

Practising Open Science: OpenAIRE's Perspective

Iryna Kuchma (EIFL)

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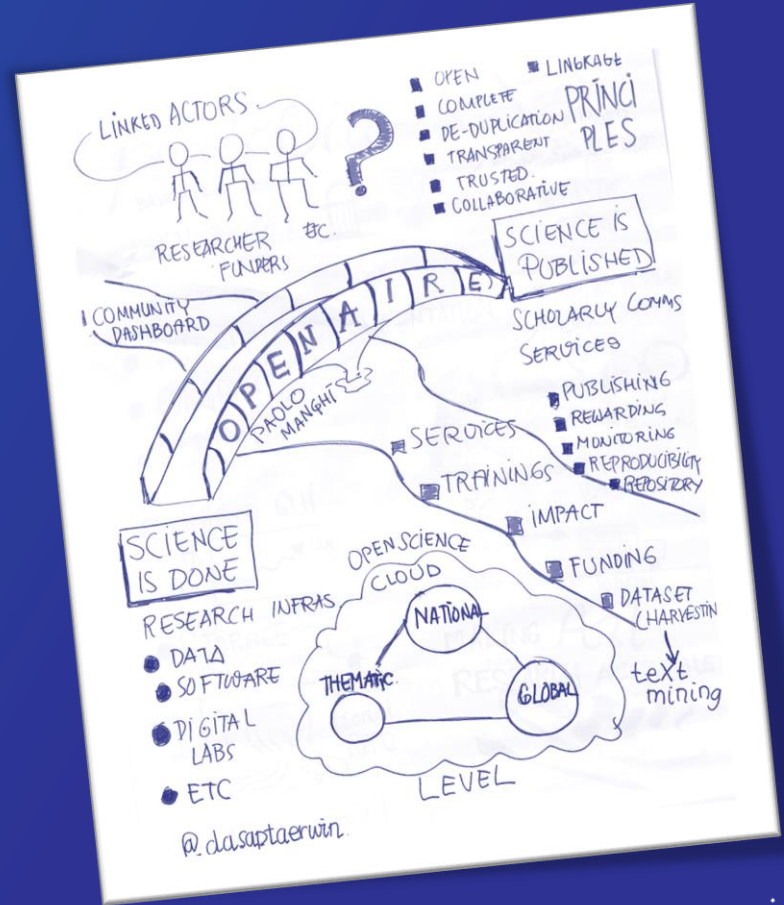
Eugenia Kyriotis (Ellinogermaniki Agogi)

Androniki Pavlidou, Katerina Iatropoulou, Argiro Kokogiannaki,
Konstantina Galouni, Elli Papadopoulou (Athena Research Center)



