



DATA MANAGEMENT PLANNING IN THE UK

FUNDER & PUBLISHER POLICIES

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IDCC13 - DATA MANAGEMENT PLANNING: WHAT'S HAPPENED,
WHAT'S HAPPENING AND WHAT'S COMING NEXT?

AMSTERDAM, 14 JANUARY 2013



**UK • DATA
ARCHIVE**

OVERVIEW

- Policy context
- DMP overview
- DMP review ESRC & MRC





DATA SHARING DRIVERS UK

- Research funder policies
- Publisher policies
- Demand from users
- Transparency and openness agenda
- Maximise investment returns

Research data available for:

- New research
- Scrutiny / duplication / validation
- Research visibility / impact

RESEARCH FUNDER DATA POLICIES

Research Councils UK Common Principles on Data Policy (May 2011)

- *Publicly funded research data are a public good, produced in the public interest, that should be made openly available with as few restrictions as possible in a timely and responsible manner that does not harm intellectual property.*
- in accordance with relevant standards and community best practice
- metadata to make research data discoverable
- legal, ethical, commercial constraints on release of research data
- recognition for collecting & analysing data; limited privileged use
- acknowledge sources of data, intellectual contributions, terms & conditions
- use public funds to support the management and sharing of publicly-funded research data

RESEARCH FUNDER POLICIES

Research Councils UK Policy on Access to Research Outputs (July 2012)

- peer reviewed research papers published in journals that are compliant with Research Council policy on Open Access
- include statement on *how the underlying research materials such as data, samples or models can be accessed*
- for publications submitted for publication from 1 April 2013



RESEARCH COUNCILS

- Arts and Humanities Research Council (AHRC)
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Engineering and Physical Sciences Research Council (EPSRC)
- Economic and Social Research Council (ESRC)
- Medical Research Council (MRC)
- Natural Environment Research Council (NERC)
- Science and Technology Facilities Council (STFC)

RESEARCH COUNCIL DATA POLICIES

Research Councils:

- Data sharing policy mandating or encouraging data sharing
- Data management / sharing planning required
- Award holders responsible for managing & sharing data, except EPSRC
- Fund data sharing support services and infrastructure
 - e.g. UK Data Service (ESRC)
 - NERC data centres (NERC)
 - MRC Data Support Service (MRC)
 - Atlas Petabyte Storage (STFC)
 - Archaeology Data Service (AHRC)

EPSRC POLICY FRAMEWORK ON RESEARCH DATA

Research organisations receiving EPSRC funding responsible

- publish metadata online, with DOI (digital object identifier)
- maintain data securely for 10 years
- roadmap for compliance May 2012
- institutional policy implemented May 2015
- papers to include statements on access to supporting data
- expectations follow RCUK principles

Influenced by Freedom of Information Act

[EPSRC Policy Framework on Research Data](#)

OTHER FUNDER DATA POLICIES

Data sharing policy & data management planning

- Cancer Research UK
- Department for International Development (DFID)
- Wellcome Trust

Data sharing policy, no DMP

- British Academy
- Nuffield Foundation
- Department of Health

DATA PLAN REQUIREMENTS

Funder	Required at application	Data topics in DMP
AHRC	Technical plan	Standards, preservation, continued access & use
BBSRC	Data management and sharing plan	Type, format, standards, sharing methods, restrictions, timeframe
CRUK	Data sharing plan	Volume, format, standards, metadata, documentation, sharing method, timescale, preservation, restrictions
DFID	Access and data management plan	Repositories, limits, timescale, responsibilities, resources, access strategy
EPSRC	Policy framework	
ESRC	Data management plan	Volume, type, quality, archiving plans, difficulties sharing, consent sharing, IPR, responsibilities

DATA PLAN REQUIREMENTS

Funder	Required at application	Data topics in DMP
MRC	Data management plan	Collection methods, documentation, standards, preservation, curation, security, confidentiality, sharing & access, timescale, responsibilities
NERC	Outline data management plan	DM procedures, created data
STFC	Data management plan	Type, preservation, metadata, value, sharing, timescale, resources needed
Wellcome Trust	Data management and sharing plan	What data? When share? Where share? How access? Limits, how preserve? What resources?

