

# Open Research Action Plan

2021-2023

University of Reading

*As open as you can, as early as you can*

## **A three-year plan to increase awareness and use of [Open Research](#) practices**

To translate into action our commitment to the aims and principles of Open Research (OR), this implementation plan has been developed, agreed and resourced through the work of the *Committee for Open Research & Research Integrity*, the *University Board for Research & Innovation* and the *University Committee for Research & Innovation*.

The implementation of this plan will:

- (i) Wherever possible learn from good/best practice elsewhere, via our networks (including the UK Reproducibility Network [UKRN] partners), with tailoring to the UoR context.
- (ii) Not be fully prescriptive from the outset, allowing responsiveness to progress, new ideas and needs expressed by each School (noting that the state of readiness varies between disciplines) and Function, and a changing landscape.

### Developing researchers

**Establish OR Champions in Schools, to champion the growth of open-research awareness and culture in a disciplinary context (a small role, ~0.05 FTE, encouraging activities such as seminars, workshops and journal clubs, with minor resourcing).**

FY20/21: develop role description, raise awareness within Schools, and identify 1 OR champion/school for 6 Schools (6X £500);

FY21/22: identify a further 6 OR champions (12X £500) and develop knowledge base of OR Champions through peer-learning workshops within OR Champion group (with some professional services support from within current workload allocations).

FY22/23: identify remaining 3 OR champions for all Schools (15X £500) & knowledge base development (as above).

**Support researcher-led projects/initiatives, including from PhD students (with some professional services support, and a small fund that can be applied for to deliver OR events/projects).**

FY20/21: support 4 projects/initiatives, up to £500 each.

FY21/22: support 8 projects/initiatives, up to £500 each.

FY22/23: support 12 projects/initiatives, up to £500 each.

**Encourage/support applications to external funders for OR projects (e.g. Wellcome Trust Open Research Fund).**

FY20/21: target 2 applications.

FY21/22: target 3 applications.

FY22/23: target 4 applications.

**Develop and foster a UoR Research Software Engineering (RSE) community that shares skills and resources to grow a culture of OR practices and standards in software creation, development and use. This community will be supported by initiatives and training to improve standards in coding/research software by developing a sustainable programme of courses, tutorials, workshops and online resources.**

FY20/21:

1. Create RSE Community of Practice:
  - Maria Broadbridge and Paul Heaton (DTS) to work with key research software engineering groups at UoR (e.g. within NCAS) to develop a plan for the structure, governance and support required to develop cross-UoR Continuous Professional Development and recognised career pathways in RSE (for CORRI/UCRI approval).
  - Develop and grow the community currently fostered by the existing RSE Group into a UoR RSE Community of Practice (potentially online) that is open to members from DTS, research and professional services.
2. Develop, test and run training courses (also see OR training section for examples) for researchers and PhD students. These will be developed as online training initially until restrictions ease.

FY21/22:

1. Foster RSE Community of Practice: facilitate sharing of resources v, as well as suitable channels on MS Teams.
2. Help create activities such as coding clubs, building on the SPCLS model (up to £100 budget for meetings).
3. Run training courses: build on training successes from past year and develop training curriculum (also see OR training section for examples).
4. Support regular meetings & coding clubs within the RSE Community of Practice, and organise seminars by external speakers (up to £300 budget for meetings and seminars).

FY22/23:

1. Grow RSE Community of Practice and the supporting RSE group in line with university requirements.
2. Explore the scope, need and demand for expanding the training curriculum.
3. Tailored RSE group support will be increasingly requested and delivered (often supported by external grant income) by projects/grants.

### **Digital humanities support**

A project to grow capability and capacity in using digital approaches to humanities research, supporting both culture-change and providing technical training, has been ongoing. It is led by the Research Dean, Heritage & Creativity, who has been working in collaboration with the Library, UMASCS and the DTS Academic and Research Computing Team. In September 2020, UCRI approved a request for RETF funding to appoint a fixed-term digital humanities support post, to be based in the Library's Research Engagement team. It is expected that an appointment will be made in early 2021. Making digital humanities support part of the Research Engagement service will ensure that it is integrated with the broader programme to develop Open Research in the University.

