

Open Science Action Plan of Rennes 2 University

2023-2028

Introduction

Since the adoption in 2021 by Rennes 2 University of its Open Science Charter, the national and international ecosystem has continued to evolve towards ever greater encouragement for the opening up of publications, data and software code. Structuring at national and international levels has continued through a solid political and regulatory framework (COARA, UNESCO Recommendation on Open Science, French decree 2021-1572 of 3 December 2021, etc.) and the development of European and national infrastructures (EOSC, OPERAS, Recherche Data Gouv).

Through innovative experiments, the second National Plan for Open Science and the calls for projects under the National Fund for Open Science (FNSO) in support of open publishing aim to remove the barriers in existing publication models. The Rights Retention Strategy promoted by the funders of cOAlition S also works towards this end.

Several conditions ensure local support for the University's research teams and students, notably the identification of key players in open science in Brittany, such as the MSHB thematic node, and the creation of the Pôle Revues Grand Ouest and the datalab at the MSHB. Other factors include the development of the Callisto platform (URFIST, CRFCB, INIST) and the pre-labelling of the ARDoISE interdisciplinary network as a Data Management Cluster within the Recherche Data Gouv ecosystem. Finally, the setting up of a network around the Department of Industrial and Commercial Activities (SAIC) of the Rennes University Press (PUR) also contributes to this support.

Open science is one of the values defended by Rennes 2 University in two respects. It lies at the heart of the principles advocated by the University's project and the Charter of Ethics and Scientific Integrity adopted in 2023. Moreover, the charter of association with the University of Rennes EPE confers on Rennes 2 University the role of coordinating the site's open science policy. The University's role is thus to explore innovative directions and develop a programme of driving actions to promote open science in tangible ways, in line with the charter adopted in 2021 and the projects already implemented (Pôle Revues Grand Ouest, PUR Open Science, Data Management Cluster), while also taking into account the various constraints inherent in research.

Focus Area 1: Generalise open access to publications

The creation of the Rennes 2 HAL open archive portal in 2017 provided laboratories and researchers with a tool for reporting, disseminating and managing their output. While the various units and disciplines have not all taken advantage of it to the same degree, HAL saves a great deal of time in the management of publication lists, ensures greater visibility for research in the humanities and social sciences (poorly covered by multidisciplinary tools), and plays a strategic role in the long-term preservation of French research. Uploading publications to an open archive is not incompatible with traditional publishing, as demonstrated by the strategy of the funders of cOAlition S, which combines funding for open publishing with uploading to HAL. Given the current context of changing economic models for professional journals, the University must endeavour to encourage the most appropriate methods of opening up for each discipline, while also monitoring the costs associated with these new models.

Objective 1: Systematically report the scientific output of the Rennes 2 community in HAL

→ Action 1: Consolidate the network of HAL correspondents to ensure that each laboratory has its own correspondent.

→ Action 2: Encourage each laboratory to keep its HAL collection updated through regular information and reporting.

→ Action 3: Make the HAL portal the source of publication lists requested from researchers and research units by developing certain associated services:

3.1 Examine the possibilities for automated uploading of publications (joint project with the University of Rennes).

3.2 Provide the research units with the possibility of editing Hcéres publication lists in HAL.

3.3 Provide researchers with workshops on managing their publication list in HAL (for editing, web links or social networks, link with ORCID).

→ Action 4: Develop and monitor indicators on the number of publications / international publications reported in HAL.

Objective 2: Increase the proportion of full text articles in HAL with a target of 50% by 2028

→ Action 1: Organise promotional events (HALathon, HALo Café).

→ Action 2: Report to the laboratories on the percentages and consultations of full text articles in

HAL.

→ Action 3: Communicate on researchers' copyright, the policy and attitude of publishers towards open archives, and long-term archiving to defuse any fears of unfair competition.

→ Action 4: Participate in the HAL enrichment action of the SO PUR open science project.

Objective 3: Work towards 100% open access for articles in all formats and an increase in the number of freely accessible chapters and books

→ Action 1: Offer information and support in contracting with publishers within the framework of APCs (fees for publishing articles in open access).

→ Action 2: Recommend the use of open licences for open access publishing, and promote a strategy of non-assignment of rights in the individual support provided and through workshops and a tutorial on SOcle.

