



Jisc

# The Jisc Open Research Hub

*and its role in open research infrastructure*

23 July, 2019



# Who are Jisc?

Jisc is the UK higher, further education and skills sectors' not-for-profit organisation for digital services and solutions

**Jisc**

We...

Provide trusted **advice** and **practical assistance** for universities, colleges and learning providers

Operate **shared digital infrastructure** and **services**

Negotiate **sector-wide deals and conditions** with IT vendors and commercial publishers

# A key challenge for universities

The current 'open research' agenda is important to universities:



Repository

Preservation

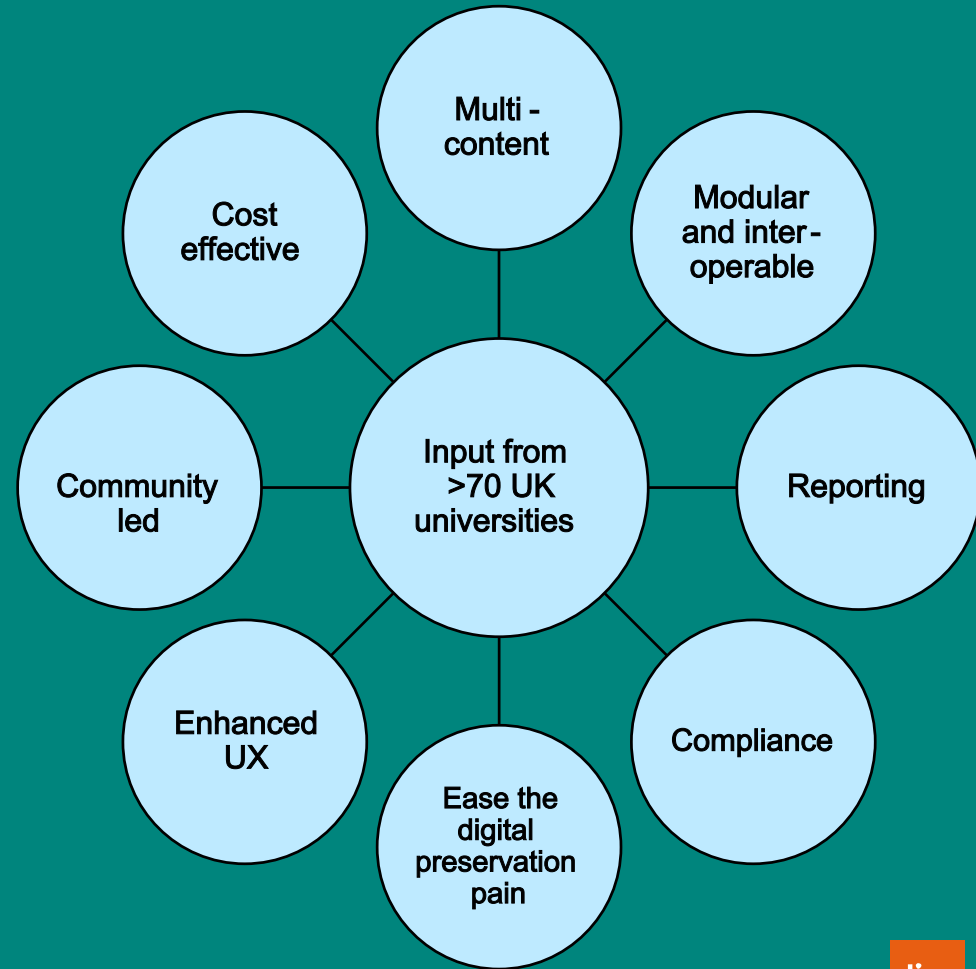
Reporting

# Research data lifecycle & Open research hub scope



# A shared service

A single solution to meet the requirements for universities to enable better management, sharing and preservation of research outputs





# Co-Design



# Sector policies and good practice - data

UK Research and Innovation

Accessibility | Cymraeg | Contact

Home > Funding > Information for award holders and research organisations > Data policy > Common Principles on data policy

## Common principles on data policy

The Research Council common principles on data policy provide an overarching framework for individual Research Council policies on data policy.

The common principles are listed below and further guidance can be found within the [guidance documentation \(PDF, 467KB\)](#).

Information on supporting research data management costs through grant funding can be found [here](#).

**Research Council common principles on data**

- Publicly funded research data are a public good, produced in the public interest, which should be made openly available with as few restrictions as possible.
- Institutional and public community best practice should be encouraged, and relevant standards and accessible and usable for future research.

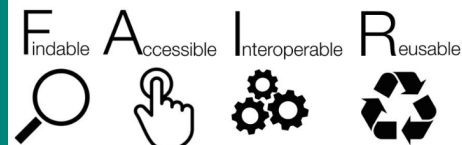
### CRITERIA FOR THE SELECTION OF TRUSTWORTHY REPOSITORIES

## Concordat on Open Research Data

The Concordat on Open Research Data has been developed by a UK multi-stakeholder group. This concordat will help to ensure that the research data gathered and generated by members of the UK research community is made openly available for use by others wherever possible in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the costs involved.



