IReL Executive Report | 2022

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IReL:

a key part of Ireland's research and educational infrastructure

Introduction from the Chair

It is my great pleasure as Chair of the IReL Governing Committee and President of IReL's host organisation, Maynooth University, to take this opportunity to look back on 2022 and my first year as Chair.

IReL was established almost 20 years ago with the mandate of enabling research excellence at Irish universities. The data presented in this report showcases IReL's ongoing commitment to enabling research excellence as well as the extent to which IReL has become integral to the educational success of the students and future researchers at Irish universities.

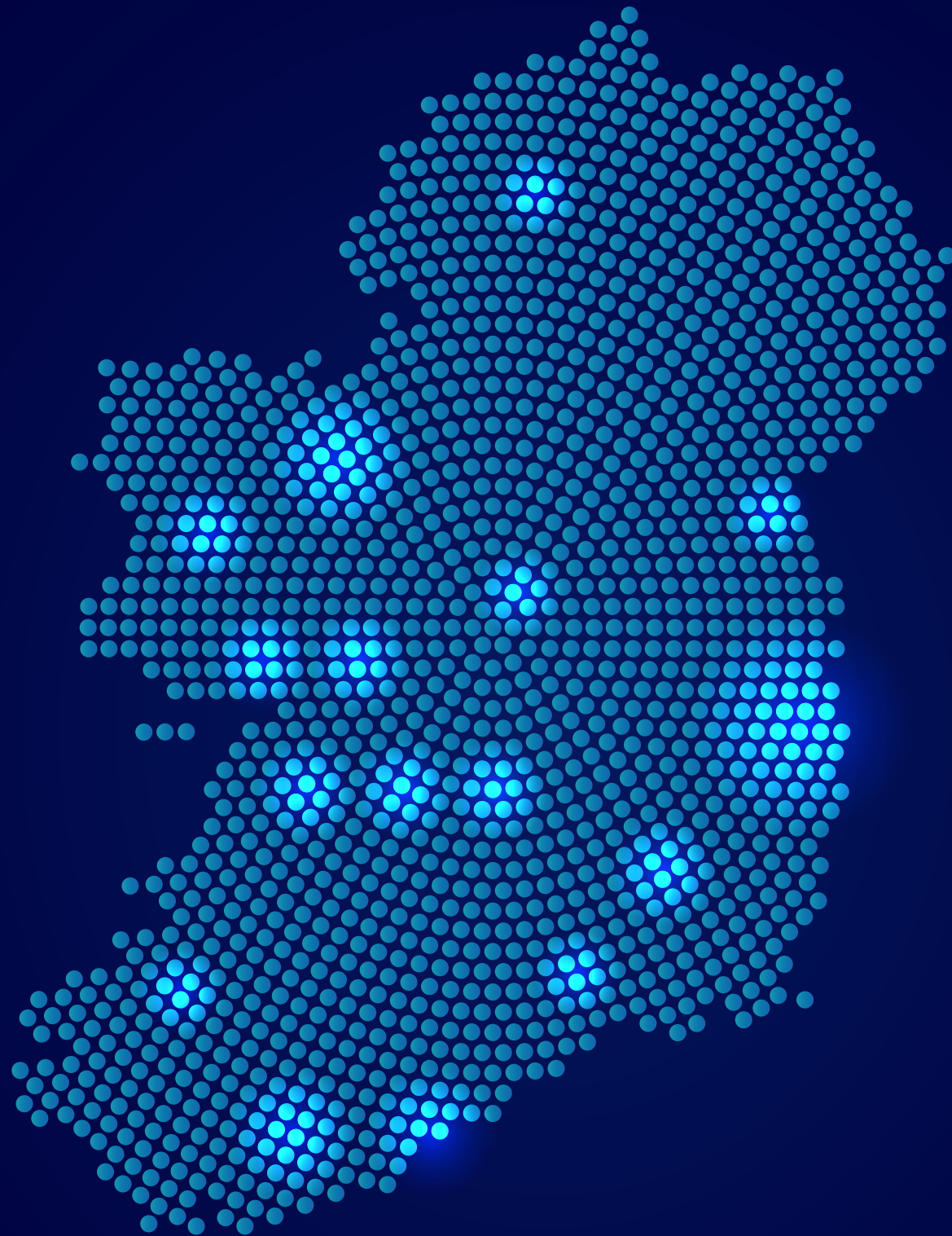2022 was a significant year for IReL for a number of reasons.

An extremely welcome development in 2022 was the onboarding of the technological universities and institutes of technology as members of IReL. Expansion of IReL membership not only helps to create a level playing field by ensuring that institutions have access to the high quality information resources that underpin excellence in research and education, it also increases research capacity and enables excellence across the whole higher education sector.

The biggest success story for IReL in 2022 is the progress that has been made in supporting researchers based at IReL institutions to publish their research open access (OA), making it accessible to everyone and therefore increasing its potential for societal impact.

In January, Susan Reilly was appointed IReL's first Director, signalling the growing standing of IReL as essential national infrastructure.