## Training researchers

**Provide 'Open Research 101' (working title), a new 2-hour course about OR, introducing the concepts, benefits and practices, with specific reference to policies, development opportunities and support at Reading. Initially delivered to year 1 or 2 PhD students through the Graduate School, to be developed by Library's Research Engagement team and co-delivered with researchers.**

FY20/21: Develop and trial course from spring term, building on work in SPCLS. Wording in title of course will convey key concepts and benefits of OR, such as reproducibility and research quality. To be suitable for all PhD students. Optional in trial period. Make course materials available to School-based OR Champions.

FY21/22: Run course, 2 or 3 times/year, mandatory for all science and social-science PhD students to attend once.

FY22/23: Run course, 2 or 3 times/year, mandatory for all science and social-science PhD students to attend once.

**Continue to deliver the Library Research Engagement team's training sessions (People Development and Graduate School courses), as these include (more detailed, beyond Open Research 101) 1-2 hour sessions on OR tools and practices (Open Access, CentAUR, Research Data Management, Bibliometrics, ORCID, Altmetric etc). New approaches to be developed and implemented for courses where uptake is low.**

FY20/21: Continue to deliver courses.

FY21/22: As above – reviewed annually.

FY22/23: As above – reviewed annually.

**Develop capability to deliver Software Carpentry workshops (training in skills such as software curation, documentation, sharing, pitfalls, to improve quality and legacy of research software).**

FY20/21: Procure 1-year software carpentry course from an external supplier, 4 workshops each training 40 people, and one workshop training UoR staff and UoR OR Champions as trainers (total cost ~£11k).

FY21/22: RSE community and University OR Champions to identify further software carpentry training needs and demand, and organise tailored workshops delivered by UoR staff trained in year 1.

FY22/23: RSE community and University OR Champions to identify further software carpentry training needs and demand, and organise tailored workshops delivered by UoR staff trained in year 1.

**Ensure sufficiency of statistical skills training to PhD students and researchers**

FY20/21: Review current training offer, identify gaps and needs with help of OR Champions.

FY21/22: Develop plan for, and start to deliver, any additional or alternative training needs, if required, addressing any resource implications.

FY22/23: Continue delivery of additional or alternative training.

## Infrastructure

**OR-compliant research-outputs repositories – CentAUR and Research Data Archive. Library Research Engagement team to review existing provision of repositories and evaluate alternative repository providers, looking at best options for openness, policy compliance (Plan S and/or UKRI), sustainability, and CRIS integration.**

FY20/21: Horizon scanning.

FY21/22: Evaluate options and report recommendations.

FY22/23: Seek University approval of recommendations and funding if applicable.

## Embedding Open Research in institutional norms

**Open Research criteria will be fully included and used appropriately in recruitment, reward, promotion and performance assessment**

FY20/21: Informed by practice elsewhere (e.g. UKRN Hiring Policies Certification Scheme, <https://osf.io/qb7zm/>), CORRI to recommend to UCRI (then UEB) criteria/aims in recruitment, assessment and reward, and how this will be monitored.

FYs21/23: CORRI to monitor implementation, and advise UCRI/UEB of progress.

**Open Research culture and practice will be part of research planning at Research Division and individual researcher level.**

FY20/21: Warm-up of Research Division Leaders (by Research Deans, OR Champions), including an addition to the RDL induction programme, and Heads of Schools (by Robert Darby, and by Etienne Roesch in UKRN role)

FY21/22: Introduction of OR statements of intent by RDLs in Research Division Operating Plans, and optional inclusion of OR discussion in PRP process.

FY22/23: Mandatory inclusion of OR discussion in PRP process, and identification of any training needs.