Published 28<sup>th</sup> July 2016



Sungya Pundir, Wikimedia Commons, CC BY-SA 4.0

**FORCE11**  
The Future of Research Communications and e-Scholarship

ABOUT | COMMUNITY | CODE OF CONDUCT | GROUPS

FORCE11 > Groups > The FAIR Data Principles

## THE FAIR DATA PRINCIPLES

nature biotechnology

Correspondence | OPEN | Published: 02 April 2019

## FAIRsharing as a community approach to standards, repositories and policies

Susanna-Assunta Sansone<sup>1</sup>, Peter McQuilton, Philippe Rocca-Serra, Alejandra Gonzalez-Beltran, Massimiliano Izzo, Allyson L. Lister, Milo Thurston & the FAIRsharing Community

Nature Biotechnology **37**, 358–367 (2019) | Download Citation [↓](#)

**To the Editor** – Community-developed standards, such as those for the identification<sup>1</sup>, citation<sup>2</sup> and reporting<sup>3</sup> of data, underpin reproducible and reusable research, aid scholarly publishing, and drive both the

GOV.UK

Search

Home > Business and Industry > Science and Innovation

## Independent report Open Research Data Task Force: final report

### OPEN RESEARCH DATA IN HORIZON 2020

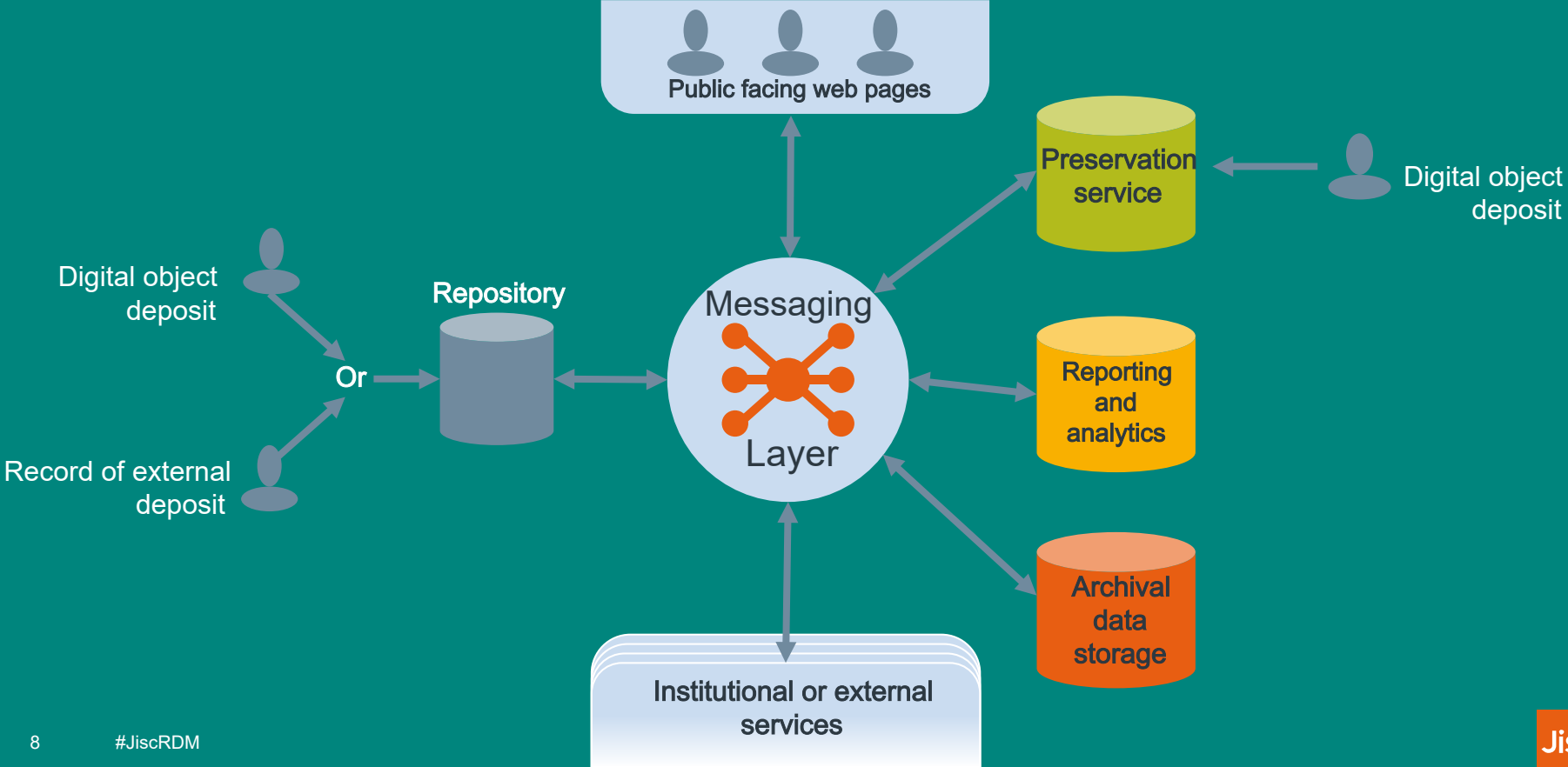
**CHALLENGE**  
Wider access to scientific facts and knowledge helps researchers, innovators and the public find and re-use data, and check research results:

- offers better value for EU research funds
- encourages research across scientific fields
- a public benefit
- essential for solving today's complex societal challenges

