Scottish Journal of Open Research

Issue 1, 2025 **https://doi.org/10.36399/f74t5k88**

Scottish Journal of Open Research
Editorial
10.36399/6xp54e49

Welcome to the Scottish Journal of Open Research

Editorial team of the Scottish Journal of Open Research

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CITE THIS ARTICLE
Editorial Team SJOR (2025) Welcome to the Scottish Journal of Open Research. *Scottish Journal of Open Research*, 1: 1. DOI: https://doi.org/10.36399/8gze9631

SUBMITTED
28 August 2025

PUBLISHED
07 November 2025

Introduction from the Editors

We are excited to be launching the *Scottish Journal of Open Research* published by the University Court of the University of Glasgow on behalf of the Open Research Scotland group.

The journal is a logical next step for our award-winning[1] Open Research Scotland group that brings together those interested in supporting Open Research to discuss a wide range of emerging ideas and share best practice. The *Scottish Journal of Open Research* will publish topics on all aspects of Open Research including, but not limited to, open access publication, research data management, Open Research tools and support mechanisms, training and indicators, and good examples of Open Research in practice.

Open Research practitioners may have few channels to share their activities in a formal way. At the same time, these professionals are frequently operating at the forefront of a quickly evolving discipline – that of Open Research – and are too busy communicating with 'their' researchers to find the time to produce formal outputs for submission to traditional journals. This *Scottish Journal of Open Research* is born as a mechanism that will both enable and promote the dissemination of these Open Research practices arising from the daily activities of the professionals represented in the Open Research Scotland group and beyond.

The *Scottish Journal of Open Research* will apply quality control steps including peer review. The scope of the journal will adapt to focus on the practices of Open Research support, allowing for the inclusion of a variety of content types including articles, case studies and opinion pieces.

[1] The Open Research Scotland group won first place in *The Hidden REF Competition 2024* - category *Contexts*: Hidden REF Competition 2024

We decided to pilot this journal after a conversation at a previous Open Research Scotland meeting. Valerie McCutcheon playfully suggested we could have an open access journal to share articles about Open Research support. Very quickly several attendees got quite enthused and before we knew it a group of people with relevant expertise and/or passion for the idea were discussing practicalities.

This journal is in a trial period. The aims of the pilot are to provide:

- A formal platform to share and preserve case studies and best practice about Open Research support and activities that Open Research Scotland group members are involved in. Many of the written pieces of work that have been shared historically are hard to find on email lists and blogs.
- A better way to share information with the wider audience interested in Open Research.
- A structure within which we gain experience of the publication and editorial processes to help us understand what our academic authors and editor colleagues must grapple with and be better informed to support them.
- A tested example of an open access peer-reviewed journal that focuses on contributions about Open Research.
- A means for Open Research practitioners to find out about the latest developments in Open Research support.
- A place to recognise work by Open Research practitioners and those passionate about Open Research.
- A way to raise the profile of Open Research and encourage good research practice that fits in with research culture aspirations and funder requirements.

The journal is not intended as an open access journal to replace open access publication of academic research in the wide range of journals available, however articles that illustrate points of Open Research practice are most welcome.

The pilot invited submissions from within the Open Research Scotland mailing list with a view to opening submissions to anyone after the pilot.

Whilst we have included the home of the journal in its title, the team embraces the idea that Open Research implementation has no fixed geographical borders and once the current pilot is completed, the aspiration would be to welcome submissions from any authors who wish to contribute so that the journal becomes a vehicle for an international conversation around Open Research and its adoption. The release of the first issue of the *Scottish Journal of Open Research* is thus just a first step in a journey that will hopefully see it grow into covering a wide range of topics and geographical provenances. So far it has been quite a different experience than we envisaged. We plan to write up our story and share that too.

In this first issue we are delighted to present you with articles covering the Open Researcher and Contributor Identifier, Rights Retention, the inclusion of equipment and facilities in the research graph, and a book review of the first open access book published by the Scottish Universities Press.

Read more about the journal and future calls for publications here Scottish Journal of Open Research

Please read, comment, and make suggestions by contacting us at sjor@glasgow.ac.uk

With thanks to everyone who has offered support for this venture,

The Scottish Journal of Open Research Editorial team

Scottish Journal of Open Research
Article
10.36399/ag1cs624

The ORCID Advocacy Toolkit: towards a community-driven resource

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CITE THIS ARTICLE
Wehner, M., Arthur, A., & Vials Moore, A. 2025. The ORCID Advocacy Toolkit: towards a community-driven resource. *Scottish Journal of Open Research*, 1: X. DOI: 10.36399/ag1cs624

SUBMITTED
28 February 2025

ACCEPTED
06 June 2025

PUBLISHED
07 November 2025

Keywords
ORCID, advocacy, co-creation, community resource, open research, persistent identifiers

Abstract
This paper introduces the ORCID Advocacy Toolkit, a community-driven resource designed to support institutions in the successful adoption of ORCID iDs. Recognising that effective advocacy requires both clear messaging and practical materials, the Advocacy Toolkit was developed through a collaborative, co-creation process involving librarians, research managers, and consortium members. Early stages focused on gathering existing advocacy content—such as templates, policy documents, and communication strategies—and identifying gaps in coverage. By hosting writing sprints and inviting broad participation, the project drew on diverse expertise to build a dynamic Wikibook suitable for institutions with varying needs and levels of ORCID experience. The establishment of an Editorial Board ensures ongoing updates, structured contributions, and alignment with emerging community requirements. In addition to highlighting common barriers to ORCID uptake—like low awareness or fragmented communication—the paper examines how flexible frameworks and peer-driven content can help overcome these challenges. Ultimately, the ORCID Advocacy Toolkit champions the principle of "from the community, for the community", providing a sustainable, evolving resource that strengthens the open research ecosystem by supporting researcher recognition, knowledge sharing, and global collaboration.

Introduction

The importance of equity, transparency and accessibility hardly needs to be stressed to an open-research-interested audience. They are some of the core principles that allow for academic growth in a sustainable way. It also is no news that there are many tools that support both researchers and supporting staff in achieving open research goals more easily, one category being persistent identifiers to solidify the identification and acknowledgment of research and its outputs.

One of those tools is ORCID (ORCID 2024), which plays a crucial part in researcher recognition and knowledge sharing by providing personal persistent identifiers (Meadows et al 2019) called ORCID iDs. ORCID iDs are unique 16-character alphanumeric strings (including a final checksum digit for validation). These are assigned to a researcher much like an ISBN is assigned to one version of a book, or a DOI identifies one specific digital object like a research paper. The use of ORCID iDs is accepted as good practice worldwide, and many systems in the Higher Education and publishing environment strongly advise or even mandate the use of them. ORCID iDs have the benefit of clearly identifying a researcher by their number, not just their name which might not be unique. When research gets published, for example, attaching an ORCID iD to the author makes the claiming on other research systems much more straight-forward than just using their name, and a change of name can also easily be navigated without confusion or misattribution. The ORCID platform also offers an easy-to-navigate interface that offers almost a clearly structured CV for a researcher. According to the ORCID organisation (ORCID 2024), these identifiers solve persistent name ambiguity problems in scholarly communications and bring several benefits including:

- Distinguish researchers from others with similar names
- Automatic linking of research outputs to correct profiles
- Persistent recognition across career changes, name changes, and institutional moves
- Reduced administrative burden through automated data exchange
- Enhanced discoverability of research across systems and disciplines

However, like many other resources, there is a lot to know about ORCID, and in order to successfully adopt ORCID across an institution, clear guidance, help with advocacy, and practical resources are needed. Making sure stakeholders understand the benefits in an appropriate and succinct way, whilst ensuring that busy researchers feel supported, are only two of the many tasks a librarian or research manager might face when planning an advocacy campaign. This is where the ORCID Advocacy Toolkit comes in.

What is the ORCID Advocacy Toolkit?

The principle of the ORCID Advocacy Toolkit (ORCID 2022) is simple: Support those who advocate for the adoption of ORCID in their institution with practical advice and resources. In other words, the Toolkit is designed to support ORCID advocacy by providing tailored resources and practical templates to help institutions engage effectively.

As a community-driven tool, those who have done advocacy campaigns for ORCID, or indeed other tools or projects with transferrable guidance, are invited to contribute, be it with case studies, templates, or general advice. The toolkit contains various resources including:

- Sample communications (email templates, newsletter text)
- Visual materials (posters, postcards, social media graphics)

- Presentation slides and workshop materials
- Case studies from different institution types
- Guidance on developing institutional ORCID policies
- Practical advice for different stakeholder groups (researchers, librarians, IT)

Hosted on Wikibooks, it is a resource that is openly available and designed to make contributing easy. The Toolkit aims to help librarians and research managers to integrate ORCID successfully in their institution, whether the goal is creating awareness, encouraging sign-up and profile maintenance, or achieving complete institutional adoption.

Background and Development

The UK ORCID Consortium (UK ORCID Consortium 2025), managed by Jisc, brings together over 100 UK research organisations to promote and support the adoption of ORCID. The idea for the ORCID Advocacy Toolkit originated in 2021 during discussions among consortium members who identified a common need for shared resources to support ORCID implementation at their institutions.

Initial co-creation experiences revealed that despite differences in institutional contexts, many advocacy challenges were remarkably similar. The consortium recognised that pooling knowledge and resources could benefit the entire community and reduce duplicated efforts across organisations.

The UK ORCID Consortium organised a workshop in 2021 focused on audience needs, which formed the foundation for resource gathering. Participants identified key stakeholders for ORCID advocacy and began collecting existing materials from member institutions to build a shared resource base.

1. Toolkit Structure and Development

Timeline of Development

1. **Stage 1: Resource Gathering (2021)**
    - Initial workshop on audience needs
    - Collection of existing advocacy materials from consortium members
    - Identification of key stakeholder groups and messaging needs
2. **Stage 2: Writing Sprints (2022)**
    - Creation of Wikibooks platform for collaborative development
    - Organised writing sessions with community contributions
    - Development of initial structure and content areas
3. **Stage 3: Expansion and Refinement (2023)**
    - Addition of case studies and templates
    - Community feedback and content revision

    - Growing contributor base from various institutions

4. **Stage 4: Editorial Board Formation (2024)**
    - Establishment of governance structure
    - Development of long-term sustainability plan
    - Regular review and updating process

Why Wikibooks?

