



National Open Access Monitor, Ireland

Paving the road to 100% Open Access

2nd RFO Training

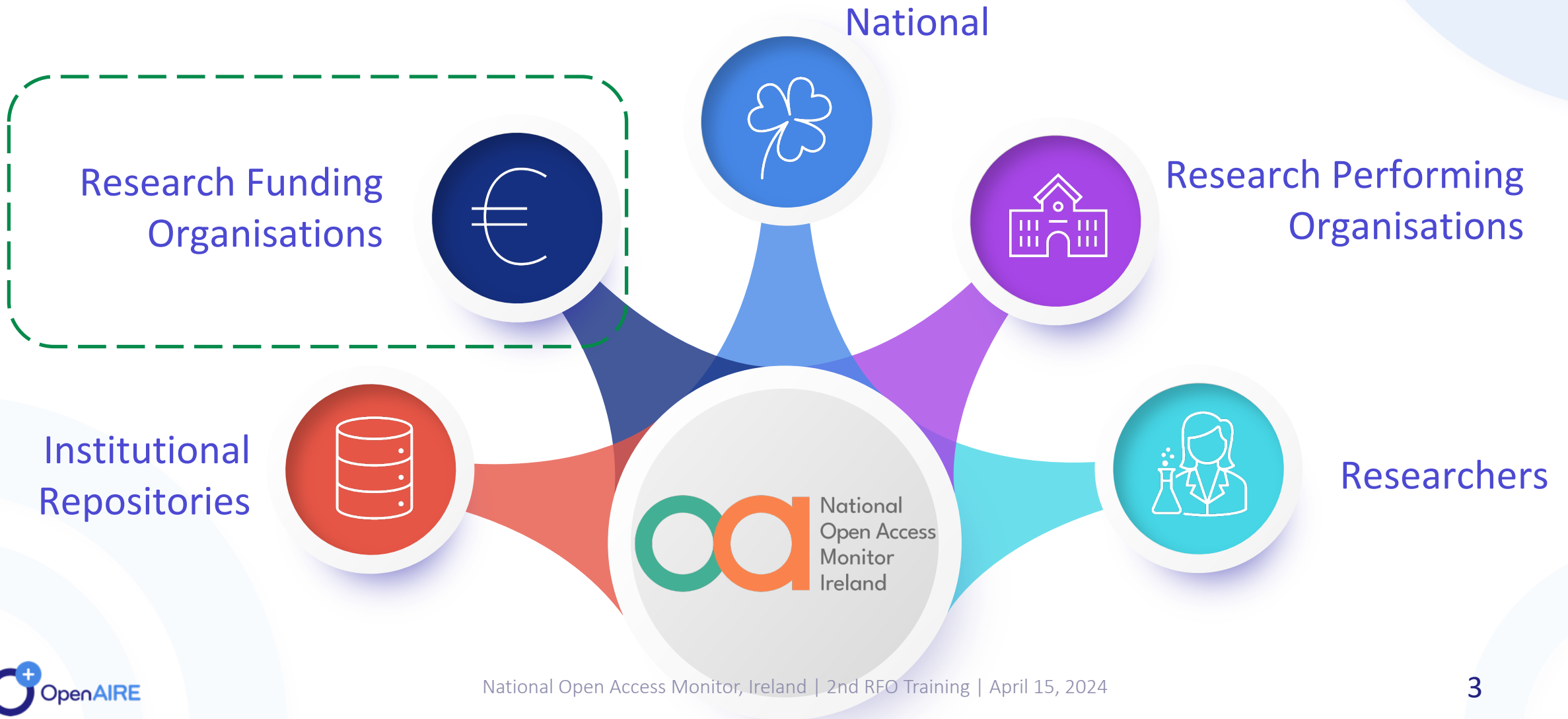
Harry Dimitropoulos, Text Mining Expert & Technical Manager



OUTLINE

- **Overview**
- **OpenAIRE Graph & Data Quality**
- **Linking functionality**
- **RFOs**
- **Primary Dashboard Managers**
- **Next Steps**

THE MONITOR – 5 DASHBOARDS



OBJECTIVES

RFOs

- Why
 - Benchmark against peers
 - Assess OA compliance
 - Monitor research impact
 - Shape strategic agendas

PILOT National Open Access Monitor Ireland

Home **Monitors** Resources & Help Sign in

Research Funding Organisations (RFOs)

Search for RFO Monitors

Sort by: Number of Public... Results per page: 10

1 2 3 4 5 >

RFO Name	Publications
Science Foundation Ireland	19,748
Irish Research Council	11,325
Health Research Board	3,275
Environmental Protection Agency	1,489
Enterprise Ireland	1,206
Department of Agriculture, Food and the Marine, Ireland	1,200
Allergan	1,162
University College Dublin	874

