Research Data Management Support Service
Project Initiation Document (PID)

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<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Change Description</th>
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<tbody>
<tr>
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<td>First version</td>
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<tr>
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Approvals
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1 Purpose of this Document

The Project Initiation Document (PID) defines the approach adopted to undertake the Research Data Management Support Service (RDMSS) project. It outlines the core components that underpin the operation of the project, including the objectives, benefits and risks, quality expectations, scope and timeframes.

The PID performs three primary functions within the project:

1. It describes the overall approach proposed for the project, for review and sign-off by the Steering Group. By authorising the PID (in conjunction with the Stage Plan), the Steering Group indicate their support for the project in its current form and the allocation of resource necessary to undertake the work.

2. It serves as a base document against which the Steering Group and Project Manager can assess progress, identify issues and evaluate success of the project.

3. It provide a single source of reference about the project enabling people to quickly and easily understand the overall aims and objectives of the project and the approach being taken to its implication.

This Project Initiation Documentation is a living product that will be updated and re-baselined at the end of each stage, to reflect the current status of its constituent parts. Previous versions of the PID are considered to be superseded, but shall be retained for later reference.

2 Project Purpose

The RDMSS Project is an infrastructure development project funded by the Wellcome Trust under the Institutional Strategic Support Fund. Its overall purpose is to develop and embed a RDM Support Service within the London School of Hygiene and Tropical Medicine, performing activities to enable and enhance data management practices. In its initial phase, the project is funded for one year (Jan-Dec 2012), with the potential for extension to three years (December 2014).

3 Background and Context

The project builds upon work performed within LSHTM during 2008-11 to investigate the challenges and issues encountered by LSHTM researchers when managing and sharing research data. During 2008/2009, it was recognised that the requirements and expectations of the research community were evolving, with increasing demand being made for researchers to publish the data assets that underpin research studies for the purpose of verifying the accuracy of findings and performing new research through a meta-analysis of several
datasets. To investigate the issues associated with data management and sharing, the LSHTM Senior Management Team (SMT) established a Research Data Working Group in February 2010, with the remit to assess current research practices within the institution and determine the steps that should be made to meet evolving expectations by funders and the research community. The RDWG undertook a number of activities, performing a high-level review of data management practices applied by staff and the infrastructure available for use in-house and externally. It also liaised with experts at the national and international level to establish good practice within the broader community. On the basis of the Working Group’s findings, it produced a report titled ‘Raising Standards – Lowering Barriers: Documentation of, access to and preservation of research data at the London School of Hygiene and Tropical Medicine’ that made several recommendations for work to be performed within the School to enhance data management practices. Key recommendations in the report were the need to setup a Support Service to develop a broad RDM Education Programme and implement an appropriate technical infrastructure to support data management activities. This development work would be overseen by a Steering Group responsible for authorising and supporting implementation activities.

4 Aims and Objectives

To address the challenges outlined ‘Raising Standards-Lowering Barriers’ scoping study, the RDMSS Project will focus upon five complementary elements for enabling and enhancing good information management practices within the School:

1. Determine the current level of information management expertise within the School and identify areas where additional support and guidance is needed to improve data management practices

2. Develop a documentary framework, including policies and procedures, that establishes the institution’s commitment to enabling and enhancing data management practices

3. Establish a programme, comprised of written and verbally presented material, for educating LSHTM staff and students on principles and practices for data management across a broad range of subject disciplines and enable sharing of good practice within the institution.

4. Implement an institutional Research Data portal and appropriate tools for use in cataloguing and locating LSHTM research data assets produced and managed by LSHTM staff
5. Analyse key infrastructures in use by LSHTM researchers to manage their data at the Faculty, centralized and national level and identify the management systems and tools that should be developed/implemented to address any gaps in current service provision.

The success of the project will hinge on how effectively the RDM approach in its entirety meets the requirements of the School and its sustainability as an ongoing service.

5 Project Approach

The project lifecycle follows six key stages, each of which will last approximately six months. Each stage is considered complete on sign-off of key deliverables by the Project Steering Group. Towards the end of each segment, the Project Manager will prepare an End Stage Report and Produce a Stage Plan for the next six months for presentation to the Steering Group. This will conform to the PRINCE2 Managing Stage Boundaries (MSB) process. Tasks or deliverables that cannot be completed during the six month period will be continued in the subsequent stage. All deliverables should be completed by the end of June 2015.