Wikibooks was selected as the hosting platform after evaluating several options based on the following criteria:

- **Open Access**: Freely available to all without subscription barriers
- **Cost:** No cost to set up, host or maintain webpages
- **Collaborative Editing**: Built-in tools for multiple contributors
- **Version Control**: Trackable history of changes
- **Familiar Format**: Most users understand wiki navigation
- **Sustainability**: Established platform with long-term stability
- **No Technical Barriers**: Low threshold for new contributors.

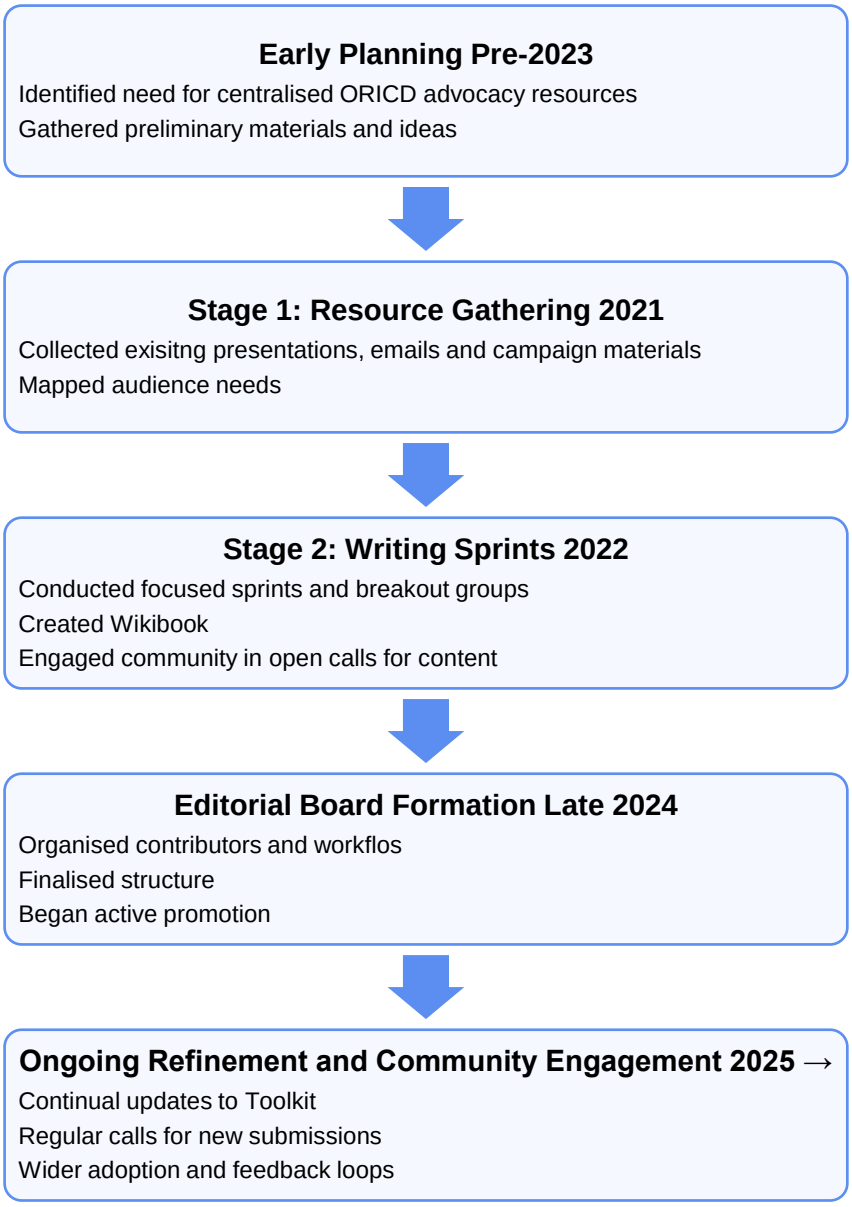

Fig. 1: Timeline of the ORCID Advocacy Toolkit. Credit: Adam Vials Moore.

2. Challenges and Opportunities

Implementing ORCID across an institution presents several challenges that drove the creation of the toolkit:

Common Barriers to ORCID Adoption

- Researcher Resistance: Many researchers see ORCID as "yet another profile" to maintain
- Unclear Benefits: Difficulty in articulating immediate advantages for individual researchers
- Technical Integration: Varying institutional systems require different implementation approaches
- Resource Limitations: Limited staff time and expertise for sustained advocacy campaigns

- Cross-Departmental Coordination: Need for collaboration between library, research office, and IT services.

Advantages of ORCID Implementation

The toolkit emphasises several key benefits that help advocates make a compelling case:

- Research Recognition: Ensures researchers receive proper credit for all their work
- Reduced Administrative Burden: Automates CV updates and reporting processes, auto-population of information on grant applications and manuscript submission forms
- Enhanced Discoverability: Increases visibility of research outputs across platforms
- Persistent Identity: Maintains consistent researcher identity despite institution or name changes
- Funder Compliance: Meets growing requirements from funding bodies for ORCID iDs
- Institutional Benefits: Provides improved reporting capabilities and research intelligence.

Collaborating and Co-Creation: A Difficult Path

The main challenge faced in the creation of the Toolkit has been the difficulty in attracting collaborators to creating content. Due to a variety of reasons such as time constraints and other priorities facing members of the community, finding the right approach to encourage contributions is key. To address this, several different collaborative writing options have been offered as detailed in Stage 2 above. Future alternatives would include allowing collaborators to find their own time to write, by tasking them with a particular topic by a given deadline and having editors move the content into the Wikibook.

Co-creation can be challenging with differing ideas, opinions and approaches to the structure and content of the book. With a wide variety of participants across the different sprints, no two sessions have included the same participants. However, soliciting diverse content from the community is key to the success of the Toolkit. The majority of contributors responded in meetings with the feeling that the Toolkit is well structured. To avoid any pitfalls in co-creation, an Editorial Board would allow for consistent oversight and ensuring the direction remains on course.

What the Toolkit offers

The sections of the Toolkit have been created to help readers find a natural path through the task of advocating for ORCID. As a Wikibook is open to input at all times, these sections are being reviewed critically on an ongoing basis. After the latest review by the ORCID Advocacy Toolkit Editorial Board, currently they stand as:

About this book -	Introduction to the toolkit's purpose and usage
Understanding ORCID	Core information about ORCID and its benefits
What is Advocacy?	Strategies and approaches for effective advocacy
Audiences	Who needs to hear about ORCID and how to reach them
Platforms that integrate with ORCID	Technical implementation information
Resources	Templates, materials, and examples for immediate use
So you would like to...	Task-oriented section functioning as an index
Contributors	Recognition of community members who built the toolkit

With the hope that the section titles are self-explanatory, the only one that might not be directly obvious is 'So you would like to…', which is acting as an index and referring to information provided elsewhere in the toolkit.

The Resources section aims to offer promotional templates and materials, but also example emails to various stakeholders, from researchers to senior leadership, and other useful prompts.

Strengthening the Advocacy Toolkit

Building on the momentum of shared sprints and open calls for contribution, the Consortium recognised the need for a more formal yet still inclusive mechanism to keep content fresh. This is where the idea of an Editorial Board arose. Informed by the collaborative process, the Board is designed to coordinate ongoing contributions and ensure the Toolkit remains current, relevant, and aligned with community needs.

The formation of the ORCID Advocacy Toolkit Editorial Board by the Jisc UK Consortium (OAT-ED) took place over autumn/winter 2024. The Editorial Board consists of up to seven members drawn from research institutions, Jisc and ORCID; representing different types of organisations and varying levels of ORCID implementation experience.

The Editorial Board's goals include:

- Enhancing and updating the current Wikibook by addressing gaps, writing or commissioning new content and rethinking the structure
- Promoting the toolkit to new colleagues in the field, be it at conferences or via mailing lists and word of mouth
- Creating practical tools and guidance for different adoption stages

- Basing the creation on the community which already has the knowledge and experience, and offering a platform for structured sharing.

Early drafts of the Toolkit showed that many participants invested a lot of time fine-tuning the layout. While this laid a strong foundation, it also highlighted a key lesson: it helps to have a dedicated group keeping an eye on structure, gathering feedback, and making updates as new materials roll in. By combining the strengths of grassroots engagement with a small group of facilitators, the Board can handle tasks like refining guidelines for contributors, posting calls for new materials, and ensuring the overall user experience remains accessible to busy librarians, research managers, and academic staff.

Above all, the initial idea for the Board was to preserve the "co-creation ethos" that defined the Toolkit's earliest stages. Rather than forming a gatekeeping body, the Board steers conversation, offers support, and reflects back to contributors what the community has identified as priorities—ranging from short, actionable guides to advanced policy templates. Through continuous consultation with both new and established advocates, the Board aims to nurture a sense of collective ownership over the Toolkit.

How to get involved

Once the latest review of the structure of the Toolkit is completed, content will be needed. Through its iterations, the main areas of interest have been identified, so next the gaps need filling. We would like to enhance the use and exploration of the Wikibook pages, with feedback and ideas invited at the regular ORCID Clinics that Jisc hosts.

We are open to case studies, template emails, tips and tricks when approaching stakeholders or creating reports, and anything else that helped or would have helped your own ORCID advocacy. It will be a dynamic resource, as a toolkit like this can never be truly finished, so we encourage continuous engagement and feedback.

Contributions can be submitted by form at https://forms.office.com/e/tdgnrEdb6a.

Conclusion

'***From the community, for the community***' is the main driver behind the Toolkit, and while the Editorial Board now exists, this aspect remains true. The Editorial Board itself is composed of members from the community, and it will help steer the progress towards making the resource as valuable as it can be, with input from everyone who would like to share their experience, or ask the questions they need answered for a successful adoption.

The Toolkit will ideally be the first point of information for anyone starting out with an ORCID advocacy project, but also for those who have done initial work and need inspiration to keep the momentum going. It aims to facilitate base information and case studies that can then be discussed and developed with peers and ultimately lead to new ideas, creating a cycle of advice and knowledge exchange.