Digital Curation Centre, Funders' data plan requirements:

www.dcc.ac.uk/resources/data-management-plans/funders-requirements

Knight, G; (2012) Funder Requirements for Data Management and Sharing. London School of Hygiene and Tropical Medicine, London. researchonline.lshtm.ac.uk/208596/

JOURNAL / PUBLISHER DATA POLICIES

- Data underpinning publication accessible
 - upon request from author
 - supplement with publication
 - public repository
 - mandated repository (e.g. PANGAEA – Elsevier)
- Many top-rated science journals (Science, Nature, J Evol. Biol...) have strong policies relating to data repositories which give dataset accession numbers
e.g. GenBank, EMBL, DRYAD, TreeBASE

JORD: survey of journal policies

jordproject.wordpress.com/2012/09/13/journal-research-data-policies-survey/

jordproject.wordpress.com/2012/10/15/overview-of-policy-types-from-the-science-journals-in-the-sample/

REVIEW DMP REQUIREMENTS - ESRC

- DMP requirement introduced April 2011
- Requirements & guidance developed: UK Data Archive & ESRC
- DMP topics:
 - assessment of existing data that could be used for the research
 - information on new data that will be created
 - quality assurance of data
 - back-up and security of data
 - expected difficulties in data sharing, e.g. ethical or legal issues
 - copyright and Intellectual Property Right of data
 - data management responsibilities
 - preparation of data for sharing and archiving
- DMP Review 2012, UK Data Archive, Research Data Management Support Team
 - evaluate quality of random sample of 24 DMPs
 - score each topic: 1=insufficient; 2=sufficient; 3=excellent

REVIEW DMP REQUIREMENTS - ESRC

Findings

- Average quality score: 17 (9-23)
- 7 DMPs (29 %) < 16
- 4 DMPs (17 %) < 12
- On average good to excellent information on assessing existing data (average score of 2.4)
- Poorest information:
 - copyright and IPR of research data (avg score 1.8)
 - preparing data for sharing / archiving (avg score 1.9)
- Score = 1 (insufficient information provided) most common for copyright (7 plans), data management responsibilities (5 plans) and data preparation (5 plans)

REVIEW DMP REQUIREMENTS - MRC

- DMP requirements introduced June 2012
- Requirements & guidance developed MRC-DSS & JISC-funded project 'Data Management Planning for MRC projects'
- DMP Review Dec 2012: panel of MRC theme / programme / policy managers & external data scientists / DM experts
 - evaluate 22 DMPs
 - info provided in DMP fit for purpose ?
 - DMP template / guidance interpreted correctly ?

REVIEW DMP REQUIREMENTS - MRC

Findings: template & guidance being amended

- Data security, not only relevant for data with personal identifiers, also to safeguard valuable data in general
- Need to describe institutional resources to support data management and sharing
- DMPs require input from key institutional support staff
- DMP also for institution to plan effective data support for research
- DMP should identify which resources a project needs
- Data suitability for sharing – justification needed to ensure all implications of data sharing are considered / understood
- Clear timescales for data sharing needed
- DMP's using template easier to evaluate
- Free text / brief DMPs fairly generic

OUR RDM RESOURCES

Best practice guidance on managing and sharing research data (online and published guide)

incl. training resources, examples, templates, tools, DM checklist

The screenshot shows the UK Data Archive website interface. At the top, there is a navigation menu with links for HOME, ABOUT US, CREATE & MANAGE DATA (highlighted), DEPOSIT DATA, HOW WE CURATE DATA, FIND DATA, and NEWS & EVENTS. The main content area is titled 'CREATE & MANAGE DATA' and features a video player with a play button. To the right of the video, there is a text block: 'We facilitate data sharing. Find out about best practices for creating, preparing, storing and sharing data'. Below this, there are several sections with 'READ ON' buttons: 'RESEARCH DATA LIFECYCLE' (with a diagram showing 'DATA CREATION' and 'DATA ANALYSIS'), 'STARTING YOUR RESEARCH' (with a diagram of a hand holding a red ball connected to a network), 'CONSENT & ETHICS', and 'ADVICE & TRAINING'. On the right side of the page, there is a search bar and a sidebar with links for 'DEPOSIT YOUR DATA', 'FIND DATA', 'WATCH A VIDEO ABOUT US', 'A QUICK GUIDE TO THE ARCHIVE', 'DISCUSS WITH US', 'DOWNLOAD MANAGING & SHARING DATA BROCHURE', 'CREATE & MANAGE DATA FAQ', and 'JOIN OUR MAILING LIST'. The UK Data Archive logo is visible in the top left corner.



UK DATA ARCHIVE

OUR DATA MANAGEMENT GUIDANCE

- planning for data sharing
- ethical and legal aspects of data sharing and re-use
- data copyright
- documentation and metadata to understand and use data
- data formats, formatting and quality control for long-term preservation
- storage and back-up of data and files
- security and controlled access to data
- strategies for research centres and large projects



Planning for sharing



Consent and ethics



Copyright



Documenting your data



Formatting your data



Storing your data



Strategies for centres

www.data-archive.ac.uk/create-manage

CONTACT



"We back up our data on sticky notes because sticky notes never crash."

RESEARCH DATA MANAGEMENT SUPPORT SERVICES

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