2022 has been a year of growth, growth in the number of users accessing IReL resources, in the number of IReL member institutions, and in the impact that IReL is having on the Irish research landscape. Looking forward, the challenge for IReL is to sustain this growth. As well as addressing the sustainability of our current activities there are opportunities for IReL to further bolster research capacity in the sector by expanding membership and further developing services that build on the strengths and expertise of IReL. I look forward to working with the Governance Committee and the Director of IReL to address these opportunities and challenges.

Professor Eeva Leinonen, Chair, IReL Governing Committee

IReL: serving universities and higher education institutions across Ireland

Director's Note

At the start of 2022 Ireland had begun to take tentative steps towards our emergence into a post-COVID world. At institutions of higher education efforts were being made to address long term planning around practices that had been adopted out of necessity, such as work from home and blended learning, but would become permanent features of working and learning. IReL had closed out a year that had seen an unprecedented rise in the level of use of our online resources. The first transformative agreements enabling researchers at IReL member institutions to publish OA had been well received and there was clearly demand for more support in this area. As well as ambitions to scale our support for OA, IReL was set to expand its membership to include institutes of technology and the newly established technological universities.

It was against this backdrop that I took up the newly established role of Director of IReL in January 2022. Prior to my appointment IReL had been steered by a grouping of Irish University librarians, the Irish Universities Collaboration Centre (IULCC), with Maynooth University Librarian, Cathal McCauley, as Director. My appointment was necessitated by the expansion of IReL membership and also signified IReL's ongoing evolution from what was initially a community project towards becoming integral research infrastructure.

In 2022 there were several unknowns for IReL. Would usage of our online resources remain high or had we experienced a COVID bump? Would researchers at IReL institutions continue to choose to publish OA and, if so, could we meet demand? Would funding be made available to support the cost of expanding access to resources to new members?

These questions have been answered somewhat here. It seems our increase in usage was more than simply a COVID bump as usage figures have not merely stabilised but increased in 2022 to over 19 million accesses and our cost per use has decreased proportionally. Researchers at IReL institutions are continuing to choose OA, which means that in some instances the demand for support for OA article publishing outstripped supply. Initial funding to begin the process of providing Technological University access to a subset of IReL resources will be provided by NTUTORR from 2023.

I would like to take this opportunity to thank the IReL team for their hard work over the year, in particular for the painstaking data analysis works that underpins our negotiations and planning. A warm welcome also to our new team members, Aidan Mullen, Finance and Compliance Controller, and Annika Lindh, OA Data Analyst.

I'd also like to thank the IReL membership librarians who have consistently made the case for IReL and dedicated time and energy to guide the development of the organisation and support negotiations with vendors to achieve best value for money for the sector.

Susan Reilly, Director

Looking towards 2030: a step change for IReL

"The fundamental driver of Impact 2030 will be making a real difference for all people across Ireland and beyond. We will create an inclusive research and innovation system delivering the solutions for Irish society and our economy, solving our common challenges through teamwork, and enhancing our reputation". **Minister Simon Harris, Department of Further and Higher Education, Research, Innovation and Science**

The real step change for IReL has not only been scaling, it is the policy environment in which IReL operates. 2022 saw the launch of both Impact 2030[1] and the NORF National Action Plan for Open Research 2022-2030[2]. Impact 2030's emphatic focus on research excellence and impact validates and strengthens the rationale for expanding IReL membership and ensuring that the university sector in Ireland continues to be competitive by retaining access to world class research resources. The NORF target of moving towards 100% OA by 2030 also provides the impetus for IReL to continue to grow our support for OA publishing whether that be through transformative agreements or other emergent OA business models.

Impact 2030, Ireland's Research and Innovation Strategy outlines a strong vision for research excellence underpinned by world class infrastructure and talent making a positive impact across society. IReL's activities are strongly aligned with the overall vison set out in Impact 2030.

Impact 2030 Pillar Two: Impact of R&I Structures on Excellence and Outcomes is the area that IReL has the most potential to contribute to. In particular:

Monitoring & Trust

IReL has begun to improve accountability and monitoring of investment in and impact of research at Irish higher education institutions. With HEA support it has fostered the integration of ORCID identifiers into institutional systems. The use of these identifiers asserts connections between researchers and grants awarded to them and ultimately contributes to the building of a more trustworthy research infrastructure and better tracking of research outcomes.
IReL currently also has responsibility for the development of the National Open Access Monitor which will enable the monitoring of research publications at a national, institutional and funder level.

Technological University Research Capability

TU membership of IReL is important for bulding their research capability. By aiming to provide access to the same suite of quality information resources to students and researchers, first at Irish universities and now across the TU sector, IReL creates a level playing field in terms of access to the resources that underpin a high quality teaching and learning experience as well as the production of internationally competitive research. Initial funding to begin the process of providing TU access to a subset of IReL resources has been provided by NTUTORR from 2023[3].

