

Open Research Infrastructure

Supporting open research practices at Cambridge

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| Outline

- Open Research Programme
- Systems supporting Open Research
 - Apollo
 - Upcoming developments



Open Research:

inclusivity, collaboration,
reproducibility, faster discoveries

Supporting pillars of open practices



The eight pillars of Open Research

Rewards and incentives



Research Indicators and Next-Generation Metrics



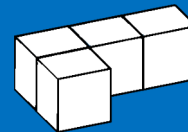
Future of Scholarly Communication



Infrastructure for Open Research



FAIR Data



Research Integrity



Skills and Education



Public Engagement and Citizen Science



<https://www.leru.org/publications/implementing-open-science>

Infrastructure for open research

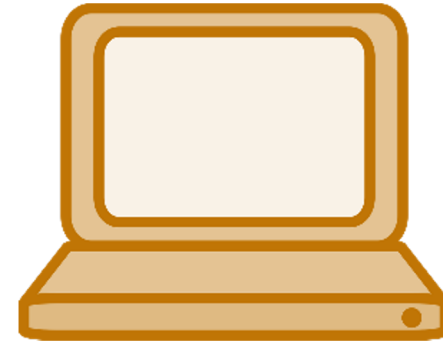
What tools are needed to do research openly?

IT solutions

Systems integrations (internal and external)

People and Services

Meet researchers' needs across the full research life cycle, supply streamlined and better integrated services



Support at Cambridge:

- [Apollo repository](#)
- [Symplectic Elements](#)
- [UIS](#)
- [ROO](#)

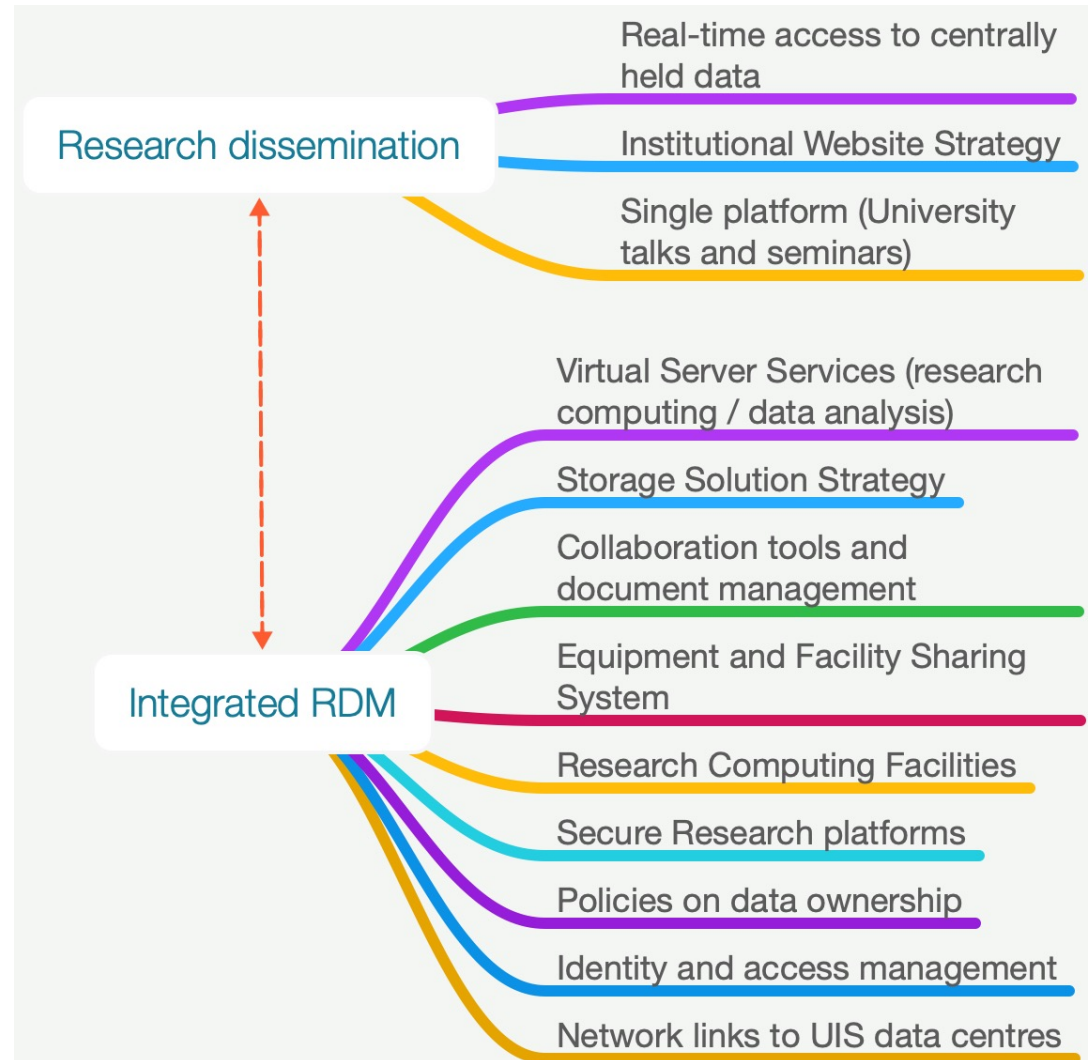
Research portfolio – Open Research Systems