OpenAIRE

Bridging the worlds
where science is
performed and
science is
published



Services for all actors

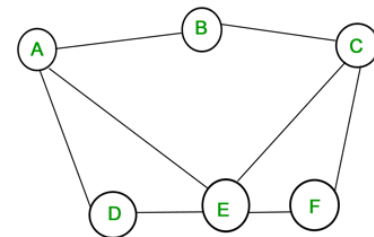


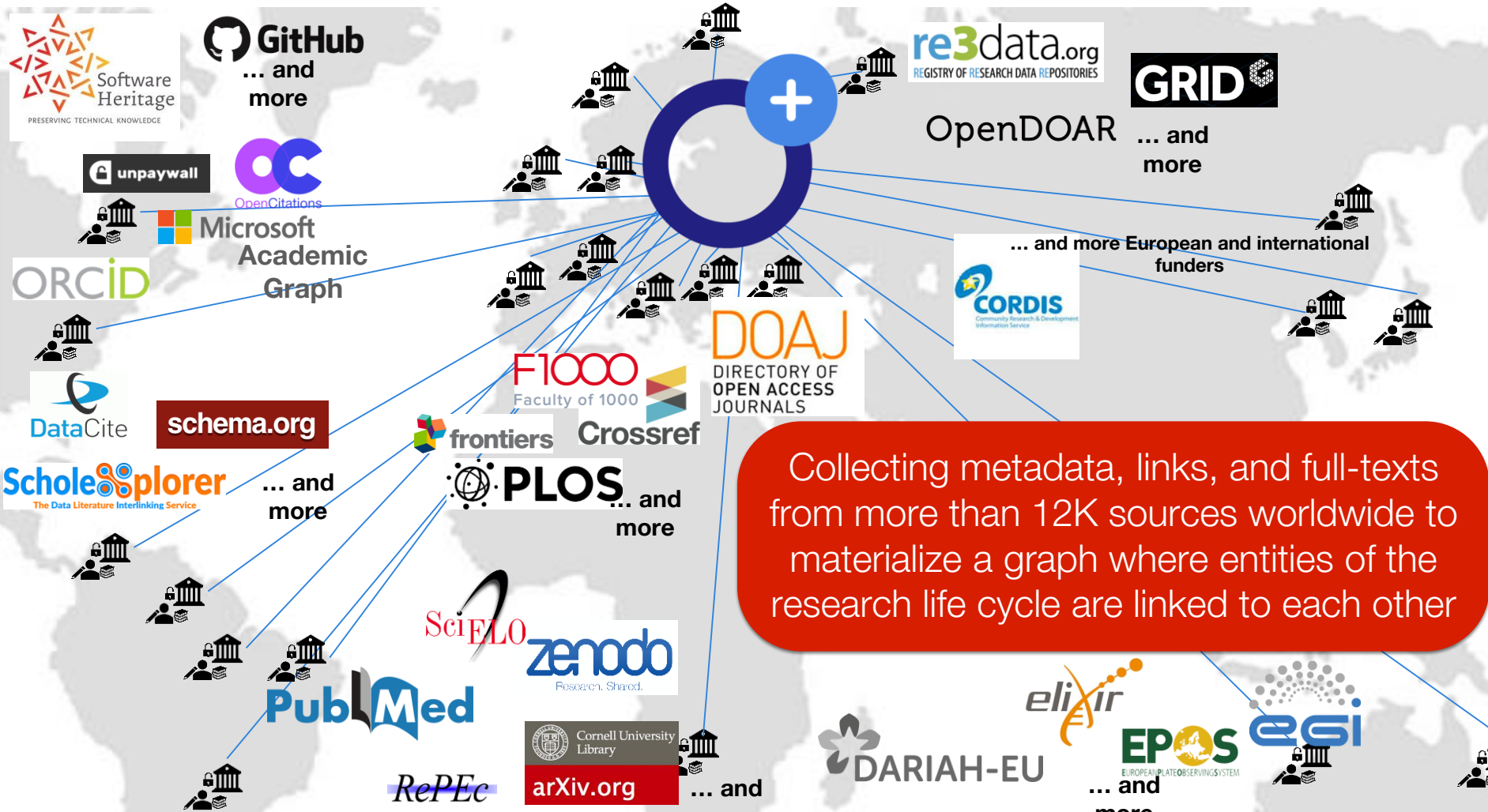
An open metadata research graph of interlinked scientific products, with access rights information, linked to funding information and research communities

Graph: model for the representation of information

OpenAIRE uses it to represent **objects** in the scholarly communication domain and the **relationships** that exist among them.

Edges of the graph are annotated with a label that specifies the **semantics** of the relationships between two objects, each represented as a node in the graph.





Software Heritage
PRESERVING TECHNICAL KNOWLEDGE

GitHub
... and more

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

GRID

OpenDOAR
... and more

unpaywall

OpenCitations

Microsoft Academic Graph

ORCID

DataCite

schema.org

F1000
Faculty of 1000

DOAJ
DIRECTORY OF OPEN ACCESS JOURNALS

CORDIS
Commission Research & Development Information Service

... and more European and international funders

frontiers Crossref

PLOS ... and more

Collecting metadata, links, and full-texts from more than 12K sources worldwide to materialize a graph where entities of the research life cycle are linked to each other

SciELO

zenodo
Research. Shared.

