitively expensive to re-create;
- Data that are of value as a resource for future research;
- All relevant coding that would be necessary to reproduce the results from the raw data.

5.2 Data preservation strategy and retention period
Data cannot be stored long-term on the X: or H: drive. The student should state that the data will be archived in a relevant data archive, or provide another long-term storage option. Data should be preserved for at least 10 years after publication unless there are over-riding funder, contractual or ethical requirements.

5.3 Maintenance of original software
The appropriateness of the answer should be judged on how well it matches the nature of the software, script or model being generated.

6 Sharing data

6.1 Justification for any restrictions on data sharing
This section should state that:

(a) Data underpinning publications will be made openly available at time of publication; or
(b) Provide justification for data not being made openly available and the reasons for the need for any restrictions to be placed on data sharing.

6.2 Arrangements for data sharing
The plan should provide information on how the data will be shared with other researchers. We recommend that data access statements are included in all publications.

7 Implementation

7.1 Review of the Data Management Plan
The student should provide a statement about how regularly the plan will be reviewed, and with whom. If the project is part of a wider programme of research then consideration should be made about how the Doctoral DMP aligns with a wider programme DMP.

7.2 Special resources required for the project
If any previous answers imply that resources (e.g. data storage) will be needed beyond normal University provision, these resources should be clearly specified in the context of the project.

7.3 Further training needs
The student should identify any further training or support that they might need in order to implement the DMP.