

Open Research Action Plan 2024-29

“For knowledge to benefit research and society, it must be trustworthy. Trustworthy research is robust, rigorous, and transparent at all stages of design, execution, and reporting.”¹

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Vision

The University is committed to building a culture of Open Research, as set out in its 2018 Statement on Open Research and 2019 Research and Innovation Strategy.² Researchers are expected to adopt practices that make research accessible, transparent, re-usable and reproducible, as relevant to the discipline and type of research they are doing. Policies on Open Access³ and Research Data Management⁴ require Open Access publication of peer-reviewed research outputs, the use of data availability statements in journal articles, and the use of repositories wherever possible to preserve and make accessible data that support published findings, in accordance with the FAIR Principles for Findable, Accessible, Interoperable and Re-usable data management.⁵

The University also encourages researchers to use practices that make other outputs as open and re-usable as possible, in accordance with the FAIR Principles, as early as possible in the research process. Such outputs may include research code, software, digital resources, preregistered study designs, methods, protocols and stimuli, preprints, peer reviews and hardware designs. Open Research may also include research methods that involve members of the public in the design and execution of research, and such involvement should be as open and collaborative as possible.

It is the University’s ambition to increase and keep assessing staff engagement with these practices to continually improve the quality of research output. The University will thus undertake the strategic activities outlined in this action plan, over the next five years, to further develop its culture of Open Research. Our vision is of a modern research-intensive University where the principles and methods of Open Research are intrinsic to research practice, where researchers have the knowledge and skills, and are incentivised and enabled

¹ Moher, D., et al. (2020). The Hong Kong Principles for assessing researchers: Fostering research integrity. *PLOS Biology*, 18(7), e3000737. <https://doi.org/10.1371/journal.pbio.3000737>

² Statement on Open Research: <https://www.reading.ac.uk/research/research-environment/open-research>. Research and Innovation Strategy: <https://www.reading.ac.uk/research/research-environment/research-strategy>.

³ <https://libguides.reading.ac.uk/open-access/uni-policy>.

⁴ <https://www.reading.ac.uk/research-services/research-data-management/about-research-data-management/research-data-management-policy>.

⁵ <https://www.go-fair.org/fair-principles/>.

to use Open Research practices to maximise the quality, usefulness and impact of their research, and to flourish in their careers.

Unlike ORAP 2021-23, which lasted 3 years, CORRI remarked that the sustainable embedding of OR practices could benefit from a stronger strategic oversight, and recommended the period covered be extended to 5 years, to ensure efficient monitoring of practices and alignment of efforts with other University running concurrently, like the Research Culture Programme. Consequently, most actions are initiated at the beginning of the period, and monitored throughout.

About the Open Research Action Plan

This Open Research Action Plan (ORAP) follows from the 2021-23 ORAP, and builds on the foundation established so far. It presents a plan of action for the period 2024-29. A budget is presented at the end of this document.

The plan is sponsored by the Committee on Open Research and Research Integrity (CORRI) and will be managed by the ORAP Implementation Group (IG), appointed by the CORRI. The group will monitor and manage progress of actions under the plan, and will report progress to meetings of CORRI and seek advice on implementation of the plan as needed. The IG is chaired by Professor Adrian Bell, Research Dean for Prosperity and Resilience, and includes the following members: Maria Broadbridge, Research Software Engineer (DTS); Robert Darby, Research Data Manager (Library); Etienne Roesch, Professor (Psychology) and UKRN Institutional Lead; Alison Sutton, Research Engagement Manager (Library). The IG will also liaise with colleagues, other projects and Functions within the University as needed, including Digital Technology Services, Planning and Strategy, the REF2029 Planning Group, the Research Culture Programme Board, the Research Evaluation in Recruitment and Promotion WG, the Digital Humanities Hub, the Statistics CoP, the AI COP and the TVAI Hub, as well as our close partners at the National History Museum, the British Museum, Kew Garden, Shinfield Studios and the European Centre for Medium-Range Weather Forecasts.