PubMed

RePEc

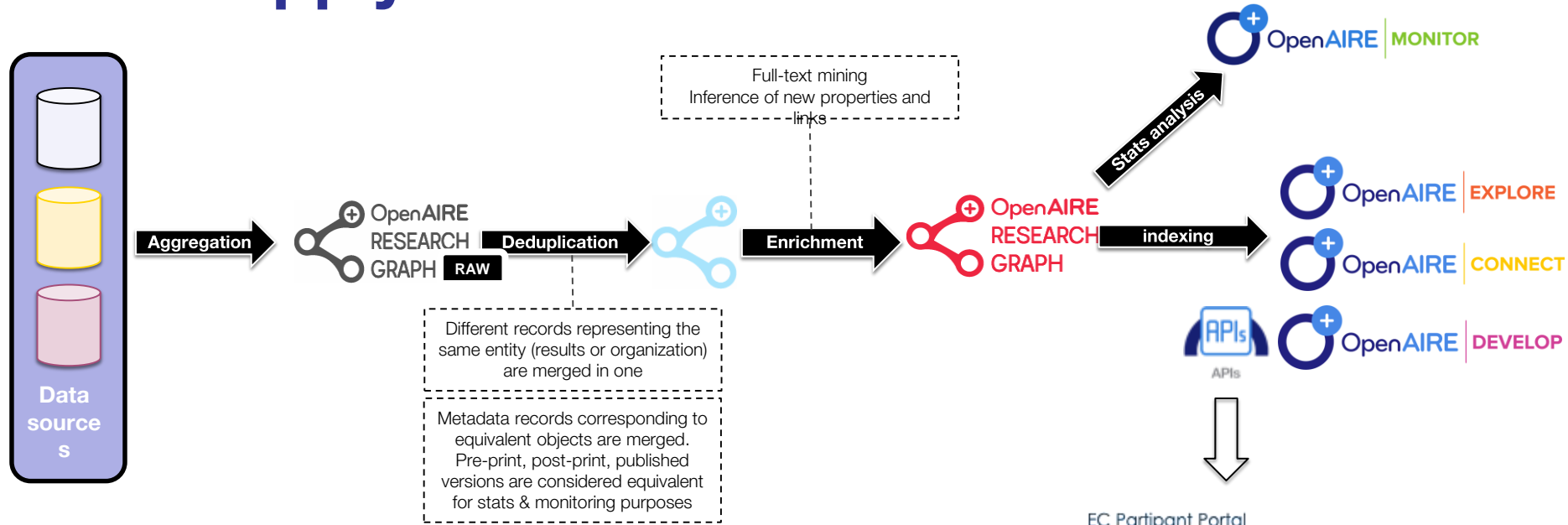
arXiv.org

DARIAH-EU

EPOS
EUROPEAN PLATFORM SERVICES SYSTEM
... and more

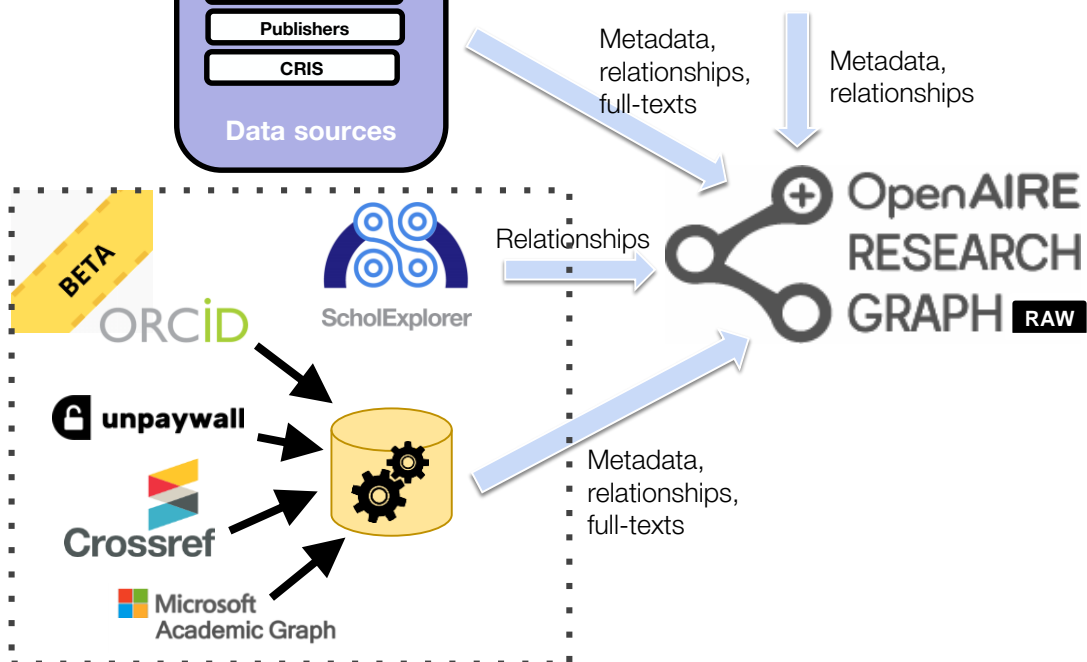
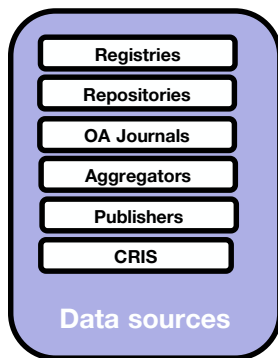
esi