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[1] https://www.gov.ie/en/publication/27c78-impact-2030-irelands-new-research-and-innovation-strategy/
[2] https://norf.ie/wp-content/uploads/2022/11/National-Action-Plan-for-Open-Research-webversion.pdf
[3] https://www.transforminglearning.ie/partners

The NTUTORR programme is focussed on transforming the student experience across the TU Sector by empowering learners to become active partners in learning transformation; by developing the capabilities of all staff to address a sustainable pedagogical environment; and by providing an enhanced digital ecosystem to enable these objectives. The programme is organised around three streams designed to enable the sector to achieve the goal of developing and implementing a major programme of work that demonstrates clear sectoral gains and digital transformation through collaborative engagement.

Open Research

Impact 2030 identifies the importance of adopting open research practices. The main vehicle for promoting the adoption of open research practices in Ireland is the National Open Research Forum (NORF) through the implementation of its action plan.

A goal of the **NORF Action Plan** is that by 2030 "Ireland will have implemented a sustainable and inclusive course for achieving 100% open access to research publications". IReL will be a key partner in achieving this in two crucial ways:

1. Leading the project to develop Ireland's OA Monitor which will be the primary measure of our progress towards 100% OA.
2. Supporting a large suite of OA publishing agreements which in 2022 helped to make 3,113 research publications OA.

There is some evidence that the availability our OA agreements are positively influencing the adoption of open research practices. In a 2022 survey of UCD researchers who had availed of our OA agreements respondents were asked if they would still have opted to publish OA if the agreement were not in place. 74% responded that they would not have chosen OA without such supports.

Without OA agreement, would you have opted to publish OA?

Figure 1: UCD Library, Open Access Publishing Agreements - feedback survey, 2022

148
Responses

YES 73.6%

NO 26.4%

"Joining IReL has been a pivotal moment for our Technological University as we continue to grow our research activity, infrastructure and capacity in line with our TUS strategy.

This consortium not only empowers our scholars with richer, more accessible research materials but also ensures that our organisation benefits from better value access to essential scholarly sources.

IReL's Transformative Agreements play a pivotal role in making our research accessible to the public, ensuring that our unique TUS research discoveries and innovations have the widest possible impact for economic and societal benefit.

It is also vital to acknowledge the need for sustained funding for continued TU onboarding to the Consortium to unlock IReL's full potential for our research community."

**Prof Vincent Cunnane, President,
Technological University of the Shannon: Midlands Midwest**

2022 Highlights

Membership

In 2022 IReL membership grew from

10 institutions to 17.

We now serve over

206,000

students and researchers across Ireland.

We are delighted to welcome the new technological universities, institutes of technology and Mary Immaculate College as IReL members.

Open Access (OA)

A total of **3,121 articles** were published OA in **2022** as part of IReL-supported OA agreements. IReL's OA publishing agreements made **2,126 articles** OA, an **18%** increase from the **1,833 articles** in **2021**. In addition, a further **995 OA articles** were published under the **Irish ScienceDirect** agreement in 2022. This agreement is led by Irish HEI librarians, with support from IReL.
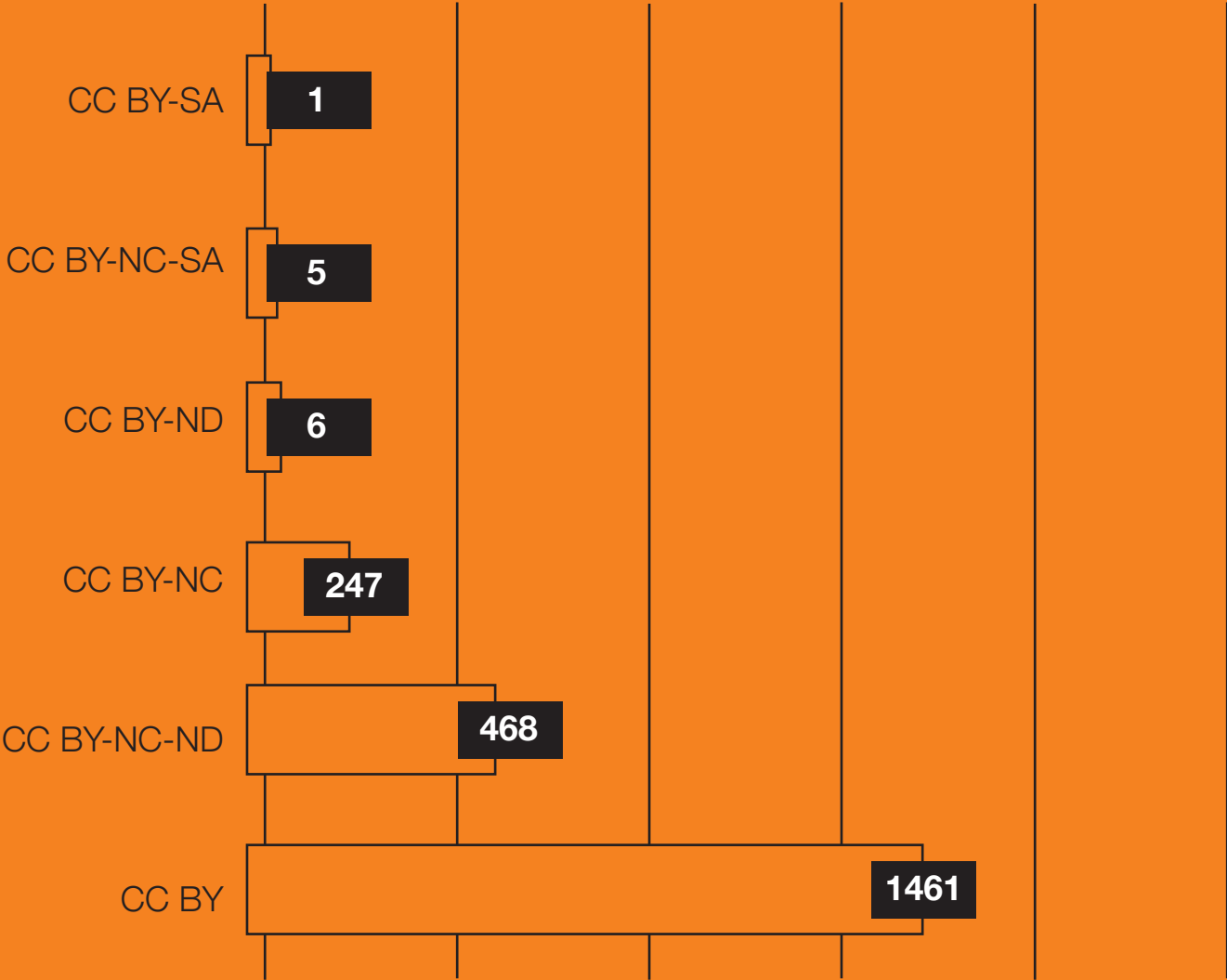
When given the choice, **87%** of IReL authors chose to publish open access.