Other colleagues, not in the IG but directly involved in the delivery of specific actions include: Chrissie Willis-Phillips (Director of the Research Engagement Team at the Library), Karen Rowlett (Research Publication Advisor), Anna Tsakalaki (UKRN Local Network Lead) and Evangeline Gowie (UKRN Open Research Coordinator), Wanda Tejada (REF and Research Planning Manager).

To ensure the next action plan is grounded in our local needs and seizes opportunities available, following the completion of the 2021-23 action plan, the ORAP steering group analysed successes and challenges faced, complemented with data and inspiration from the following sources:

- The 2021 UKRN training needs survey (N=81 Reading academic staff in 14 disciplines);

- The 2021 Open Research survey conducted by the Open Research Champions in ORAP 2021-23 (N=376 staff and students)⁶;
- The 2022-23 research culture survey commissioned by the University (N=344 academic staff and N=64 research-enabling staff);
- A SWOT analysis of the 2021-23 OR Champions programme (focus groups);
- Feedback from CORRI on activities in ORAP 2021-23;
- The 2023 CEDARS survey;
- Ongoing formal interviews of colleagues and research students about their practice and perception of OR (currently N=19 across 10 Schools and Functions)
- Plan S: the Open Access scientific publishing plan produced by Science Europe;
- Current information we have about REF2029, and related University projects (e.g. REF task force, CRIS);
- Other University projects, including the University Research Evaluation in Recruitment & Promotion WG, the Statistical COP, and opportunities made available through partnerships, including with the UK Reproducibility Network (UKRN), the UKRN Open Research Programme, the United Kingdom Council of Open Research and Repositories (UKCORR), Research Libraries UK (RLUK), and UK CORI; and
- Feedback on ORAP 2021-23 from students, colleagues and research partners, including from authors of a report commissioned by Knowledge Exchange, reviewing our 2021-23 ORAP as a case study (alongside one on the ORAP developed by TU Delft).

The plan is divided in high level themes adapted from similar action plans⁷, and include open access, research data management, infrastructure, competency and skills, communication, as well as planning, incentives and rewards.

The IG will meet monthly throughout the period of the action plan. This document is a description of the content of the actions, and not a project management plan. However, technical project management details are provided:

- Lead measures have been established for all strategic actions, and action leads will report progress against these measures ahead of IG meetings, discuss progress and seek advice on further action. It is the explicit intention that lead measures and project output be made available widely, and the experience of the plan shared upon completion.
- Actions are assigned an indicative “Delivery” date, which signifies the latest estimate of time by which we expect the action to have concluded. The course of work leading to this delivery date will start and span varying amounts of time, and will be managed by the IG, aligning with activities done in other relevant committees,

⁶ <https://research.reading.ac.uk/research-blog/mapping-the-open-research-landscape-at-the-university-of-reading/>, and data: <https://researchdata.reading.ac.uk/355/>.

⁷ <https://enterprise.gov.ie/en/publications/national-framework-on-the-transition-to-an-open-research-environment.html> ; <https://www.surrey.ac.uk/sites/default/files/2022-02/open-research-strategic-goals-and-action-plan-2019-2024.pdf> ; <https://www.keele.ac.uk/research/raise/governanceintegrityandethics/researchintegrity/openresearch/openresearchactionplan/> ; <https://research.tudelft.nl/en/publications/tu-delft-strategic-plan-open-science-2020-2024-research-and-educa>.

working groups and University-wide programme supervisory boards. Most actions are initiated at the beginning of the plan, and monitored throughout.

- Some activities planned are jointly organised in the remit of collaborations with partners in the UK Reproducibility Network (UKRN) and others. Because they remain local to Reading and apply to colleagues and students on campus, we include them in this document for monitoring. Similarly, some actions are planned in the remit of the University Research Evaluation in Recruitment & Promotion WG (RERP WG), and included in this document for monitoring.

