



National PID Research Strategy

Christopher Brown - Product Manager / UK ORCID Consortium Lead, Jisc
DPC webinar: 'Choosing and Using Persistent Identifiers' - 6th September 2023

Open Access to Research

Jisc to lead on selecting and promoting a range of unique identifiers, including ORCID, in collaboration with sector leaders with relevant partner organisations.

Funders of research to consider mandating the use of an agreed range of unique identifiers as a condition of grant. (Recommendation 8)

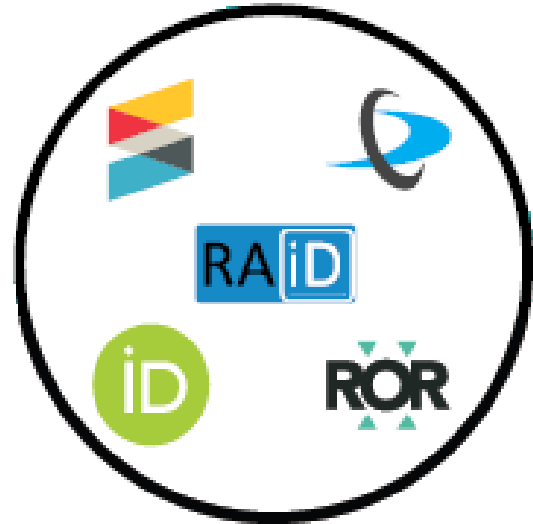
Open access to research publications – 2018 Independent advice to the UK government, Prof. Adam Tickell <https://www.gov.uk/government/publications/open-access-to-research-independent-advice-2018>

PID roadmap

Identifying priority PIDs

- **PID Roadmap report*** (July 2019)
 - Identified 5 priority PIDs
 - Grants (Crossref DOIs)
 - Outputs (Crossref and DataCite DOIs)
 - People (ORCID iDs)
 - Organisations (ROR)
 - Projects (RAiD)
 - Emphasised those persistent identifiers most applicable to open access to research publications
 - Proposed the outline of a national PID strategy

* https://repository.jisc.ac.uk/7840/2/PID_roadmap_for_open_access_to_UK_research.pdf (Josh Brown)



PID strategy

UK PIDs for Open Access project (Dec 2019 – Mar 2021)

- Creating a roadmap to implement the strategy
- Exploring barriers and opportunities for PID adoption in the UK
- Building a community around the strategy
- **Focus groups** for each priority PID involving stakeholders
- Exploring major sector requirements around education and support
- Emphasising need for leadership and strong governance



Research
England

PID strategy - governance

Research Identifier National Coordinating Committee (RINCC)

- Includes stakeholders from across the sector to focus on governance and community accountability
- Provide strategic insights to shape the priorities and focus of PID-related activities and policies in the UK
- Liaise with international PID providers and governance structures
- Align PID integrations and developments across sectors to optimise interoperability
- Ensure that all individuals and organisations in the UK research community have equitable access to the PIDs they need
- Focus on high-level engagement; guide and evaluate progress in implementing the national PID strategy

PID strategy - output

Benefits of adopting the priority PIDs

- **Revised Cost-benefit Analysis** for a PID Support Network (Nov 2022) – <https://doi.org/10.5281/zenodo.7356219>
- Original CBA (June 2021) - looked at the costs of the current DataCite and ORCID consortia, and previous work on benefits analysis, to look at cost savings in establishing a PID Support Network (PSN)
- Assumed that publication, grant, and project metadata are only rekeyed into university systems once, but Australia CBA indicated metadata about publications rekeyed at least 3.1 times on average, 3.25 for funded grants
- Improved methodology shows **55,000 person days**, at a cost of **£19 million**, are wasted every year at UK institutions through the rekeying of metadata
- Estimate a net saving to the UK HE sector of over **£45 million** over 5 years (considering the cost of implementing the 5 priority PIDs with support from the PSN, the cost of the PSN itself, and accounting for benefits building over time as adoption increases)

PID strategy - output

High level support

- **Building a business case for investment in a UK PID strategy** (Nov 2021)

<https://zenodo.org/record/6012367>

- **Recommendation 19: For the higher education sector, Jisc should lead on the creation of sector-wide groups responsible for overseeing the development and further integration of the research information ecosystem, including research management data.**

The Review endorses the proposal for a PID consortium made by MoreBrains in their report : 'The case for investment in a UK persistent identifier strategy: Resilience, insight, and leadership in global research and innovation'^{xi} and would recommend extending this model to other facets of digital research platforms as appropriate. As the designated umbrella body for digital services and solutions, Jisc should take a leading role in co-ordinating this activity for the higher education sector.