HELP

- Comprehensive insights into each Irish RFO's activities and OS performance

• Indicators View



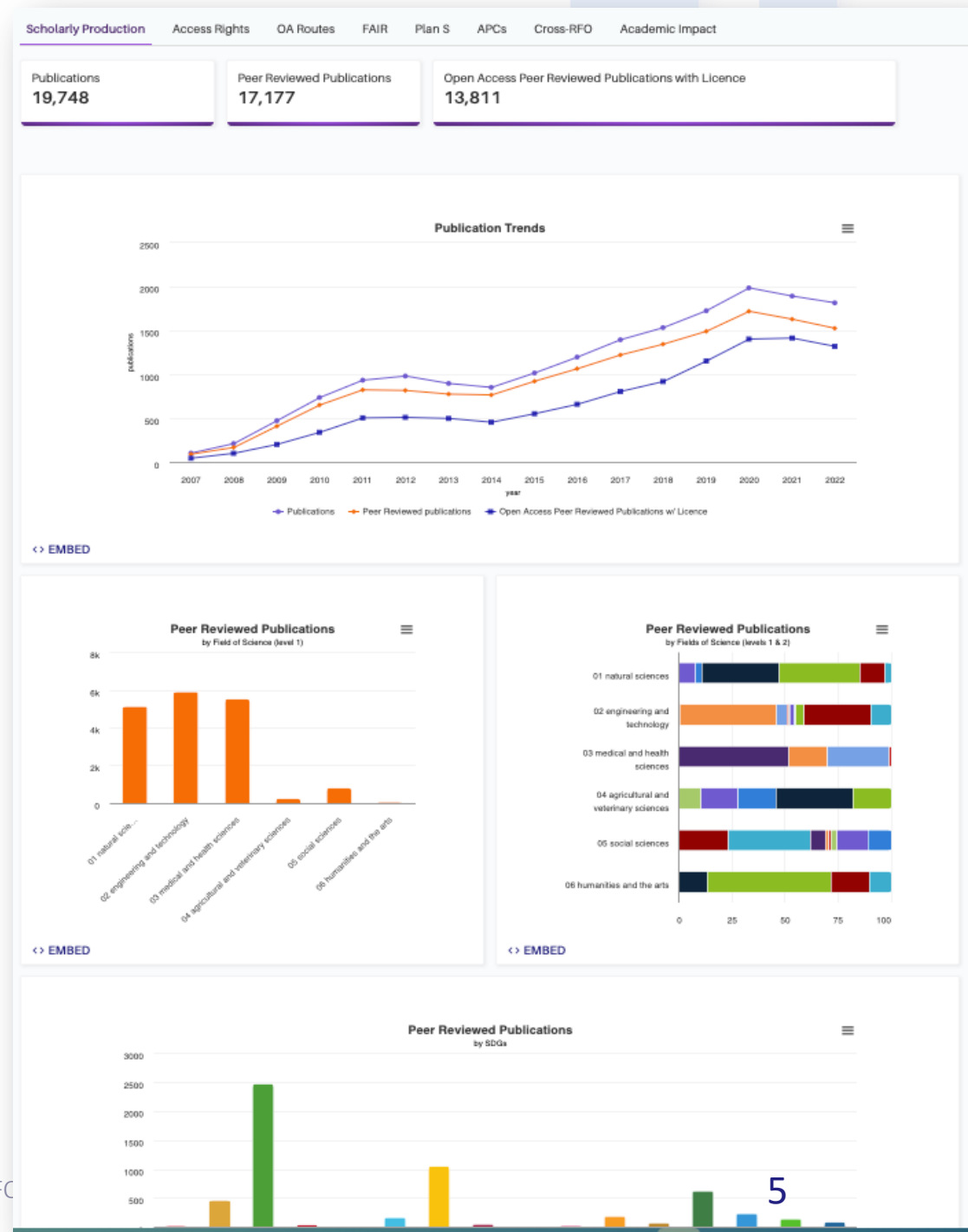
- Highlighting **OA uptake** indicators, enables **cross RFO benchmarking**
- Offers detailed **breakdowns** and **filtering**


• Research Outputs View

- Facilitate **browsing**, standard and advanced **searching**, and **filtering**

• RFO Managers

- Access to the **Sandbox** to verify data quality and check any new or updated metrics/indicators.