- Governance – UIS Portfolios (<https://www.uis.cam.ac.uk/it-portfolios>)
 - CUL Open Research Systems development is part of the University's Research IT Portfolio
- Initial discovery work
 - Paper “Open Research Infrastructure Landscape: gap analysis and ongoing work” presented at [Open Research Steering Committee \(ORSC\)](#)
 - Gap analysis drawing on data from:
 - Schools’ strategic IT priorities (collaboration with UIS)
 - Initial work on infrastructure landscape focusing on research publishing and dissemination

Gap analysis

Summary from combined results
Schools' strategic and IT priorities,
grouped in two main categories:

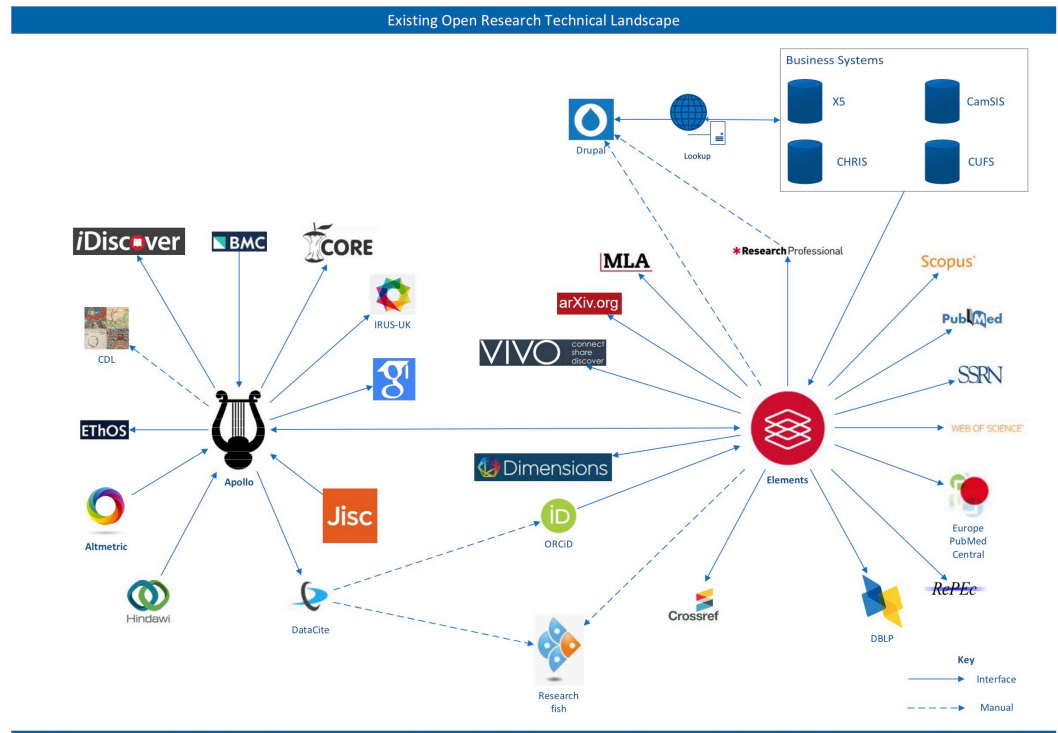
- Research dissemination
- Integrated RDM