Independent Review of Research Bureaucracy – July 2022. Independent advice to the UK government,

PID strategy - output

PID optimised workflows

- The four workflows cover each stage in the research lifecycle, from developing a hypothesis to project impacts
- Interactive versions: <https://www.morebrains.coop/jisc-pid-workflows/>



Institutional research management workflow



Funding workflow



Data workflow



Content publication workflow

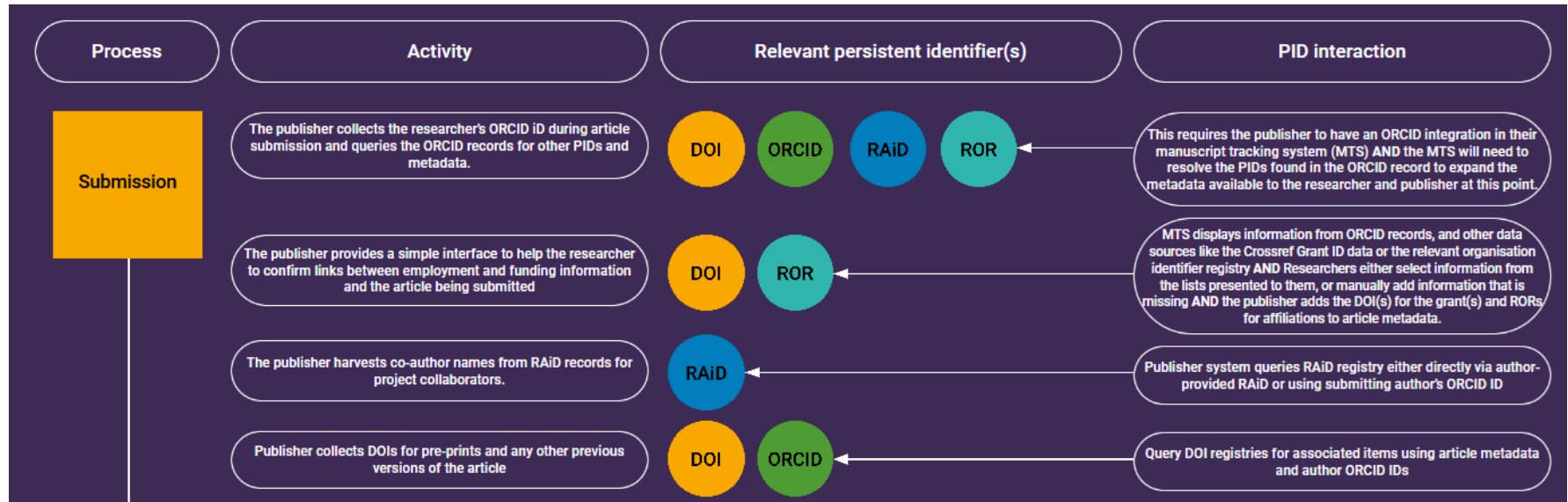
A vision of a more efficient future

Citable version:

Brown, Josh, Jones, Phill, Meadows, Alice, & Murphy, Fiona. (2022, September 16). PID-optimised workflows: A vision of a more efficient future. Zenodo. DOI: [10.5281/zenodo.7085489](https://doi.org/10.5281/zenodo.7085489)

PID Workflow - example

Publishing workflow



PID optimised workflows report recommendations

Funders

- Register DOIs for all awards, including PIDs for associated entities (people, projects, organisations, and so on), and commit to updating this information throughout the lifetime of the grant and up to the end of any reporting period
- Gather data about applicants, projects, and past activities (including outputs and grants) by ingesting PIDs and associated metadata wherever these are available and encouraging investigators and institutions to register and share such PIDs
- Invest in the collection of PIDs in reporting and evaluation platforms, and work with PID organisations to improve the citation and tracking of PIDs throughout the ecosystem