A named lead oversees and is responsible for the deployment of each action, and reports to the IG periodically. Progress is monitored through a set of lead measures, and produces an output monitored by the IG, which can be of different types:

- Policy – A policy document; the IG is responsible for deciding how and who it should be communicated to. Policies are owned by the Function it is destined to.
- Report – Either verbal or written report to the IG, which can be shared to other University functions and Committees as appropriate; may occur repeatedly for monitoring purposes.
- Process – A written document describing how University process has changed as a result of the action; this document can then be used to fulfil an accompanying communication plans, as discussed with the Communications team, or inform University functions and Committees.
- Training – Delivery plan, resource and material towards the deployment of training. The IG will be monitoring the unfolding of the action until delivery.

Open Access

Objective

To increase the volume of research that is available via Open Access and of which UoR authors retain copyright.

Summary

We will update our policies (OA/1, OA/2) to make Open Access the norm for most research publications (OA/3, OA/6) and align our processes with funder policies and Open Access budgets (OA/4, OA/5). The University's Open Access policy of 2013, revised in 2017⁸, is applicable to both funded and unfunded researchers. A substantial revision will bring it in line with the 2021 UKRI Open Access policy⁹ and the REF2029 anticipated Open Access requirements, as well as with Plan S¹⁰ with which UKRI is aligned (OA/1, OA/4). The scope of outputs will be broadened to include Open Access monographs, chapters and edited collections (OA/3). A University Rights Retention strategy will be established so Open Access is more easily achieved (OA/2). Open Access publishing costs are met from Library, RETF and

⁸ <https://libguides.reading.ac.uk/open-access/uni-policy>

⁹ <https://www.ukri.org/publications/ukri-open-access-policy>

¹⁰ <https://www.coalition-s.org>

funder budgets. Sector-wide deals between publishers and universities, including for new and emerging publishing models, are negotiated by Jisc. The Library has long experience in assessing, selecting and managing these arrangements with publishers. It will formalise this process so that proportionate use is made of the UKRI budgets and that it is auditable (OA/5). The University has had processes in place since 2016 for the deposit of the University's higher degree theses into CentAUR¹¹. A review will recommend solutions to the frequently occurring backlogs so that the University's theses are as open as possible as soon as possible (OA/6).

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
OA/1	Revise, update and republish UoR OA Policy in line with changing requirements from funders and University processes	Policy	CW-P	July 2025	1	
OA/2	Design and implement a UoR rights retention strategy	Policy	CW-P	February 2026	1, 2, 3	
OA/3	Design and implement policy for supporting Open Access monographs	Policy	AS	December 2024	4	
OA/4	Implement funder policies (UKRI and REF)	Report	AS	September 2026	5	
OA/5	Implement policy and process for assessing Open Access monograph Library/publisher memberships and deals	Process	AS	October 2024	1	
OA/6	Review policy and process to ensure theses deposited in CentAUR are made open without delay (except where embargo has been requested)	Report	AS	May 2025	6	

¹¹ <https://www.reading.ac.uk/doctoral-researcher-college/student-policies-procedures/electronic-deposition>

Lead measures

1. Project plan, schedule of drafts and consultations, leading to policy documents available and communicated to stakeholders.
2. Proportion of journal articles and conference proceedings published in a calendar year available via Open Access.
3. Proportion of journal articles and conference proceedings published in a calendar year with UoR author-retained copyright.
4. Proportion of monographs, edited collections and book chapters published in a calendar year via Open Access.
5. Proportion of research publications meeting funder Open Access policy requirements in a calendar year.
6. Proportion of postgraduate theses open in CentAUR within 6 months of deposit.

Research data management

Objective

To increase the rates of high-quality data sharing in support of research publications.

Summary

The University's Research Data Management Policy, first published in 2015, will be updated to bring it into line with the University's Open Research Statement¹² and key sector frameworks, including the Concordat on Open Research Data¹³ and the FAIR Principles for data management¹⁴ (RDM/1). The new Policy will address in more detail the expectations of researchers and their data management responsibilities. We will systematise collection of data sharing indicators from article Data Availability Statements (DAS) in order to obtain aggregate measures of data sharing and to assess compliance with UKRI Open Access Policy (RDM/2). We will continue to roll out data management planning requirements in the processes of School Research Ethics Committees (RECs), having successfully established processes in the University REC and the IoE and PCLS RECs. (RDM/3). This will reinforce good practice in accordance with the University's Information Compliance policies and help to maximise opportunities for sharing of research data collected from participants. Finally, we will undertake a full Research Data Service review, considering stakeholder requirements and current service strengths, weaknesses, opportunities and threats (RDM/3). This review will inform recommendations to the Library regarding the future development of the service.

