

# Case Study - UK (RDA National PID Strategies Working Group)

Title	Case Study: National PID Strategy UK
Creator(s)	Christopher Brown, Product Manager, Jisc <a href="https://orcid.org/0000-0002-6884-9970">https://orcid.org/0000-0002-6884-9970</a> <a href="mailto:christopher.brown@jisc.ac.uk">christopher.brown@jisc.ac.uk</a>
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## Features of National PID Strategy

### **Lead organisation(s)**

*List the lead organisation(s) and governance structure responsible for developing and/or maintaining the strategy*

### Organisations

Jisc - <https://www.jisc.ac.uk/>

UKRI - <https://www.ukri.org/>

Research England - <https://www.ukri.org/councils/research-england/>

### Groups

Research Identifier National Coordination Committee - <https://rincc.org.uk/>

### **Scope**

*Define the scope of the strategy i.e. who it applies to*

A national PID strategy applies across the academic research community. The work described in this case study is focused on UKRI/Research England funded PID work, led by Jisc, to develop a PID roadmap and strategy. The strategic goals were to include sector-wide cost savings through improved automation and technical integrations; wider adoption of persistent identifiers by institutions, funders, and individual researchers; and improved reporting mechanisms to better assess the impact of, and progress towards, an open access future. These offer value to funders, policy makers, institutions, researchers, and to commercial 'academia-adjacent' organisations.

Establishing a national community coordination and guidance group to guide and oversee work in this space, such as the Research Identifier National Coordinating Committee (RINCC), consisting of interested stakeholders (open research supporting organisations including funders, institutions, learned societies, infrastructure providers, and publishers), helps to liaise with PID providers, align integrations, and provide strategic oversight to these activities.

The development of a UK PID support network will support various stakeholders (particularly research information managers, funders, and content providers), in integrating PIDs within systems and adopting PID-enabled workflows.

### Drivers

*Describe the drivers behind the strategy development e.g. wanting to improve accuracy of research information, better track research impact, reduce administrative burden, etc.*

The drivers behind a national PID strategy are the benefits and efficiencies it would bring to the whole research lifecycle through the adoption and integration of priority PIDs in the systems and workflows that make up the digital research environment. The benefits of widespread PID adoption include better workflows and automation for researchers, funders, research organisations, and end-users. The impact would result in cost savings and improved reporting mechanisms that would enable assessment of such impact. Improvements and efficiencies, for the benefit of all stakeholders, can only be achieved through widespread PID adoption.

A graphical representation of the benefits of the five priority PIDs at each stage of a typical research lifecycle including grant application, output publication, and research reporting and evaluation is shown in Appendix A of the UK PID Consortium: Cost-Benefit Analysis report [1]. The text from this diagram is shown in the following table:

STAGE	Description	PIDs	Benefits
GRANT APPLICATION	Researchers and institutions pass PIDs for previous grants, outputs, organisations, people, and projects to grant application systems	DOI ORCID ROR RAiD	1) Less manual data entry 2) More accurate data 3) More time for including contextual information
GRANT APPLICATION AND REVIEW	Funders ingest data about grants, outputs, organisations, and projects from PID registries	DOI ORCID ROR RAiD	1) Less manual data entry 2) More accurate data 3) More time for including contextual information 4) Easier reviewer selection and recognition
GRANT AWARD	Funders register DOIs for new grant metadata	DOI	1) Globally unique grant IDs and metadata to aid reporting 2) Authoritative metadata and connections to other PIDs to aid

			project management 3) Simplified communication of and compliance with policies (e.g. OA, DMPs, etc.)
GRANT AWARD	Institutions ingest data about grants and associated people and organisations	DOI ORCID ROR	1) More accurate data 2) Time/effort savings 3) Improved reporting
PROJECT REGISTRATION	Institutions register RAiDs for projects and add/update links to associated grants, equipment, people, and organisations	DOI ORCID ROR RAiD	1) More accurate data 2) Time/effort savings 3) Improved visibility of collaborations across institutions and countries
OUTPUT SUBMISSION	Researchers share their ORCID iD when submitting new outputs and connect to ROR IDs for institutional affiliations and grant DOIs for funding	DOI ORCID ROR	1) More accurate data about co-authors, affiliations, and funding 2) Time/effort savings in review and metadata creation 3) Easier sign-in 4) Easier APC management 5) Easier reviewer selection and recognition
OUTPUT PUBLICATION	Publisher/repositories ingest data about grants, people, projects, and organisations linked to outputs	DOI ORCID ROR RAiD	1) Reduced administrative overhead for publishers 2) Improved author experience 3) Richer metadata to aid discovery, analysis, and reporting
OUTPUT REGISTRATION	Publishers/repositories register DOIs for new outputs and populate metadata	DOI	1) Globally unique output IDs and metadata to aid analysis, citation, discovery, and reporting 2) Embedded PIDs for associated entities (authors, funding, etc.) streamline reporting and analysis 3) Greater ability to track reach and impact of content
CONTENT NOTIFICATIONS	PID registries send automatic updates of new publications etc. to institutions and funders	DOI ORCID	1) Reduced administrative overhead for institutions/funders 2) More timely data for reporting and analysis 3) Less manual data entry 4) More accurate data 5) Time/effort savings for researchers