Looking ahead, the Editorial Board has identified several priority areas for toolkit development:

- Expanding discipline-specific advocacy materials to address different research cultures
- Developing resources for measuring and demonstrating ORCID implementation impact
- Creating integration guides for common institutional systems.

Our ultimate goal is to create a self-sustaining resource that evolves with community needs and technological developments. We envision the Toolkit becoming the definitive resource for ORCID advocacy that helps UK institutions (eventually worldwide!) achieve successful implementation.

The Editorial Board is committed to supporting the mission of playing a part in the FAIRness and sustainability of research, and looks forward to collaborating with the open research community to build a stronger, more connected research landscape.

Data availability statement

No data were created or analysed in this paper.

Contribution statement

All authors: conceptualization, writing – original draft, writing – review & editing.

Funding Statement

This research did not receive any external funding.

Competing Interests

All authors are members of the ORCID Advocacy Toolkit Editorial Board.

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Scottish Journal of Open Research
Article
10.36399/dme15z31

Expanding the research graph underpinning the implementation of Open Science: research instruments and facilities

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CITE THIS ARTICLE
De-Castro P (2025) Expanding the research graph underpinning the implementation of Open Science: research instruments and facilities. *Scottish Journal of Open Research*, 1: 1. https://doi.org/10.36399/dme15z31

SUBMITTED
27 February 2025

ACCEPTED
06 June 2025

PUBLISHED
07 November 2025

The Scottish Journal of Open Research is an Open Access journal published by the University of Glasgow.

Keywords

Research information management; research instruments and facilities; information collection workflows; persistent identifiers; technicians; open research; research graph; PID graph

Abstract

Research instruments and facilities constitute an area of ever-growing relevance for research-performing organisations, research funders and research information managers alike. However, initiatives to gather the data on this equipment at an institutional or a national level are often working in isolation. A round table on emerging information collection workflows for research instruments and facilities, held during the Autumn 2024 euroCRIS membership meeting at the INRAE in Paris last November, offered an opportunity for an international discussion on the matter. The panellists were representatives of various national and regional research information portals across Europe. This paper summarises certain areas of the discussion and examines the way this additional research entity would fit into the steadily expanding research graph underpinning research information collection and its structure. Emphasis is made on the still early steps for the persistent identification of instruments and facilities and on the side-benefits that the consolidation of this additional area of research information might represent for institutions in the area of technician recognition.

1. Introduction

Emerging areas of practice in research information management often show a highly fragmented stakeholder landscape, making the coordination of ongoing initiatives particularly complex. This has traditionally been the case in the domain of persistent identifiers (PIDs) (De-Castro et al 2023). PIDs come in many shapes. For some of them – such as person IDs like ORCIDs – the record ownership and its end-users are very accurately defined. This is far less clear when we move onto RORs (Research Organization Registry) for organisations or DOI-based (Digital Object Identifier) grant IDs. Furthermore, it's also remarkably difficult to bring all involved stakeholders around a single table for an all-encompassing discussion.

This is why the round table on research equipment and facilities organised at the Autumn 2024 euroCRIS membership meeting in Paris (euroCRIS 2024, figure 1) started by asking the audience – some 50 attendees, most of them professionals in the domain of research information management – how many among them had ever attended a Research Data Alliance (RDA) plenary meeting. This is because the most prominent initiative to date on identifying research equipment and facilities – the PIDINST working group (Research Data Alliance 2017) – has mainly convened at RDA events. It was not surprising that only six people in the room (including the panellists in the round table) raised their hands in response to this question.

Fig 1. Round table on national-level data collection workflows for research equipment and facilities at the euroCRIS SMM2024. Left to right: Joonas Nikkanen (CSC-Research.fi, Finland), Ils de Bal (EWI-FRIS, Flanders), Ognjen Orel (SRCE-CroRIS, Croatia), Jan E. Garshol (Sikt-NVA, Norway) and Balviar Notay (Jisc-Equipment.Data, United Kingdom). Picture credit: euroCRIS President Jan Dvořák

The progress of the works undertaken by this PIDINST WG (in collaboration with DataCite) in the area of defining standards for the description of research instruments and facilities is significant (RDA

PIDINST 2022). However, the composition of the working group has traditionally been biased towards researchers, particularly in the area of Geosciences[1]. This is not necessarily a problem when the discussion is about the early steps in the definition of a metadata schema to adequately capture these additional pieces of research information. After all, researchers are the ones who know the most about the research equipment and facilities they use. However, the absence in the PIDINST WG of research funders and research information managers creates challenges when trying to expand the initial work so it can reach a wider community of users.

The panellists in the euroCRIS round table were all representatives from various European initiatives aiming to collect information on research equipment and facilities *at a national (or regional) level*. This included the Jisc-led Equipment.Data project in the UK, alongside similar efforts in Finland, Flanders/Belgium, Norway and Croatia. Critically, in all the latter cases, the data collection on research equipment and facilities is taking place *within the framework of a national Current Research Information System or CRIS*[2] (Research.fi in Finland, FRIS in Flanders, NVA in Norway and CroRIS in Croatia). The integration of research instruments and facilities into the network of interlinked research entities that constitutes the data model[3] underpinning these CRIS platforms makes a big difference. This enables, for instance the coupling of these records for research instruments and facilities to other entities in the data model (often with their own PIDs), such as the researchers and organisations using the research equipment or the outputs (both datasets and publications) arising from the use of such equipment and facilities. This linkage is of great value to research funders, who have usually invested significant resources in these facilities and expect some evidence on their widespread usage.

This is the main reason why it's important to watch the developments around the collection of information on research equipment and facilities in the research information management domain. The groundwork conducted, for instance, to establish an appropriate metadata schema for the description of these entities is the cornerstone on which any further activity will build, but the link between the various areas of activity – for example instrument use versus data collection and exchange – is often hard to ensure.

Some presentations delivered at the euroCRIS meeting before the round table was held examined some of the concepts and workflows associated with this national-level data collection for research equipment. This was the case of the UK Equipment.Data project presentation by its manager, Balviar Notay from Jisc (Notay 2024), and particularly the explanation Joonas Nikkanen (CSC Espoo) delivered on the conceptual framework underpinning the data collection workflows for research equipment, facilities and services into the Research.fi national CRIS in Finland (Nikkanen 2024).

The discussion on research instruments and facilities was further enriched from the presence in the room of two additional initiatives from different geographies closely related to the topics under discussion. The PID-Network Germany project[4] is looking into all things PIDs in Germany – including PIDs for research equipment and facilities – while the Ohio Innovation Exchange (OIEx) portal[5]

[1] The initial membership of the PIDINST WG is shown on pages 12-13 at https://www.rd-alliance.org/wp-content/uploads/2024/10/rda-wg-pidinst-case-statement.pdf
[2] https://en.wikipedia.org/wiki/Current_research_information_system
[3] The data model underpinning Current Research Information Systems is usually the Common European Research Information Format (CERIF) maintained by euroCRIS, https://eurocris.org/services/main-features-cerif
[4] PID Network Germany, https://www.pid-network.de/en/
[5] Ohio Innovation Exchange (OIEx), https://www.ohioinnovationexchange.org/

collects research information from 10 different universities in the state of Ohio with the aim of facilitating collaborations between academia and industry.

2. Research instruments: what information to collect

Several criteria were raised by the panellists when asked what instruments and facilities their initiatives were aiming to collect. “Instruments and facilities in the country or region” was a frequent response. The geographic boundaries are unsurprisingly salient in these country-specific mapping efforts – even if when discussing joint use of facilities by international projects the relevance of the national borders often seems to fade somewhat.

Some economic criteria are also critical: it doesn’t make sense to add every tiny piece of equipment to the national database. This is particularly well defined for the Equipment.Data project in the UK, whose website states that "all new equipment purchased over £138,000 [is liable] to be registered on the equipment data national database. Institutions can also publish and share their research infrastructure asset records below the £138,000 threshold to support greater transparency and sharing of these resources" (Jisc 2024).

Several of the national CRIS representatives at the table mentioned legacy equipment databases that predated the consolidation of the national research information management platform[6]. This is because these expensive equipment and facilities are often funded by research funders external to the institutions that may host them, and it’s easier for these funders (who not only have covered the costs of the already existing equipment and facilities but are also constantly issuing calls to fund further research infrastructure) to provide the information on these objects. The workflows to allow research-performing organisations to provide their institutional infrastructure information to a central database are quickly consolidating but are also complex, and it’s difficult to ensure they are sufficiently comprehensive[7]. This is why a funder-maintained equipment database makes sense as a starting point.

3. How to collect the info on research equipment and facilities

The participants in the round table reported that it is typically the largest universities that are most proactive in providing their equipment and facilities information to central databases. This is because their resources, both technical (institutional CRIS) and human, allow them to devote a fraction of these to this purpose. National projects will provide the guidance on format and scope of the required research information to the data provider institutions. This is often part of a much wider set of guidelines on research information exchange when it’s a national or regional CRIS where this information is being centrally collected (see figure 2 below).

[6] The Croatian Šestar Information System for equipment funded by the Croatian Ministry of Science and Education has now been embedded into the CroRIS national CRIS where all new data is added nowadays, but the legacy system is still available as a read-only platform at https://sestar.irb.hr:8443/.

[7] In its programme for 2025, the Equipment Data Service in the UK states the intention to integrate the national database of research equipment and facilities with institutional PURE equipment modules in order to assign persistent identifiers (DOIs) to the equipment records held in the modules, https://research.jiscinvolve.org/wp/2025/01/28/equipment-data-service-development-update/

4.5.1 Overview of cfEquip and cfFacil elements in FRIS R4

For infrastructure 2 elements are used an equipment (cfEquip) and a facility (cfFacil):

- **Infrastructure**: global name for cfEquip and cfFacil.
- **CfEquip**: Instrument for scientific research, mostly off the shelf and located on one site. For example a bioreactor, telescope,....
- **CfFacil**: Virtual and/or distributed space for scientific research that has one or more equipments and/or e-resources. It has a service function and after an investment costs also has an operation cost to keep the facility running (maintenance, scientific personnel, ...) Note: in short a facility can contain equipments, but this is not necessary. Example: Flemish Super Computer (facility with e-resources), Elixir (facility without equipment), ...