Requirements Definition Stage (Ongoing)

The first stage is concerned with scoping, overseeing and evaluating the performance of the project. The primary deliverable of this stage is the Project Initiation Document (this document) which outlines the overall management process that will be applied. The deliverables of Stage 1 will be revisited throughout the project to ensure that it continues to meet the requirements of the Project Team and Steering Group.

Stage 1: Establish Documentary Framework (08-12 2012)

The purpose of the 1st stage is to scope, develop and embed Research Data Management policies within the operational framework operated by the School. Key deliverables of the stage are the Research Data Management (RDM) Policy and the RDM Roadmap that, subject to authorisation by the Steering Group and relevant committees, may be adopted by the School. Related outputs of this stage will include a set of recommendations for revisions to be made to other documents to enable the RDM policy to be better integrated into the broader policy framework.

Towards the end of the stage, the PM will perform activities necessary to scope the following stage. This will take the form of a survey of information management expertise and practices applied by staff located in each department and selected research groups, for the purpose of determining the areas where RDM education is required.
Stage 2: Develop RDM Education Programme (01 – 06 2013)
The purpose of the 2nd stage is to establish the pedagogical approach and appropriate materials to be developed for educating research staff and students on the principles and practices of Research Data Management. Building upon the requirements analysis performed in Stage 1, the PM will scope and develop a set of training material on topics related to RDM. Key deliverables will include a set of Guidance Papers and Tutorials (comprised of presentation slides and presentation notes, as well as practice exercises where appropriate). A minimum of ten Papers and Tutorials will be produced or repurposed, each of which will cover a different topic. These will be circulated to selected research and teaching staff who have expressed a willingness to contribute and provide feedback). Further Papers/Tutorials will be created, dependent upon the availability of time. These will be published on the LSHTM RDM Support Site as Open Education Resources (OER) under an appropriate licence (most likely a variation of Creative Commons).

The PM will perform activities necessary to scope the third stage. This will take the form of a survey of research data collections produced and/or managed by LSHTM researchers, taking into account factors such as their structural composition and encoding format, funding and licensing status, and current location.

Stage 3: Service Development and Embedding (07 – 12 2013)
The objective of the 3rd stage is to extend the operation of the RDM Support Service and embed it within the institution. Two components of work will be performed, running in parallel. The first will focus upon the development of a sustainability model for the RDM Support Service. The key deliverable of this stage will include a business model for the RDMSS, indicating the roles required to maintain it, the costs associated with its operation, and the training requirements of staff members. The second component will focus upon the development of a Research Data Discovery Service, a web portal for use by staff to register the existence of research data collections created and/or maintained as part of funded or unfunded research. Catalogue records held in the system will serve as a record of the research activities performed within the School and will act as an indicator on the current location of the source data.

The PM will perform activities necessary to scope the fourth stage, undertaking a gap analysis of the data infrastructure within the institution and the development work that is required to address identified issues and omissions.

Stage 4: Extend Data Management Infrastructure (01 – 06 2014)
The objective of the 4th stage is to extend the data management infrastructure available within the School. A strategic approach will be adopted, working with IT managers and Researchers to perform a broad analysis of in-house IT resources used for RDM activities. The conclusions of this scoping activity may highlight the need to develop an institutional data archive\(^1\) to be used for the curation and preservation of research data collections. If this is the case, the technical architecture will be scoped and work performed to implement a prototype system.

The PM will continue to develop the RDM Education Programme established during the previous year. Key deliverables will include a set of procedures for performing a RDM Education Needs Survey each year, a Survey Results Report, and an as-yet indeterminate number of Papers and five Tutorials (number and topics to be established on basis of requirements gathering exercise) produced in response to survey feedback. The PM will also seek to establish means to deliver the RDM Education Programme to staff and students working at a distance.

**Stage 5: Embed Data Management Infrastructure within research workflow (07 – 12 2014)**

The objective of the fifth stage will be to continue to develop the data management system(s) and tools scoped in stage 4. User testing will be performed, working with key research groups and researchers, to populate the system/trial the tool(s) with sample digital collections. Key outputs of the stage will include case studies that document the experience of working with the systems/tools and guidance material for use by staff working within the institution.