**Working towards consistency of policy and message, e.g. regarding IP protection, in research contracts**

FY20/21: RES to review current practices and identify disparities with UoR OR statement.

FY21/22: Adjust current practices to meet OR statement.

**Better integration of Research Engagement training in induction and professional development**

FY20/21: Development (HR) to devise plan.

**Data Management Plans for research ethics applications**

FY20/21: Evaluate ongoing pilot and decide and implement new process.

## External relationships

The Open Research Action Plan will be implemented in a way that benefits from our involvement in a range of external bodies and activities, in terms of access to resources and exchange/learning of good and best practice. Our current key external relationships are:

### **UK Reproducibility Network**

[UKRN](#) is an independent network of stakeholders in the UK dedicated to improvement in the quality and reproducibility of academic research output. UoR joined UKRN in January 2020 as formal member. Phil Newton is the UoR UKRN Institutional Lead, and Etienne Roesch is the Local Network Lead; both will engage with UKRN and UoR through their agreed roles. UKRN submitted an outline proposal for funding to Research England. A full proposal has now been requested, with the intention of requesting some professional services resource at UoR.

### **Center for Open Science (COS)**

[COS](#) has an international mission to increase openness, integrity and reproducibility of research, and provides a range of tools to facilitate this. Etienne Roesch is a COS ambassador; and will communicate the benefits within UoR.

### **UK Research Software Engineering network**

Maria Broadbridge and Paul Heaton are members of the [Society of Research Software Engineering](#) and the UK Research Software Engineering Association Leadership Group, which facilitates exchange of skills, engagement and communication across the UK network of Research Software Engineers.

### **UKRI Concordat on Open Research Data**

[Concordat](#) will be observed (UoR is a member).

### **Library Research Engagement networks for Open Access and Research Data Management**

[UKCoRR](#): Organisation for repository and Open Access professionals, and a strong national advocate for sustainable Open Access infrastructure and services.

[Digital Curation Centre](#): national centre of expertise in digital curation with a focus on building capability and skills for research data management.

[JISC](#): provider of digital solutions for UK HE, providing infrastructure and supporting service innovation for managing, curating, sharing and reporting on research.

[FORCE11](#): international community promoting an Open Research agenda in scholarly communications through effective use of information technology.

## Communications and internal engagement

**Schedule communications and marketing teams to promote the activities encompassed by the Open Research Action Plan to relevant researchers and managers. This scheduling will be coordinated by the Library's Research Engagement team, in liaison with Research Communications and Engagement, Research Deans, the Graduate School, and People Development, as relevant.**

### **Open Research Award (biennial), as part of Engagement and Impact Awards**

FY20/21: Initiate competition. Spring 2021 award. Prize money: 2X £500

FY21/22: No award.

FK22/23: Initiate competition. Spring 2023 award. Prize money: 2X £500

### **Open Research case studies**

FY20/21: target 2 new case studies.

FY21/22: target 2 new case studies.

FY22/23: target 4 new case studies.

## Delivery

Delivery of the Open Research Action Plan will be by a mix of:

- Existing and evolving professional services (mainly Research Engagement in Library, Research Communications, RSE staff in DTS, RES, HR)
- Researchers/champions in Schools, with professional services support as required (e.g. reproducibility workshops, Coding Clubs)
- Ad hoc working groups
- UKRN institutional roles

Unless specified as a new requirement in the sections above, these people resources are currently planned within existing roles. Additional financial requirements are at **Annex 2**.

## Monitoring of progress & evaluation

Progress will be measured and reported to CORRI against the annual target activities over the three years. For each target activity, measures of progress and achievement will be set at the outset.