PID optimised workflows report recommendations

Repositories and publishers

- Collect and authenticate ORCID IDs for authors and reviewers during article submission and pull in affiliation data etc. from the ORCID records of authors
- Integrate grant DOI search and lookup tools and pull funding acknowledgements and other data from the grant record into publication metadata
- Embed PIDs for projects, grants, organisations, contributors, and other entities into both outputs and metadata in human-readable and machine-actionable forms
- Register DOIs (or equivalent) PIDs for outputs, provide the most complete metadata possible for them at the time of registration and commit to updating metadata records into the future

PID optimised workflows report recommendations

Research managers

- Support and incentivise researchers to get an ORCID ID and to keep their ORCID records complete and up-to-date
- Register RAIDs for projects, provide the most complete metadata possible for them at the time of registration, and commit to updating metadata records into the future
- Leverage PID registries and update notifications (e.g. Crossref/DataCite 'auto update' functionality, ORCID record notifications) to automate metadata re-use and reporting processes wherever possible

PID optimised workflows report recommendations

Research data specialists

- Register PIDs for datasets early in the research lifecycle, provide the most complete metadata possible for them at the time of registration, and commit to updating metadata records into the future
- Embed PIDs for associated entities (projects, people, organisations, facilities, instruments, physical samples, textual resources, etc.) into dataset metadata and make metadata as open as possible
- Use PIDs to track versioning and disposal/publication/access decisions

PID optimised workflows

A vision of a more efficient future

- Comprehensive and consistent PID adoption creates efficiencies and enables analysis and insights that have so far proved impossible
- These workflows can help to achieve this goal
- See the report here:
<https://doi.org/10.5281/zenodo.7192156>



Photo by [Kampus Production](#) on [Pexels](#)

PID strategy - latest work

Business cases

- **PID Support Network** - Business case for a dedicated team of technical, educational, and communications specialists, hosted at a trusted UK institution, to drive forward the PID agenda
- **UK RAiD Registration Agency** - Business case for a registration agency in the UK
- **RAiD pathfinder projects** to pilot RAiD in HEIs



Photo by [Shan Patel](#) on [Pexels](#)

PID Support Network

Better support for PIDs

- Drive forward the PID agenda
- Establish a baseline for support
- Increase understanding and usage of PIDs
- Overcome barriers to adoption
- Governance and engagement models for medium term support project
- Identify potential funding streams and models to resource the project

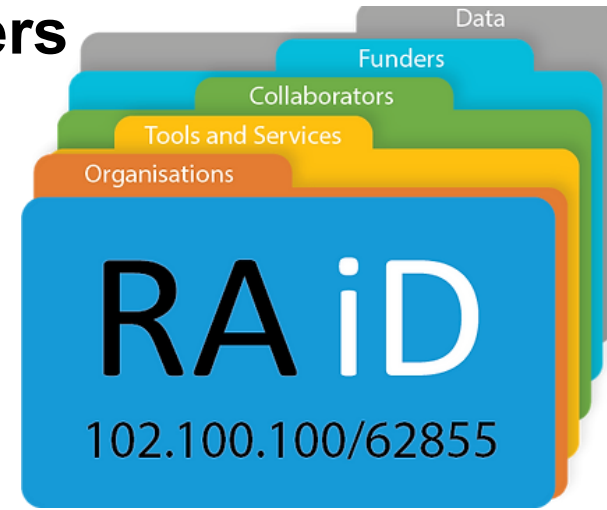


@chriscb

RAiD Registration Agency and Pathfinders

PID for projects

- Projects are a critical entity, and are the 'ground truth' for many of the connections and relationships between other PIDs
- Laying the foundations for a UK registration agency with a business model and service/product roadmaps
- Identifying and documenting key use cases
- Engaging with disciplinary communities to prepare pilot integrations
- Mapping key project metadata workflows



Pathfinder projects:

- UKRI-STFC (Science and Technology Facilities Council)
- EMBL-EBI (European Molecular Biology Laboratory - European Bioinformatics Institute)
- Practice Research – Repository (University of Westminster)
- UKDS (UK Data Service)

PID strategy - timeline

Independent advice to the UK government, Prof. Adam Tickell

UK PIDs for Open Access project (Dec 2019 – Mar 2021) + follow-on work (till Nov 2022)

June 2018

- Open access to research publications

July 2022

- Independent review of research bureaucracy

PID Roadmap report (July 2019)

Cost-benefit Analysis report Original (June 2021), Revised (Nov 2022)

The case for investment in a UK PID strategy (Nov 2021)

RINCC established (June 2021)

PID optimised workflows (Sept 2022)

Business cases: PID Support Network and UK RAiD Registration Agency (2023)

MOREBRAIN




National PID research strategy page

<https://www.jisc.ac.uk/rd/projects/a-national-persistent-identifier-research-strategy>

R & D project

A national persistent identifier research strategy

Delivering sector-wide cost savings through improved automation and technical integration.



Started 1 Jul 2019

Expected outcome:
Advice

Infrastructure

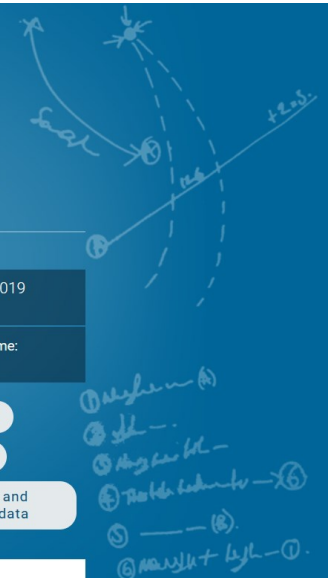
Open access

Research and research data

Visit the project blog [»](#)

Join the Twitter discussion [@ukpids](#)

A strategy coordinated across the UK academic research community to promote wider adoption of persistent identifiers by institutions, funders, and researchers, as well as improved reporting mechanisms to better assess the impact of research.



1. ...
2. ...
3. ...
4. ...
5. ...
6. ...

Developing an international approach

How can we coordinate and align different national PID strategies and bring together international PID experts?



Who can join the Research Data Alliance?

Any individual or organisation, regardless of profession or discipline, with an interest in **reducing the barriers to the sharing and re-use of data** and who agrees to RDA's guiding principles of:

Openness

Consensus

Inclusive

Harmonization

Community-driven

Non-profit and technology-neutral



Vision

Researchers and innovators openly share and **re-use** data across technologies, disciplines, and countries to address the grand challenges of society

Mission

RDA builds the **social and technical bridges** that enable open sharing and **re-use** of data

UK Members – 1103
Second largest after USA

THE RESEARCH DATA ALLIANCE

www.rd-alliance.org

building the social and technical bridges that enable open sharing and re-use of data

64 FLAGSHIP OUTPUTS

including 8 ICT Technical Specifications

200+ ADOPTION CASES

across multiple disciplines, organisations & countries

91 GROUPS WORKING ON GLOBAL DATA INTEROPERABILITY CHALLENGES

34 Working Groups
56 Interest Groups
1 Community of Practice

13,690 INDIVIDUAL MEMBERS FROM 151 COUNTRIES

69% Academia & Research
14% Public Administration
11% Enterprise & Industry

68 ORGANISATIONAL MEMBERS
12 AFFILIATE MEMBERS

National PID Strategies WG



<https://www.rd-alliance.org/groups/national-pid-strategies-wg>

Status: Recognised & Endorsed

Members: 75

Co-chairs:

- Christopher Brown, Jisc, UK
- Daniel Bangert, DRI/Royal Irish Academy
- Natasha Simons, ARDC, Australia
- Shawna Sadler, ORCID, Canada

Start date – 10 December 2021

End date – 10 June 2023



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National PID Strategies WG



Outputs (in final review by RDA Council)

Guide and Checklist

- Guide compares nine case studies, including scope, drivers, strategy development, key features and priority PIDs
- Use checklist as a starting point for developing your national PID strategy