**Stage 6: Next Steps (01 – 06 2015)**

The final stage of the project will focus upon finalising outputs and deliverables produced during the project and determining areas for further research and development. Key outputs and deliverables produced in the earlier stage will be reviewed and revised as necessary and handover documentation produced as required.

### 6 Tolerances

#### 6.1 Boundaries

The following boundaries will be established during the project:

**Analysis of research activities**

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\(^1\) Other options include a Records Management System, Digital Asset Management, and Digital repository system.
Investigation activities performed by the project shall focus upon research staff working at LSHTM, including those based at the School and those working overseas. The project will NOT analyse:

- Students attending the institution
- Staff located at other institutions participating in collaborative activities with LSHTM staff as part of funded or unfunded research.

However, it is recognised that these stakeholders may gain some benefit from the project outputs and deliverables being produced.

**Research data collections**
The LSHTM produce a large number of research datasets and other types of research outputs. To ensure that the project team are able to produce outputs/deliverables within the allocated time period, the project will adopt a selective approach to analysis and archiving, focusing upon key data collections. Selection criteria will be developed during the life of the project, but are likely to include datasets that are part of large-scale projects, make a significant contribution to the reputation of the institution, and/or have the highest potential for reuse. The project team will consult with the Steering Group, relevant advisory group, and funders when necessary to ensure any requirements are met.

7 Interfaces

This section outlines relationships with other groups within the School and identifies the wider context of the project with reference to external dependencies/prerequisites/third party suppliers.
7.1 Key Third Party Dependencies
People, groups and/or departments upon whom the project team are dependent for performance of one or more tasks within the work plan. The method of addressing issues will comply with Risk & Issue Escalation Procedures.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name/Title</th>
<th>Dependency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Researchers</td>
<td>All activities associated with development and uptake of deliverables are dependent upon buy-in being obtained from researchers within the School</td>
</tr>
<tr>
<td>2</td>
<td>Management staff in each Faculty/department/ research group</td>
<td>All researcher liaison activities are dependent upon gaining consent and buy-in from management staff in each unit.</td>
</tr>
<tr>
<td>3</td>
<td>Research Staff</td>
<td>Researcher liaison to gather information and develop material that is fit for purpose (e.g. training material that fits disciplinary needs) is dependent upon researcher buy-in</td>
</tr>
<tr>
<td>4</td>
<td>IT Services</td>
<td>Provision of development and production services</td>
</tr>
<tr>
<td>5</td>
<td>Research Grants</td>
<td>Contribution to analysis phase, providing insight into their role in the research proposal and project management phase. They also play a key role in the embedding phase, encouraging researchers to consult RDM documentation and consult with the RDM Support Service</td>
</tr>
<tr>
<td>6</td>
<td>Senior Leadership Team</td>
<td>Wide-ranging role in ensuring the RDMSS Project fits within the institutional framework and fulfils appropriate requirements. Key role in enabling the project to be transferred into service at a later date.</td>
</tr>
<tr>
<td>7</td>
<td>Funder</td>
<td>Funding during designated period and provision of requirements</td>
</tr>
</tbody>
</table>