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## Additional financial resources awarded

(TBD – to be determined through planning)

Activity	FY20/21 (£)	FY21/22 (£)	FY22/23 (£)	Total (£)
OR Champions	3000	6000	7500	16500
Researcher-led projects	2000	4000	6000	12000
UoR RSE community development	0	500	0	500
Digital Humanities	0	0	0	0
OR 101 course	0	0	0	0
LRET standard training courses	0	0	0	0
Software Carpentry courses	11000	0	0	11000
Statistics training	0	TBD	TBD	TBD
OR-compliant repositories	0	0	TBD	TBD
Embedding OR in institutional norms	0	0	0	0
OR prize	1000	0	1000	2000
OR case studies	0	0	0	0
<b>TOTAL</b>	<b>£17000</b>	<b>£10500</b>	<b>£14500</b>	<b>£42000</b>

# Open Research Action Plan – activities by financial year

2020/21	2021/22	2020/23
<b>Recruit Open Research Champions</b>	<i>Responsible: Research Dean (Environment). Implementation Lead: Research Engagement</i>	
Develop role description. Raise awareness within Schools. Identify 1 OR Champion/School for 6 Schools (6X £500 to fund activities).	Identify a further 6 Champions (12X £500 to fund activities). Develop knowledge base of Champions through peer-learning workshops within Champion group (with some professional services support).	Identify remaining 3 Champions for all Schools (15X £500 to fund activities). Further develop knowledge base.
<b>Fund researcher-led OR projects/initiatives</b>	<i>Responsible: Research Dean (Environment). Implementation Lead: Research Engagement</i>	
Support 4 projects/initiatives, up to £500 each.	Support 8 projects/initiatives, up to £500 each.	Support 12 projects/initiatives, up to £500 each.
<b>Encourage applications to external funders for OR projects</b>	<i>Responsible: Research Deans. Implementation Lead: RES (with support from RDLs)</i>	
Target 2 applications.	Target 3 applications.	Target 4 applications.
<b>Develop and foster a Research Software Engineering (RSE) community</b>	<i>Responsible: Research Dean (Environment) – initially. Implementation Lead: DTS RSE staff</i>	
Work with key research software engineering groups at UoR (e.g. within NCAS) to develop a plan to support professional development and recognise career pathways in RSE. Submit plan to CORRI/UCRI for approval. Develop the existing RSE Group into a University-wide RSE Community of Practice. Develop and run training courses for researchers and PhD students (initially to be delivered online).	Foster Community of Practice. Facilitate sharing of resources via online platform/MS Teams. Support establishment of School-based coding clubs, building on the SPCLS model (up to £100 budget for meetings). Run training courses: build on training successes from past year and develop training curriculum. Support regular meetings and coding clubs within the RSE Community of Practice. Organise seminars by external speakers (up to £300 budget for meetings and seminars).	Grow RSE Community of Practice and the supporting RSE Group in line with university requirements. Explore the scope, need and demand for expanding the training curriculum. Deliver tailored RSE Group support as required by projects/grants (with recovery of external grant income where relevant).
<b>Deliver digital humanities support</b>	<i>Responsible: Research Dean (Heritage and Creativity)/Director ULCS (existing project)</i>	
Establish Digital Humanities Research Hub	Maintain and develop Digital Humanities Research Hub.	Maintain and develop Digital Humanities Research Hub.
<b>Provide ‘Open Research 101’ course to year 1 or 2 PhD students through the Reading Researcher Development Programme (RRDP)</b>	<i>Responsible: TBD. Implementation Lead: Research Engagement</i>	
Develop and trial course suitable for PhD students in all disciplines from Spring term. Make course materials available to School-based OR Champions.	Run course, 2 or 3 times/year, mandatory for all science and social-science PhD students.	FY22/23: Run course, 2 or 3 times/year, mandatory for all science and social-science PhD students.
<b>Continue to deliver and develop Research Engagement team training sessions (via People Development and RRDP)</b>	<i>Responsible: TBD. Implementation Lead: Research Engagement</i>	