**SOLUTION**  
Horizon 2020 already mandates open access to all scientific publications

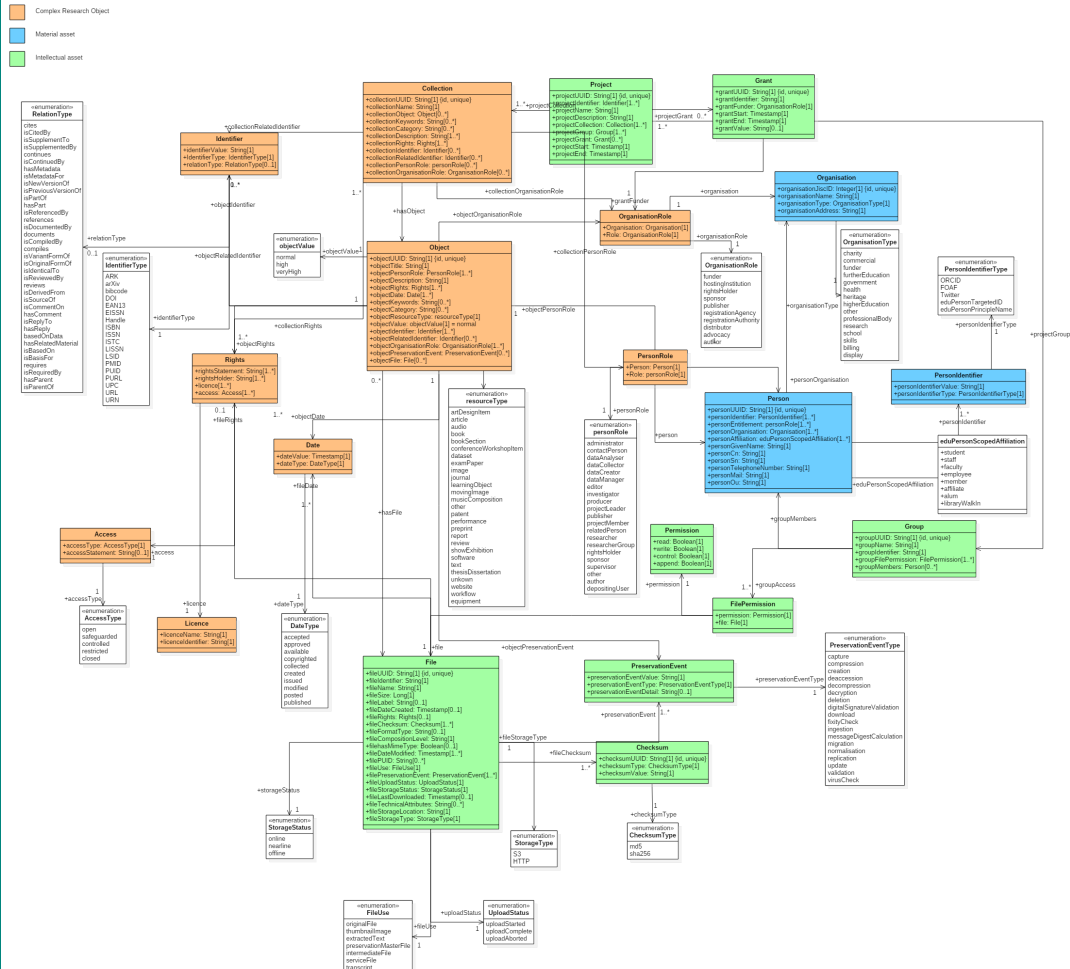
From 2017, research data is open by default, with possibilities to opt out