4.5.1.1 cfEquip

	Id	Name	Type	FRISR4
1	cfEquipId	Equipment Identifier	Identifier (max 128 chars)	Yes
0-1	cfAcro	Acronym	string	Yes
0-1	cfURI	Uniform Resource Identifier	string	Yes
0-N	cfDescr	Description	Multi-lingual text field	Yes
0-N	cfKeyw	Keywords	Multi-lingual text field	Yes
0-N	cfName	Name	Multi-lingual text field	Yes
0-N	cfEquip_Class	Relationship with Classification		Yes
0-N	cfEquip_Fund	Relationship with Funding		No
0-N	cfOrgUnit_Equip	Relationship with Organisation Unit		No
0-N	cfPers_Equip	Relationship with Person		No
0-N	cfProj_Equip	Relationship with Project		No, please check 4.6.15
0-N	cfResPubl_Equip	Relationship with Result Publication		No, please check 4.7.29
0-N	cfEquip_Medium	Relationship with Medium		No

Fig 2. Section devoted to research instruments and facilities in the Flanders Research Information Space (FRIS) CERIF-based interoperability guidelines for data provider institutions. Source: https://www.ewi-vlaanderen.be/sites/default/files/integration_guide_fris_r4_version_2.12.pdf.

Panellists agreed it would be useful for these various international initiatives to have a communication channel to compare their data collection workflows and their effectiveness. The development of the appropriate interoperability mechanisms and research information exchange workflows to allow the information on research equipment to be directly exported to central databases from the most widely used institutional CRIS systems was also highlighted as a high-priority objective. This is a development that could moreover be shared across national-level initiatives.

Participants in the round table reported that all these central databases are allocating internal unique identifiers to their equipment and facility records (the first metadata element in figure 2 above, cfEquipId, is an example for such an internal identifier). This is seen as sufficient at this early stage, but several initiatives also reported their intention to explore the requirements to start issuing persistent identifiers for these entities. Again, this is an area where an exchange of best practices across initiatives may be very useful.

It's the PIDs for research instruments and facilities that will allow these objects to be referenced in datasets, in manuscripts for journal articles or in reports delivered to the research funders on their

usage (the use of very expensive equipment and facilities by bodies beyond the organisation that host them is something research funders are particularly interested in, with some emphasis on their use by industry). Likewise, the existence of PIDs will allow these cross-references to be surfaced so that – same as a personal profile for a researcher typically allows the user to check their affiliations, projects, publications and collaboration networks – the instrument/facility profile page in a national CRIS will show the persons and organisations working with it, the projects relying on the data that they are producing and the publications and datasets arising from its use.

4. What PID(s) to use to identify research equipment and facilities

Part of the landscape fragmentation alluded to at the start of this paper refers to the multiplicity of technical standards to persistently and uniquely identify specific objects. This is typically a severe issue at the early stages of the development of a PID that tends to gradually go away as a given solution consolidates. ORCID is universally seen as *the* person identification standard these days, but when it was launched, several national researcher identification systems coexisted with it and were eventually mapped to it (De-Castro et al 2023b). ROR is again seen as the default OrgID nowadays, but before it became mainstream Ringgold seemed to be an equally suitable alternative.

As persistent identification for research equipment and facilities is at an early stage, it's not surprising that several competing, perhaps complementary IDs are currently being used in parallel for the purpose. The use of DataCite DOIs is very widespread in Australia and DOIs for instruments are gradually expanding to other countries like the United States and Germany. The recently launched PID-Monitor portal developed by the German Research Foundation (DFG)-funded PID Network Germany project is monitoring the DOI-based persistent identification of instruments (see figure 3 below). This project has also produced an animation showing the gradual adoption of DOIs for instruments and facilities across the world[8]. Given that most national initiatives at the round table expressed their intention to also use DOIs when they reach the PID-minting stage of their projects, it's fair to expect that the current relatively low uptake of DOIs for instruments will show a much more diverse geographical snapshot in the forthcoming months.

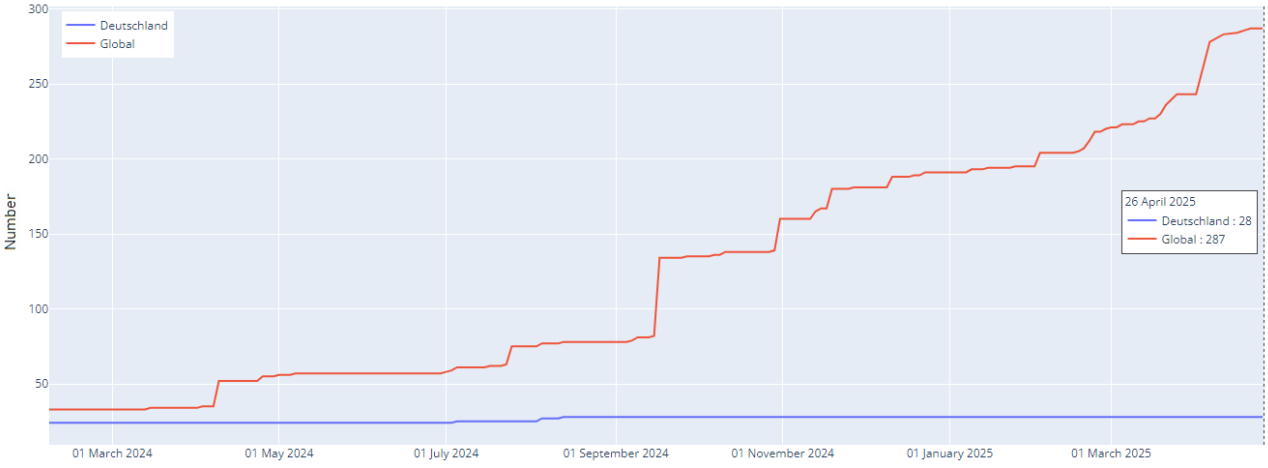

Fig 3. Number of DOI-based persistent identifiers for instruments and facilities in Germany and worldwide
Source: PID-Monitor, https://pid-monitor.org/Sparten/Instrumente/doi.html

[8] Development of the global registration of instruments at DataCite, https://pid-monitor.org/Sparten/Instrumente/worldwide.html

However, other solutions are being used for the persistent identification of instruments besides DOIs. The Research Resource Identifier (RRID) is a wider PID approach originally used in the United States to identify various kinds of objects, including instruments. This hints at a further geographical fragmentation on top of the stakeholder and technical fragmentation – it's very good news in this regard to see a section devoted to RRIDs in the latest white paper published by the PIDINST WG (PIDINST 2025).

RRIDs have a wider scope than just instruments and are, critically, already being referenced in journal articles. This uptake of RRIDs began for antibodies, cell lines or plasmids in articles in the biomedical/biosciences domains, where persistent identification was required, and grew bottom-up. This means that it's already possible to generate a partial research graph for a specific RRID-identified instrument that shows the people, the organisations and publications associated with it (see an example on figure 4).

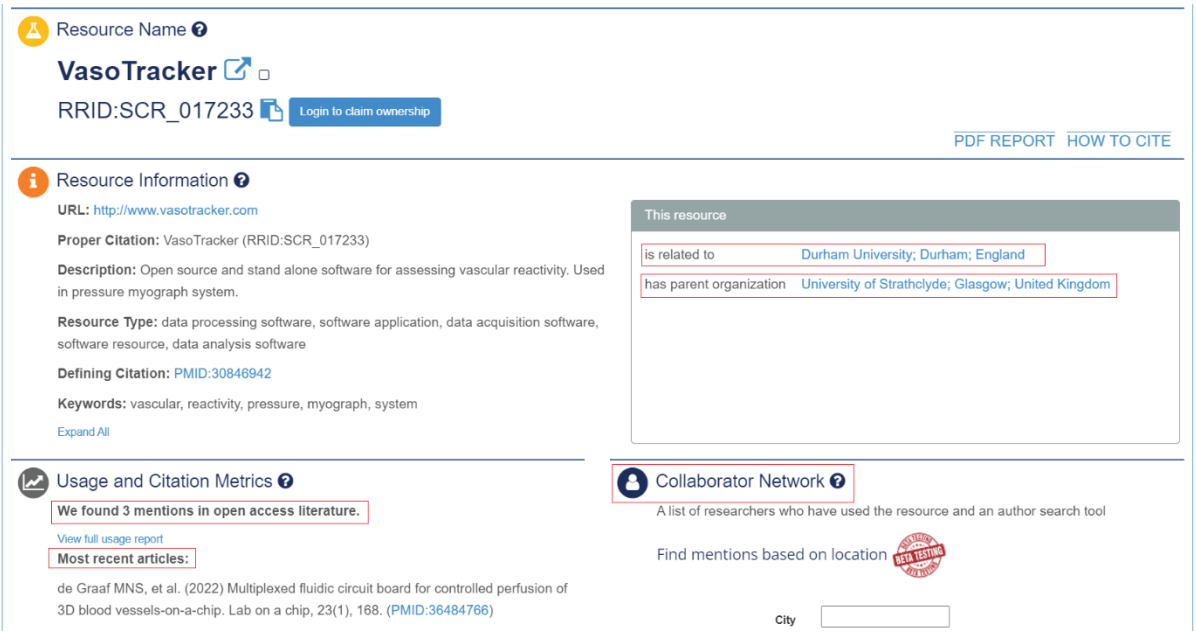

Fig 4. Example for University of Strathclyde research instrument persistently identified via a RRID. Links to other research entities like orgs, publications and persons (in beta) are highlighted in red colour
Source: https://rrid.site/data/record/nlx_144509-1/SCR_017233/resolver?q=vasotracker

The handle ID-based PIDs for instruments and facilities provided by the ePIC consortium[9] is yet another solution to provide these persistent identifiers. This standard is used by the B2INST instrument registration service offered by the EUDAT project (at https://b2inst.gwdg.de/), where external users registered with EUDAT may have handleID-based PIDs issued for their research instruments. At the time of writing (early May 2025), this EUDAT B2INST registry shows 853 instruments that have been persistently identified via this route[10].