7.2 Stakeholder Analysis

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Interest / Stake</th>
<th>Component of interest</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSHTM staff that lead or work on funded research projects (e.g. Primary/ Secondary Investors, Data Creators)</td>
<td>Desire/need to learn of and apply best practice for data management</td>
<td>1. Lecture material presented in training sessions</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Written guidance published on RDM website</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Data management infrastructure</td>
<td></td>
</tr>
<tr>
<td>LSHTM staff that lead or work on</td>
<td>Desire/need to learn of and apply best</td>
<td>1. Lecture material presented in training</td>
<td>Medium</td>
</tr>
<tr>
<td>unfunded research</td>
<td>practice for data management</td>
<td>sessions</td>
<td>2. Written guidance published on RDM website</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------</td>
<td>----------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>LSHTM staff preparing or submitting funding bids</td>
<td>Interest in learning of funder expectations for Data Management Plans and practical guidance on how to create them</td>
<td>1. Lecture material presented in training sessions</td>
<td>2. Written guidance published on RDM website</td>
</tr>
<tr>
<td>LSHTM Library &amp; Archives Staff</td>
<td>Need to understand the principles and practices of Data Management in order to answer questions raised by students &amp; staff. Interest in understanding relationship between analogue &amp; digital information management</td>
<td>1. Lecture material presented in training sessions</td>
<td>2. Written guidance published on RDM website</td>
</tr>
<tr>
<td>LSHTM Library &amp; Archives Service management</td>
<td>Need to understand the resourcing implications of operating a RDM Support Service. Need to identify the research data that exists within School, its location, and the institutional commitment to maintaining it</td>
<td>1. RDMSS Business model and associated reports (WP8)</td>
<td>2. Research Data Discovery Service</td>
</tr>
<tr>
<td>LSHTM Students (London-based)</td>
<td>Interest in learning of best practice for data management within subject domain for potential application</td>
<td>1. Lecture material presented in training sessions</td>
<td>2. Written guidance published on RDM</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Actions</td>
<td>Impact</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| **LSHTM Students (distance)**                 | Interest in learning of best practice for data management within subject domain for potential application in future career                                                                                       | 1. Written guidance published on RDM microsite  
2. Distance Learning module  
3. Lecture material published on website                                                                                             | Medium |
| **External Researchers**                      | Interest in gaining access to research data for use and learning good practice for data management within domain                                                                                              | 1. Written guidance published on RDM microsite  
2. Lecture material published on website  
3. Data Management system                                                                                                                | Low    |
| **Research Ethics**                           | Interest in refinements that can be made to ethics review process through greater consideration of research data                                                                                               | 1. Data Management Plan template  
2. RDM Support Site                                                                                                                         | High   |
| **IT Services**                               | Desire to normalise operation of IT data storage and ensure it meets funding requirements                                                                                                                  | 1. Storage Infrastructure Review  
2. Data Management system                                                                                                                    | Medium |
| **LSHTM Senior Leadership Team**              | Expectation that research data produced by staff will be created and maintained in accordance with appropriate standards. Expectation that School is providing researchers with resources necessary to comply with funder requirements | 1. RDM Education programme  
2. Data Management system                                                                                                                     | Medium |
| **LSHTM Teaching staff**                      | Require understanding of best practice for data management within                                                                                                                                              | 1. RDM Education programme  
2. RDM Training material                                                                                                                     | High   |
<table>
<thead>
<tr>
<th>Group</th>
<th>Need</th>
<th>Project Areas</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSHTM Teaching committees</td>
<td>Need to understand how RDM training may be integrated into existing teaching and learning programme</td>
<td>1. RDM Education programme</td>
<td>Medium</td>
</tr>
<tr>
<td>Funder (Wellcome Trust)</td>
<td>Require confirmation that the institution is providing adequate support for staff producing research data and is making effective use of allocated funding</td>
<td>1. Project in its entirety</td>
<td>Medium</td>
</tr>
<tr>
<td>Other funding bodies</td>
<td>Interest in data management practices for health data. Desire to establish links between work performed in many institutions</td>
<td>1. Project in its entirety</td>
<td>Low</td>
</tr>
<tr>
<td>RDM Research Project</td>
<td>Interest in data management practices for health data. Interest in experience of surveying DM practices within institution, RDM education material that can be repurposed, and practical experience of providing support within institution</td>
<td>1. Project in its entirety</td>
<td>Low</td>
</tr>
<tr>
<td>Other academic institutions</td>
<td>Interest in data management practices for health data.</td>
<td>1. RDM Education programme 2. RDM Training material</td>
<td>Low</td>
</tr>
</tbody>
</table>
8 Project Organisational Structure

This section outlines the roles, responsibilities and lines of authority associated with the project. Figure 1 provides an overview of the RDMSS project organisation structure.

**Figure 1: Project reporting structure**

8.1 Project Roles

**RDMSS Project Manager**

The Project Manager will perform the following activities:

- Lead on the planning and management of the project to develop and embed a Research Data Management Support Service for the School, in line with the recommendations of the Research Data Management Working Group

- Manage the allocation of project resources to achieve the project aims and objectives

- Act as the main point of liaison with the project Steering Group, provide regular reports to the group, and seek appropriate advice and input from them

- Identify and engage appropriate internal and external stakeholders to achieve the project aims and objectives
• Define requirements for, and coordinate the development and implementation of the Research Data Management Support Service

• Act as the main source of advice to the School for enquiries on Research Data Management and related issues

• Liaise with external projects and bodies relevant to Research Data Management

• Keep a watching brief on developments in Research Data Management and advise on their application in the School as appropriate

RDMSS Software Developer

The Software Developer will perform the following activities:

• Contribute to activities associated with scoping the technical architecture related to research data management, including the provision of software tools and systems.