# Service workflow summary



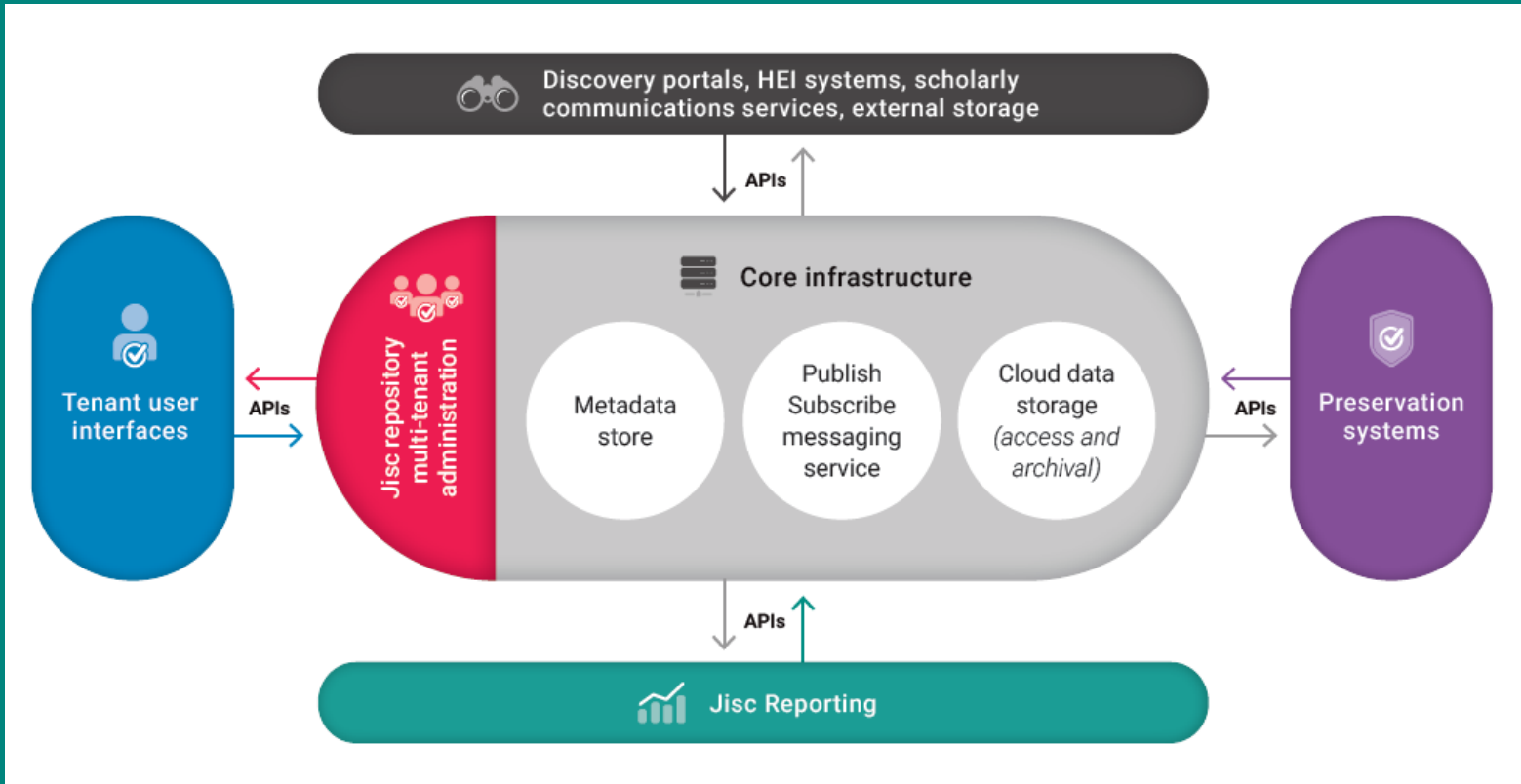


# Service Data Model



<https://github.com/JiscRDS/rds-canonical-data-model>

# Jisc Open Research Hub



# Jisc Open Research Repository

The screenshot shows the Jisc Open Research Hub homepage. At the top right, there is a 'Sign in' link. The Jisc logo is on the left, followed by 'Open Research Hub' and a 'Discover' button. A search bar with the placeholder text 'Search research data...' and a 'Search' button is centered. The footer contains 'Useful Links' (About, Privacy notice, Research data management, Open Research Hub), 'Contact' information (support@longnameuniversity.ac.uk, 0113 999 888), and a 'Jisc' logo with copyright information (Open Research Hub © Jisc 2019) and links for 'Jisc's privacy notice', 'Cookies', and 'Accessibility'.

The screenshot shows the St George's University of London Open Research Hub search results page. The header includes the St George's logo and 'University of London', a search bar with 'data' entered, and 'About Help' links. Below the header is the 'Open Research Hub' title and a 'Discover' button. The main content area is titled 'About the Open Research Hub' and describes the university's focus on science, medicine, and healthcare. Below this is a search bar with 'data' entered and 'Search' button. The search results section is titled 'Search results for 'data'' and shows '2 results'. The first result is 'testing restricted 2' by Kellie Snow, published on 04/06/2019, with a 'Restricted' status and 'CC-BY-4.0' license. It includes a document icon and the filename 'test file.docx'. The second result is 'test1' published on 17/05/2019, with an 'Open' status and 'CC-BY-4.0' license, described as 'This is a test dataset.'.

# FAIR data

## People

This enables others to cite this work

### First name \*

### Last name \*

What type of ID will you identify this person by?

### Identifier

+ Add another ID

## Access

Access controls who can use your dataset.

Under certain conditions (e.g. if your deposit contains sensitive data) you may need to restrict who can view and download your files. The level of access will depend on the sensitivity of the data.

What type of access will you give this dataset? \*

If you are including information about how to open your dataset, please include this as a Technical information description

## Related works

Providing a thorough record of related works (including data sources used) is important for research integrity

Your work (Effects of application of thermally energised liqu...)

Has this relationship:

To this other work:

Enter an identifier (eg a DOI, ISBN, URL)

Type of ID provided:

+ Add another related work

## Licence

Licences define how your work can be re-used by others.

If you are unsure of the appropriate licence for your work, contact your supervisor.

What licence should this dataset be published under? \*

Creative Commons

- Creative Commons Attribution 4.0 International (CC-BY-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Attribution Non Commercial 4.0 International (CC-BY-NC-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Attribution Non Commercial No Derivatives 4.0 International (CC-BY-NC-ND-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Attribution Non Commercial Share Alike 4.0 International (CC-BY-NC-SA-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Attribution No Derivatives 4.0 International (CC-BY-ND-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Attribution Share Alike 4.0 International (CC-BY-SA-4.0) [Learn more](#) (opens in a new window)
- Creative Commons Zero v1.0 Universal (CC-BY-1.0) [Learn more](#) (opens in a new window)

Please provide at least one type of description for this dataset \*

Description 1:

Delete

This study relates to the traditional practice of brewing leaves, and produced data related to the perceived refreshment provided.

If you are including information about how to open your dataset, please

include this as a Technical information description

Description 2:

Delete

Leaves from the plant *Camellia sinensis* were collected into a permeable membrane - and observed the effects of applying dihydrogen monoxide which had been energised using a 240v electrical appliance.

The research also explores the application of bovine lactic fluid and sucrose.

Description 3:

Delete

graphs 1 through to 11, with subdirectories appropriately labelled, this file contains underpinning data, deskewed data and final versions of the graphs for experimental work and the original modelling output files. These were produced using Matlab v.4.2 and can be opened by any version of that software. Open file format copies of the data are included for each graph.

.fits files are the experimental data, .csv and .xlsx are deskewed and modelling data

Note that for graphs 2, 3, there are two x-axis - the first column provides the original analysis, the second is the x-axis plotted, once calibrated to match known H(n = 3) and H2(d-a) temperature emissions.