¹² <https://www.reading.ac.uk/research/research-environment/open-research>.

¹³ See section 'Concordats UKRI has signed' at <https://www.ukri.org/manage-your-award/good-research-resource-hub/open-research/>.

¹⁴ <https://www.go-fair.org/fair-principles/>.

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
RDM/1	Revise and republish Research Data Management Policy	Policy	RD	December 2024	1, 2, 3	
RDM/2	Systematise collection of data sharing indicators	Process	RD	September 2025	2	
RDM/3	Roll out DMP requirement for Research Ethics Committees (REC) submissions across all Schools	Process	RD	January 2027	4	UREC, SRECs
RDM/4	Research Data Management (RDM) service review	Report	RD	July 2026	5	

Lead measures

1. Policy available and communicated to stakeholders.
2. Proportion of journal articles published in a year that include a Data Availability Statement which references data held in a data repository by means of a DOI or other persistent identifier.
3. Numbers of datasets deposited in the Research Data Archive.
4. School RECs that have implemented DMP requirement as part of ethical review.
5. Service review completed.

Infrastructure, systems and processes

Objective

To ensure infrastructure to support Open Research is optimised for effectiveness and is well-integrated with University systems and processes.

Summary

As REF2029 is being announced and the University completed a survey of all staff on research culture, we are proposing actions that aim to contribute to the infrastructure, systems and processes, that support colleagues to adopt good practices, and provide the University with means of monitoring these practices. We liaise with colleagues and project across the University, and focus on the review of our publications and data repositories, including requirements for integration with any CRIS procured by the University, and requirements for internal archiving (INF/1, INF/2 and INF/3), the selection and implementation of indicators (INF/4, INF/5) in partnership with UKRN, and the embedding of OR practices as a core aspect of the work we do (INF/6, INF/7, INF/8).

Note: Eight OR Indicator pilot projects are currently under way with UKRN partners and industrial partners to design and prototype indicators about FAIR data, data availability statements, preregistration and the use of the CRediT authoring statements. Reading is Lead for one of the pilots. Pilot projects are expected to end in the Spring 2025, and produce a framework for implementation of indicators.

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
INF/1	Review of repository requirements for publications and research data following the implementation of the CRIS. This will recommend retention or replacement of the repositories	Report	AS/RD	September 2026	1, 4	Library, CRIS
INF/2	(Dependent on INF/1) Repositories replacement project and implementation	Process	AS/RD	September 2027	1, 2, 4	
INF/3	Review requirements for internal archival storage and make recommendations	Report	RD	June 2026	1	DTS

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
INF/4	Review of Open Research indicators, including projects with UKRN ORP partners and recommendations for inclusion in University processes	Report	ER/NH/WT	September 2025	3	UKRN
INF/5	Implement collection of Open Research indicators	Process	ER/NH	March 2027	4	Research Culture Programme
INF/6	Engage with and train RDLs to facilitate their support of OR practices	Training	AB/ER	January 2027	1	
INF/7	Feasibility study, pilot and evaluation for systematic testing and reproducibility check (CODECHECK, code review, reproducibility clinic), in collaboration with the Statistical COP	Process	ER/MB	October 2028	5	DTS
INF/8	Evaluate possibility of integrating OR in university and school REC forms, as well as PRP/PDR documents.	Process	ER/AB/EG/WT	March 2027	1	UREC, SRECs, Research Planning

Lead measures

1. Project plan, schedule of drafts and consultations, leading to policy documents available and communicated to stakeholders.
2. Solution deployed and documented for colleagues to use.
3. Sustained engagement with partners, including colleagues managing the tender for implementation of a Current Research Information System and the REF task force, as well as UKRN institutional and solution providers.
4. Documented workflow including the new CRIS, in line with needs described by the REF task force.
5. Evaluation of requirements and resource available and pilot.