• Lead upon activities to develop/repurpose, and implement software tools and systems

• Contribute to other activities as required by the Project Manager

Further details of the Software Developer’s roles and responsibilities will be scoped during the first year.

Archives & Record Manager:

The Archives & Record Manager will perform the following activities

• Advise the Project Manager on issues related to the RDMSS

• Advise the Project Manager on issues related to the Library & Archives service.

• Inform the Project Manager of internal/external event where the RDM Support Service should be promoted.

Further details of the Archives & Record Manager’s roles and responsibilities will be scoped during the first year.
Head of Library & Archives Service:

The Head of Library & Archives Service will perform the following activities

- Advise the Project Manager on issues related to the Library & Archives service.
- Inform the Project Manager of internal/external event where the RDM Support Service should be promoted.

8.2 RDMSS Steering Group

The Steering Group will operate a Management by Exception (MbE) approach, allocating its time only to situations that require planning activities to be performed or that differ significantly from planned results. In conformance to this approach, Steering Group meetings are organised only when key decisions about the project must be made. As a minimum, meetings will be held every six months, at the end/start of each stage to review the deliverables of the previous stage and approve the Stage Plan for the next set of activities. A Steering Group meeting may be requested at any time by the Project Manager and/or chair of the Steering Group, in response to project findings and/or to enable key decisions to be made.

8.2.1 Overview of Steering Group Responsibilities

- Provide overall direction and management.
- Represent project in upper management of School and convey relevant information to project
- Approves all major plans and authorises changes and major deviations outside of tolerances.
- Ensures required resources are available.
- Take ownership of one or more of the identified risks (i.e. monitor the risks and keep the project manager informed).
- Ultimate escalation point for key unresolved project issues which have not been able to be resolved through the normal process of dialogue and investigation between interested parties.
- Assurance that product meets acceptance criteria.

8.3 RDM Teaching Advisory Group

The Teaching Advisory Group will advise the Project Manager on issues relating to the development, provision, support, and use of education material. This will include documentation and presentations used for learning and teaching.
Meetings of the Teaching Advisory Group will be arranged in accordance to the development schedule for key deliverables.

8.3.1 Overview of Responsibilities

- Develop criteria for assessing the quality of deliverables related to teaching and learning produced/selected by the project team, in collaboration with the RDMSS Project Manager;
- Perform a quality review of deliverables, evaluating it against designated quality criteria, as required by the Project Manager. Sign off follow up list of actions and ensure that errors are fully understood and resolved satisfactorily.

Further details of the Teaching Advisory Group’s roles and responsibilities will be scoped during the first year.

8.3.2 Group Roles

The Teaching Advisory Group will be setup towards the end of Stage 1.

8.4 RDM Software Development Advisory Group

The Software Development Advisory Group will advise the Project Manager and Software Developer on issues relating to the development, provision, support, and use of software tools and systems developed by the project. Meetings will be arranged in accordance to the development schedule for key deliverables.

8.4.1 Overview of Responsibilities

- Develop criteria for assessing the quality of deliverables related to teaching and learning produced/selected by the project team, in collaboration with the RDMSS Project Manager;
- Perform a quality review of deliverables, evaluating it against designated quality criteria, as required by the Project Manager. Sign off follow up list of actions and ensure that errors are fully understood and resolved satisfactorily.

Further details of the Software Development Advisory Group’s roles and responsibilities will be scoped during the second year.
8.4.2 Group Roles

The Software Development Advisory Group will be setup at a later date.

9 Quality Plan

The quality plan describes the activities that are to be performed by the RDMSS Project Team, Steering Group, Advisory Groups and other associated staff to ensure that the project deliverables meet institutional requirements.

9.1 Quality Control Roles

Quality of the project deliverables will be managed through organised Quality Review meetings between project team members and/or the project team and the relevant advisory group. A record of these meetings and their outcomes will be kept in the project’s Quality Log document.