- Comprehensive insights into each Irish RFO's activities and OS performance
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Filters Clear All

Type Clear

- Publications
- Research Data
- Research Software
- Other Research Products

Document Type

- Article (14,839)
- Other Literature Type (4,763)
- Conference Object (2,773)
- Preprint (2,398)
- Part Of Book Or Chapter O... (724)
- Book (43)

[View all >](#)

Peer reviewed Clear

All Yes No

Access

- Open Access
- Closed Access
- Restricted
- Open Source
- Embargo

License

All Yes No

Access Routes

Green

All Yes No

Publisher Access

- Gold (4,508)
- Bronze (4,371)
- Hybrid (3,532)

In a Diamond OA journal

All Yes No

Year range

1800 - 2034 >

[This year](#) | [Last 5 years](#)

[Last 10 years](#)

Field of Science

- 02 Engineering And Techn... (5,928)
- 03 Medical And Health Sc... (5,531)
- 01 Natural Sciences (5,129)
- 0301 Basic Medicine (4,593)
- 030104 Developmental Bio... (4,229)
- 0202 Electrical Engineer... (3,216)

[View all >](#)

IRISH NATIONAL MONITOR
SCIENCE FOUNDATION IRELAND

Sort by Relevance ↓ [DATA DUMP](#)

[PUBLICATIONS](#) × [PEER REVIEWED: YES](#) ×

Energy Conversion: A Comparison of Fix- and Self-Referenced Wave Energy Converters

[Publication](#) » Article • 2016 • Ireland • Publisher: MDPI AG • Publicly funded • Funded by: SFI | Marine Renewable Energy L.

Authors: [Sheng, Wanran](#); [Lewis, Tony](#);

DOI: [10.3390/en9121056](#) ↳ HANDLE: [10468/3418](#) ↳

The paper presents an investigation of fix-referenced and self-referenced wave energy converters and a comparison of their corresponding wave energy conversion capacities from real seas. For conducting the comparisons, two popular wave energy...

[Full-Text](#) [Energies](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [12](#)

The carboxy-terminal segment of the human LINE-1 ORF2 protein is involved in RNA binding

[Publication](#) » Article • 2013 • Publisher: Wiley • Publicly funded • Funded by: SFI | The Functional Domain Org...

Authors: [Pliskareva, Olga](#); [Ernst, Christina](#); [Higgins, Niamh](#); [Schmachtenko, Vadim](#);

DOI: [10.1016/j.fob.2013.09.005](#) ↳ PMID: [24251107](#) ↳ PMC: [PMC3821027](#) ↳

The human LINE-1/L1 ORF2 protein is a multifunctional enzyme which plays a vital role in the life cycle of the human L1 retrotransposon. The protein consists of an endonuclease domain, followed by a central reverse transcriptase domain and a...

[Full-Text](#) [Europe PubMed Centra...](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [25](#)

Intrapartum fetal deaths and unexpected neonatal deaths in the Republic of Ireland: 2011 - 2014; a descriptive study

[Publication](#) » Article • 2018 • Ireland • Publisher: Springer Science and Business Media LLC • Publicly funded • Funded by: SFI | Irish Centre for Fetal an...

Authors: [K. McNamara](#); [K. O'Donoghue](#); [R. A. Greene](#);

DOI: [10.1186/s12884-017-1636-6](#) ↳ PMID: [29301489](#) ↳ PMC: [PMC5755435](#) ↳

HANDLE: [10468/6315](#) ↳, [10468/5369](#) ↳

Abstract Background Intrapartum fetal death, the death of a fetus during labour, is a tragic outcome of pregnancy. The intrapartum death rate of a country is reflective of the care received by mothers and babies in labour and it is through...

[Full-Text](#) [Europe PubMed Centra...](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [11](#)

Electrochemical Properties of Screen-Printed Carbon Nano-Onion Electrodes

[Publication](#) » Article • 2020 • Publisher: MDPI AG • Publicly funded • Funded by: IRC, SFI | FutureNeuro

Authors: [Loanda R. Cumba](#); [Adalberto Camisasca](#); [Silvia Giordani](#); [Robert J. Forster](#);

DOI: [10.3390/molecules25173884](#) ↳ PMID: [32858929](#) ↳ PMC: [PMC7503887](#) ↳

The properties of carbon nano-onions (CNOs) make them attractive electrode materials/additives for the development of low-cost, simple to use and highly sensitive Screen Printed Electrodes (SPEs). Here, we report the development of the first CNO...