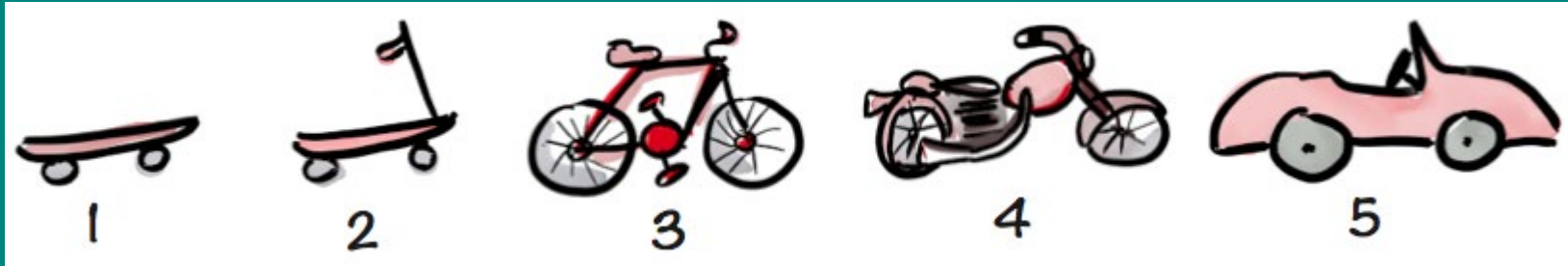
Are you able to provide any other descriptive text? This could be technical information, methodology or something else.

+ Add another description

Keywords

A wide-ranging set of relevant keywords can improve discoverability

# Continual development and delivery



<https://blog.crisp.se/2016/01/25/henrikkniberg/making-sense-of-mvp>

## Going off-road



How the Jisc Open Research Hub team uses iteration and minimum viable features to keep the service agile in a rapidly changing environment What's more annoying than setting off on a journey and getting lost? Setting off on a journey with a map and still getting lost... When there are many possible ways to get ... [Read more](#)

<https://researchdata.jiscinvolve.org/wp/2019/05/22/going-off-road/>

# A FAIR submission?

The screenshot shows the Jisc Open Research Hub interface. At the top, there is a search bar and navigation links for 'Your Account', 'About', and 'Help'. Below the search bar, the 'Open Research Hub' title is displayed. A navigation bar contains 'Discover', 'Deposits', and 'Approval' tabs. The 'Deposits' tab is active, showing a 'Deposit Dataset' section with a progress bar for 'Describe', 'Attribution', 'Restrictions', 'Upload', and 'Related' (all with checkmarks), and a 'Submit' button. A yellow-bordered box highlights a message: 'The 'FAIRness' of your submission could be improved. The FAIR principles exist to support the findability, accessibility, interoperability, and reuse of digital assets. Tip: Consider using personal identifiers on the Attribution step. This will help make your deposit more discoverable through other registries, such as ORCID. Learn more about the FAIR principles'. Below this, there are 'Open' and 'Dataset' buttons, followed by the title 'Effects of application of thermally energised liquid to the leaves of camellia sinensis', the author 'Dom Fripp (Data Analyster)', and other metadata.

The screenshot shows the Jisc Open Research Hub interface, similar to the first one. The 'Submit' button in the progress bar is now highlighted in dark grey, indicating completion. A green-bordered box displays a success message: 'Your submission is FAIR. Thanks to the fields you filled in, and the fact that the metadata you provided will be made openly available, your submission passes the criteria set out by FAIR. Learn more about the FAIR principles'. The rest of the interface, including the navigation and metadata, remains the same.

<https://zenodo.org/record/2619357>



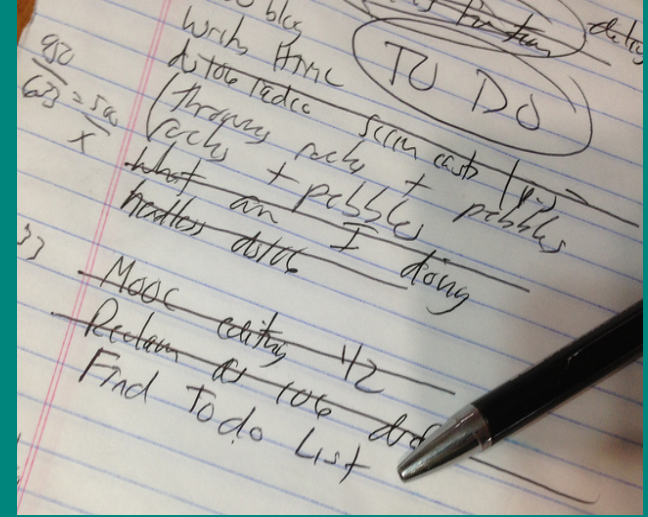
# Development priorities

## Research outputs

- Data repository enhancements
- OA Articles functionality
- Theses
- Software and code
- Provenance metadata (method)

## Also ...

- Preservation systems tailored for multiple digital objects types
- Use cases and pilots for objects beyond research outputs



<https://creativecommons.org/licenses/by/4.0/>  
<https://www.flickr.com/photos/oglog/>

# Sector mandates and good practice - OA

## 2. Requirements for Open Access Repositories

### 2.1 Requirements for Open Access repositories:

The repository must be registered in the Directory of Open Access Repositories (OpenDOAR) or in the process of being registered.