We believe that this number can be significantly improved upon with improvements to publisher workflows.

IReL aims to support authors' choice of open access licence in our deals. The majority of IReL authors have choosen to publish their articles under a CC-BY licence.

Our articles quota for some agreements did not cover all the articles otherwise eligible to be published OA. In other words, demand to publish OA with some publishers exceeded supply by a total of 103 articles. 307 articles from IReL institutions were not published OA for other reasons, possible due to the choice of the researcher or issues with publisher workflows.

IReL authors' licence choice

Licence	Count
CC BY-SA	1
CC BY-NC-SA	5
CC BY-ND	6
CC BY-NC	247
CC BY-NC-ND	468
CC BY	1461

"Academics naturally rage against the machine and wish that all their research and scholarly papers could be published open access, but until free public open-access journals replace private publishing houses, we are dependent on the existing infrastructure. I'm personally very grateful for all the hard work our libraries do to negotiate good open-access publishing deals with private companies on our behalf. It's very important that we have this opportunity to publish some of our papers open access. I often think of all those people across the world who I'm connected with – in Africa, South America, India and elsewhere – all those who don't have adequate access to knowledge via their local library, and those not affiliated with a university. For all these people, I'm delighted whenever they can access papers online through a simple web search, and are not met with a paywall. It's always been part of the missions of libraries and academic institutions to ensure that knowledge is accessible to all, such that we can all learn and develop together. My sincere thanks to everyone in the Irish libraries ecosystem who works so hard to keep our knowledge systems as open as possible."
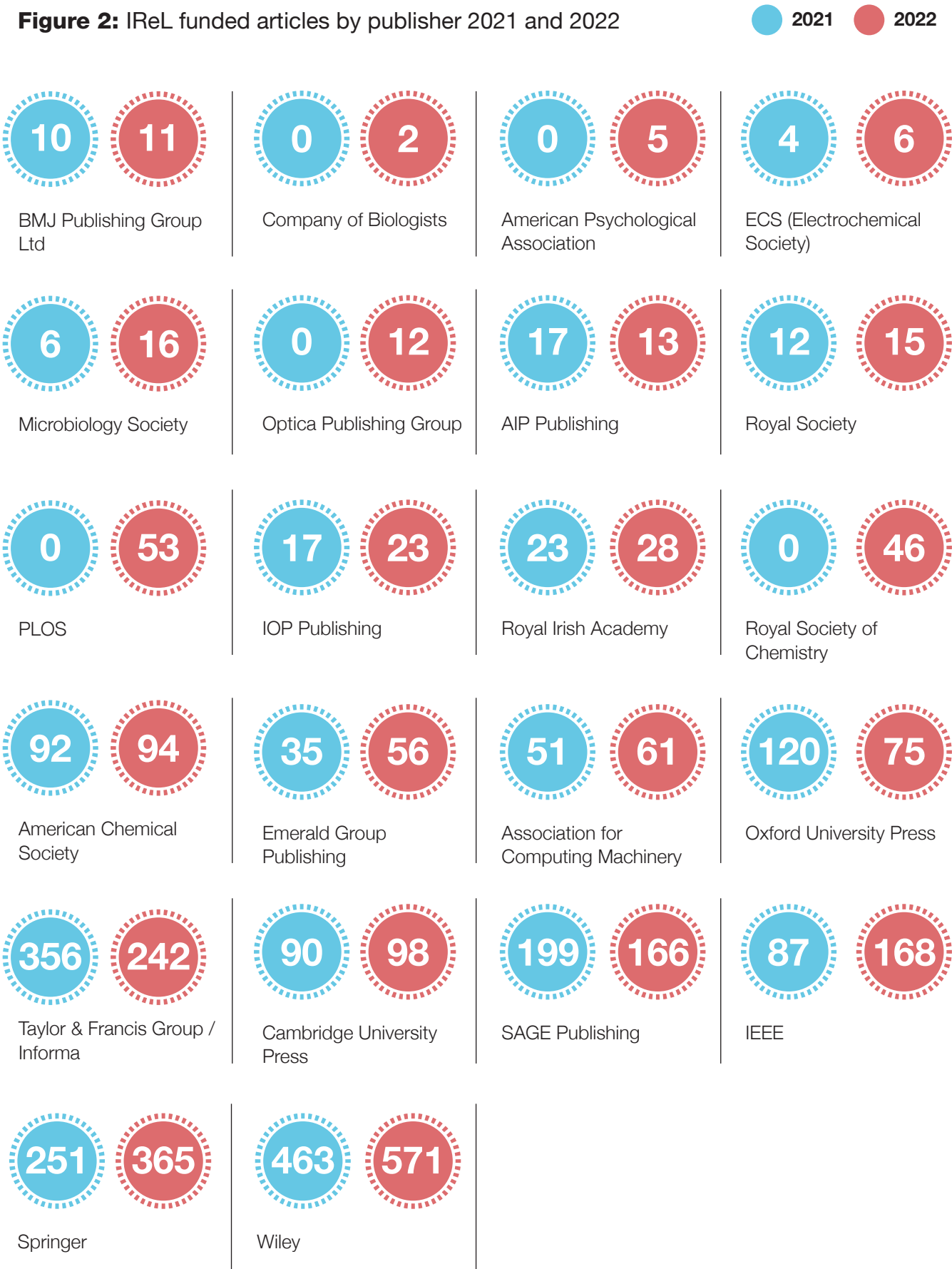
**Dr. Michael Hogan,
University of Galway**