→ Action 3: Set up the Rennes 2 University Open Science Barometer to measure the proportion of open access (assumes a complete reference database of the University's publications).

→ Action 4: Contribute yearly to the Couperin APC survey and the IPERU survey and monitor developments.

Focus Area 2: Promote both bibliodiversity and editorial diversity

One of the strengths of the humanities and social sciences is the existence of diverse publishing models (the number of monographs, the importance of multilingualism, the maintaining of university presses and journals, the balance in production between best-sellers and more specialised academic works). The concept of editorial diversity included in the Open Science Charter of Rennes 2 University aims to both ensure the sustainability of this sector and support its development by experimenting with editorial forms and models for funding open access.

Objective 4: Support initiatives by researchers, communities of researchers, laboratories, publishers or research operators who, through their writing, publishing and dissemination practices, choose to break free from closed systems

→ Action 1: Support experiments related to publishing models conducted by the PUR (SO PUR) and by the Pôle Revues Grand Ouest and, in the long term, consider ways of perpetuating those infrastructures and models deemed efficient.

→ Action 2: Offer to highlight local initiatives (journals and books published by researchers in open access, databases) on the SOcle website, in conjunction with the PUR and Pôle Revues Grand Ouest websites.

Objective 5: Help professional journals move towards an open access publishing model

→ Action 1: Respond to calls for projects under the National Open Science Fund (FNSO), notably in partnership with structures already involved in these calls for projects (SO PUR, Pôle Revues Grand Ouest).

→ Action 2: Support the PERGOLA incubator and the Pôle Revues Grand Ouest led by the MSHB.

→ Action 3: Support the PUR strategy (SO PUR open science project) targeting the coexistence of several publishing situations.

→ Action 4: Raise awareness among those involved in publishing at Rennes 2 University (particularly journal editors) of publication ethics (knowledge of and adherence to COPE principles, possible adoption of ethical charters).

Objective 6: Control subscription and publication costs

→ Action 1: Analyse paid APCs each year and disseminate the results of the survey.

→ Action 2: Make researchers aware of the impacts of payment by authors and of fraudulent

practices (predatory publishing), and offer them training and individual support in the choice of publishers and professional journals.

→ Action 3: Set up a working group as part of the Open Science Steering Committee (COPIL) to observe changes in annual costs, monitor transformative agreements, and inform / make recommendations to laboratories and the COPIL, foreshadowing a long-term organisation.

→ Action 4: Provide the University with a policy on transformative agreements and APCs.

→ Action 5: Encourage publication in international journals compatible with Plan S (funding for certain APCs).

→ Action 6: Provide financial support for European and international initiatives that facilitate open science (SPARC Europe, DOAJ, etc.).

Objective 7: Implement a publications policy consistent with the objectives of open science and the widest possible dissemination of scientific knowledge

→ Action 1: Control the number of subscriptions to commercial digital resources.

→ Action 2: Present an annual review of the publications policy in order to provide information on the economic models and subscription costs, and collect opinions on the directions envisaged.

→ Action 3: Provide financial support for French publishing and publishing in the humanities and social sciences in the transition towards open access (OpenEdition, Erudit, possibly local and regional initiatives).

Objective 8: Improve the quality of scientific community identifiers

→ Action 1: Offer support for the creation and use of such identifiers as idHAL, ORCID for authors, and DOI for publications and datasets.

→ Action 2: Promote interoperability between identifier systems (idHAL, ORCID, IdRef) through monitoring and contributing to authoring bodies.

→ Action 3: Join the ORCID consortium.

→ Action 4: Raise awareness among research support staff of the importance and use of identifiers.

→ Action 5: Disseminate best practices on identifiers for local and regional initiatives (PUR, Pôle Revues Grand Ouest).