OpenAIRE Research Graph the supply chain



Aggregated data sources

450Mi harvested records
500Mi bi-lateral links
13Mi+ full-texts



Registries: data sources offering authoritative lists of entities

Registries of researchers



ORCID

Registries of organizations



GRID



CORDIS
Community Research & Development
Information Service

and other funders

Registries of projects



CORDIS
Community Research & Development
Information Service



FCT
Fundação
para a Ciência
e a Tecnologia



NWO



sfi
Science
Foundation
Ireland
For what's next



ACADEMY OF FINLAND



Australian Government
Australian Research Council

and other
funders

Registries of data sources



re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES



OpenDOAR



DOAJ
DIRECTORY OF
OPEN ACCESS
JOURNALS

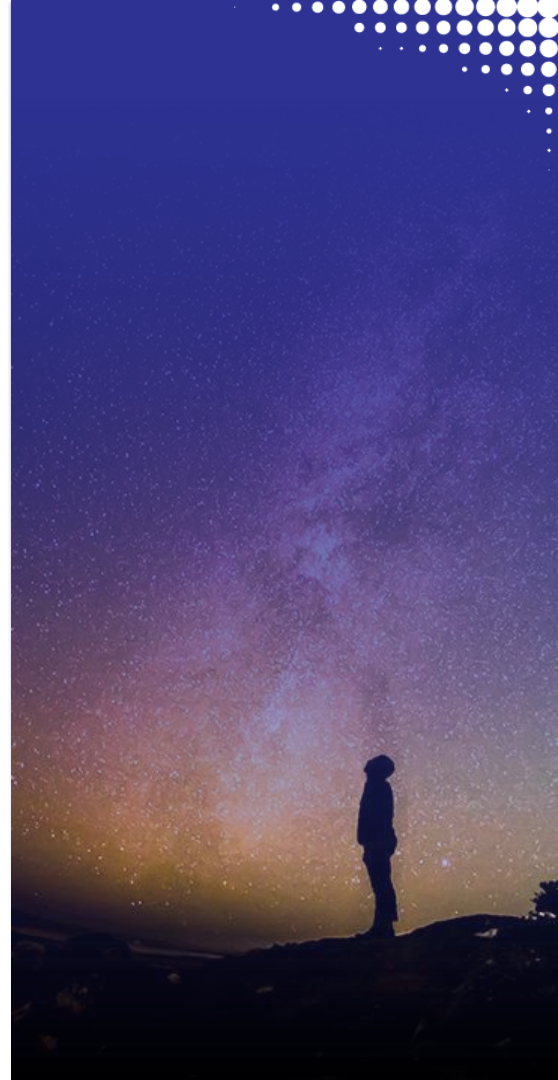
+ journal lists from
publishers



OpenAIRE



European
Commission



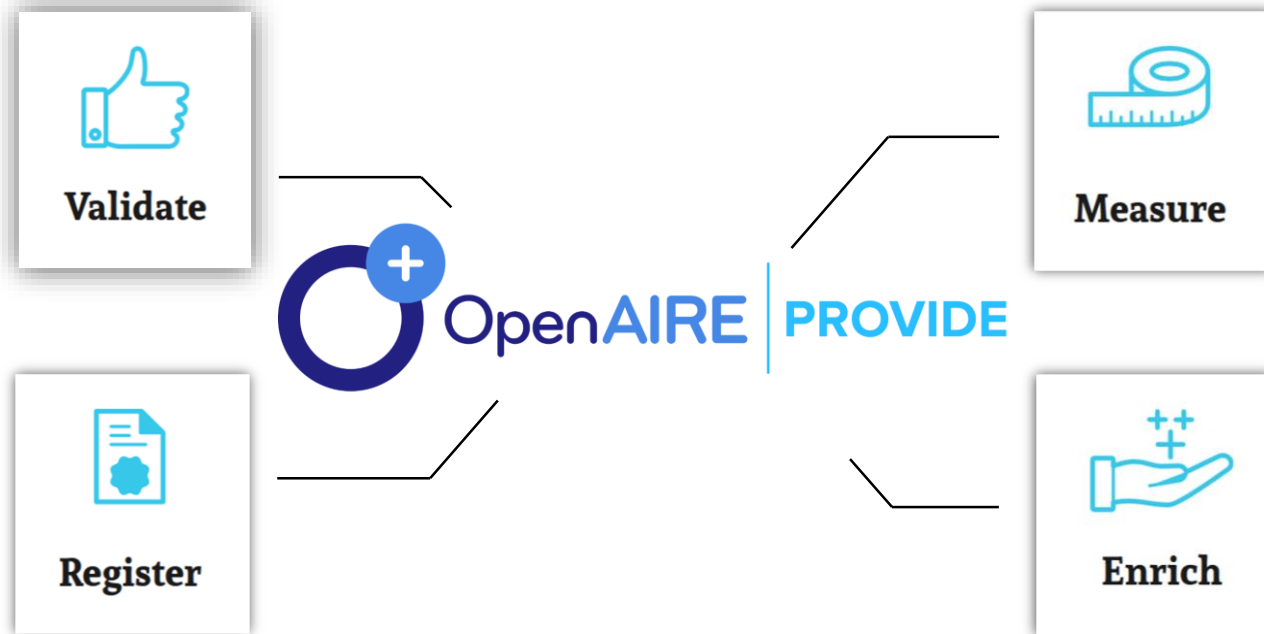
OpenAIRE Provide

Services for content providers
(repository and CRIS managers,
journal publishers)