"I'm very grateful to have the opportunity to publish my latest article on the Scottish artist Erskine Nicol as an open access piece. This is particularly important in the context of art history as a field, given that so many stakeholders working in this space are not affiliated with university libraries - those working in the gallery, museum, and library sector, for instance, and open access makes it much easier for them to engage with the article. The fact that it is open access will also mean that it is more accessible to lifelong learners, and more likely to be added to reading lists for students. The process that IReL has put in place is very user-friendly, and that is much appreciated. "

**Dr. Niamh NicGhabhann
Associate Professor, Department of History, University of Limerick**

Figure 2: IReL funded articles by publisher 2021 and 2022 ● 2021 ● 2022

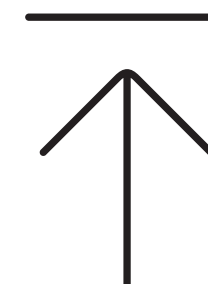| Publisher	2021	2022
BMJ Publishing Group Ltd	10	11
Company of Biologists	0	2
American Psychological Association	0	5
ECS (Electrochemical Society)	4	6
Microbiology Society	6	16
Optica Publishing Group	0	12
AIP Publishing	17	13
Royal Society	12	15
PLOS	0	53
IOP Publishing	17	23
Royal Irish Academy	23	28
Royal Society of Chemistry	0	46
American Chemical Society	92	94
Emerald Group Publishing	35	56
Association for Computing Machinery	51	61
Oxford University Press	120	75
Taylor & Francis Group / Informa	356	242
Cambridge University Press	90	98
SAGE Publishing	199	166
IEEE	87	168
Springer	251	365
Wiley	463	571

IReL: facilitating access to world class research with over 19 million accesses in 2022

Negotiations

In addition to the 18 OA publishing agreements in place up to 2021, IReL negotiated **a further five agreements in 2022** (with American Psychological Association, Optica Publishing Group, PLOS, Rockefeller University Press, and Royal Society of Chemistry)

Usage

We recorded **19.1 million** uses of IReL's licensed resources in **2022**, at a cost-per-use of **€0.72**. This is the highest level of annual recorded usage in IReL's history. Our cost-per-use is down from the **€0.74** reported in **2021**.

Monitoring

In November 2022, **IReL was awarded funding from the National Open Research Forum, under the €1.16 million Open Research Fund** to lead a two-year project to address a priority action of the National Open Research Plan: Action One, National Open Access Monitoring.[4]

[4] https://norf.ie/orf-projects-announcement/

International benchmarking

Ireland continues to be a global leader in publishing its research open access, largely driven by IReL's negotiation and support for transformative agreements at scale. The **ESAC Marketwatch** website places Ireland sixth among 61 benchmarked countries.