[Full-Text](#) [Molecules](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [21](#)

The wave energy converter control competition (WECCOMP): Wave energy control algorithms compared in both simulation and tank testing

[Publication](#) » Article • 2023 • France • Publisher: Elsevier BV • Funded by: SFI | MAREL_Phase 2, EC | MARINET2

Authors: [John V. Ringwood](#); [Nathan Tom](#); [Francesco Ferr](#); [Yi-Hsiang Yu](#); [+10 Authors](#)

DOI: [10.1016/j.apor.2023.103653](#) ↳

The wave energy control competition established a benchmark problem which was offered as an open challenge to the wave energy system control community. The competition had two stages: In the first stage, competitors used a standard wave...

[Applied Ocean Resear...](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [1](#)

Photo-induced surface-enhanced Raman spectroscopy from a diphenylalanine peptide nanotube-metal nanoparticle template

[Publication](#) » Article • 2018 • Publisher: Springer Science and Business Media LLC • Funded by: EC | MATRIXASSAY, SFI | Patterned nanomaterial's ...

Authors: [Almohammed, Sawsan](#); [Zhang, Fengyuan](#); [Rodriguez, Brian J.](#); [Rice, James H.](#);

DOI: [10.1038/s41598-018-22269-x](#) ↳ PMC: [PMCS832858](#) ↳ PMID: [29497167](#) ↳

Abstract UV irradiation of aligned diphenylalanine peptide nanotubes (FF-PNTs) decorated with plasmonic silver nanoparticles (Ag NPs) enables photo-induced surface-enhanced Raman spectroscopy. UV-induced charge transfer facilitat...


[Full-Text](#) [Scientific Reports](#) ↳ [Link to](#) [Share](#) [Cite](#) [Claim](#) ↳ [Access Routes](#) ↳ [47](#)

Effects of physiological and/or disease status on the response of postpartum dairy cows to synchronization of estrus using an intravaginal progesterone device

[Publication](#) » Article • 2014 • Publisher: Elsevier BV • Funded by: SFI | SRC RBRC: Reproductive BL...

Authors: [Julie C. McNally](#); [Mark A. Crowe](#); [James F. Roche](#); [Marijke E. Beltman](#);

DOI: [10.1016/j.theriogenology.2014.08.006](#) ↳ PMID: [25261264](#) ↳

- Comprehensive insights into each Irish RFO's activities and OS performance
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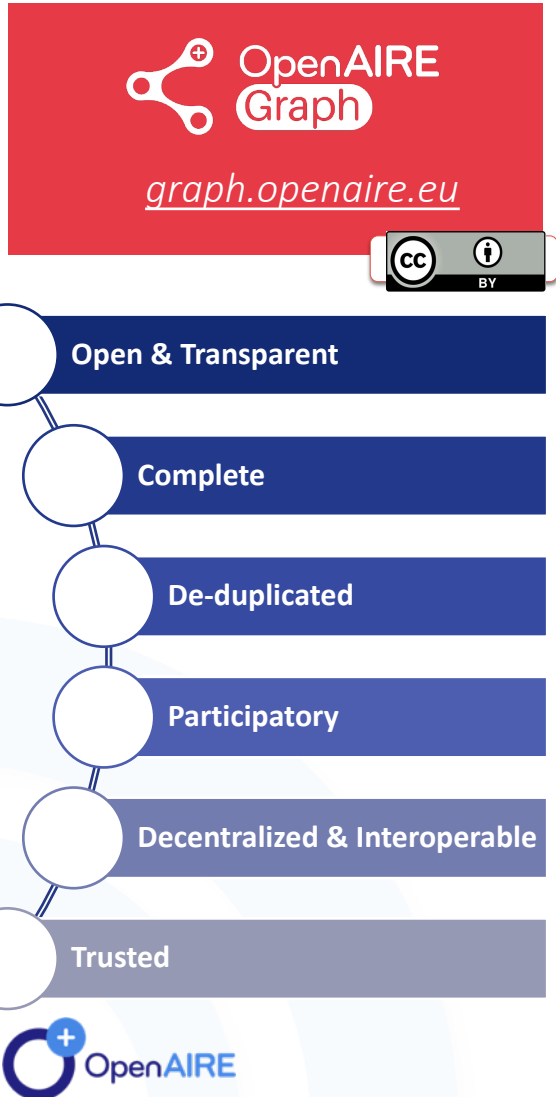


<https://beta.oamonitor.ireland.openaire.eu>



OpenAIRE
Graph & Data Quality

DATA BACKBONE: THE OPENAIRE GRAPH



- **Scientific Knowledge Graph**

- *A collection of metadata describing objects in the research lifecycle and relationships among them*
- Timely and comprehensive coverage of research outputs
- 131K data sources, 3.5M projects, and 256.6M research outputs (publications, software, datasets, other research products)
- Near monthly updates