9.2 Quality Responsibilities

Project Manager

- Plan and organise the quality review ensuring that appropriate reviewers are involved and that they understand their responsibilities.
- Check the designated deliverable is in a form that allows it to be reviewed.
- Control the review procedure and chair the review meeting, ensuring it achieves its aims.
- Determine the quality review outcome with the reviewers and ensure actions and required results are agreed.
- Keep relevant people informed of quality review status.
- Provide final sign-off.
- Plan to overcome any project issues raised through as a result of the review.

Software Developer

The Software Developer will be responsible for managing quality reviews related to software deliverables, outputs and related areas.

- Check the designated deliverable is in a form that allows it to be reviewed.
- Control the review procedure, working in collaboration with the Project Manager to ensure it achieves its aims.
- Determine the quality review outcome with the reviewers and ensure actions and required results are agreed.
• Plan to overcome any issues raised as a result of the review.

Quality Reviewers (Advisory Groups and other nominated stakeholders)

This role provides an independent and objective view of the product and measures it against its agreed quality criteria. Quality reviews will be performed by the various Advisory Groups and other internal/external stakeholders (such as the Digital Curation Centre) designated by the Project Manager.

• Develop criteria for assessing the quality of deliverables related to teaching and learning produced/selected by the project team, in collaboration with the RDMSS Project Manager;
• Perform a quality review of deliverables, evaluating it against designated quality criteria, as required by the Project Manager. Sign off follow up list of actions and ensure that errors are fully understood and resolved satisfactorily.

Steering Group

• Establish the quality criteria required by the School for performance of the project during the preparation stage and during the life of the project
• Establish the quality criteria required by the School for performance of tasks outlined in the Stage Plan
• Ensure that quality criteria is clearly communicated to the Project Manager, and other staff members as required;
• Perform a quality review of deliverables, evaluating it against designated quality criteria
• Sign off follow up list of actions and ensure that errors are fully understood and resolved satisfactorily.

9.3 Standards

All products and deliverables produced, including documentation, must conform to the specification and quality criteria set for them. A description of relevant stages will be provided within each Stage Plan and relevant Specification documents.

All reports produced by the project (such as the PID, Risk Log, Status Reports, etc.) must have consistent presentation and be version controlled.

9.4 Quality plan for project

A broad quality plan to be applied during the project is outlined in Table 1. This should be used in combination with the quality plans outlined in the appropriate Stage Plan.
<table>
<thead>
<tr>
<th>Timing</th>
<th>Quality Criteria</th>
<th>QA Method(s)</th>
<th>Evidence of compliance</th>
<th>Quality responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughout</td>
<td>IT Services requirements for technical systems</td>
<td>Liaise with ITS to establish relevant specifications for system development (e.g. use of specific technologies); Liaise with ITS during development to validate that systems continue to comply with requirements and operate within tolerances</td>
<td>ITS satisfied that systems can be maintained on a technical level</td>
<td>Project Manager; Software Developer</td>
</tr>
<tr>
<td>Throughout</td>
<td>Requirements for sustainable services</td>
<td>Liaise with ITS and other departments during development and subsequent implementation to ensure that systems can be transferred from development to service.</td>
<td>ITS and other stakeholders satisfied that systems can be maintained as a service; Service Level Agreements (SLA) signed, indicating different Owners</td>
<td>Project Manager; Software Developer</td>
</tr>
<tr>
<td>Throughout</td>
<td>Project outputs describing School expertise, systems, or other elements within the School provide an accurate representation</td>
<td>Liaise with relevant stakeholders within central services &amp; individual depts/groups to validate that reports provide an accurate representation</td>
<td>Stakeholders provide sign-off, agreeing that findings provide accurate representation</td>
<td>Project Manager</td>
</tr>
</tbody>
</table>
representation of their work activities, concerns, and systems

| Throughout | Test data provided to the project is handled in accordance with legislative requirements | Liaise with data owners to establish data handling requirements; consult funding documents (where available) to establish handling requirements | Data owner satisfied with data handling during project | Project Manager |

**Table 1: Quality plan for project**

**10 Communication Management Strategy**

Several parties will have an interest in the project. The following section describes the key stakeholders for the project, the method of communication, and an indication of the frequency.