| **IReL: positioning Ireland as a global leader in open access**

Figure 3: Ireland benchmarked against global leaders in OA publishing by percentage of articles eligible to be published OA as part of a transformative agreement. From https://esac-initiative.org/market-watch/
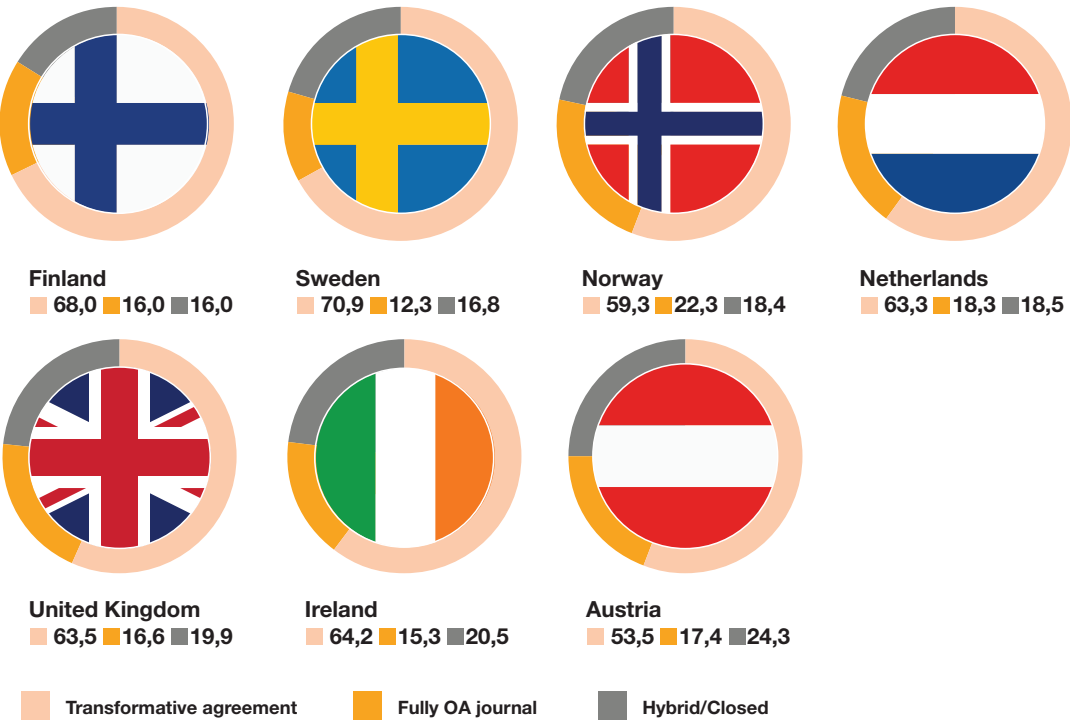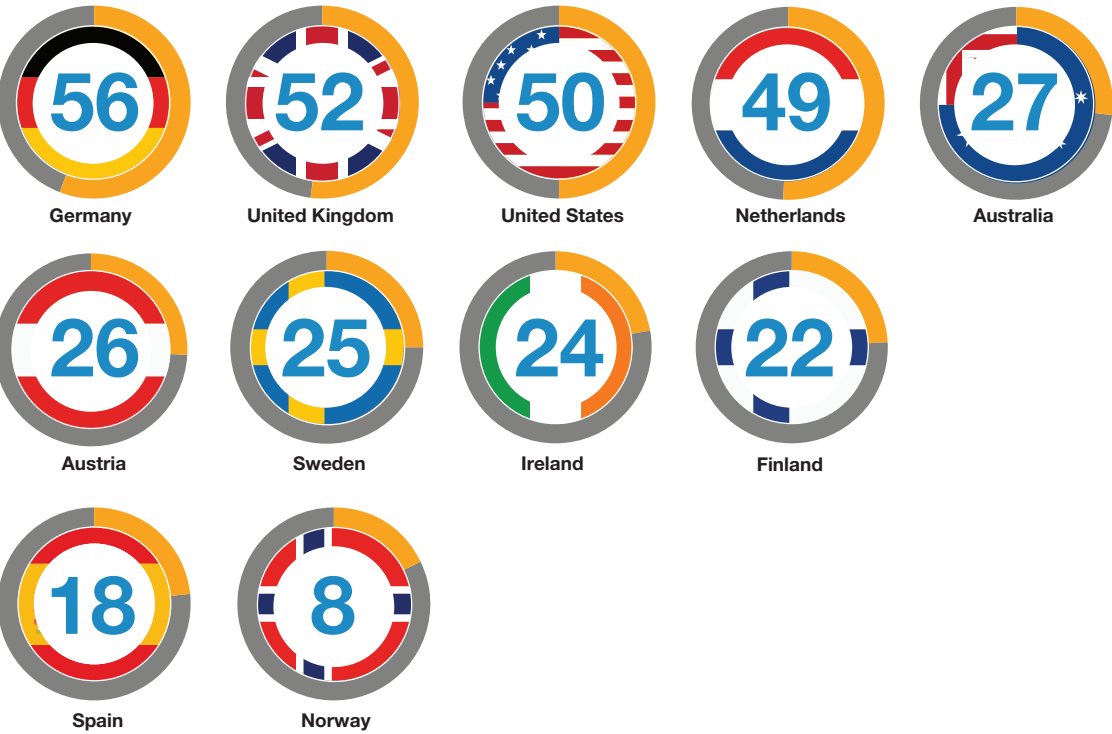

