DISCIPLINARY DATA PUBLICATION GUIDES

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What counts as **supporting data**?

Variation across disciplines in:
- Data publication standards
- Levels of detail in funder/publisher data policies

National/international guidelines understandably lack specificity

Guidance texts often too long for easy access

Leading to requests for support from researchers
**PROJECT AIMS**

**Audience**
Faculty of Engineering academics

**Output**
Short, visual guides covering
- Different types of paper
- Minimum data elements
- Sharing mechanisms
METHODS

• Data Management Review campaign starts in June
• First requests for discipline-specific data publication support received in July
• Data publication case studies completed in December

2016

Jan 2017

• Feedback indicates case studies are too difficult to navigate
• More support requests received
• Project to create visual charts/diagrams starts

Feb-Mar 2017

• Interviews with academics, project managers and data managers

Apr-Jun 2017

• Guidance developed

July 2017

• Feedback and refinement
• Guidance published 31st July 2017
DATA PUBLICATION ELEMENTS

Paper type
- Modelling
- Experimental (physical)
- Review (including systematic review)
- Theory

Data class
- Model set-up information
- Experiment set-up information
- Review set-up information
- Software or code
- Results
- Physical samples

Data type
- Third party software
- Code/software supporting workflow
- Code/software integral to study
- Model input or input conditions
- Description of model behaviour
- Complete model output
- Representative sample of model output
- Physical sample itself
- Description of physical sample
- Preparation/capture method
- Experiment protocol
- Complete raw experimental data
- Representative sample of raw experimental data
- Complete processed data
- Representative sample of processed data
- Review protocol
- Summary statistics
- Derived data

Publication mechanism
- In data repository
- In supplementary information
- In paper
- Do not publish
ITERATIVE DEVELOPMENT

Feedback sought from:
• Research group heads
• Research directors
• Project managers
• Research data management community

Key changes:
• Theory paper type removed
• Information added on other restrictions to data sharing
• Decision tree split into separate diagrams
**What data should I publish for a modelling study?**

**Data relates to**
- Model set-up information
- Software or code
- Results

**Data type is**
- Model input or input conditions
- Description of model behaviour
- 3rd party software
- Code supporting workflow
- Code integral to study
- Complete model output
- Representative sample of model output
- Description of model results

**How to publish**
- Publish in paper or supplementary info
- Do not publish (unless licence permits)
- Consider publishing in data repository
- Consider publishing in data repository
- Publish in paper or supplementary info

**Caution!**
Before you publish a dataset, check whether it contains:
- Commercially sensitive information which would compromise unprotected intellectual property if released (yours or a research partner’s)
- Personal information which you do not have permission to share openly
- Sensitive information which would harm UK national security if released

If your data meets any of these conditions, talk to the Research Data Service (data-brs@bristol.ac.uk) about applying an embargo, a licence, or access restrictions to your dataset.
GUIDANCE RECEPTION AND FEEDBACK

Anecdotal and qualitative feedback generally favourable

Effectiveness data hard to interpret
- Other training taking place simultaneously
- Short time since guidance released
- Generally positive effect on outcome measures
Effect of Guidance on Compliant DAS

Engineering Open Access papers with funder-compliant data access statements, 2016-2017

Date:  Aug-16, Sep-16, Oct-16, Nov-16, Dec-16, Aug-17, Sep-17, Oct-17, Nov-17, Dec-17

Count: 0, 2, 4, 6, 8, 10, 12, 14

Year: 2016, 2017

Options: Y, N, Unable to check
**Key Learning Points and Next Steps**

**Key issues**
- Buy in from academics is critical
- Requires collection of a lot of background information
- Sustainability? Maintenance?

**Next steps**
- Accessibility
- Other subjects
- Other data uses
RESOURCES

Diagrams, contextual information, data management review template and effectiveness data are available at 10.6084/m9.figshare.5803266

Diagrams were created using https://www.draw.io/

Please send comments and suggestions to z.beckles@bristol.ac.uk