Case Studies

- Australia, Canada, Czech Republic, Finland, Germany, the Netherlands, New Zealand, South Korea, and the United Kingdom

The Guide, Case Studies and Checklist can be used to:

- Inform the development of your national PID strategy
- Develop a roadmap to accompany your strategy
- Align with international initiatives in this important area
- Facilitate stakeholder engagement with national PID strategies

Developing a ‘how-to’ guide



Key messages

- National PID Strategies are in the early stages. Most countries do not have a “strategy”, they have an emerging initiative or approach
- The environment is in flux, so the case studies and guide are snapshots in time
- The scope of a strategy/approach varies between countries but there are common elements, drivers and PIDs between the case studies



Photo by [Alex Andrews](#) on [Pexels](#)

National PID Strategies Interest Group



<https://www.rd-alliance.org/groups/national-pid-strategies-interest-group>

Status: Recognised & Endorsed

Members: 30

Co-chairs:

- Christopher Brown, Jisc, UK
- Daniel Bangert, DRI/Royal Irish Academy
- Natasha Simons, ARDC, Australia
- Shawna Sadler, ORCID, Canada

Endorsed – July 2023



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National PID Strategies Interest Group



Focus areas:

- Facilitating information exchange between those developing and/or delivering national PID strategies
- Facilitating engagement between developers of national PID strategies and international PID providers such as ORCID, DataCite and CrossRef
- Collaboratively developing the value proposition for national PID strategies overall as well as its component parts (such as grant identifiers, person identifiers, organisation identifiers) that can be reused/adapted by the community
- Collecting case studies of national PID strategies from countries across the globe
- Maintenance of the guide and checklist produced by the Working Group

And finally...

Summary of key deliverables

- **RINCC established**
 - Governance group
- **Cost-benefit Analysis report (revised)**
 - <https://doi.org/10.5281/zenodo.7356219>
- **PID optimised workflows**
 - <https://doi.org/10.5281/zenodo.7085489>
- **The case for investment in a UK PID strategy**
 - <https://zenodo.org/record/6012367>
- **PID Support Network**
 - Business plan (internal at Jisc)
- **UK RAiD Registration Agency**
 - Business plan (internal at Jisc)
- **National PID Strategy WG -> IG**
 - Guide, checklist and UK case studies – reviewed and available

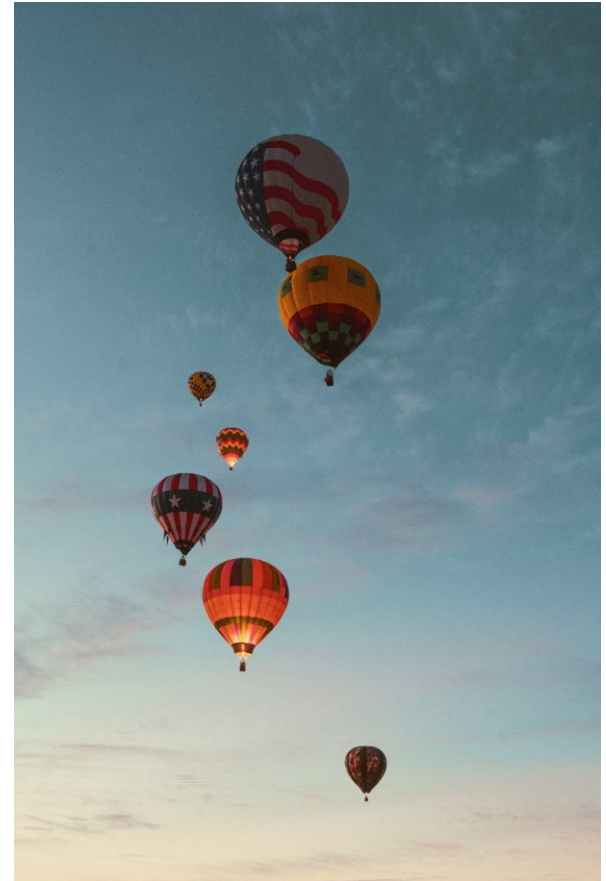


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Thank you

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