*one stop shop for all OpenAIRE
content providers*



OpenAIRE Content Provider Dashboard

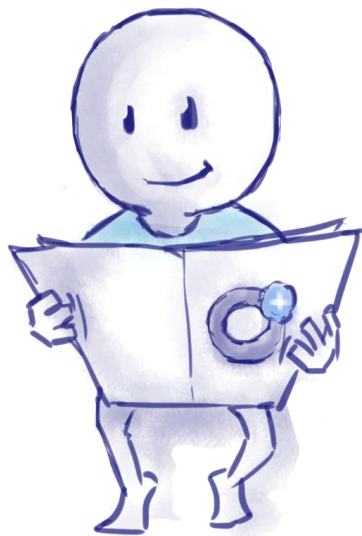


One-stop-shop web service where content providers (repositories, data archives, journals, aggregators, CRIS systems) **interact with OpenAIRE.** It provides the front-end access to many of OpenAIRE's backend services.

OpenAIRE Guidelines

OpenAIRE Guidelines to expose your metadata in order to integrate with OpenAIRE infrastructure.

<https://guidelines.openaire.eu/en/latest/>



Interoperability
Guidelines

Validator

Content Acquisition policy

Literature, Datasets, Software, other research products

OpenAIRE accepts the metadata records of all scientific products whose structure respect the model and semantics as expressed by the OpenAIRE guidelines.

Open Access and non-Open Access material will be included and links to other products will be resolved where this is possible.

<https://www.openaire.eu/data-aquisition-policy>

Your data is valuable. Get connected. Participate

The Provide Dashboard is a one-stop-service where content providers interact with OpenAIRE and become a building block of a global Open Research community. A gateway to the European Open Science Cloud.



SIGN IN

PROVIDE Dashboard brings all your data together

Get front-end access to many of OpenAIRE's backend services

Universidade do Minho: RepositoriUM

DASHBOARD UPDATE AGREGGATION HISTORY ENRICHMENTS USAGE STATISTICS

Records collected on 2020-03-15: **50,046**

Enrichments: **44,028**

Downloads: **1,034,149**

Views: **11,725**

REPOSITORIES

- Universidade do Minho: Reposit...

Aggregation History

- 2020-04-01: Aggregation stage TRANSFORM. Number of records: 49,824
- 2020-04-01: Aggregation stage COLLECT. Collection mode REFRESH. Number of records: 50,259
- 2020-03-28: Aggregation stage TRANSFORM. Number of records: 49,773
- 2020-03-28: Aggregation stage COLLECT

Usage Statistics

Line chart showing monthly views from 2017-01-01 to 2020-04-01. The chart shows a fluctuating trend with a significant peak in early 2020.

Last month's reports

- AR1
- IR1
- RR1
- BR1
- BR2

<https://provide.openaire.eu>



Added-value services
On top of the
Research Graph



ENRICH

Improve your metadata. Get more connections

OA Broker service offers a wealth of information on scholarly communication data. Find out what interests you and subscribe to enrich your records.

Enrich Your Content - Browse Events

More

ADDITIONAL METADATA INFORMATION THAT MAY ENRICH OR
SUPPLEMENT UNIVERSIDADE DO MINHO: REPOSITORY CONTENT # OF EVENTS

Missing

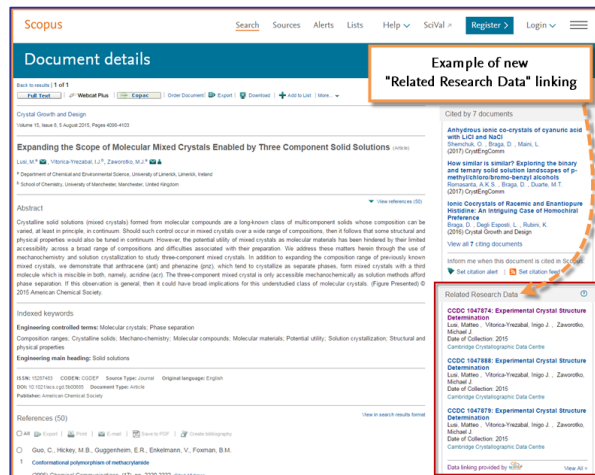
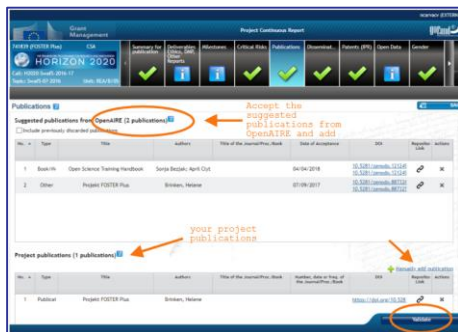
MISSING METADATA INFORMATION THAT MAY ENRICH OR
COMPLETE UNIVERSIDADE DO MINHO: REPOSITORY CONTENT # OF EVENTS