2020/21	2021/22	2020/23
Continue to deliver courses. Develop new approaches where uptake is low.	Continue to deliver courses. Develop new approaches where uptake is low.	Continue to deliver courses. Develop new approaches where uptake is low.
<b>Deliver Software Carpentry workshops</b>	<i>Responsible: TBD. Implementation Lead: DTS RSE Staff</i>	
Procure 1-year Software Carpentry course: 4 workshops each training 40 people, and one workshop training UoR staff and OR Champions as trainers (total cost ~£11k).	RSE Community of Practice and OR Champions to identify further Software Carpentry training needs and demand, and organise tailored workshops delivered by UoR trainers trained in Y1.	RSE Community of Practice and OR Champions to identify further Software Carpentry training needs and demand, and organise tailored workshops delivered by UoR trainers trained in Y1.
<b>Ensure sufficiency of statistical skills training to PhD students and researchers</b>	<i>Responsible: Research Dean (Environment), interim. Implementation Lead: TBD</i>	
Review current training offer to identify gaps and needs with help of OR Champions.	Develop plan for, and start to deliver, any additional or alternative training needs, if required, addressing any resource implications.	Continue delivery of additional or alternative training.
<b>Review UoR research outputs repositories</b>	<i>Responsible: Associate Director (Collections, Planning &amp; Research). Implementation Lead: Research Engagement</i>	
Establish framework for review. Begin to gather requirements and undertake horizon scanning.	Evaluate options and make recommendations.	Seek University approval of recommendations and funding if applicable.
<b>Include OR criteria in recruitment, reward, promotion and performance assessment</b>	<i>Responsible: CORRI. Implementation Lead: CORRI</i>	
Recommend to UCRI (then UEB) criteria/aims in recruitment, assessment and reward, and how this will be monitored.	Monitor implementation, and advise UCRI/UEB of progress.	Monitor implementation, and advise UCRI/UEB of progress.
<b>Establish OR culture and practice in research planning at Research Division and individual researcher level.</b>	<i>Responsible: Research Deans. Implementation Lead: Research Division Leaders &amp; OR Champions.</i>	
Engage Research Division Leaders (Research Deans, OR Champions). Add OR to the RDL induction programme. Engage Heads of Schools (Research Engagement, members of CORRI).	Introduce OR statements of intent in Research Division Operating Plans, and optional inclusion of OR discussion in PRP process (Research Deans).	Make inclusion of OR discussion in PRP process mandatory. Identify any training needs.
<b>Ensure alignment of policies and practices with OR strategy, e.g. regarding IP protection, in research contracts</b>	<i>Responsible: Head, RES. Implementation Lead: RES</i>	
Review current practices and identify disparities with UoR OR statement.	Adjust current practices to meet OR statement	
<b>Improve integration of Research Engagement training in induction and professional development</b>	<i>Responsible: HR (person TBC). Implementation Lead: Learning and Development (HR), Research Engagement</i>	
Development (HR) to devise plan.	Deliver plan to integrate training in induction and professional development.	Deliver plan to integrate training in induction and professional development.
<b>Implement requirement for Data Management Plans in support of research ethics applications</b>	<i>Responsible: Research Data Manager. Implementation Lead: Research Data Manager</i>	

2020/21	2021/22	2020/23
Establish DMP requirement for UREC applications. Pilot similar process with selected School RECs.	Encourage pilot School RECs to adopt DMP requirement. Promote adoption by all School RECs.	
<b>Run Open Research Award competition (as part of Research Engagement and Impact Awards).</b>	<i>Responsible: CORRI. Implementation Lead: Research Communications &amp; Research Engagement</i>	
Initiate competition. Spring 2021 award. Prize money: 2X £500.	No award.	Initiate competition. Spring 2023 award. Prize money: 2X £500
<b>Publish Open Research Case Studies</b>	<i>Responsible: Research Data Manager. Implementation Lead: Research Engagement</i>	
Target 2 new case studies.	Target 2 new case studies.	Target 4 new case studies.