In addition, the following criteria for repositories apply:

*Mandatory criteria for repositories:*

- Use of PIDs for the deposited versions of the publications (with versioning, for example in case of revisions), such as DOI (preferable), URN, or Handle.
- High quality article level metadata in standard interoperable non-proprietary format, under a CC0 public domain dedication. This must include information on the DOI (or other PIDs) both of the original publication and the deposited version, on the version deposited (AAM/VoR), and on the Open Access status and the license of the deposited version. Metadata must include complete and reliable information on funding provided by cOAlition S funders (including as a minimum the name of the funder and the grant number/identifier).
- Machine readable information on the Open Access status and the license embedded in the article, in standard non-proprietary format.
- Continuous availability (uptime at least 99.7%, not taking into account scheduled downtime for maintenance or upgrades).



Plan S

Making full and immediate Open Access a reality



## Next Generation Repositories

Behaviours and Technical Recommendations of the COAR Next Generation Repositories Working Group

November 28, 2017



Northern lights, Norway

#nextgenrepositories

@COAR\_eV

office@coar-repositories.org

GOV.UK

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Consultations Statistics News and com

Home > Business and industry > Science and innovation

Independent report

## Open access to research: independent advice - 2018

Independent advice from Professor Adam Tickell on open access to research publications.

REF2021 Research Excellence Framework

About News Publications Guidance Panels Submission

Home / Publications / 2019

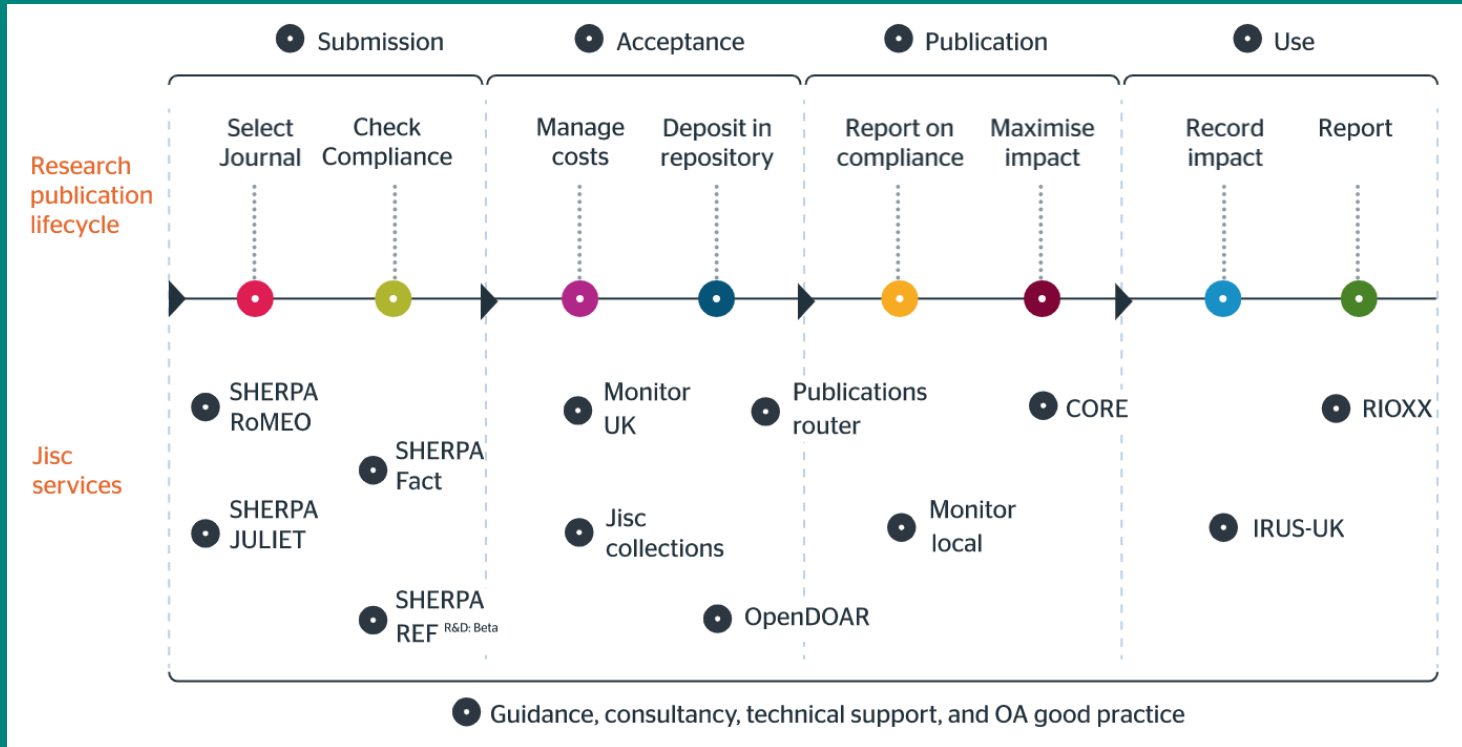
### Guidance on submissions (2019/01)

This document sets out the general framework for assessment in the 2021 Research Excellence Framework (REF) and guidance to UK higher education institutions about making submissions to REF 2021. It includes guidance on procedures, the data that will be required, and the criteria and definitions that will apply. The deadline for submissions is midday, Friday 27 November 2020.