Integration with third-party services

EC SYGMA

Scopus

ORCID



Open APIs and Dumps

<https://develop.openaire.eu>

**Supporting third-parties at
building added-value
services**

OpenAIRE | Find and Share research

https://explore.openaire.eu

OpenAIRE | EXPLORE

SEARCH DEPOSIT LINK CONTENT PROVIDERS SIGN IN

<https://explore.openaire.eu>

All content Search in OpenAIRE for scholarly works SEARCH

Advanced Search

113M publications deduplicated



Extracted Metadata Combined.

The OpenAIRE Research Graph is one of the largest open scholarly record collections worldwide, key in fostering Open Science and establishing its practices in the daily research activities. Conceived as a public and transparent good, populated out of data sources trusted by scientists, the Graph aims at bringing discovery, monitoring, and assessment of science back in the hands of the scientific community.

OpenAIRE

OpenAIRE | Search for research

https://explore.openaire.eu/search/find?q=armenia&op=and&active=res

EXPLORE PROVIDE CONNECT MONITOR DEVELOP

SEARCH DEPOSIT LINK CONTENT PROVIDERS SIGN IN

All content armenia SEARCH

Advanced Search

RESEARCH OUTCOMES (13,766) PROJECTS (119) CONTENT PROVIDERS (5) ORGANIZATIONS (42)

Filters

X Open Access

Results per page:

10

Sort by:

Relevance

Download Results

Access Mode (1) Clear

13,766 RESEARCH OUTCOMES, PAGE 1 OF 1,377

1 2 3 4 5 >

Open Access (13,766)

Research Type (4)

- Publications
- Research data
- Software
- Other research products

Year range

Publication , Report , 2012

Armenia : World Bank Country Survey FY 2013

OPEN ACCESS ENGLISH

Authors: World Bank;

Publisher: Washington, DC

This country survey for FY2013 in Armenia was designed to achieve the following objectives: assist the World Bank in gaining a better understanding of how stakeholders in Armenia perceive the Bank; obtain systematic feedback from stakeholders in Armenia regarding: their...

Project . 2011 - 2014 . Closed

IPERA

Integrating the Institute for Physical Research of the National Academy of Sciences of the Republic of Armenia into ERA

EUROPEAN COMMISSION

Funder: **European Commission** Project code: 295025 Call for proposal: FP7-INCO-2011-6

Funded under: FP7 | SP4 | INCO

Status: Closed

Start Date End Date
01 Dec 2011 30 Nov 2014

[Detailed project information \(CORDIS\) →](#)

Open Access mandate

Publications: No Research Data: No



LINK THIS PROJECT TO...

DEPOSIT YOUR RESEARCH

SHARE RESULTS

DOWNLOAD REPORT



SUMMARY

PUBLICATIONS
19

RESEARCH DATA
0

SOFTWARE
0

OTHER RESEARCH
0

STATISTICS

Recent Publications

[VIEW ALL →](#)

Publication . Preprint . Article . 2017

[Adiabatic tracking for photo- and magneto-association of Bose-Einstein condensates with Kerr nonlinearities](#)

OPEN ACCESS

ENGLISH

Authors: Mariam Gevorgyan; Stéphane Guérin; Claude Leroy; Artur Ishkhanyan; Hans-Rudolf Jauslin;

DOI: [10.1140/epjd/e2016-70396-9](https://doi.org/10.1140/epjd/e2016-70396-9)

Open Citations Addition

Publication . Article . 2012 . Embargo end date: 4 Sep 2014 . [Under curation](#)

Changes in Anterior Chamber Depth after Combined Phacovitrectomy

The incidences of both cataract and vitreoretinal pathologies increase with advancing age

[id](#) Sebastiaan Mathot, [jean-Baptiste Melmi](#), [id](#) Eric Caster

OPEN ACCESS

RESTRICTED ACCESS

ENGLISH

FRENCH

Published: 4 Aug 2012 | Journal: PeerJ, volume 3 (issn: 2167-8359, eissn: 2167-8359)

Publisher: PeerJ Inc. ([Copyright policy](#))



LINK THIS PUBLICATION TO...