**10.1 Stakeholder communication method and frequency**

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Communication method</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSHTM staff that lead or work on funded research projects</td>
<td>1. Institutional newsletter 2. Twitter feed 3. Direct email 4. Presentation at various Faculty/research group meeting 5. Promotional events within School 6. Workshops</td>
<td>1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised 2. See 1 3. As required by work plan 4. Prior to survey activity being performed. Progress update as required 5. In accordance with event timetable 6. In accordance with event timetable</td>
</tr>
</tbody>
</table>

| LSHTM staff that lead or work on unfunded research | 1. Institutional newsletter 2. Twitter feed 3. Direct email 4. Presentation at various faculty/research group meeting 5. Promotional events within School | 1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised 2. See 1 3. As required by work plan 4. Prior to survey activity being performed. Progress update as required |
| LSHTM staff preparing or submitting funding bids | 6. Workshops | required  
| | 5. In accordance with event timetable  
| | 6. In accordance with event timetable  
| LSHTM Library & Archives Staff | 1. Via Research Grants & Contracts | 1. As required by proposal development timetable  
| | 2. Direct email  
| | 3. Presentation at various group meeting  
| | 4. Promotional events within LAS  
| | 5. Face-to-face  
| | 7. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised  
| | 1. As required  
| | 7. In accordance with event timetable  
| | 8. In accordance with event timetable  
| | 2. As required  
| LSHTM Library & Archives Service management | 1. Direct email  
| | 2. Team meeting  
| | 1. As required  
| | 2. As required  
| LSHTM Students (London-based) | 1. Institutional newsletter  
| | 2. Twitter feed  
| | 3. Presentation/ discussion within various course modules  
| | 4. Face-to-face  
| | 1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised  
| | 1. As required  
| | 2. See 1  
| | 3. As required by teaching schedule  
| | 4. As required  
| LSHTM Students (distance) | 1. Twitter feed  
| | 2. Direct email  
| | 1. As required  
| | 2. As required  
| IT Services | 1. Direct email  
| | 2. Presentation at various steering board and team meeting  
| | 3. Promotional events within School  
| | 4. Workshops  
| | 1. Notification that milestone deliverables have been published or RDM events are being organised  
| | 2. As required by work plan and their event schedule  
| | 3. In accordance with event timetable  
| | 4. In accordance with event timetable  
| LSHTM Senior Leadership Team | 1. Direct email  
| | 2. Presentation at various board meeting  
| | 3. Promotional events within School  
| | 4. Workshops  
| | 1. Notification that milestone deliverables have been published or RDM events are being organised  
| | 2. As required their event schedule  
| | 3. In accordance with event timetable  
| | 4. In accordance with event timetable  
| LSHTM Teaching staff | 1. Institutional newsletter  
| | 2. Direct email  
| | 3. Presentation at various faculty/research group meeting  
| | 4. Promotional events within  
| | 1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised  
| | 2. As required by work plan  
| | 3. Prior to survey activity being
<table>
<thead>
<tr>
<th>LSHTM Teaching committees</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Presentation at various faculty/research group meeting</td>
<td>Workshops</td>
</tr>
<tr>
<td>2. Direct email</td>
<td>performed. Progress update as required</td>
</tr>
<tr>
<td>4. In accordance with event timetable</td>
<td>5. In accordance with event timetable</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Funder (Wellcome Trust)</th>
<th>1. Progress reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Direct email</td>
<td>1. As required</td>
</tr>
<tr>
<td>3. Presentation at various funder meetings</td>
<td>2. As required</td>
</tr>
<tr>
<td>4. Promotional events by School</td>
<td>3. In accordance with event timetable</td>
</tr>
<tr>
<td>5. Workshops</td>
<td>4. In accordance with event timetable</td>
</tr>
<tr>
<td></td>
<td>5. In accordance with event timetable</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other funding bodies</th>
<th>1. Workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Direct email</td>
<td>1. In accordance with event timetable</td>
</tr>
<tr>
<td></td>
<td>2. As required</td>
</tr>
<tr>
<td></td>
<td>3. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised</td>
</tr>
<tr>
<td></td>
<td>4. Workshop</td>
</tr>
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<td></td>
<td>5. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised</td>
</tr>
<tr>
<td></td>
<td>4. In accordance with event timetable</td>
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</tbody>
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<table>
<thead>
<tr>
<th>RDM Research Project in broader academic community</th>
<th>1. Twitter feed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Direct email</td>
<td>1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised</td>
</tr>
<tr>
<td>3. Data management mailing lists (e.g. JISC Repositories, JISC MRD, ResearchDataMan)</td>
<td>2. As required by work plan / as and when necessary</td>
</tr>
<tr>
<td>4. Workshops</td>
<td>3. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised</td>
</tr>
<tr>
<td></td>
<td>4. In accordance with event timetable</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other academic institutions</th>
<th>1. Twitter feed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Direct email</td>
<td>1. Notification that milestone deliverables (e.g. training material, services) have been published or RDM events are being organised</td>
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<td></td>
<td>4. In accordance with event timetable</td>
</tr>
</tbody>
</table>
11 Project Controls