Any attempt at a comprehensive monitoring of the uptake of PIDs for instruments should ideally try to cover at least these three sources of identifiers, but the multiplicity of sources makes this monitoring a challenging endeavour. It is good to see that the above-mentioned German PID Monitor

[9] ePIC consortium, https://www.pidconsortium.net/
[10] EUDAT B2INST instrument registry, https://b2inst.gwdg.de/records/

currently under development has included DOIs as the first category of instrument PIDs they aim to monitor, with additional ones probably awaiting their inclusion.

5. A possible knock-on effect: technicians and their areas of activity

In a recent parallel development to the gradual emergence of workflows for the collection of research information on research instruments and facilities, the technician commitment[11] was introduced in the UK in 2017 and currently has 120 signatory and supporter organisations. This initiative is all about making the work of this job family more visible and to identify mechanisms for a better recognition of their contribution to the research endeavour. Given that many of these technicians are often managers for research equipment and facilities, one good way to start increasing the visibility of their activity would be to highlight the instruments and facilities they are responsible for in their personal profiles in institutional CRIS systems and beyond.

This feature is already available in some cases (see figure 5 below), but it's far from being comprehensively implemented. Also, while it's possible to drill down on a specific research instrument by clicking on its entry under a personal profile, the subsequent links to other research staff using the equipment and to the publications and datasets resulting from its operation are usually not there (or not yet).

Given that the more standard research outputs (such as scholarly publications) recorded in the CRIS for this sort of technician profiles tend to be much lower than those for the average academic, the inclusion of research instruments and facilities in the wider research graph that a CRIS is able to display would be a good starting point to appropriately showcase the impact of a technician's work in the institutional research activity.

[11] Technician Commitment, https://www.techniciancommitment.org.uk/

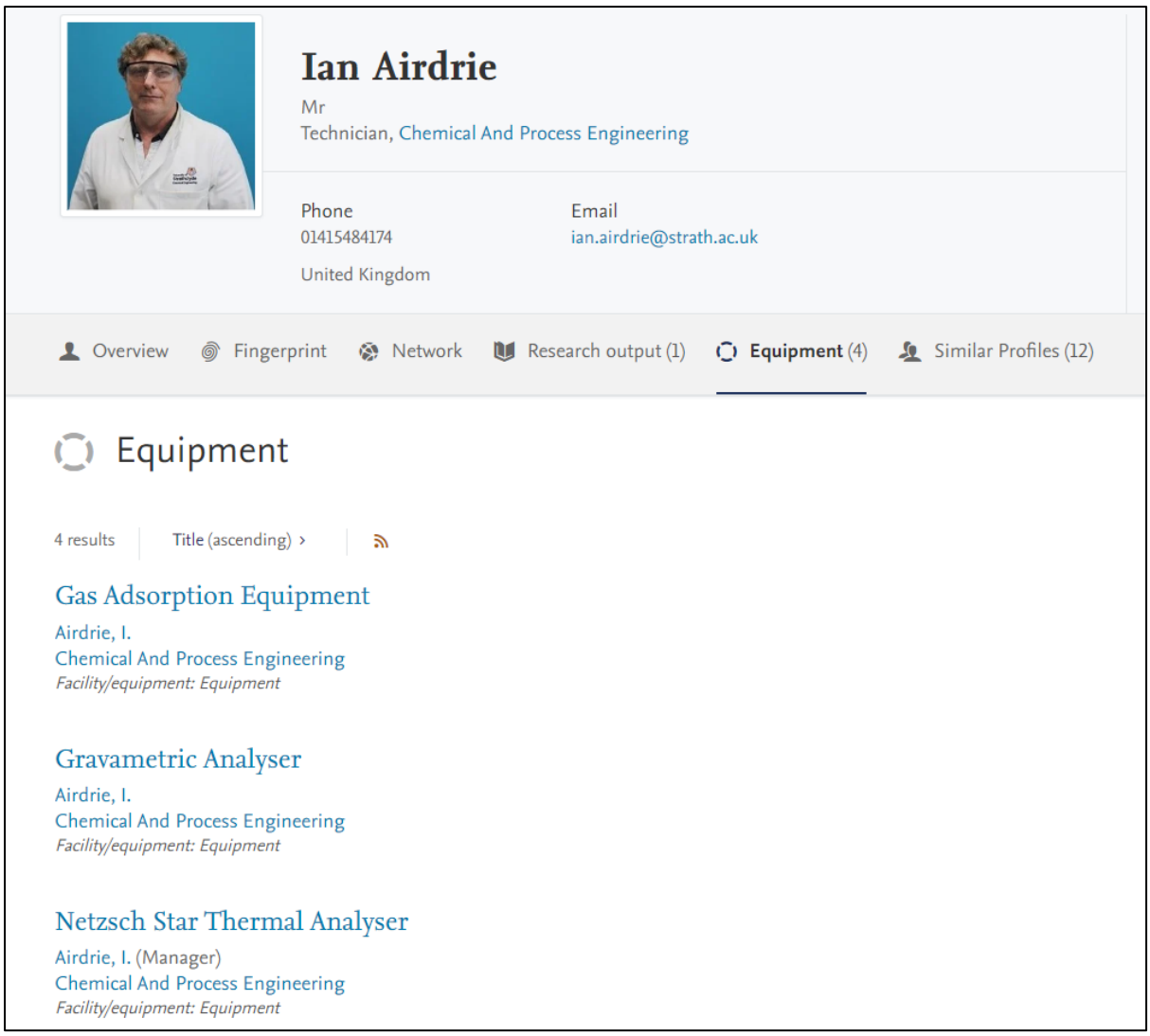

Fig 5. Personal profile for a technician on the University of Strathclyde institutional CRIS showing the research equipment he is responsible for.
Source: https://pureportal.strath.ac.uk/en/persons/ian-airdrie/equipments/

An eventual inclusion of a research equipment and facilities section in the ORCID personal profile would mean a big step forward in terms of making ORCID registration more attractive to technicians – with the subsequent increase in the visibility of their work. However, to avoid starting to build the house from the roof, it makes sense for this to wait until the PID infrastructure for these entities achieves a degree of consolidation it hasn't yet reached.

6. An opportunity for international collaboration?

Broadly speaking, there are currently three hubs for emerging PID infrastructure for research instruments and facilities. Australia is the first one, thanks to the sustained efforts undertaken by the Australian Research Data Commons (ARDC)[12]. The second one is Europe, where most of the Research Data Alliance (RDA) plenary meetings have taken place (but there are very active RDA chapters

[12] Initiatives around research instruments and facilities tend to be driven by the wide-scoped work on research data management, as instruments and facilities are typically where research data comes from.

outside Europe too). And the third one is the United States, where the National Science Foundation (NSF) has funded programmes like FAIROS[13] (Findable Accessible Interoperable Reusable Open Science) under which the "FAIR Facilities and Instruments: Enabling transparency, reproducibility, and equity through persistent identifiers" project is currently unfolding[14].

However, as revealed by the show of hands at the euroCRIS meeting mentioned at the beginning of this paper, there is little, if any, participation by initiatives dealing with the nationwide collection of research information on instruments and facilities in these discussions on how to best address the design and development of the standards that will drive their description. It's in this research information management area where an organisation like euroCRIS can make a difference by pursuing its mission to promote collaboration across initiatives and provide opportunities to showcase best practice case studies.

Some of these case studies might include the initiatives undertaken by several European University Alliances to explore the development of databases of shared research infrastructures, laboratories and services that can be utilised by their member institutions. See for instance the resource-sharing platform built by the UNITA Alliance within their Horizon2020 SWAFS Re-UNITA project at https://www.research.univ-unita.eu/_resource/Documents/Flyer%20shared%20infrastructures.pdf. While these are very practical collaborative initiatives not concerned with persistent identification or metadata schemas, some degree of harmonisation in the provision of research information must be ensured for a coherent cross-institutional database to arise. Furthermore, any progress around the persistent identification of research infrastructure and its inclusion in the wider research graph will also benefit these efforts by international groups of universities to provide databases of their shared equipment and facilities to their member institutions.

Author statement

On top of his day job as Open Access Advocacy Librarian at the University of Strathclyde in Glasgow, the author has been a member of the euroCRIS Board since 2013 and serves as euroCRIS Technical Secretary since 2018. In this capacity, he organised and chaired the Nov 2024 round table on data collection for research instruments and facilities reported in this paper. The discussion held at the euroCRIS meeting was informed by previous consultancy work done by the author on the topic of persistent identifiers, references to which can be found in the bibliography.

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Scottish Journal of Open Research
Book Review
10.36399/dy70fa96

Review of "Conversations with Tim Ingold" – The first book published by Scottish Universities Press

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CITE THIS ARTICLE
McCutcheon V. 2025. Review of "Conversations with Tim Ingold" – The first book published by Scottish Universities Press. *Scottish Journal of Open Research*, 1: 2. DOI: https:// doi.org/ 10.36399/dy70fa96

SUBMITTED
17 February 2025

ACCEPTED
01 July 2025

PUBLISHED
07 November 2025

Keywords
Ingold, anthropology, book review

Introduction

This article is a personal perspective on reading the book. I knew little of the authors or the topic before it was submitted.

The book aims to provide an overview of the contributions, influences, and criticisms of the work of the anthropologist Tim Ingold. It is presented as a series of conversations.

The authors of the book all have career histories in academic anthropology.

I decided to read the book because I had spent time supporting the Scottish Universities Press and the book. Here I pick out just a few of my observations.

Having read the book, I would say it is accessible to all - academics, students, and members of the public. I did need to look up a few concepts, sometimes several times, and was left wondering if I needed to delve further to understand some of the ideas more fully.

I expected to be reading something dry and academic, and it was not at all that.

The book can be downloaded for free, see reference list for hyperlink.

I read a paper copy of the book.

I have written my comments as they occurred to me by chapter but note that many of the themes naturally recur across several chapters.

In the introduction it is claimed that Tim "has not only advanced thinking and research within the discipline of anthropology but also made significant contributions to a wide range of debates in both the arts and humanities and the natural sciences." (Ingold et al 2024, 1). Whilst I cannot comment on the contributions the book draws out plenty of thought-provoking ideas that touch on many aspects of life.

I love to join things up so it resonates with me that Tim has a clear message that topics are not silos, and his work can impact on many areas and thought processes. I have always been an advocate of 'who is interested in this' rather than this is for specific types of people to be involved in.

Tim is not afraid to make bold statements and criticisms.