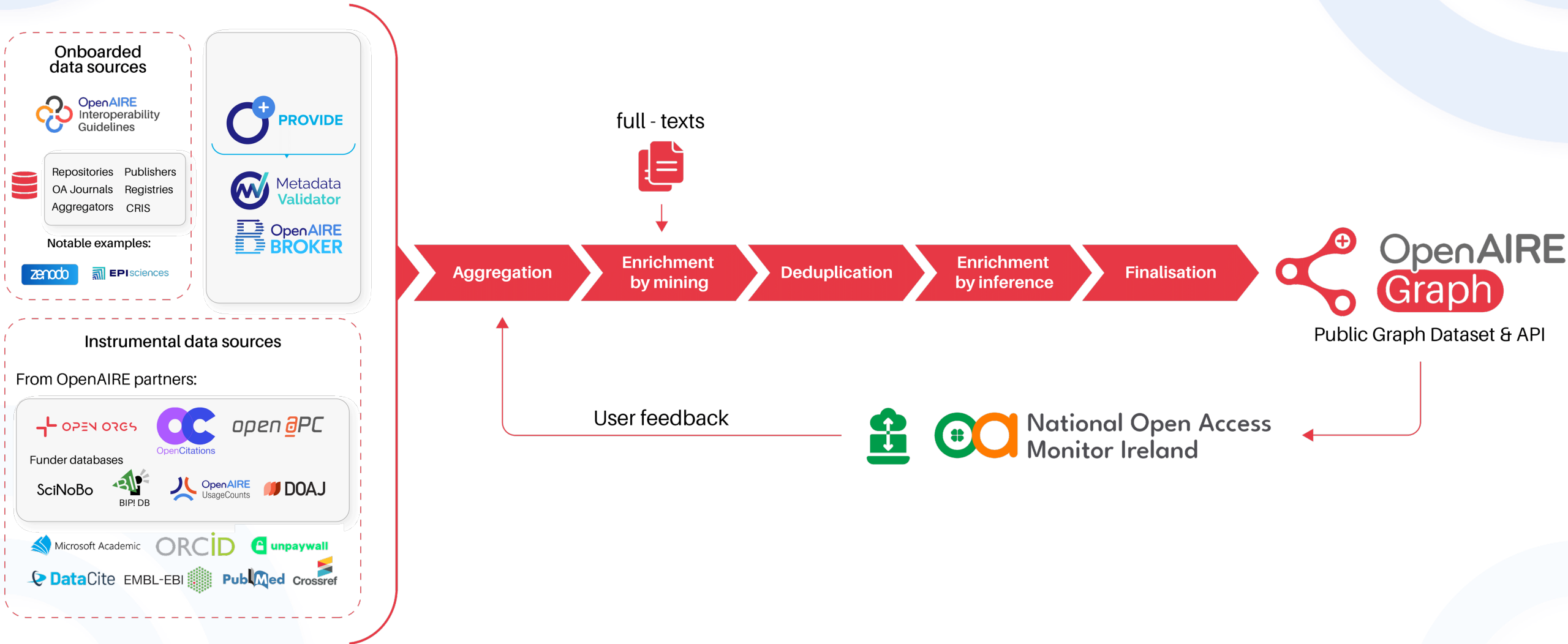
- **Precision, depth & processing**

- Rigorous cleaning, deduplication, and enrichment for optimal accuracy
- Enriched metadata links: Research results to projects, author affiliations, and classifications (FoS, SDG)
- Techniques for duplicate identification in addition to OpenAIRE's curation tools