Focus Area 3: Make research data as open as possible

The French Digital Republic bill of 2016, the two National Open Science Plans, and the Decree for Scientific Integrity no. 2021-1572 of 3 December 2021 require institutions to increase the openness of “*methods and protocols, data and source codes associated with research results*” and to publish negative results in order to meet the challenges of reproducibility, reliability and transparency in science. This Decree also requires institutions to “*define a policy of preservation, communication and re-use of the raw results of the scientific work carried out within [them]*”. The survey *Données de la recherche en SHS. Pratiques, représentations et attentes des chercheurs : une enquête à l’Université Rennes 2* (“Research data in the Humanities and Social Sciences. Practices, representations and expectations of researchers: survey at Rennes 2 University”), conducted jointly by the URFIST Bretagne-Pays de la Loire, the SCD and the MSHB in 2017, constituted the starting point for the establishment of a service to support the University’s researchers in managing their research data within this general context of encouraging open data. The wide range of professional skills required for the correct management of FAIR data effectively meant that the service offering had to be structured in the form of a one-stop-shop, first implemented at Rennes 2 University in 2020, followed by an ARDoISE Data Management Cluster on the Rennes site since the beginning of 2023. Rennes 2 University is thus taking its place in the French Recherche Data Gouv ecosystem for sharing and opening research data, as well as at the regional level via its partnership with the datalab of the MSHB.

Objective 9: Develop a data management culture based on the FAIR model

→ Action 1: Offer monitoring services, advice, support and assistance to researchers in the drawing up of data management plans.

→ Action 2: Obtain Recherche Data Gouv labelling for the multidisciplinary Data Management Cluster at the ARDoISE site in Rennes.

→ Action 3: Create a one-stop-shop web portal for the Rennes site.

→ Action 4: Provide a reference space for data (MSHB research space and datalab at the central university library).

Objective 10: Commit to the public dissemination of research data in compliance with the legislation specific to each type of data

→ Action 1: Open an institutional space in the Recherche Data Gouv repository.

→ Action 2: Raise awareness of and support the writing of data papers, organise events to encourage the submission of datasets (Datathon).

Objective 11: Encourage the writing of data management plans

→ Action 1: Offer personalised support and proofreading, online data management plan workshops and remote assistance on the DMP OPIDoR online editorial platform.

→ Action 2: Systematise support for the writing of data management plans within the framework of ANR or European projects, with a systematic open science meeting at the start of the project (publications and data).

Objective 12: Raise awareness on the replicability of results and encourage the re-use of data

→ Action 1: Support content exploration and exploitation practices through text and data mining > raise awareness by means of training and workshops.

→ Action 2: Support the re-use and retrieval of data sets.

→ Action 3: Ensure that the raw results of scientific papers are preserved and accessible to enable verification where necessary in the event of an alleged breach of scientific integrity (in accordance with Article L211-2 of the Research Code provided for under the Research Programming law of 24 December 2020).

Focus Area 4: Ensure awareness-raising, training, support and recognition for open science

Over the last three years, Rennes 2 University has structured its open science support for researchers around a one-stop-shop, SOcle, which comprises a portal and a coordinated team. The long-standing coordination of PhD training on the Rennes site between the SCDs and the URFIST, as well as the introduction of new training facilities at the MSHB (datalabs and the Pôle Revues Grand Ouest), contribute to the creation of a synergy for the benefit of researchers that needs to be further strengthened.

Objective 13: Raise awareness by adapting teaching methods and formats to the diversity of disciplinary cultures and to the degree of acculturation to open science of the members of our community

→ Action 1: Organise regular presentations at laboratory seminars (at least one presentation per laboratory over three years).

→ Action 2: Offer a coordinated programme of workshops and training for researchers on working methods and tools for implementing open science (SOcle workshops, training organised by the MSHB datalab, the URFIST and the Pôle Revues Grand Ouest).

→ Action 3: Regularly update and enrich the content of the SOcle portal.

Objective 14: Increase skills through training

→ Action 1: Regularly adapt and enrich the programme of PhD courses (subjects and teaching methods).

→ Action 2: Include open science in the University course programme (Master's students submitting their dissertation and continuing education).

Objective 15: Communicate widely on the challenges of developing open science

→ Action 1: Draw up an annual communication plan on the subject of open science.

→ Action 2: Produce new testimonial videos on SOcle.

Objective 16: Encourage open science initiatives by promoting and recognising the diversity of scientific outputs

→ Action 1: Promote open science initiatives (indicator-based funding, etc.).

→ Action 2: Organise key events to launch the open science policy (ARDoISE study day, etc.).