I learned a lot about anthropology and other labelled specialisms too.

Conversation One: Life and career

From this I learned that Tim was different to me in that he went to a private school and could be considered upper middle class. This made me consider class again as I have been referred to as having a middle-class upbringing. We owned our house, had a phone, a car, and regular hot meals but there were no private schools or cello lessons. This then made me think of 'Normal People' (Rooney 2018) which had a group of well-off students at its centre with another central character who was made out to be comparatively poor. However, this student had a car. I cannot imagine ever affording a car when I was a student. Other students got grants when I was at university, but I did not. I had very few material things. I never felt poor. So, my point here is that it made me think about relative 'luck' and that life is unfair in terms of wealth be that financial or health. So many people have so much less.

Tim was also bullied and had his own insecurities which are universal themes across all parts of society.

It is in this chapter that Tim mentions his concern that too much focus is now put on training for fieldwork much of which may not be directly useful to the students. This made me ponder how to identify the right training at the right time.

It was good to read the reminders that we should learn from people and education is not just about qualifications but about how the actual deeper experience and skills taken from the course or research impact your life.

Oh yes - and how you used to be expected to sit in a smoke-filled room and discuss work.

Conversation Two: Anthropology, ethnography, education and the University

It was enjoyable to read about actually listening to people and working with them, rather than treating them as a source of data. A very pertinent point in today's world that touts good practice in research culture and the CARE Principles for Indigenous Data Governance (2020).

Again, the artificialness of classifications is mentioned, and we are reminded that topics and people do not belong in boxes with set labels. Tim clearly has high regard for experts in other disciplines who have influenced him.

I laughed at the mention of pompous labels for research techniques such as '"snowball technique'" (Ingold et al 2024, 85) as a description on following up leads from others.

It was refreshing to be reminded of the importance of recording comprehensive fieldnotes to aid your memory later.

Conversation Three: Environment, perception and skill

Here Tim talks about "poetics" – making artefacts or knowledge from our involvement with the world, and that science is often viewed as independent of the habitat. I do not know why this reminds me of why I liked physics better than maths at school – because the former was applied and felt more real and contextual to me.

As in other parts of the book he notes his distaste for academic snobbery that is exclusive. I am glad to learn that the difference between mud and materiality of mud is…. clear as mud.

The discussion about material in context was interesting…." wool has different characteristics on the back of sheep than it does in a piece of felt, or woven blanket" (Ingold et al 2024, 121)

He says he learned a lot from reading early Karl Marx work that encouraged him to think more about Marx's work. I will give it a go to see if I find something inspiring in there.

Conversation Four: Animals, lines and imagination

This was the most difficult chapter for me to relate to. I see the basic concepts and do not argue with them as one way of describing relationships with animals and the environment.

I liked the idea of pictures in caves not really being pictures since such a description is relatively recent. Instead, Tim suggested thinking of wider 'communications' encompassing all sorts of notation.

Also of interest is how Tim differentiates between correspondence, conversation, interaction and uses a musical fugue as an example of correspondence.

Sadly, we did not manage to read the book without encountering something about the Research Excellence Framework (Ingold et al 2024, 170) though I am pleased for Tim that he does not need to try to fit the requirements of this now.

Tim's ideas of generations being more like intertwined strands of a rope than distinct divisions are interesting and so it will be interesting to see if his next book on this topic is widely readable.

Conversation Five: Looking back and forward

Here the conversation returns passionately to Tim's view of anthropology as a discipline "in-between all the other disciplines" (Ingold et al 2024, 177) enthusing that this allows a certain freedom to work with different people and disciplines.

I love how Tim describes that "The purpose of the lecture is not to transmit information, but to get students excited about the subject." (Ingold et al 2024, 182)

Conclusion

This book is very uplifting, and I credit it for reducing my stress when I could not sleep in the middle of the night. I was drawn into a world of possibilities and straight talk. It enthused me with fresh views and made me laugh and smile. I could draw on similar examples from my own life as a fellow drifter.

A great insight into the world of anthropology and lessons learned from Tim's career that I think anyone can read and enjoy.

Data availability statement

This is a book review article with no supporting data to make available.

Competing Interests

VM is a member of the Scottish Universities Press Management Board.

The book was funded by my employer the University of Glasgow.

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Scottish Journal of Open Research
Article
10.36399/6svheh97

IRRP implementation in practice: an Open Research Scotland collaboration

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CITE THIS ARTICLE
De-Castro, P (2025) IRRP implementation in practice: an Open Research Scotland collaboration. *Scottish Journal of Open Research* **1**. https://doi.org/10.36399/6svheh97

SUBMITTED
27 February 2025

ACCEPTED
26 June 2025

PUBLISHED
07 November 2025

The Scottish Journal of Open Research is an Open Access journal published by the University of Glasgow.

Abstract

The rights retention strategy involves the deposit of embargo-free author accepted manuscripts in institutional repositories under a Creative Commons licence. At a time when five Scottish universities have run their institutional rights retention policies (IRRPs) for at least a year (if often for much longer) and five additional institutions are planning to pass their own policies in 2025, this is a good moment for a cross-institutional discussion on the various technical areas that would benefit from some level of consensus. Several key areas were addressed during the Open Research Scotland-held "IRRP implementation in practice" session on 16 January 2025. This paper provides a summary of the discussions, together with some institutional best practices identified during the session and some thoughts on how the application of rights retention could result in more visibility for research publications. This overview of the current state of IRRPs in Scotland will hopefully further our discussions on the uptake and implementation of this important tool for open research.

Introduction

Five Scottish universities have already passed their institutional rights retention policies (IRRPs) at the time of writing, see table 1, and have been running them for long enough to be able to discuss their practical implementation. On top of these, five additional institutions in Scotland are expecting to have their own IRRPs passed in the course of 2025.

Institution	**Date IRRP came into force**	**IRRP URL**
University of Edinburgh	01/01/2022	https://information-services.ed.ac.uk/about/policies-and-regulations/research-publications
University of St Andrews	01/02/2023	https://www.st-andrews.ac.uk/policy/research-open-research/open-access-policy.pdf
University of Aberdeen	01/05/2023	https://www.abdn.ac.uk/library/open-research/rights/
University of Glasgow	01/09/2024	https://www.gla.ac.uk/research/strategy/ourpolicies/publications-policy/
University of Strathclyde	01/01/2024	https://www.strath.ac.uk/media/ps/cs/gmap/academicaffairs/policies/Institutional_Rights_Retention_Policy.pdf

Table 1. Scottish universities currently operating institutional rights retention policies (IRRPs)

This means that there is an interest within the Open Research Scotland group not just to discuss how to best approach the adoption of an IRRP but also how to implement these policies in a coordinated way across institutions once it has been passed (De-Castro 2023).

This is the main reason why a two-hour "IRRPs implementation in practice" online session was held on 16 January 2025 with over 30 attendees representing institutions in Scotland, Northern Ireland and England. Short updates were delivered at the start of the session by the five Scottish higher education institutions (HEIs) that have been applying rights retention for some time as a way to identify the workflows applied by each institution, and to highlight common best practices others may wish to replicate.

The rights retention strategy as defined by the cOAlition S group of research funders (cOAlition S 2020) involves the deposit in institutional repositories of embargo-free author accepted manuscripts (AAMs) under a Creative Commons licence. Funders within cOAlition S that have included this immediate Green Open Access route in their OA policies – which in the UK include the Wellcome Trust since 1 January 2021 and UK Research and Innovation (UKRI) since 1 April 2022 – expect it to be applied to their funded manuscripts when no Gold Open Access route is feasible for them. These UKRI- and Wellcome-funded publications usually make up a relatively small subset of institutional research outputs. However, the previous UK Scholarly Communications Licence initiative (UK SCL) (Baldwin and Pinfield 2018) encouraged UK institutions to "expand" these funder rights retention policies into fully fledged IRRPs that apply to *all* of their research publications.

cOAlition S funders did not “invent” rights retention policies – these had already been running for quite some time at US-based universities like Harvard (Harvard Library s.a.). However, the adoption of the rights retention route by this cOAlition S group of funders boosted the adoption of this immediate Green OA route. There has also been recent progress in this area in the United States, where the so-called “Nelson memo” (Winter 2024) passed in 2022 included the rights retention strategy. However, since most cOAlition S funders are in Europe, discussions on rights retention have

particularly abounded in this latter region. As a result, different initiatives are taking place in different European countries to explore how much the varying national copyright frameworks may allow rights retention to be applied. The KR21 (Knowledge Rights 21) 5-year programme managed by IFLA in partnership with LIBER and SPARC Europe is a good example for a wide-scoped advocacy effort around rights retention (Knowledge Rights 21 2025). The Rights Retention Project Retain II launched by SPARC Europe in August 2024 within the KR21 programme activities has recently published a report examining the progress of institutional rights retention policies across ten European countries (Treadway et al 2025).

2. Implementing IRRPs: some technical aspects

A number of technical aspects around the implementation of institutional rights retention policies were discussed in the January 2025 Open Research Scotland session. Some of the topics addressed in the discussion are summarised below.

2.1. Institutional systems and their configuration

The discussions on rights retention have so far devoted little attention to the institutional systems that will support the adoption of these policies. However, this choice of system is a critical aspect to explain the diverging IRRP implementation workflows across institutions. It is worth noting that four[1] of the five Scottish HEIs that presented their progress around the implementation of their IRRP during the 16 January 2025 session use the same system as a basis for their technical workflows, namely their PURE-based institutional Current Research Information System (CRIS). Most of these PURE systems are coupled to an Eprints- or DSpace-based Open Access institutional repository, so this is actually a CRIS+repository configuration in most cases.

This similarity in system configuration may offer opportunities for alignment, some of which – such as record tagging in the CRIS – are explored below. Other institutions use different systems and configurations, both in Scotland and beyond. For example, Universities sometimes use their institutional repository as a basis for the implementation of rights retention, and this will typically lead to differences in the workflows[2].

As an example, the University of Glasgow (UoG) uses an Eprints repository (Enlighten) to record information about submission dates, manuscript version and funding. Enlighten is linked to the Unit4 project module as an underpinning research information system. The UoG rights retention policy is the only one among the IRRPs discussed in the Open Research Scotland session that relies on the author having included the 2-line rights retention statement in their paper (University of Glasgow 2024).