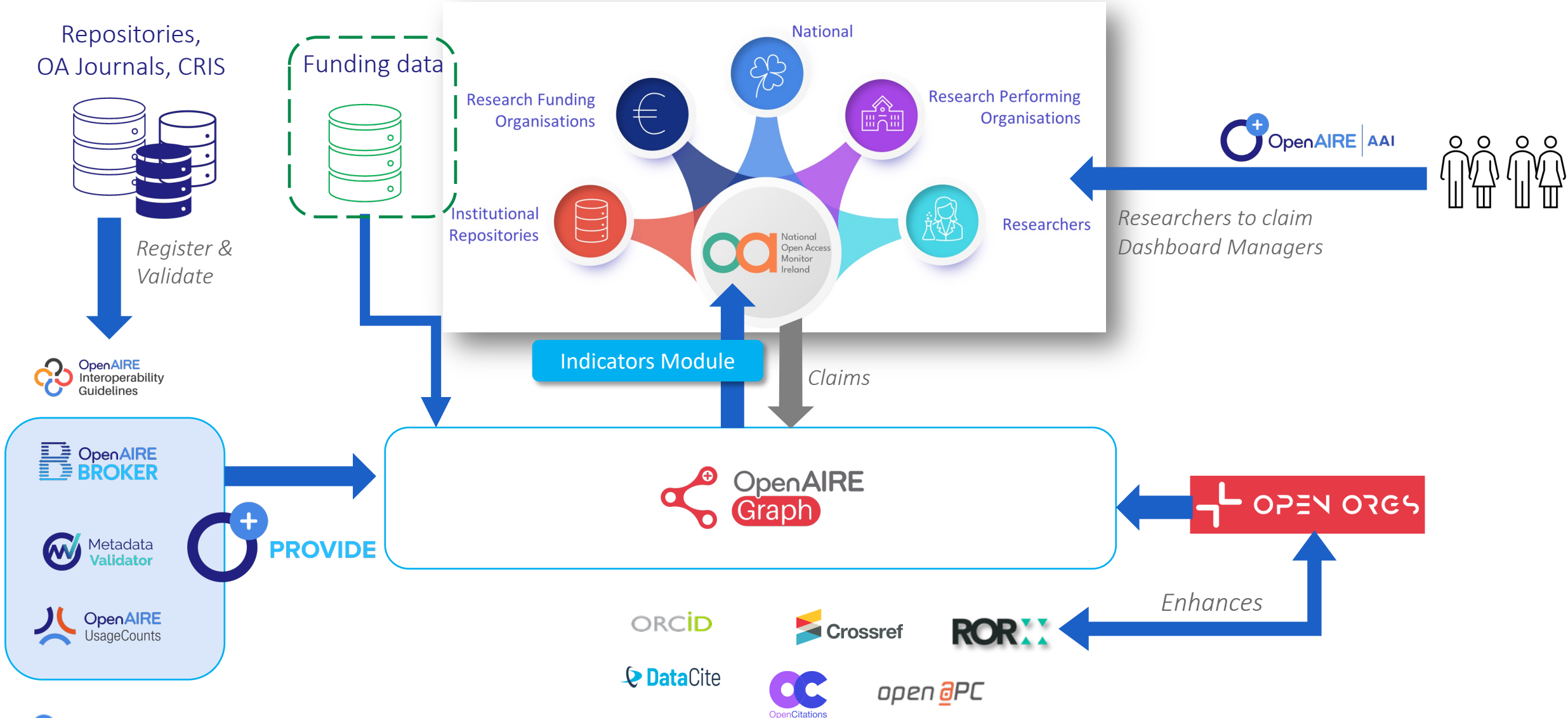
- **Robustness & openness**

- Maintenance, load balancing, backups, overseen by the OpenAIRE technology centre
- Open data & transparent methodologies

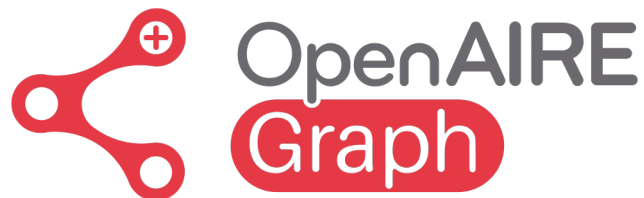
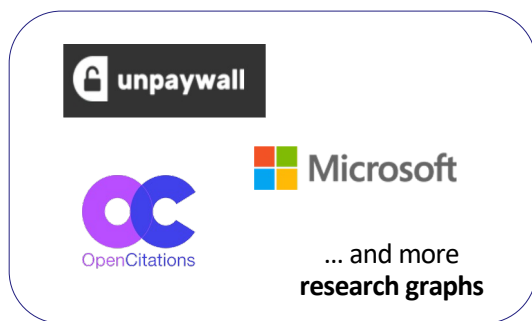
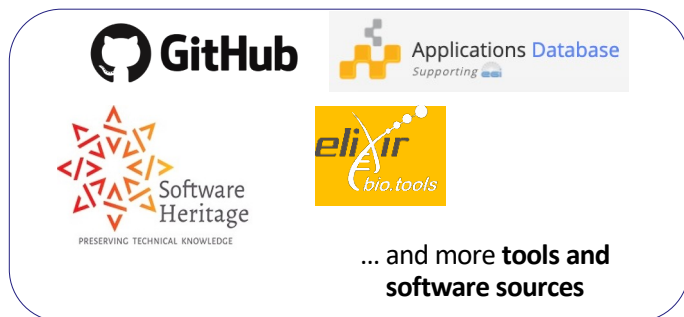
GRAPH PIPELINE