Competencies and skills

Objective

To equip researchers with the knowledge and skills they need to use Open Research practices effectively.

Summary

ORAP 2021-23 and subsequent surveys and interviews of colleagues and students identified areas where more support is needed, across all degrees of experience with OR and all aspects of OR, including processes in OR (e.g. preregistration), data management, coding and publishing OA. Therefore, actions proposed focus on the review and consolidation of current provisions, as well as the development and deployment of new material. Particularly, we aim to apply a Train-the-Trainer model, whereby colleagues in Schools are empowered to themselves to identify needs and train others. For that purpose, we propose to create resource and material that others can use.

Actions

	Action	Output	Lead	Delivery	Lead measures	Additional partners
CS/1	Review, consolidate and identify gaps in OR training provision, consulting with relevant stakeholders and including close partners at the Natural History Museum, the British Museum, Kew Garden, and Shinfield Studios and the European	Report	ER/EG	March 2026	4	NHM, BM, Kew, Shinfield, EMWF, UKRN

	Action	Output	Lead	Delivery	Lead measures	Additional partners
	Centre for Medium-Range Weather Forecasts.					
CS/2	Design minimal curriculum for introductions to OR practices, in remits like research away days, e.g. for RDLs	Process	ER	December 2026	4	
CS/3	Design and offer OR training, either with new online modules or face-to-face (including training provided by UKRN); including mechanisms for on-demand request	Report	ER	January 2029	1, 2, 3	UKRN
CS/4	Review and consolidate Research Software Engineering (RSE)/Academic computing online resources, aligned with requirements and in consultation with our audience through focus groups.	Process	MB	July 2025	4	RSE, DTS
CS/5	Design RSE training materials for online and in-class setting (booking on UoRLearn and advertised on open-research-training shared calendar)	Training	MB/ER	January 2026	4	DTS
CS/6	Organise regular RSE training provision for specific topics	Process	MB/ER	August 2028	1	DTS

	Action	Output	Lead	Delivery	Lead measures	Additional partners
CS/7	Design and offer training on rights retention strategy	Training	AS/KR	December 2025	4	
CS/8	Design and offer training on Open Access monographs	Training	AS	September 2025	4	

Lead measures

1. Numbers of research students and staff who have attended training courses in a calendar year, and completed a personal action plan.
2. Numbers of trainers recruited and accredited to deliver training under UKRN Open Research Programme in a calendar year.
3. Numbers of courses delivered by UKRN Open Research Programme accredited trainers in a calendar year.
4. Numbers of courses delivered and online resources expanded.
5. Quantitative and qualitative measures: A combination of numbers of staff/students using online resources and trends/feedback/communications which highlight if students/staff find it easier to use systems and if novices experience fewer issues getting started (e.g. changes in number & type of tickets to DTS/Academic computing, feedback during drop-in sessions).

Communication

1) Internal engagement

Objective

To foster an engaged research community that is aware of the Open Research agenda and working collaboratively to develop and support Open Research practice

Summary

In part as a result of ORAP 2021-23, the University provision to support OR practices has grown. Availability and buy-in has been challenging, however, due to the multiplicity of places used for communication, which appeared confusing, and low amount of communication about the training available. Actions in support of internal engagement therefore focus on consolidating and centralising communication mechanisms about open research activities, liaising with other groups on campus and establishing sustainable

mechanisms to raise the profile of open research in our research culture. This includes funding for UROP projects dedicated to OR, focus groups to understand the make and drive of OR amongst colleagues, internal events and an OR prize, as well as the development of promotional material (e.g. laptop stickers, t-shirts, lanyards) to make the profile of OR activities visible to colleagues and foster an open discussion about OR.