Finland
■ 68,0 ■ 16,0 ■ 16,0

Sweden
■ 70,9 ■ 12,3 ■ 16,8

Norway
■ 59,3 ■ 22,3 ■ 18,4

Netherlands
■ 63,3 ■ 18,3 ■ 18,5

United Kingdom
■ 63,5 ■ 16,6 ■ 19,9

Ireland
■ 64,2 ■ 15,3 ■ 20,5

Austria
■ 53,5 ■ 17,4 ■ 24,3

■ Transformative agreement　　■ Fully OA journal　　■ Hybrid/Closed

Figure 2 Ireland benchmarked globally by number of active transformative agreements. From https://esac-initiative.org/about/transformative-agreements/agreement-registry/

Germany 56　**United Kingdom** 52　**United States** 50　**Netherlands** 49　**Australia** 27

Austria 26　**Sweden** 25　**Ireland** 24　**Finland** 22

Spain 18　**Norway** 8

Impact of IReL's support for open access: a case study at the Royal College of Surgeons in Ireland
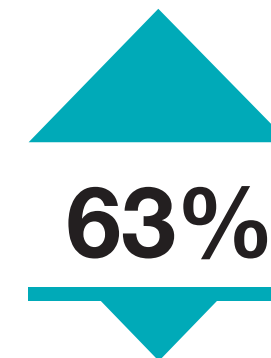
It is widely recognised that OA publications are more cited than publications that sit behind paywalls. This case study from the RSCI demonstrates the impact of IReL OA agreements both in terms of increasing the overall percentage of research publications that are available OA and in terms of increasing the citation advantage gained through the possibility to publish OA immediately.

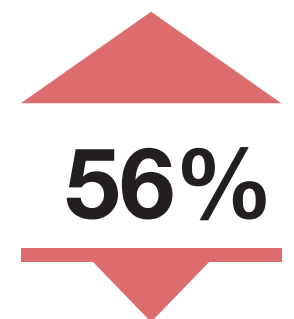## Growth in percentage of publications that are OA

1. Numbers of OA publications

70%

of RCSI publications from 2020-2022 are now available to the public as OA

63%

This is a significant rise from 63% when measured in 2019-2022
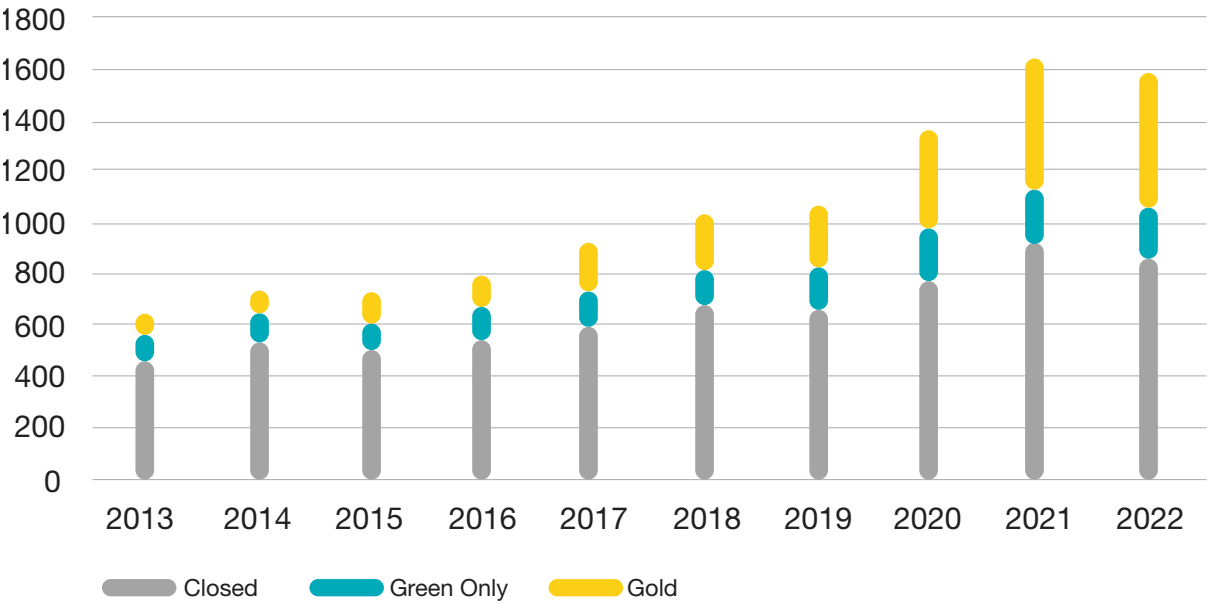
56%

and 56% in 2021 - 2022

> The impact of IReL agreements can be seen in the jump in gold and hybrid OA from 2021 onwards

Figure 4: RCSI Publications totals broken down by unique OA type (from Scopus 9.10.2023)

RSCI publications by unique OA types

Legend: Closed (grey) · Green Only (teal) · Gold (yellow)

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2. Citation performance of RCSI publications

> RCSI authored publications which are available as OA received nearly three times as many citations as those which are not, on average

> RCSI authored publications which are not OA are under-performing on citations compared to the world average (FWCI 0.86) where the OA content is at twice world average (1.99)

"At RCSI we want to maximise the visibility of our research, it's a key way of strengthening our reputation and impact, and Open Access has proved a valuable way of doing this. The IReL agreements have been of great benefit, allowing many of our researchers to publish and promote their findings to a wider audience, including partners and public around the world."