CITE THIS PUBLICATION



Publication Summary	References	Supplementary Research	Similar Research	External Databases
	20,034	20,034	20,034	20,034

Abstract

International audience It is commonly believed that vision is impaired during saccadic eye movements. However, here we report that some visual stimuli are clearly visible during saccades, and trigger a constriction of the eye's pupil. Participants viewed sinusoid gratings that changed polarity 150 times per second (every 6.67 ms). At this rate of flicker, the gratings were perceived as homogeneous surfaces while participants fixated. However, the flickering gratings

Funded by

European Commission | ACTPUP, European Commission | OPENAIRE, FWF | Turbulence in the Edge of Magnetised Plasmas: Emergent Structures and Transport, EC | EUROfusion

Metrics visualization improvement

Publication · Article · 2012 · Embargo end date: 4 Sep 2014 · [Under curation](#)

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[Sebastiaan Mathot](#), [jean-Baptiste Melmi](#), [Eric Caster](#)

OPEN ACCESS

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ENGLISH

FRENCH

Published: 4 Aug 2012 Journal: PeerJ, volume 3 (issn: 2167-8359, eissn: 2167-8359)

Publisher: PeerJ Inc. ([Copyright policy](#))

LINK THIS PUBLICATION TO...
CITE THIS PUBLICATION

285

7

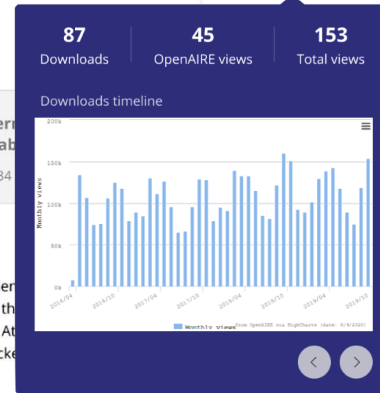
45

Publication Summary	References	Supplementary Research	Similar Research	External Databases
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ACTPUP, European
FWF] Turbulence in the
mas: Emergent Structures
Ofusion

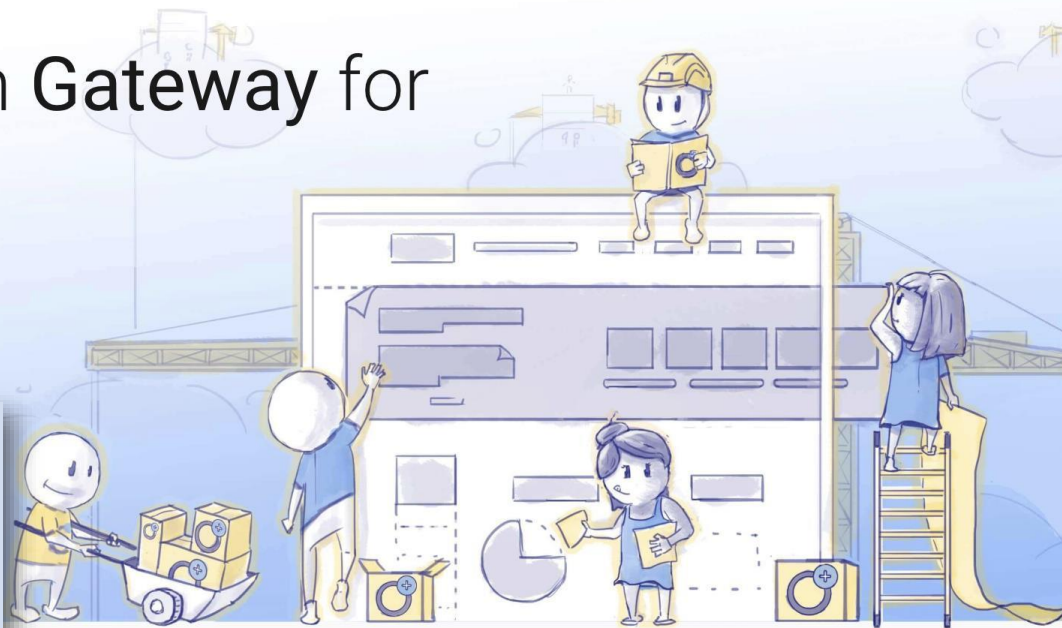


Build an Open Research Gateway for your Community

Turn Open Science into practice

Share and link your research results.
Across organizations, across borders.
Customized to your needs.