Focus Area 5: Lead science made with, for and by society

The opening up of science is not limited to dissemination to peers. The importance of public confidence in science, encouraged by the opening up of data and compliance with the requirements of scientific integrity, was highlighted during the COVID-19 pandemic. Beyond this, the interaction between science and society has a key role to play in creating synergies and beneficial cooperative ventures. Rennes 2 University is committed to this approach of designing science for and with society. Following the Third Sector Research Conference (2019-2021), the establishment at Rennes 2 University of the Univer.Cité project to systematize a new model of interaction between science and society (2021), and our institution's participation in the creation in 2022 of the International Universities-Society Network (RÉIUniS), the majority of the activities in this field are now concentrated on the Rennes site as part of the TISSAGE project (*Trlptyque Science Société pour AGir Ensemble*) which brings together researchers, citizens and politicians, and which has been awarded the "Science with and for Society" (SAPS) label by the French Ministry of Higher Education and Research.

Objective 17: Promote collaborative science, involving citizen participation and the cross-fertilisation of scientific knowledge with the knowledge and skills held by non-academic partners

→ Action 1: Inform and train researchers and PhD students on the subject of participatory research and the tools that exist or that are currently under development (via web pages or training, notably within the framework of the TISSAGE project).

→ Action 2: Communicate about the University's participatory research projects, their results, the existing schemes and any participation arrangements.

→ Action 3: Make it easier for the general public to re-use datasets of interest to civil society.

Objective 18: Encourage alternative ways of disseminating knowledge

→ Action 1: Participate in the *Fête de la Science* (Science Festival) and other events organised for the general public.

→ Action 2: Continue to involve researchers in mainstream media or blogs (*The Conversation*, etc.).

→ Action 3: Improve the visibility of *Palimpseste*, the University's journal dedicated to research in the humanities and social sciences (indexation in the DOAJ, hosting on an open access incubator).

Objective 19: Open up to the co-construction of knowledge and citizen initiatives to disseminate information

→ Action 1: Highlight the University's productions via Rennes 2 "collections" on repositories (Recherche Data Gouv, Zenodo, etc.).

→ Action 2: Strengthen ties between the world of research and Wikimedia projects (Wikipedia, Wikidata, Wikimedia Commons, etc.), and enhance the University's products of research on Wikipedia by hosting a Wikimedian in Residence.

Focus Area 6: Implement an effective governance of open science

Open science is a key and promising subject that has now been taken up by the governing bodies, funding bodies and professional associations (France Universités) alike. Rennes 2 University set up an Open Science COPIL very early on to enable dialogue between all the stakeholders involved, but this still needs to be consolidated in operational terms. The structuring of the University of Rennes EPE since January 2023 calls into question this organisation, as open science is one of the identified areas of cooperation that must be coordinated by Rennes 2 University.

Objective 20: Consolidate political support for open science at the University level

→ Action 1: Provide the Open Science COPIL of Rennes 2 University with two operational bodies, namely a data college and a publications college.

→ Action 2: Strengthen the local and regional ecosystem available to researchers by seeking coherence, concerted coordination and cooperation.

→ Action 3: Appoint an administrator for the University's data.

Objective 21: Ensure concerted support for open science within the framework of the association with the University of Rennes EPE

→ Action 1: Coordinate the implementation of the open science policy within the University of Rennes EPE.

→ Action 2: Ensure concerted adherence to national and international founding texts.

→ Action 3: Contribute to the national debate on changes in the assessment of research and discuss the ways in which open science can be taken into account in the careers of researchers at Rennes 2 University.

Glossary

AAP: *Appel à projet* - Call for projects

APC: Article Processing Charges

COPIL: *Comité de pilotage* - Steering committee

CRFCB: *Centres Régionaux de Formation aux Carrières des Bibliothèques* - Regional training centres for library careers

DOAJ: Directory of Open Access Journals

DOI: Digital Object Identifier

EPE: *Etablissement public expérimental* - Experimental Public Establishment

FNSO: *Fonds national pour la science ouverte* - National Open Science Fund

INIST: *Institut de l'information scientifique et technique* - Institute of Scientific and Technical Information

LPR: *Loi de programmation de la recherche* - Research Programming law

MSHB: *Maison des sciences de l'homme en Bretagne* - Human Sciences Institute in Brittany

PUR: *Presses universitaires de Rennes* - Rennes University Press

SAPS: *Science avec et pour la société* - Science with and for Society

SCD: *Service commun de la documentation* - Joint Documentation Service

URFIST: *Unité régionale de formation à l'information scientifique et technique* - Regional centres for training in scientific and technical information