2.2. Candidate rights retention record tagging

Since most Scottish HEIs currently implementing rights retention are using PURE, it's worth noting that this institutional CRIS platform allows the tagging of its bibliographic records via library

[1] The Universities of Edinburgh, Aberdeen, St Andrews and Strathclyde all use PURE as their institutional CRIS.

[2] Since openly available repository records are created upon the reception of the full-text accepted manuscript from the authors, it is often unclear at point of creation whether papers will be published Gold Open Access or will follow the rights retention route. This typically results in the inclusion of internal notes in the record metadata calling for the final Open Access route to be confirmed upon first online release of the paper. When CRIS systems are used for this same workflow, the records are not made openly available until papers are first released online, thus removing the need for these early-stage notes on the repository records.

keywords defined for the purpose (De-Castro 2024). These library-defined keywords are typically not part of the metadata set publicly displayed on the Pure portal, which suits the way institutions would wish to implement their IRRPs. Moreover, this tagging mechanism allows institutions to differentiate instances for funders' rights retention (RRS-F) from instances for 'general' institutional rights retention (IRRP-G). This differentiation will allow the reporting on how widespread the application is for each of these two routes. For tagging purposes, all that is needed is to use a different tag depending on the funding acknowledgements that a specific accepted manuscript carries.

Figure 1 taken from the report on the implementation of the Strathclyde IRRP 12 months into the policy (De-Castro 2025) shows how the way funders' rights retention and the institutional rights retention policy can be independently monitored via library-defined keywords in PURE. It is worth highlighting that no IRRP is needed to apply rights retention to UKRI- and Wellcome-funded papers, so all pre-IRRP rights retention instances will be for RRS-F. This also means that institutions are likely to have rights retention publications regardless of whether they have already passed their IRRP or not. Once an IRRP is passed, the instances for IRRP-G will quickly outweigh those for funded papers.

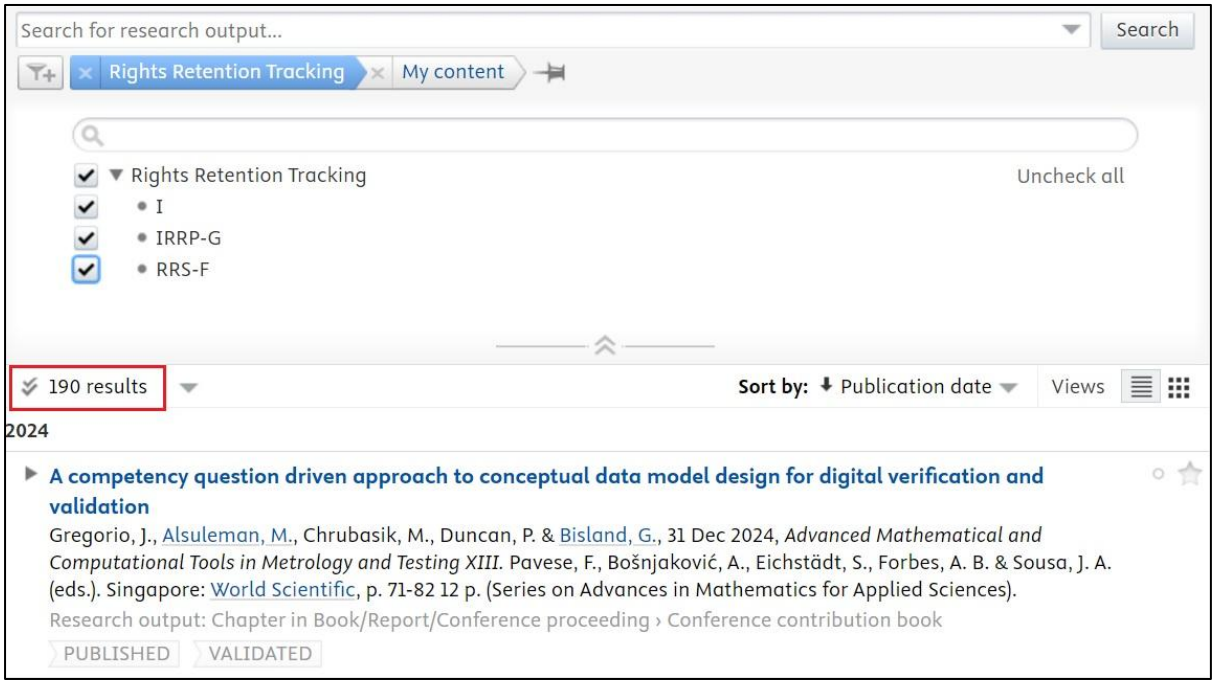

Figure 1. Tagging mechanism for rights retention publications at the University of Strathclyde PURE

Other institutions have chosen to develop an open-source add-on for tagging purposes, which they run on top of PURE but independently from it. These bespoke solutions (Ganeshwaran 2022) allow them to tag both the rights retention instances and the data accessibility statements[3].

Finally, most research information management systems underpinning the institutional scholarly communications workflows will allow this kind of tagging for rights retention. There are best practice case studies for Worktribe, for example, albeit these are unpublished and largely kept internal at institutions at present.

[3] The tagging mechanisms for Data Accessibility Statements (DAS) and rights retention publications are remarkably similar, with both tending to be applied by research support staff post-manuscript acceptance. The effort to surface the implementation of both workflows may eventually follow similar lines too.

2.3. Issuing DOIs for embargo-free accepted manuscripts

The cross-institutional discussions held within the Open Research Scotland group led to the conclusion that it is *not* mandatory for embargo-free AAMs deposited in institutional repositories under a Creative Commons licence to be issued a digital object identifier (DOI). The UKRI Open Access policy – to consider just one example of a cOAlition S funder's policy wording – states in the section 'Technical requirements for institutional and subject repositories' that, 'PIDs for research outputs must be implemented according to international [sic] recognised standards. Examples of international standards include DOI, URN or Handle.' (UKRI 2023)

This does not therefore necessitate the use of DOIs. Repositories – especially DSpace-based repositories, which some of the Scottish universities that have passed an IRRP operate – already assign a Handle ID to all their items by default. Where a PURE CRIS underpins the implementation of rights retention, the system also automatically assigns a persistent identifier to its record, based on Universally Unique ID (UUID) DOIs in this case. This said, repositories occasionally enable the DataCite-based feature 'Fabrica', which automatically allocates a DOI to every new item created in the system, and subsequently assigns DOIs to records for embargo-free AAMs[4]. Some Scottish institutions running their IRRP have also chosen to issue DOIs for their rights retention publications regardless of the system configuration they run[5].

This arguably risks creating multiple DOIs for different versions of the same publication, which is potentially an issue when these are supposed to be unique identifiers. However, this should not mean a problem for citation purposes provided the DOI for the Version of Record (VoR) is added to the repository item as soon as the published-version DOI is available. Moreover, mechanisms are becoming increasingly available (Mierz 2022) that allow the ensuing PID graph to automatically link VoR DOIs to AAM DOIs, and vice versa.

Connected to the discussion on whether or not to mint DOIs for embargo-free AAMs is the topic of the landing (or cover) pages for the full-text files deposited in repositories. This is again an area where practice varies across institutions and systems. Such cover pages allow to easily identify an openly available full-text AAM as an accepted manuscript for a final published version available elsewhere. The licence information (typically a CC BY 4.0 for rights retention AAMs) and the DOI or alternative persistent identifier may also feature on such a cover page, allowing a full-text paper randomly discovered online to be traced back to the metadata set with which it is associated.

Technical experts on accessibility raise concerns around cover pages, as they may hamper the discoverability of the document that comes from its indexation if any additional text unrelated to the content of the document is included at the top (Tonkin et al 2013). This is why many repositories will instead choose to include the reference to the final published version either on the heading of the actual AAM or as a footnote to it. As is the case for other technical areas explored here, the purpose of this piece is not to say which approach is the "right" one, but rather to explore the different ways different institutional teams are dealing with the same issues.

[4] See for instance the practice at the DSpace-based Apollo repository at the University of Cambridge, https://doi.org/10.17863/CAM.115898.

[5] See for instance DOI https://doi.org/10.17868/strath.00082136 issued by the University of Strathclyde to its first-ever instance of rights retention in August 2022. As mentioned above, this was a case for funders' rights retention (RRS-F) which significantly predated the passing of the Strathclyde IRRP in November 2023.

2.4. Opt-out workflow

IRRPs will typically come with an opt-out mechanism that authors can follow to request their institutional Open Access support team not to make their AAM openly available embargo-free[6]. There are again various ways to operationalise this opt-out workflow, but institutions are often making available a form (University of Edinburgh Library 2024) to simplify the process for the researchers, and to allow additional information to be collected on the reasons for the opt-out request. Other institutions, however, simply include a note in their IRRP wording asking researchers to please get in contact with the Open Access team if they wish to opt-out from the policy.

Opt-out workflows and their uptake were frequently discussed topics at the 16 January 2025 session. Several institutions offered figures for their (typically low) number of opt-outs and their distribution per department/school/discipline. The opt-out forms mentioned above allow additional information to be collected on the reasons driving researchers to request such an opt-out; for example stating whether the primary issue was the CC licence or rather the lack of an embargo period.

The networking between frontrunner HEIs and those following them has been very effective on several aspects of the process for having an IRRP passed by an institution and getting the policy ready for its implementation. The workflows for the submission of notifications about just-passed IRRPs to the most usual publishers at an institution and whether these notifications should be issued in print or just electronically provide an example for such an effective coordination. This cross-institutional collaboration should arguably continue and be applied to other areas, such as the design for a common opt-out form. This would allow all institutions to collect the same information, particularly on the drivers for the opt-out requests, and to compare it across HEIs.

2.5. Two-line rights retention statements

The way the implementation of the rights retention strategy was operationalised by cOAlition S members, the release of embargo-free AAMs under a CC licence required the inclusion of a 2-line rights retention statement in the funding acknowledgements section of the manuscript. The UKRI Open Access policy states for instance:

> For the article to be published under [rights retention] route 2, submissions must include the following text in the funding acknowledgement section of the manuscript and any cover letter or note accompanying the submission: "For the purpose of open access, the author(s) has applied a Creative Commons attribution (CC BY) licence (where permitted by UKRI, 'Open Government Licence' or 'Creative Commons attribution no-derivatives (CC BY-ND) licence' may be stated instead) to any Author Accepted Manuscript version arising" (UKRI 2023).