Gap analysis (II)

Research dissemination and publishing infrastructure landscape - current for Cambridge

Source: Open Research Infrastructure Group (ORIG)



Gap analysis outcomes

- Considerable overlap of gaps (across sources analysed)
 - Integrated Research Data Management (RDM) services.
 - Integrations between grant management and research data (e.g., actionable data management plans)
 - Integration of active research data and archiving and publishing activities in the repository
 - Better provision of collaboration tools and real-time access to centrally held data
 - ERN (Electronic Research Notebooks)
 - Researcher profiles and publications feeds through Departmental websites

Research lifecycle

Planning research

Grants management (ROO)

From funding proposal to post-award management.



01

RDM support (Library)

Data Management Plans
Research Integrity (RSO)
Ethics

02

RDM support (Library)

Best practices in data management
Data documentation

Active research

Active Data Management (UIS)

Research Computing Services
Storage service (inc. Cloud-based)
Sharing code (GitLab service)

03

**SHERPA
RoMEO**



Plan S
Making full & immediate
Open Access a reality

Outputs Publication

Scholarly communication ecosystem

Systems integration
Improved workflows
Researcher profiles

OA support (Library)

Funder requirements
Publishing advice and support



Research
lifecycle

Discovery, access, re-use

Apollo Repository

Cambridge University Digital Library



Preserve and share research

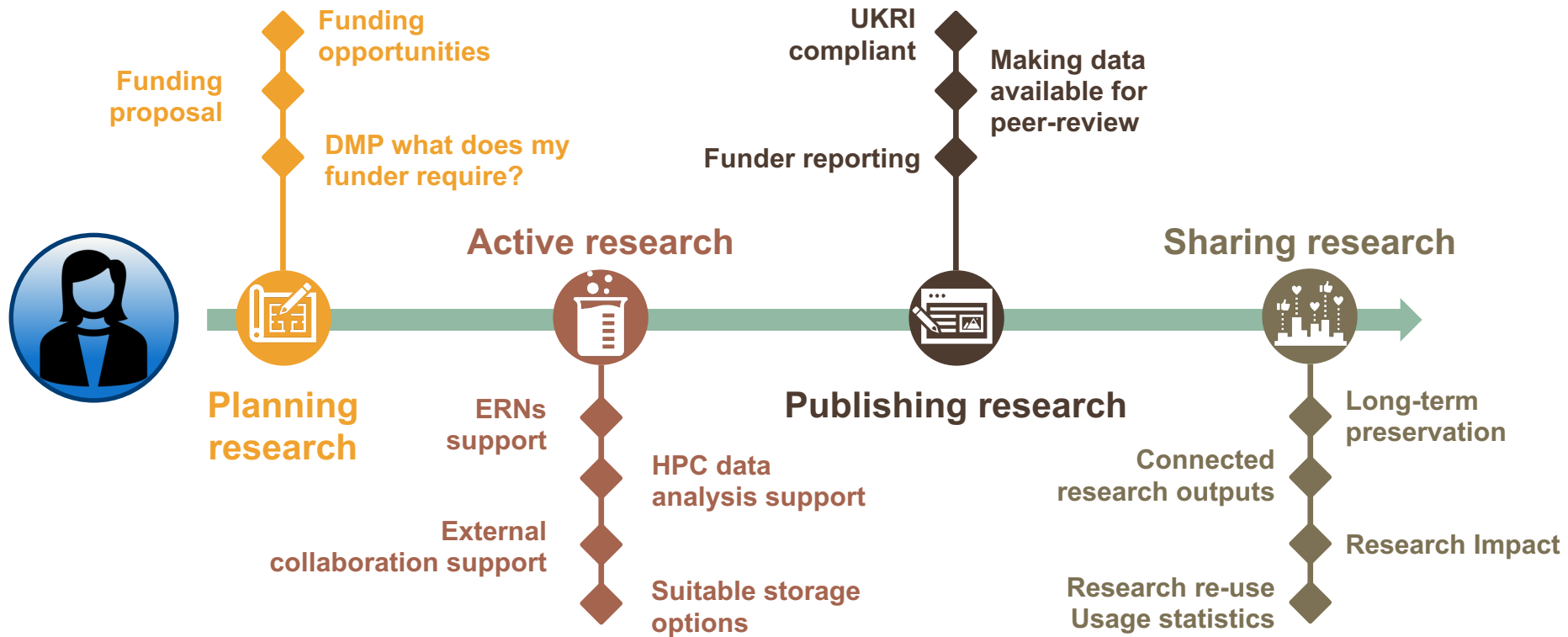
Long-term preservation

Digital Preservation Programme



UK Research
and Innovation

Meet researchers' needs across the full research life cycle, supply streamlined and better integrated services





OR Systems at Cambridge

Overview of systems at Cambridge

Apollo - University of Cambridge Repository

This repository holds the research output of members of the University of Cambridge. It is delivered and managed by the University Library's Office of Scholarly Communication team.



Circulating concentrations of vitamin D in relation to pancreatic cancer risk in European populations.

van Duijnhoven FJB, Jebens M, Hoozemans M, ...

Journal Rankings

| Journal | Score |
|---------------------------------|-------|
| International Journal of Cancer | 2.85 |
| 1.86 | |

- Apollo – Cambridge’s Institutional Repository:

<https://www.repository.cam.ac.uk/>

- Symplectic Elements – Cambridge’s CRIS:

<https://elements.admin.cam.ac.uk/>

Welcome to the University of Cambridge Open Access support site

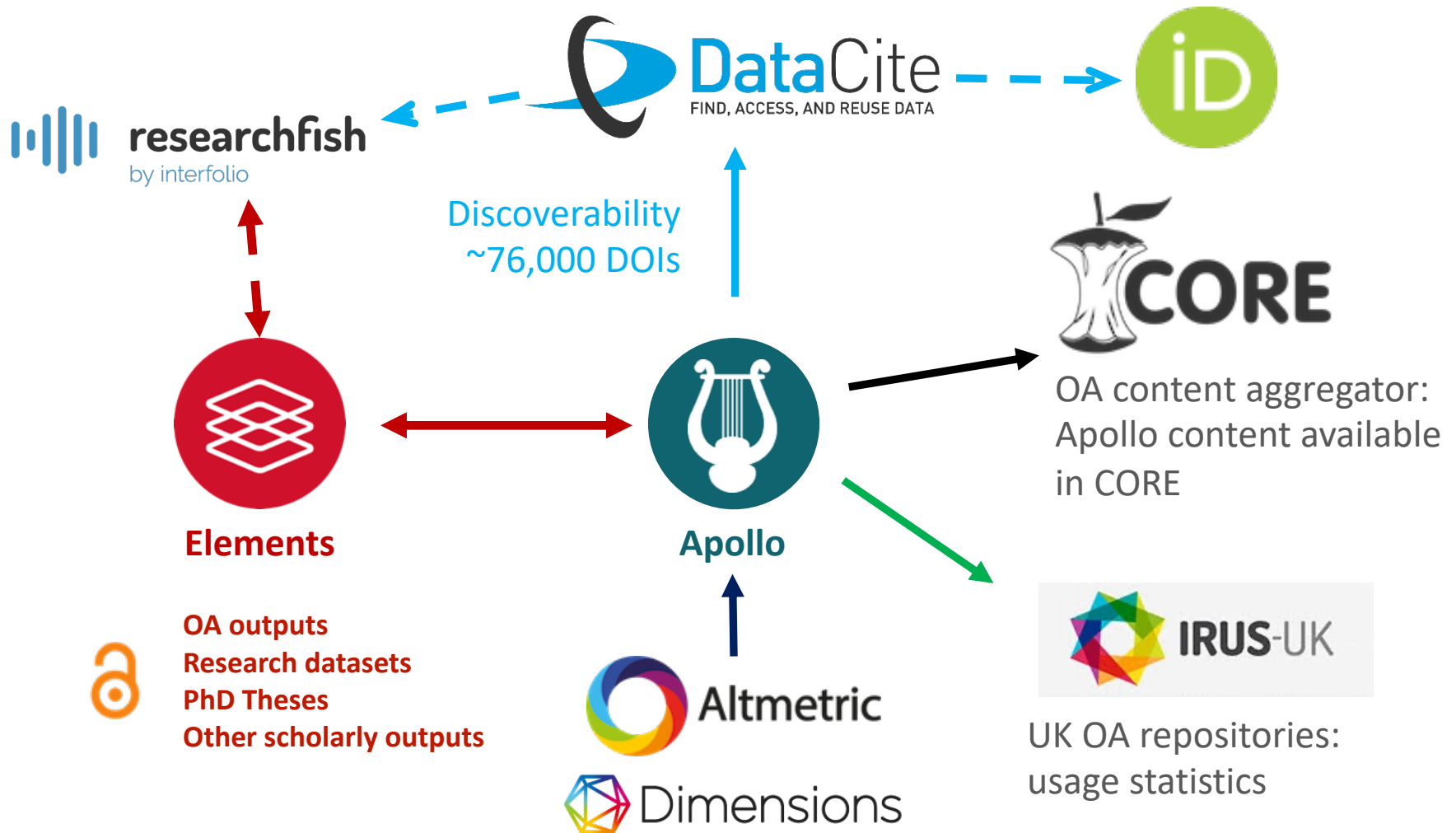
Search and browse our FAQs or submit a support request if you can't find the answer to your problem.

If your paper has been accepted for publication please upload it via Symplectic Elements.

Open Access FAQs

Symplectic Elements FAQs

Supporting the Open Research Infrastructure



Repository and CRIS integrations



Elements



Open Access (OA)

Article and data deposits
via CRIS



Apollo

OA / Data workflows

- Submission management
- Communication with researchers



Repository \leftrightarrow Elements

- Upgrade connector (RT2)
- Richer metadata from external sources
- Repository content available in the CRIS system

Repository \rightarrow Helpdesk

- Via Zendesk API
- Ticket creation and update
- Receive updates from Elements
- Enhanced reporting

Benefits after integration

For researchers

- **‘One stop’ shop:** OA deposits, grants linking and researcher profiles

Open Access policies and funder compliance

- Enhanced reporting and data from a single source

Enhanced visibility of outputs

- DOI registration and richer publications metadata
 - ORCID identifiers; grants information
- Populated ORCID profiles via DataCite Auto-update

Upcoming developments (i)

Plan S

- set of principles and requirements for full and immediate Open Access adopted by cOAlition S
- cOAlition S consists of a group of national research funding organisations: <https://www.coalition-s.org/>

Upcoming developments (ii)

- UKRI OA Policy
 - peer-reviewed research articles submitted for publication on or after 1 April 2022
 - monographs, book chapters and edited collections published on or after 1 January 2024

Next steps and future projects



- Electronic Research Notebooks
- Open research systems (ORS) review
 - Evaluate repository landscape
- CoreTrustSeal certification
 - Participation in FAIRsFAIR support programme for Trusted Data Repositories



DRYAD

Fedora™



Contact us

- Open Research Systems Team
(<https://osc.cam.ac.uk/repository/open-research-systems-team>)
- thesis@repository.cam.ac.uk for issues with **thesis** submissions
- info@data.cam.ac.uk for issues with **dataset** or **software** submissions
- support@repository.cam.ac.uk for any other types of submissions.