# OA repository reqs (Plan-S; COAR NGR; UK guidance)

✓ Diversity of resources	✓ Open APIs	✓ Machine friendly
✓ Resource centric	✓ Networked	✓ Versioning
✓ Sustainable	✓ Distributed governance	✓ Public good
✓ Helpdesk	✓ Continuous availability	✓ Accessible
✓ Full text stored in XML in JATS standard (or equivalent)	✓ Common behaviours, functionalities and standards	✓ Automatic exchange between publishers and institutions
✓ Quality assured metadata in standard interoperable format	✓ Automated manuscript ingest facility	✓ Promoting a range of unique identifiers (eg ORCID)

# Will become part of the Jisc OA Family



# Jisc's role in digital preservation

- ◆ A solution tailored for HEI sector
- ◆ Community led and governed
- ◆ Active to digital preservation community
  - Brings the sector together
  - Funds events and exploratory work

Insert Coin to Continue: a Briefing Day on Software Preservation



7 May 2019 | 10:00 - 16:00 | London, W1H 9HQ | Woburn House

BOOK NOW

DCM

This DPC Briefing Day, sponsored by Jisc, will bring together a diverse group of experts and critical thinkers on the topic of why and how to preserve software. Digital preservation has historically concerned itself with the preservation of information - or the data we put into or get out of software. But software is an artefact and ends in itself as well as being a means to an end. This programme will provide attendees with a detailed understanding of both the state-of-the-art in software preservation and the challenges that still need to be addressed.

abc Digital Preservation Coalition

Jisc

Unidentified research data files

- Files not identified by Droid (listed by file ext)
- 107 different file extensions not identified
  - huge number with no extension (help!)
  - how do we solve the .dat file problem?

Count of file extensions of unidentified files (includes extensions represented 10 or more times)



File ext

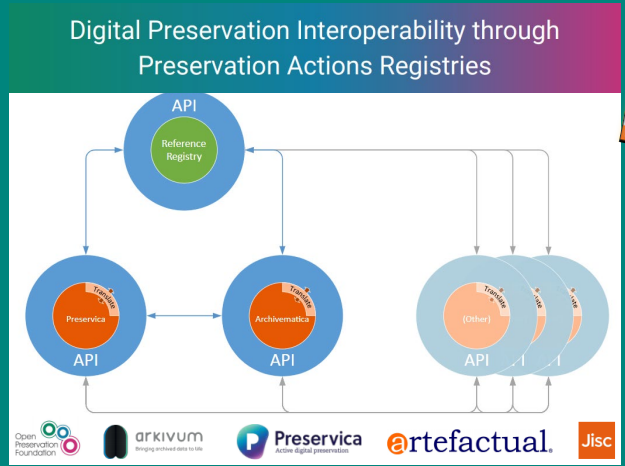
Software Sustainability Institute

Software Deposit and Preservation Policy and Planning Workshop Report

Edited by Christopher Brown, Jisc; Neil Chue Hong, The Software Sustainability Institute; Mike Jackson, The Software Sustainability Institute.

1.1

doi:10.5281/zenodo.1304912



artefactual

Preservica Active digital preservation

Jisc

# ORH preservation



Insights – 32, 2019  
Glasgow's digital preservation journey 2017-2019 | Alison Spence, et al.



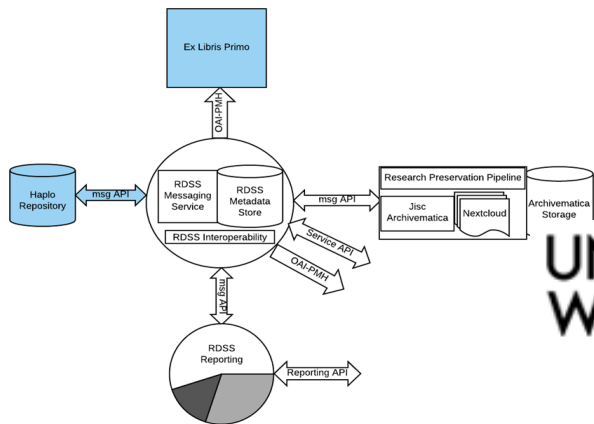
University of St Andrews | FOUNDED 1413

## Case study: the University of Glasgow's digital preservation journey 2017-2019



UNIVERSITY OF CAMBRIDGE

This case study documents the University of Glasgow's digital preservation journey during 2017 and 2018. The University recognized that action was required to ensure the long-term preservation of key records and archival material. Staff from the University's Digital Preservation Working Group were therefore tasked with identifying the University's priorities and requirements for preserving its key records, with the aim of producing recommendations for a preservation programme. Knowledge and skills were enhanced by participating in a national digital preservation pilot project and learning from practitioners through workshops. The case study shares our reflections on the questions which emerge from this process to engage the support of the wider community. Two key areas of focus are to examine digital preservation into practice and to explore digital preservation in collaboration within the sector.