REPORTING	Researchers and institutions pass PIDs for outputs, organisations, people, and projects to funders' reporting systems	DOI ORCID ROR RAiD	1) Less manual data entry 2) More accurate data 3) More time for including contextual information
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### Strategy development

*Describe the process and timeline through which the strategy was developed e.g. Advisory Group was formed led by a government agency, there was a consultation period in which xx people and organisations were involved, the process by which agreement was achieved etc.*

### Project timeline

**June 2018 – Tickell’s Open Access to Research Publications [2]** The Universities UK Open Access Coordination Group, chaired by Professor Adam Tickell, recommended the use, and in some cases mandating, of PIDs. One of its recommendations was for “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.”

**July 2019 – PID Roadmap report [3]** Funded by Research England and commissioned by Jisc. A consultation workshop, run by Jisc and independent consultants, was run with 39 attendees made up of funders, infrastructure providers, publishers (both open access and subscription), research institutions, scholarly societies, and system vendors. The findings of the workshop were validated by consultation with a broad community of experts. Identified five priority PIDs and proposed the outline of a national PID strategy.

**December 2019 – UK PIDs for OA project starts** Funded by Research England and administered by Jisc. The aim was to develop a national PID strategy coordinated across the academic research community. Strategic goals included sector-wide cost savings through improved automation and technical integrations; wider adoption of persistent identifiers by institutions, funders, and individual researchers; and improved reporting mechanisms to better assess the impact of, and progress towards, an open access future. Its key tasks were to 1) create a roadmap to implement the strategy; 2) explore barriers and opportunities for PID adoption in the UK; and 3) build a community around the strategy.

**May/June 2020 – Focus groups [4]** Part of the UK PIDs for OA project. Consisted of 28 participants from 19 organisations in five focus groups. The objectives of the focus groups were to take a deep dive into specific community issues, explore perceptions and elucidate needs; validate the selection of five priority PIDs and the approach of a national PID support consortium; refine and prioritise the interventions outlined in the roadmap report[3]. The findings were that there are major sector requirements around education and support. Emphasised the need for leadership and strong governance, that is, it is important to get questions of persistent

identifiers into high level national strategic discussions and to develop governance and sustainability models that allow for long term community engagement.

**August 2020 – PID adoption survey** [5] Part of the UK PIDs for OA project. The survey gathered 93 responses, 75% of which were from organisations which primarily serve a UK audience. Researchers were overwhelmingly the focus of organisations responding. Its major findings were: Support for the project’s focus on five ‘priority PIDs’ for open research, with DOIs for outputs and ORCID iDs for people being both widely known and adopted; Technical barriers and costs of PID adoption are seen as too high; The value proposition for PIDs is not understood.

**October 2020 - Consortium Task Group** Part of the UK PIDs for OA project. Chaired by UKRI, the group explored the value propositions for PIDs, and the potential role of an extended national consortium in driving adoption and increasing coverage. The group found that there was a good case for a consortium, if it was focused on support for PID integration, and recommended a robust cost-benefit analysis before further work was done. UK "multi-PID consortium" business case [6] prepared for the Consortium Task Group - November 2020 and revised January 2021.

**December 2020 – Research Identifier National Coordinating Committee (RINCC)** [7] [8] At the final UK PIDs for OA project stakeholder group meeting, there was overwhelming support for ongoing coordination via the RINCC. This was established to focus on governance and community accountability. Consisting of interested stakeholders, the group was recommended to liaise with PID providers, align integrations, and provide strategic oversight to these activities. Membership is made up of a majority of open research supporting organisations including funders, institutions, learned societies, infrastructure providers, and publishers.