11.1 Tolerances and Exception Procedure

Tolerances are the permissible deviation above and below the project plan’s estimate of time and cost without escalating the deviation to the next level of management.

If there are indications at any point that the project is going to deviate outside of the tolerances, an Exception Report will be created and the exception will be raised to the Steering Group. Project risks and issues will be closely monitored by the Project Manager to ensure potential deviation is observed and reported as early as possible.

11.2 Change Management Procedures

Requirements gathering (as applied through user surveys, technical infrastructure reviews, specification development, and user testing, among others) represents a key component of the project that will influence the methodology adopted and deliverables produced during subsequent stages. It is anticipated that changes may be requested to the specification of deliverables during their creation, following initial scoping. However, the ability to act upon these requests is dependent upon the amount of time and effort required to implement the change. Change requests may impact upon both the delivery date and the budget.

Change Requests made by Steering Group members must be submitted to the Project Manager during a Steering Group meeting or within a group email distributed to all Group members and project staff. The PM will log the issue and perform an impact assessment (impact upon the project, in terms of ability to meet deadlines, perform project within budget, and comply with quality thresholds, etc.) in collaboration with appropriate staff (e.g. the Software Development Advisory Group members). If it agreed that the change is necessary and will be beneficial, the change will be beneficial to the project outcomes and can be achieved by the Project Manager. The Project Manager will implement the change into the schedule and make other necessary revisions.

11.3 Managing Stage Boundaries

The Project Manager will produce two reports towards end of each stage in compliance with the MSB task. The first is an End Stage Report, which summarises activities performed during the stage, variation from the approach
proposed in the original Stage Report, lessons learned, etc. This will be
accompanied by a Stage Plan for the upcoming time period. At the start of each
Stage, the Project Manager will review the Project Initiation Document, Risk log
and other project related documents and make any necessary changes to reflect
current activities$^2$.

In the event that project tolerances look likely to be breached, the Project
Manager will produce an Exception Report for submission to the Steering Group,
providing necessary context and a list of proposed solutions to address the issue.

### 11.4 Risk Management

Risks identified by the project will be retained in a centralised risk log and
ownership for risk mitigation/reduction will be initially assigned by the Project
Manager. Responsibility for review and updates may be assigned to the Steering
Group, appropriate advisory group, or other project staff, according to the type of
activities being performed (e.g. development of teaching material, development
of technical systems).

### 11.5 Issue Management

Identified issues will be logged in an Issues log along with change requests.
Identified issues will initially be analysed in terms of impact (High /Medium /Low).
The ownership for issues resolution will be initially assigned by the Project
Manager and then reassigned if necessary by the Steering Group.

Issues where resolution is being blocked will be escalated to the Project
Manager. If the Project Manager is unable to resolve the issue, it will be
escalated to an Advisory Group or Steering Group for revised ownership and
eventual resolution.

### 11.6 Risk & Issue Escalation Procedure

1. **Stage 1:** Staff submits the Risk & Issue to the Project Manager and/or
   Software Developer for resolution.

2. **Stage 2:** The Project Manager notifies appropriate advisory group
   (teaching, technical) or management staff (Line Manager, Head of Library
   & Archives) of Risk /Issue and requests assistance in resolving it.

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$^2$ The identification of required updates will be performed in collaboration with the Steering Group and
other staff members. However, only the PM will have the necessary control to update the PID and Risk
Register.
3. **Stage 3**: If stage 4 fails to achieve resolution /mitigation then the risk /issue will be escalated to the RDMSS Steering Group.

The Project Manager and/or designated person should document Risks & Issue resolution practices in the Log.

**11.7 Sign-off procedures**

All deliverables are to be signed off by the Project Manager following completion. Some deliverables will require sign-off by additional staff members (e.g. Advisory Group). The Steering Group will have final responsibility for approval of deliverables produced for each stage.