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
COMMS/1	Revise and relaunch the 2018 Open Research Statement and supporting materials to maintain relevance	Report	AB/CK	January 2025		
COMMS/2	Review and update Research Engagement team web pages and online resources.	Report	AS/KR	September 2026	5	
COMMS/3	Develop, energise and support the Open Research network of colleagues: identify and share good practice through events co-organised with COPs/ RDLs, develop promotional material (e.g., t-shirt, laptop stickers,	Report	ER/AT/CK	April 2029	1	Digital Humanities COP, Statistical COP, AI COP, TVAI Hub, NHM, BM, Kew, Shinfield Studios, EMWF

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
	lanyards), organisation of networking events.					
COMMS/4	Focus groups to 1) understand prevalence of open research at Reading and opportunities for embedding, and 2) create evaluation points (2024, 2026 and 2028)	Report	ER	September 2028	2	
COMMS/5	Advertise the open research calendar consolidating OR events on campus	Report	ER/MB/CK	December 2024	3	
COMMS/6	Engagement with research communities, e.g. Digital Humanities Hub, SCoP, AI COP, TVAI Hub, Research Engagement Champions and partners at the Natural History Museum, the British Museum, Kew Garden, and Shinfield Studios, to ensure they know about ORAP and	Report	AT/CK	March 2027		Digital Humanities COP, Statistical COP, AI COP, TVAI Hub, NHM, BM, Kew, Shinfield Studios, EMWF

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
	support available					
COMMS/7	Biennial event to celebrate OR and award Prize (2025, 2027)	Report	ER/AB	July 2025 & 2027	4	

Lead measures

1. Number of members of Open Research Community of Practice at a given point in a calendar year
2. Qualitative information about OR practices
3. Number of events submitted to the OR calendar
4. Number of participants
5. Research Engagement web pages review completed

2) External engagement

Objective

To retain and pursue the leading role that the University has played nationally and internationally.

Summary

The University has been an active member of the national and international community on OR. Actions proposed aim to sustain this level of activity and make sure we provide evidence, resource and material for others to evaluate what we did and carry on leading by example.

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
COMMS/20	Organise RSE South workshops for the Research Software Engineering	Report	MB	October 2026 & 2028	1	RSE

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
	community in the UK South, led by RSE@UoR, in 2026 and 2028					
COMMS/21	Review and consolidate documentation that we share on the website (for recommendation to Comms overhaul of website)	Report	ER/EG	December 2025	2	
COMMS/22	Partnership with selected institutions towards common approach to REF	Report	ER/WT	March 2026	3	
COMMS/23	Monitor sustained engagement with external partners, like UKRN	Report	ER	August 2028	4	UKRN

Lead measures

1. Growth and engagement of RSE@UoR and RSE South membership.
2. Review document of all available OR material shared publicly.
3. At one meeting a year, and an agreed action plan.
4. Monthly report at the ORAP management meeting.

Planning, incentives and rewards

Objective

To integrate Open Research into research planning and institutional reward and recognition processes, to better enable and incentivise Open Research

Summary

The University's Reward Evaluation in Recruitment & Promotion WG is reviewing University processes and formulating recommendations for the deployment of responsible research metrics in rewards, recruitment and promotions. Whilst it has its own action plan and schedule, we report actions here to ensure alignment of goals and actions between the two working groups. Additionally, we note that the RERP WG is engaged with the UKRN OR Programme on related projects.

Actions

	Action	Output to IG	Lead	Delivery	Lead measures	Additional partners
PIR/1	Publish Research Assessment Policy setting out expectations and requirements in alignment with principles of responsible research assessment and recognition and rewards for Open Research	Policy	AB	September 2025	1	
PIR/2	Implement changes to recruitment, promotion, probation and other assessment-based processes to align with Research Assessment Policy	Process	AB	May 2027	2	
PIR/3	Implement changes to institutional and individual research planning processes to align with Research Assessment Policy	Process	AB	May 2027	2	
PIR/4	Design and launch responsible research assessment online training module	Training	KR	May 2027	3	

Lead measures

1. Project plan and actions from working group, leading to publication of policy document.
2. Reward Evaluation in Recruitment & Promotion WG identify points in policy, and propose changes.
3. Online tool available to researchers