UNIVERSITY OF WESTMINSTER



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Visiting us

If you can't visit

Exhibitions

Projects

Planning your funded research project

Publications

Resources for schools

Looking after the archives

### Filling the Digital Preservation Gap

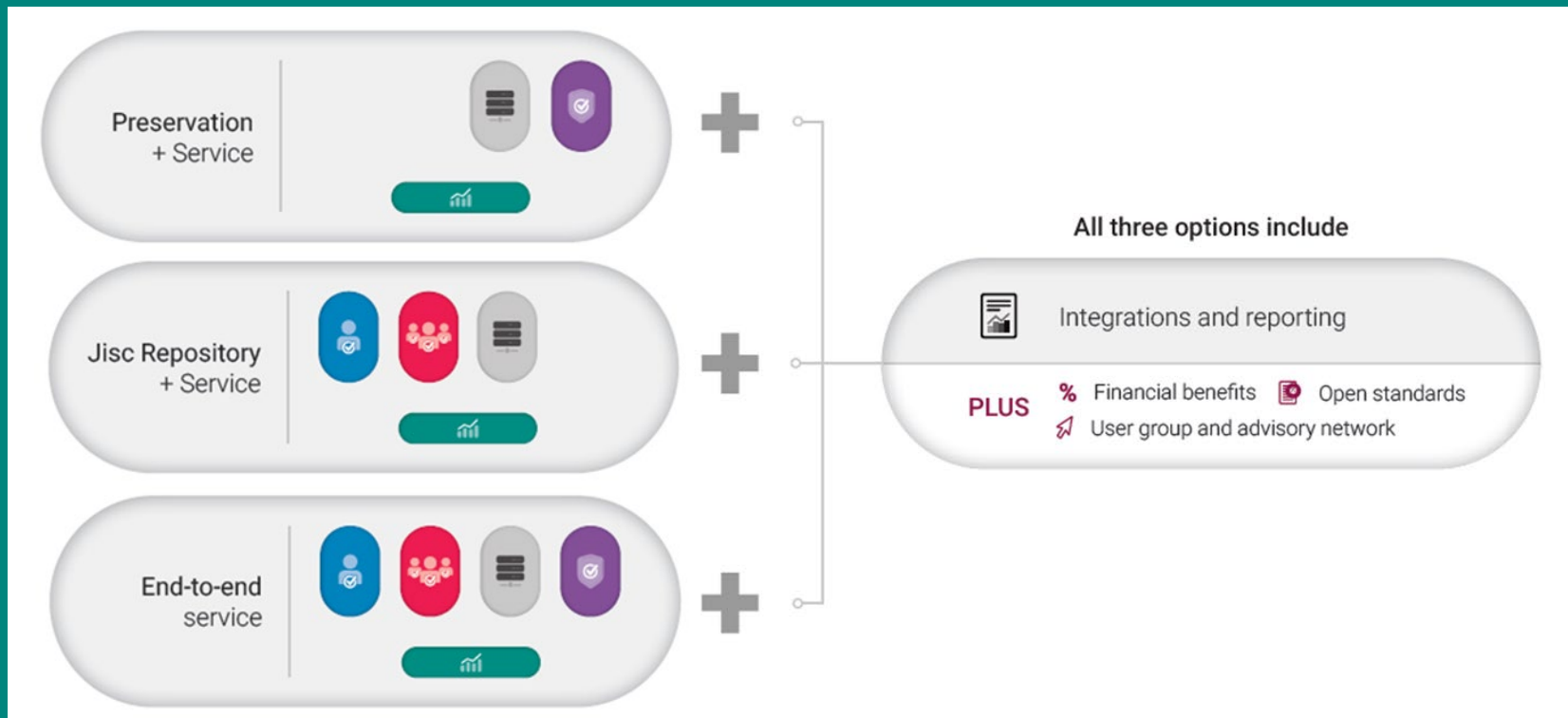
Report on Archivematica for research data now available.



In March 2015 the Universities of York and Hull began work on a project to explore the potential of the digital preservation solution [Archivematica](#) to help manage research data that academics within their institutions produce. This project was carried out with funding from [Jisc](#) as part of their [Research Data Spicing](#) program and included collaborative work with [Artefactual Systems](#), [The National Archives](#) and the wider digital preservation community. The project ran in three phases and the final phase completed in September 2016.



# 3 standard service options

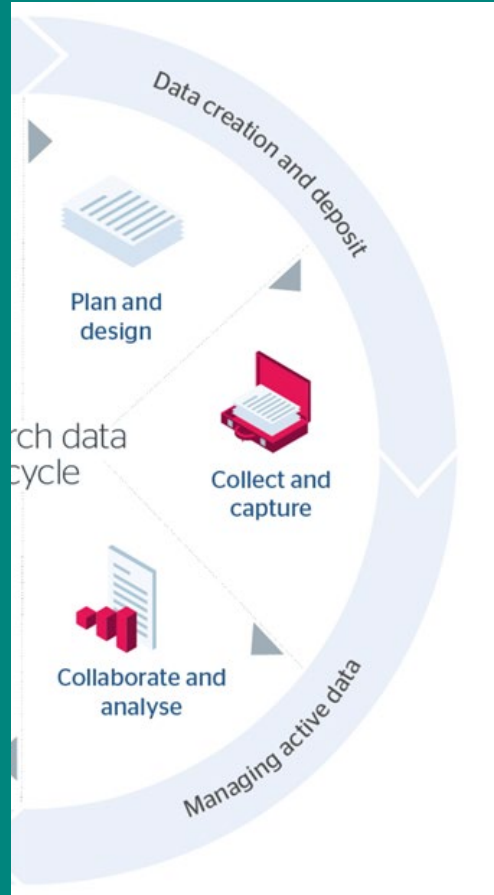


# Information Security Management



# ORH and the active research life cycle?

- ✓ DMPs
- ✓ Open science platforms
- ✓ E-lab notebooks
- ✓ Active data storage
- ✓ Practice research
- ✓ Reproducibility



# Jisc Research Data Management Toolkit

## rdmtoolkit.jisc.ac.uk

Jisc R&D > Research data

## Research Data Management Toolkit


Search

Research data lifecycle | RDM for Researchers | Skills and training


### Sharing RDM knowledge and good practice

Have you ever felt lost when looking for material on Research Data Management? This toolkit aims to support you by signposting resources from a wide range of websites and organisations, sorted by topic and audience. Follow your pathway below or browse the website using the [research data lifecycle chart](#).


#### Find materials relevant to your role



I'm a researcher



I work in research support



I'm an IT Specialist