THE ARCHITECTURE



COVERAGE: SOURCES CONTRIBUTING TO THE GRAPH



DATA QUALITY

- **Deduplication:** OpenAIRE Graph merges duplicate records of the same scholarly work.
- **Enrichment through TDM:** affiliation, citation, and concept extraction with document classification (FoS, SDG) and similarity assessment
- **Cleaning:** Independent, continuous aggregation processes utilize vocabularies to harmonize diverse data source records, ensuring consistent and accurate bibliographic records.
- **Disambiguation:** Additional disambiguation of Journals, Publishers and Licenses
- More @ <https://graph.openaire.eu/docs/graph-production-workflow/>

DATA QUALITY

Additional Data Quality Enhancements

- **All:** via linking functionality
- **RFOs:** Provide Funding data for custom text mining

LINKING

LINKING FUNCTIONALITY

- **Log in** (EDUGAIN, ORCID, Google, GitHub, LinkedIn, OpenAIRE) to access the **LINKING** functionality
 - Enables users to associate **research outputs** with **projects, communities, or other outputs**, enhancing data representation in the OpenAIRE Graph and the Monitor
 - Links show up in the next OpenAIRE Graph update
 - A **log** is **publicly visible** with all added links, with **permission** asked during the final linking step
- New functionality coming soon
 - **Primary Dashboard managers** will be able to upload a set of PIDs from research products to **associate** with the RFO.

LINKING FUNCTIONALITY

The screenshots illustrate the linking functionality in three stages:

- Search and Filter:** The first screenshot shows a search interface with filters for "Openaire (2,237)", "Crossref (3,25)", "YEAR RANGE", "TYPE(1)", "DOCUMENT TYPE", "ACTIVE WITHIN", and "FUNDER". A list of search results is visible, including "The ADAPT System Description Translation Task" and "Mathematische modellierung".
- Linking Progress:** The second screenshot shows a progress bar with three steps: "FIND SOURCES" (completed), "LINK SOURCES TO ENTITIES" (active), and "SUMMARIZE AND FINISH" (pending). Below the progress bar, there are search filters for "Type Projects" and "Entities to link ADAPT: Centre for Digital Cont...". A panel on the right shows "Sources to link (1)" and "Link to (1)".
- Linking Confirmation:** The third screenshot shows the linking process. The "LINK SOURCES TO ENTITIES" step is active. A source is selected: "The ADAPT System Description for the IWSLT 2018 Basque to English Translation Task" (Publication • arXiv • 2018). An entity is selected: "ADAPT: Centre for Digital Content Platform Research" (Project • 2015-2020). A "CONFIRM LINKING" button is visible at the bottom.

Research Funding Organisations (RFOs)

FUNDERS IN OPENAIRE

- Directly joining OpenAIRE is the recommended avenue for representation in the OpenAIRE Graph
- Benefits
 - Ensures a comprehensive presence, with project level granularity
 - Guarantees the precision of the data incorporated
- Process
 - RFO provides Funding Data (list of research projects with metadata)
 - A tailored text mining algorithm is created for data extraction
 - Meticulous curation of project-publication links to ensure accuracy
 - <https://www.openaire.eu/funders-how-to-join-guide>

IRISH FUNDERS IN OPENAIRE GRAPH

- Alternative avenue for representation via Open Funder Registry (OFR)
 - <https://www.crossref.org/services/funder-registry/>
 - Allows funders to be associated with publications via valid DOIs in the Graph
 - No projects are currently registered with Crossref, we only have funder-publications links
 - Text mining module cannot be built without a list of projects
 - “unidentified project” mining is an option but creates links at the funder (not the project) level
 - Does not offer the granularity of the direct integration
 - Quality is not guaranteed, there is no curation

IRISH FUNDERS IN OPENAIRE GRAPH

- 157 Irish RFOs integrated via OFR + 1 RFO via the Direct route
 - 1 OFR entry was a UK Funder wrongly associated with Ireland and was removed
 - 2 OFR entries with the same name were merged into 1 RFO
 - 3 OFR entries with different names (2 older) will be merged
- 156 RFO Monitors
 - 144 with publications

Research Funding Organisations (RFOs)

Search for RFO Monitors

Sort by Number of Public... Results per page 10

1 2 3 4 5 >




Science Foundation Ireland
Publications: 19,748




Irish Research Council
Publications: 11,325



Health Research Board
Publications: 3,275




Environmental Protection Agency
Publications: 1,469




Enterprise Ireland
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Publications: 1,200



Allergan
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University College Dublin
Publications: 874

HELP

SCIENCE FOUNDATION IRELAND

- SFI joined OpenAIRE in 2015 via the direct route
- Project data from <https://www.sfi.ie/about-us/governance/open-data/>
- 6,824 projects
- 19,748 publications