However, most IRRPs do *not* require the inclusion of a rights retention statement on the manuscript. Formal notifications to publishers about the passing of the policy are considered to supersede any need for academics to re-state that they are applying a CC licence to any version arising from their submission.

One of the side-effects of the lack of an institutional mandate for manuscripts to include the rights retention statement is that it 'protects' researchers from any publisher backlash arising from the

[6] Universities have occasionally used an opt-in workflow for their institutional rights retention policies, especially when implementing a pilot, see for instance the University of Cambridge approach at https://www.coalition-s.org/blog/how-to-make-it-right-a-rights-retention-pilot-by-the-university-of-cambridge-ahead-of-shaping-a-full-institutional-policy/ or the University of Bath's at https://library.bath.ac.uk/c.php?g=665389&p=5258228. Both institutions switched to an opt-out approach for their full-fledged IRRP.

inclusion of such wording in their papers. Many publishers have specifically stated that they agree with the application of the rights retention workflow[7] – which makes particular sense when there is a generously paid Read & Publish agreement running in the background that will cover many of the institutional publications with a specific publisher. However, some other publishers will seek to have this statement removed from the manuscript as a precondition for acceptance or will suggest submitting the manuscript to an alternative Gold Open Access title of theirs that will charge a mandatory Open Access publishing fee.

Another less welcome side-effect of the lack of rights retention statements on publications is that it makes it much more difficult for these publications to be identified by external aggregators. Services such as the CORE national aggregator in the UK have traditionally used a text-mining strategy for the rights retention statement on manuscripts as their default strategy to identify publications asserting rights retention. However, this strategy has several limitations:

- **False positives.** Publications are identified as rights retention by an external aggregator even when they are fully Open Access if the authors chose to include the 2-line rights retention statement in them[8]. This would typically happen because authors mistakenly believed this was a funder requirement.
- **Missing identifications.** Most rights retention publications arising from the application of an IRRP that includes no requirement for a statement will not be identified as rights retention, since the text-mining strategy will as a rule fail to identify any such statement.

3. Identification of rights retention publications by an external aggregator

Very little discussion has been held to date on how to maximise the visibility of embargo-free AAMs providing a suitable alternative for accessing research outputs held behind paywalls. However, if no effort is made to expose these outputs beyond their open availability in institutional repositories (or on e.g. Google Scholar), then the effort invested in identifying these publications early enough, securing the AAMs and making them openly available embargo-free could be considered wasted.

Two main mechanisms to further showcase these embargo-free AAMs to the outside world could be available:

1. Aggregators of all kinds, either national (e.g. CORE in the UK, HAL in France, Recolecta in Spain, etc) or international (OpenAIRE, BASE or even wider services like Unpaywall or OpenAlex) *directly identifying these embargo-free AAMs from some metadata element in the repository records*. This seems the ideal solution, as it would require no specific action from institutions beyond adequately tagging their metadata. Some cross-institutional

[7] See (e.g.) the statement "For authors who may need to follow the Rights Retention Strategy to comply with funder/institute mandates, we do allow this route to self-archiving of the Author Accepted Manuscript (in an institutional or subject repository immediately under a CC BY license) in cases where none of our standard routes (outlined above) comply with the relevant mandate" on the Company of Biologists Open Access webpage for the *Journal of Cell Science*, https://journals.biologists.com/jcs/pages/open-access.

[8] Most references on this early list of rights retention publications at rrs-language-including-outputs/RRS-outputs-asof-2021-09-01.csv at main · rossmounce/rrs-language-including-outputs · GitHub are actually for fully Open Access publications that carry the 2-line rights retention statement.

harmonisation may be possible on metadata-based mechanisms to identify rights retention publications. This would allow the general uptake of rights retention to be monitored.

The key risk posed by this approach is that if aggregators were able to identify these rights retention publications, then so would other external stakeholders. The caution currently presiding over the implementation of rights retention is mainly arising from the wish of institutions not to risk publisher pushback in this area. This means no takedown notices to the institution and – especially – no threatening messages to their authors about embargo-free manuscripts that (allegedly) breach a contract that the author may have signed with the publisher. The downside of this cautious approach is the lower visibility of these embargo-free AAMs, and a certain lack of action on the dissemination front for rights retention publications.

2. An alternative (and safer) option could be institutions sharing with aggregators lists of DOIs for publications to which they have applied rights retention. This could replicate the OpenAPC information exchange workflow (Pieper and Broschinski 2018) into an "OpenAAM initiative" that could either (i) aim to have those "rights retention publications" highlighted or tagged on the aggregations or (ii) have all of them added to a specific OpenAAM platform where all contents would be embargo-free AAMs. Each of these options has its own logistical challenges: a dedicated platform would need to be hosted and maintained by somebody, whereas the workflow for exchanging lists of DOIs would need every institution implementing an IRRP to be able to internally collect these and to be willing to share them with the external aggregator. None of this can be taken for granted at this point.

A broad estimation for the number of embargo-free AAMs available as a result of the uptake of IRRPs in the UK alone suggests that it may well be in the tens of thousands already. No study has yet been conducted at this very early stage on how much visibility embargo-free AAMs may be able to offer to research publications as an alternative route to openly available Versions of Record (VoRs), but it is easy to see that there is ample room for improvement on the current siloing of publications in their repositories. This scattering also makes it very difficult to gain aggregated usage statistics for rights retention papers.

A single, *international* platform for rights retention publications (playing broadly the same role as OpenAPC plays for APCs paid worldwide) would make usage statistics much more visible, allowing a comparison against delayed Green OA. Critically, it would also enable monitoring the uptake of the rights retention strategy across countries.

This is particularly important at a time when European consortia are increasingly choosing to join 'Read & Green' type agreements with publishers whereby institutions are *specifically allowed* to apply rights retention to their publications[9]. These agreements will boost the number of contractually allowed rights retention publications internationally, and, while countries may be able to introduce national-basis tagging mechanisms for rights retention publications of their own, some international coordination would be very helpful to map the uptake of rights retention across countries (besides significantly enhancing the role and value of Open Access repositories).

4. Monitoring IRRP uptake

[9] The 3-year Read & Green agreement signed by the French Couperin consortium with the American Chemical Society (ACS) for the period 2024-2026 is a good example, https://www.couperin.org/negociations/accords-specifiques-so/acs-american-chemical-society/, as is the UK Jisc consortium's 2025 agreement with the IEEE.

While it is presently very difficult to monitor the uptake of rights retention via external aggregators, institutions are ideally placed to monitor the successes of their own policies. It is very early days in this area, and there is no standard approach to identifying the various indicators that should be monitored as part of the effort to measure the uptake of a given IRRP. As a result, each institution is adopting its own approach to monitoring, and, while there are some cross-institutional commonalities, there are also significant differences across IRRP uptake reports. Some of the areas that are being monitored by the Scottish universities that presented their progress at the January 2025 Open Research Scotland session include:

- Total number of rights retention publications. As stated above, institutions are best placed to measure this indicator, at least until some mechanism is found for external stakeholders (such as repository aggregators) to accurately identify the embargo-free AAMs available in repositories under a CC licence. All institutions presenting at the OR Scotland session reported on their figures, some independently monitoring funders' rights retention and institutional rights retention as different categories;
- Distribution of rights retention publications by faculty, department and/or school. Possible explanations for the higher uptake in some disciplines were discussed in the session;
- Distribution by publishers. Only one presentation provided this breakdown, which could arguably be of much use if consistently monitored across institutions;
- Distribution of opt-outs by faculty, department and/or school. Perhaps unsurprisingly, opt-out requests seem to be largely arriving from departments in the social sciences and humanities.

Conclusion

While there has been a solid cross-institutional collaborative effort to share and reuse the experiences of having IRRPs passed, the actual implementation of such policies raises even more acute challenges and needs for coordination. It is still early days in this domain, but initiatives to discuss the ways in which IRRPs are being implemented should allow this necessary conversation to happen within partnerships that have taken a stance in this area, such as the N8 Research Partnership (N8 Research Partnership 2023) in the North or the GW4 Alliance (GW4 Alliance 2023) in the West of England and Wales. In Scotland, where the Scottish Confederation of University and Research Libraries (SCURL) have released a statement (SCURL 2023) supporting the adoption of rights retention policies by its member institutions, it is the Open Research Scotland network that has taken on the challenge of promoting a cross-institutional conversation on the numerous aspects that need to be discussed around IRRP implementation in practice. As the number of Scottish universities with an active IRRP steadily increases in the run-up to the REF2029[10], the discussion on the implementation of these policies will address a growing range of institutional systems and uptake monitoring mechanisms.

List of abbreviations

AAM: Author Accepted Manuscript
APC: Article Processing Charge

[10] The Open Access policy for the next Research Excellence Framework (REF2029) research assessment exercise in the UK includes a requirement for shorter embargo periods that can only be systematically achieved through the application of an IRRP. This is one of the main drivers for the widespread adoption of such policies at UK institutions.

CC BY: Creative Commons Attribution [licence]
CRIS: Current Research Information System
DAS: Data Accessibility Statement
DOI: Digital Object Identifier
HEI: Higher Education Institution
IRRP: Institutional Rights Retention Policy
IRRP-G: 'General' institutional rights retention
KR21: Knowledge Rights 21
OR Scotland: Open Research Scotland [group]
PID: Persistent Identifier
RRS-F: Funders' rights retention
REF: Research Excellence Framework
SCURL: Scottish Confederation of University and Research Libraries
UK SCL: UK Scholarly Communications Licence
UKRI: UK Research and Innovation
URN: Uniform Resource Name
UUID: Universally Unique Identifier
VoR: Version of Record

Data availability statement

All underpinning data is present in the article and/or its references. No additional data was specifically produced for this piece.

Competing Interests

Any opinions shared in this article are the author's own based on his daily practice as Open Access Advocacy Librarian at the University of Strathclyde in Glasgow. The piece is informed by consultancy work previously done by the author on the impact of Plan S, which included numerous interviews with institutional Open Access advocates, research funders and publishers.

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