**Professor Fergal O'Brien,
Deputy Vice Chancellor for Research &
Innovation, RCSI**

Increase in citations and impact

Table 1: RCSI Publication metrics 2020-22, separated into closed and open access (categories from Scopus/Unpaywall, publications and metrics from SciVal 10.10.2023)

	Overall 2020-22	2020	2021	2022
Citations per publication				
Closed publication	5.4	8.2	5.7	2.3
Open Access	14.8	27.1	14.8	5.0
Field Weighted Citation Impact				
Closed publication	0.86	0.75	0.93	0.91
Open Access	1.99	2.30	2.04	1.71

ORCiD

IReL: building trusted research infrastructure

IReL is the lead organisation for the Irish ORCID consortium, responsible for providing administrative, technical and community support on ORCID integration and adoption to Irish ORCID Consortium Members. The consortium welcomed two new members, the Higher Education Authority and Mary Immaculate College, in 2022, resulting in a total of **20 members**. With the creation of Atlantic Technological University in April and South East Technological University in May, the (now-former) Letterkenny Institute of Technology, Institute of Technology Sligo and Institute of Technology Carlow which were not previously members, also came under the consortium expanding the size of the community actively working on ORCID.
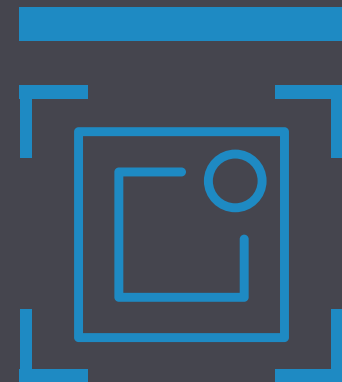
6 new ORCID Member API integrations launched in 2022:

- **IReL** (system: ORCID Affiliation Manager) to write Service affiliations to the ORCID records of those sitting on the IReL Steering Group and IReL Monitoring Group.

- **Maynooth University** (accreditation system: Academ) to populate Business School researchers' records with work data from ORCID

- **South East Technological University** (CRIS: Pure) to help researchers populate their Pure profile with work data from ORCID

- **University of Limerick** (repository: Figshare) to import and export data to and from ORCID, populating both researchers' Figshare and ORCID records.

- **Health Research Board** (grant management system: Symplectic) to enable researchers to import work data from ORCID to use in grant applications; (publishing system: F1000) to export both publication and peer-review data from HRB Open Research to ORCID

- **Royal College of Surgeons in Ireland** also released an update to their existing integration to write publication records to ORCID (in addition the existing functionality of reading from ORCID).

"ORCID plays a pivotal role in our commitment to research excellence at the University of Limerick. By providing a unified and persistent identity for our researchers, it enhances our research visibility through the streamlining of academic workflows, and ultimately ensures that our researchers contributions are recognized and connected on a global scale."

**Ashling Hayes,
Head of Research Services, University of Limerick**

34%

83%

113%

During 2022, ORCID iDs connected to ORCID through Irish ORCID consortium member integrations increased **34%**

ORCID records updated with works through Irish ORCID consortium member integrations increased **83%**

and ORCID records updated with peer-review activity through Irish ORCID consortium member integrations increased **113%.**

NORF National Action Plan for Open Research 2022-2030 in November 2022 which specified Action 4.4.1 to "Support the Irish ORCID Consortium and encourage further development and adoption of ORCID according to international best practice by researchers and within the systems and processes of publishers, research performing organisations, research funding organisations, and infrastructures."

What is ORCID?

ORCID, which stands for Open Researcher and Contributor ID, is a free, unique, persistent identifier (PID) for individuals to use as they engage in research, scholarship, and innovation activities. We provide ORCID to researchers free of charge so that we may realize our vision of connecting all who participate in research, scholarship, and "innovation are ensure that they are uniquely identified and connected to their contributions across disciplines, borders, and time.

IReL Governance Committee

Prof Eeva Leinonen, Maynooth University, Chair
Anna Lundén, National Library of Sweden
Professor Rachel Msetfi, Maynooth University
Susan Reilly, IReL Director
Sharon Bailey, University of Galway
Dr Liam Brown, Technological University of the Shannon: Midlands Midwest
Cathal McCauley, Maynooth University
Allison Kavanagh, TU Dublin
Louise Callinan, Higher Education Authority
John Cox, University of Galway

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Susan Reilly, Director
Jack Hyland, Manager and Interim Director (July 22 - January 23)
Aidan Mullen, Finance and Compliance Controller
Aaron Binchy, Officer
Catherine Ferris, Open Scholarship Officer
Annika Lindh, Open Access Analyst

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AN tÚDARÁS um ARD-OIDEACHAS

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Department of Further and Higher Education,
Research, Innovation and Science