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HELP

IRISH RESEARCH COUNCIL

- No project data provided yet
- Created an “unidentified project” text mining module to link publications funded by IRC at the funder level (funder-publication links, not project-publication links)
- Investigated the "text snippet" statements provided by the mining
 - E.g., “... was funded by the *Irish Research Council*, (*GOIPG/2013/1110*)”.
 - Identified IRC **projects** in statements, they are well structured and easy to mine
- Increased coverage of IRC publications
- Given the full project list, IRC mining would return near perfect accuracy

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HELP

HEALTH RESEARCH BOARD

- Currently developing an HRB “unidentified project” text mining module
- Careful to eliminate links to other RFOs with similar names, such as:
 - ~~Commonwealth Health Research Board (CHRB), USA~~
 - ~~Public Health Research Board of the NIHR, England~~
 - ~~Industrial Health Research Board (IHRB), Great Britain~~
 - ~~Canadian Forces Surgeon General Health Research Board~~
 - ~~National Health Research Board, Zambia~~
- Using the context to determine that the HRB reference pertains to funding
- Two development sprints (with manual curation of results) increased the precision rate from 84% to 99%
 - integrated after the next Graph update to increase coverage of HRB publications

HRB TEXT-MINED ENRICHMENT EXAMPLE

- This

Detecting and describing

Publication » Article • 03 N
 Publisher: Public Library of Science
 Funded by: UKRI | A longitudinal

Authors: Tanimoto, Jun; Hyland, Philip
 DOI: 10.1371/journal.pone.0241111

Summary Subjects

Abstract
 COVID-19 continues to pose a significant threat to public health. Achieving high rates of vaccination and reducing vaccine hesitance are key to controlling the disease. We examined longitudinal data from the first nine months of the nationally representative, longitudinal UK and remained unvaccinated (7% of the population) and fluctuated over time (‘Movement range of individual (e.g., years)

Countries

Funding: UK Research and Innovation/Economic and Social Research Council funding for the UK strand of this study was obtained in May 2020 (grant number ES/V004379/1) and awarded to RPB, TKH, LL, JGM, MS, JM, OM, KB and LM. The Irish strand of this study was funded by the **Health Research Board** and the Irish Research Council under the COVID-19 Pandemic Rapid Response Funding Call [COV19-2020-025] awarded to PH. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Competing interests: The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Richard Bentall reports financial support was provided by UK Research and Innovation. Philip Hyland reports financial support was provided by **Health Research Board**. This does not alter our adherence to PLOS ONE policies on sharing data and materials.

National Monitor as funded by UKRI and IRC

Kingdom and Ireland

+10 Authors

Citations	13
Popularity	TOP 10%
Influence	AVERAGE
Impulse	TOP 10%
Views	27
Downloads	10

Green Gold

Fields of Science (4) View all & suggest >

- 03 medical and health sciences
- 0302 clinical medicine

Funded by

UKRI | A longitudinal mixed-methods population study of the UK during the COVID-19 pandemic: Psychological and social adjustment to a global threat, IRC

Related to Research communities

- Corona Virus Disease
- Knowmad Institut
- Science and Innovation Policy Studies

View more >

- is also funded by **HRB**, as seen in the text-mined PDF

Primary Dashboard Managers

PRIMARY DASHBOARD MANAGERS

- Provide RFO project data
 - Use the  button (<https://oamonitor.ireland.openaire.eu/contact-us>)
 - By file (standard spreadsheet), via an API, your Website, or by Registering Projects with OFR
 - Give examples of suggested project acknowledgement statements to facilitate the text and data mining algorithms
 - More info: <https://www.openaire.eu/funders-how-to-join-guide>
- Add (invite)/Delete managers
- Access the **Sandbox** (<https://beta.oamonitor.ireland.openaire.eu>) to verify data quality and check any new or updated metrics/indicators.

PRIMARY DASHBOARD MANAGERS

- How to access my admin account?
 - After signing in, select your initials at the top right and then “Manage Profiles”.
- What actions can I perform in the admin account?
 - Change the details for your RFO (display name, locale, description, logo)
 - Add (invite)/Delete managers

Next Steps

NEXT STEPS

- Helpdesk: <https://oamonitor.ireland.openaire.eu/contact-us>
- Primary Dashboard Managers: [Dashboard Manager Application Form](#) or via the Helpdesk
- Contact us if you identify any issues with the data quality of your Monitor.
- Integrate your project data with OpenAIRE
 - The sooner the better
- Use linking functionality

Thank you!
harryd@athenarc.gr

<https://oamonitor.ireland.openaire.eu/contact-us>