**March 2021 – UK PIDs for OA project ends. “Phase 2” starts** The Jisc led, Research England funded project ends but further funding supports follow-on work to build a business case for investment in PIDS. Phase 2 of the project focused on communication and community development (building a community development strategy that will establish and operationalise the RINCC), and PID-optimised workflow development (developing “PID optimised” workflows for 1) Funding awards, from application to reporting and evaluation; 2) Institutional research management; 3) Research article publication; and 4) Research data management and publication)). In addition, the development of a UK PID support consortium to support stakeholders, particularly research information managers, funders, and content providers, in integrating with PIDs and adopting PID-enabled workflows.

**June 2021 - Publication of the cost-benefit analysis report [1] and the first meeting of the RINCC** Meeting co-chaired by Jisc and the British Library. Presentation of cost benefit analysis report [1] and proposal for a ‘multi-PID’ support consortium.

**August 2021 - UKRI’s open access policy** [9] calls for the extensive use of PIDs for journals, articles, authors, grants, funders, organisations, and projects.

**November 2021 - Second meeting of the RINCC and case for investment in a national PID strategy** Meeting co-chaired by Jisc and the British Library. Presented the case for investment in a UK persistent identifier strategy [10]. This calls for a national investment in activities to implement PIDs in alignment with the UK's strategic needs.

**June 2022 to November 2022 UK PIDs for OA project “Phase 3”** Funding from UKRI-STFC on digital infrastructure developments supported the following third phase of work: Business planning and roadmap to establish a dedicated team of technical, educational, and communications specialists hosted at a trusted UK institution to drive forward the PID agenda through the PID Support Network (previously referred to as the multi-PID support consortium); Business planning and roadmap for a UK RAiD Registration Agency; supporting RAiD pathfinder projects.

**July 2022 – Tickell’s Independent review of research bureaucracy report** [11] endorses the proposal for a PID Support Network and recommends extending this model to other facets of digital research platforms as appropriate and recommends that Jisc, as the designated umbrella body for digital services and solutions in the UK, should take a leading role in co-ordinating this activity for the higher education sector.

**September 2022 – PID optimised workflows published** [12]. The workflows show a vision of a more efficient future where PIDs are used throughout the research lifecycle to enable automation, efficiency, new discovery tools, and analysis. Following community discussions and a survey, they were selected based on where the community felt increased use of PIDs would have the greatest impact. These are 1) Funding awards, from application to reporting and evaluation; 2) Institutional research management; 3) Research article publication; and 4) Research data management and publication.

**November 2022 – Revised version of the cost-benefit analysis report** [13]

As part of the third phase of work mentioned above, a revised version of the cost-benefit analysis report is published, with a number of methodological improvements and updated data.

**November 2022 - Third meeting of the RINCC and case for investment in a national PID strategy** Meeting co-chaired by Jisc and the British Library. Presented the business case and roadmap for a PID Support Network and a RAiD Registration Agency. The Terms of Reference [8] were agreed and a volunteer third co-chair from the University of Oxford was selected. Meetings to continue with a target of two meetings a year and increasing membership.

**Next steps** – Continue work to establish a PID Support Network and a RAiD Registration Agency (including supporting RAiD pathfinder projects).

The Jisc webpage “**A national persistent identifier research strategy**” [14] describes all the work listed in this timeline. It will continue to be updated to reflect the progress of the PID research strategy.

## **Key features**

*Describe the key features of the strategy*

### Selection of priority PIDS

The following priority PIDs were selected:

- Crossref Digital Object Identifiers (DOIs) for funding grants of all kinds
- Open Researcher and Contributor Identifier (ORCID) iDs for people
- Research Activity Identifiers (RAiDs) for projects
- Research Organization Registry (ROR) identifiers for organisations
- Crossref and DataCite Digital Object Identifiers (DOIs) for outputs (especially articles and data)

### Clear arguments for why such an investment is needed

- PIDs are required to deliver a range of policy priorities and can help to align and join up work across the drive to deliver them
- PIDs have the power to save time and money and boost the return on investments in research
- PIDs provide a means for the UK to maintain its competitive advantage in the hyper-connected global research landscape
- The power of information systems has been vital in bringing the UK through a number of recent crises. The resilience of the UK's knowledge economy is clearly dependent on the resilience of these systems, and PIDs provide a means of strengthening these systems against future shocks and the risk of information loss
- In an age of global research collaboration, open, sustainable, international information systems are vital both for the trustworthiness of our research network and for our ability to analyse and adapt strategically

### Governance

The Research Identifier National Coordinating Committee (RINCC) has been established to provide strategic oversight and international coordination for the future of PID activities in the UK. Its combined membership covers the majority of open research-supporting organisations in the UK. Its role is to provide strategic oversight, troubleshoot barriers, provide national and international leadership, and participate in evolving business models, forming consortia, and support PID strategy initiatives.

### Support

There is both a need and a strong business case for investment in a PID support framework for the UK research and innovation sector. A PID support network (previously referred to as a multi-PID support consortium) would help drive PID adoption and coverage to levels that would deliver value. Without comprehensive adoption and use of PIDs, organisations large and small will be disadvantaged in the modern, digital-first, research environment.

### Leadership

A costed set of interventions have been identified, which should take the UK PID agenda to a sustainable, self-supporting level, capable of delivering the wider goals of a range of policy priorities for the UK. The implementation of a national PID strategy requires strategic leadership and vision from major funders and key stakeholders. This is required to drive change, and adoption and implementation, across the research sector. Without it the benefits cannot be realised.

### Funding

UKRI, Research England, Jisc, and the many stakeholders who have participated in the programme, whether in research, task forces or the RINCC, have all invested significant amounts (in time, effort and resources) in bringing the roadmap to its current stage. The return on all these investments will decay without a timely, targeted follow-up investment to unlock and deliver the benefits outlined in the strategic case [10] and in the cost-benefit analysis report [1].

### Business case

The business case for investment in a UK persistent identifier strategy [10] calls for a national investment in activities to implement PIDs in alignment with the UK's strategic needs. The steps necessary are:

1. Create a consortial network to lower barriers to and costs of PID adoption
2. Community education and promotion to drive adoption of PIDs to leverage network effects
3. Understand critical information pathways between funders, institutions, and content publishers
4. Establish technical and social requirements for systematic exchange and reuse of information across stakeholder groups

Three components are necessary to deliver these needs:

1. National access to and support for key PIDs
2. A national coordination body to guide and oversee work in this space
3. A dedicated team of technical, educational, and communications specialists hosted at a trusted UK institution to drive forward the PID agenda.

### **Key infrastructure**

*List and describe the key infrastructure (platforms, systems, services) that will activate this national PID strategy*

<b>Name of infrastructure</b>	<b>Key purpose</b>	<b>List of integrated PIDs</b>
UK ORCID Consortium	Jisc is the lead organisation for this service providing reduced cost and support for its members	ORCID



DataCite Consortium	The British Library is the UK consortium and works with organisations in the UK and Ireland to ensure that their data, software and other research items can be uniquely identified with DOIs	DOI
RAiD	A Persistent Identifier for research projects.  Plans for a Registration Agency in the UK with the Registration Authority run by the Australian Research Data Commons	RAiDs for projects
UKRI New Funding Service (replacing Je-S from January 2024)	Grant application service	Various TBC

**PIDs**

List which functions and PIDs are identified in the strategy e.g. identification of research grants is a function and the PID recommended in the strategy is Crossref DOI

Function	PID type	Recommended or required?
People	ORCID	Recommended
Outputs	Crossref and DataCite DOIs	Recommended
Grants	Crossref DOIs	Recommended
Organisations	ROR identifiers	Recommended
Projects	RAiDs (Research Activity IDs)	Recommended

**Impact and monitoring**

Summarise any work to describe or track impact of the strategy, including review and/or monitoring processes

The UK PIDs for Open Access project (and subsequent follow on work) has helped to define a national PID strategy in the UK and increase adoption of PIDs to support open access. This work has had the following impact:

- Better understanding of the state of the art and best practice in the governance and delivery of PID services
- Increased awareness of persistent identifiers across the research sector
- Five validated priority PIDs selected through community consultation - outputs (DOIs), grants (Crossref Grant ID), people (ORCID), project (RAiD), organisations (ROR)
- Address inefficiencies and administrative burden in Open Access and publication workflows

Tracking the impact of a national strategy requires ownership from major stakeholders, in particular funders, and governance structures to be put in place. The RINCC has been established to provide governance and community accountability. The purpose of the RINCC is set out in its Terms of Reference[8]:

“The UK’s Research Identifier National Coordinating Committee (RINCC) will support the sustainability and growth of priority persistent identifier (PID) systems, helping to identify and deliver key integrations of PID services and associated metadata for the UK research ecosystem, with a focus on tangible, quantifiable benefits. As a national group, the RINCC will collate and reflect the needs of all UK stakeholders in open research on the global stage, via a coherent national strategy for fair, reliable, and accessible PID adoption.”

## Links

*Include any links to strategy documents*

[1] Brown, Josh; Jones, Phill; Meadows, Alice; Murphy, Fiona; & Clayton, Paul. (2021). UK PID Consortium: Cost-Benefit Analysis (1.0). <https://doi.org/10.5281/zenodo.4772627>

[2] Tickell, A. (2018) Open Access to Research Publications: Independent advice. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/774956/Open-access-to-research-publications-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/774956/Open-access-to-research-publications-2018.pdf)

[3] Brown, Josh (2020) Developing a persistent identifier roadmap for open access to UK research. <https://repository.jisc.ac.uk/7840/>

[4] Murphy, Fiona and Jones, Phill (2020) Jisc PID Agency: Focus Group Report. <https://repository.jisc.ac.uk/8166/>

[5] Brown, Josh and Meadows, Alice (2020) Persistent identifiers adoption and awareness survey report. <https://repository.jisc.ac.uk/8107/>

[6] Brown, Josh and Meadows, Alice (2021). UK "multi-PID consortium" business case. <https://doi.org/10.5281/zenodo.4760886>

[7] Research Identifier National Coordinating Committee (RINCC) <https://rincc.org.uk/>

[8] RINCC terms of reference <https://docs.google.com/document/d/1-TYRAFBIF5207ugs1xJfc7saasU7o-dfi66qjZ8rmZA/edit?usp=sharing>

[9] UKRI Open Access Policy (2021). See especially Annex 2: Technical requirements for research articles. <https://www.ukri.org/wp-content/uploads/2021/08/UKRI-180821-UKRIOpenAccessPolicy-2.pdf>

[10] Brown, Josh; Jones, Phill; Meadows, Alice; Murphy, Fiona (2022) The case for investment in a UK persistent identifier strategy <https://zenodo.org/record/6012367#.YgKnQPinxEY>

[11] Tickell, A. Independent review of research bureaucracy – Final Report [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1094648/independent-review-research-bureaucracy-final-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1094648/independent-review-research-bureaucracy-final-report.pdf)

[12] Brown, Josh, Jones, Phill, Meadows, Alice, & Murphy, Fiona. (2022, September 16). PID-optimised workflows: A vision of a more efficient future. <https://doi.org/10.5281/zenodo.7085489> and webpage - <https://www.morebrains.coop/jisc-pid-workflows/>

[13] Brown, Josh; Jones, Phill; Meadows, Alice; Murphy, Fiona (2022) Revised cost-benefit analysis for the UK PID Support Network <https://doi.org/10.5281/zenodo.7356219>

[14] Jisc's "A national persistent identifier research strategy" webpage <https://www.jisc.ac.uk/rd/projects/a-national-persistent-identifier-research-strategy>

### **Additional**

*Include any other relevant information*

The following are not referenced in the case study but are relevant to the UK PID strategy work.

[15] Research Data Alliance national PID strategies working group. <https://www.rd-alliance.org/groups/national-pid-strategies-wg>

[16] Meadows, Alice (2020) Blog post: There's A PID For That! Next Steps in Establishing a National PID Strategy <https://scholarlycommunications.jiscinvolve.org/wp/2020/10/09/theres-a-pid-for-that-next-steps-in-establishing-a-national-pid-strategy/>

[17] Meadows, Alice & Jones, Phill (2021) Blog post: Why Publishers Should Care About Persistent Identifiers <https://scholarlykitchen.sspnet.org/2021/06/21/why-publishers-should-care-about-persistent-identifiers/>

[18] Meadows, Alice & Jones, Phill (2021) Blog post: Making the Case for a PID-Optimized World <https://scholarlykitchen.sspnet.org/2021/06/22/making-the-case-for-a-pid-optimized-world/>

[19] Brown, Christopher; Brown, Josh (2021) (presentation): Positive People Present their Persistent Pursuit of Practically Perfect PID Partnerships at PIDapalooza <https://doi.org/10.5281/zenodo.4475520>

[20] Brown, Christopher; Brown, Josh (2021) (presentation): National PID Strategies - UK <https://doi.org/10.5281/zenodo.4748422>

[21] Brown, Christopher (2021) (presentation): National PID Strategies Working Group - UK update <https://doi.org/10.5281/zenodo.5752200>

[22] Brown, Christopher (2022) (presentation): National PID Strategies Working Group - UK case study <https://doi.org/10.5281/zenodo.6840808>

[23] Meadows, Alice (2023) Blog post: Why PID Strategies Are Having A Moment - And Why You Should Care <https://scholarlykitchen.sspnet.org/2023/01/25/why-pid-strategies-are-having-a-moment-and-why-you-should-care/>