LEARN HOW





Corona Virus Disease

COVID-19

Subscribe

Research outcomes

Search by title, author, abstract, DOI, orcid...

SEARCH

Advanced Search

SUMMARY

PUBLICATIONS	RESEARCH DATA	SOFTWARE	OTHER RESEARCH
65,706	3,937	403	4,101

This portal provides access to publications, research data, projects and software that may be relevant to the Corona Virus Disease (COVID-19). The OpenAIRE COVID-19 Gateway aggregates COVID-19 related records, links them and provides a single access point for discovery and navigation. We tag content from the OpenAIRE Research Graph (10,000+ data sources) and additional sources. All COVID-19 related research results are linked to people, organizations and projects, providing a contextualized navigation.

Curated by: Alessia Bardi, Iryna Kuchma, Evgeny Bobrov, Ivana Truccolo, Elizabete Monteiro ...

[View all 8 curators](#)

Created: 16-Mar-2020 Members: 25

Projects: 130 Content Providers: 14

Linked to 7 Zenodo Communities

Subjects

COVID19, SARS-CoV, HCoV-19, mesh:C000657245, MERS-CoV, Síndrome Respiratorio Agudo Severo, mesh:COVID-19, COVID2019, COVID-19, SARS-CoV-2, 2019 novel coronavirus, severe acute respiratory syndrome coronavirus 2, Orthocoronavirinae, Coronaviridae, mesh:D045169, coronavirus, SARS, coronaviruses, coronavirus disease-19, sars cov 2

[View all](#)

2030 Connect

https://tfm2030connect.un.org

TECHNOLOGY
FACILITATION MECHANISM

Compendium 2020 Winners COVID-19 About Sign in

2030 CONNECT

a United Nations online technology platform for the SDGs

Document or keyword Search

2030 Connect is a dynamic new tool for entrepreneurs, innovators, students and leaders from around the world seeking to exchange ideas and technology, build networks, and work to advance the Sustainable Development Goals (SDGs).

<https://tfm2030connect.un.org>

<https://www.openaire.eu/guides>

Researchers

How to comply with H2020 mandates - publications

How can identifiers improve the dissemination of your research outputs?

> Research Data Management

How to comply with H2020 mandates - research data

Research Data Management costs in H2020 projects

How to make your data FAIR

How to find a trustworthy repository for your data

How to create a Data Management Plan for H2020 projects

Data formats for preservation

How to deal with non-digital data

How to deal with sensitive data

Raw data, backup and versioning

> Legal issues

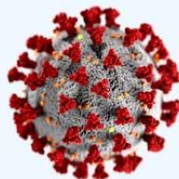
How do I know if my research data is protected

How do I license my research data

Can I reuse someone else's research data

COVID-19 related communities

[Need help uploading? Contact us](#)



Coronavirus Disease Research Community - COVID-19

[Browse](#)[New upload](#)

This community collects research outputs that may be relevant to the Coronavirus Disease (COVID-19) or the SARS-CoV-2. Scientists are encouraged to upload their outcome in this collection to facilitate sharing and discovery of information. Although Open Access articles and datasets are...

Curated by: Covid19_Team_OpenAIRE

Featured uploads related to COVID-19

[Want your dataset featured? Contact us](#)

August 12, 2020 (v1.0) [Dataset](#) [Open Access](#)

OpenAIRE Covid-19 publications, datasets, software and projects metadata.

Bardi, Alessia; Kuchma, Iryna; Brobov, Evgeny; Truccolo, Ivana; Monteiro, Elizabete; Casalegno, Carlotta; Clary, Erin; Romanowski, Andrew; Pavone, Gina; Artini, Michele; Atzori, Claudio; Bäcker, Amelie; Baglioni, Miriam; Czerniak, Andreas; De Bonis, Michele; Dimitropoulos, Harry; Foufoulas, Ioannis; Horst, Marek; Iatropoulou, Katerina; Jacewicz, Przemyslaw; Kokogiannaki, Argiro; La Bruzzo, Sandro; Lazzeri, Emma; Löhden, Aenne; Manghi, Paolo; Mannocci, Andrea; Manola, Natalia; Ottonello, Enrico; Shirrwagen, Jochen

This dump provides access to the metadata records of publications, research data, software and projects that may be relevant to the Corona Virus Disease (COVID-19) fight. The dump contains records...

Uploaded on August 27, 2020

August 12, 2020 (v8-10-2020) [Software](#) [Open Access](#)

New York Times Coronavirus (Covid-19) Data in the United States

Albert Sun; Tiff Fehr; Archie Tse; Rachel; Wilson Andrews

This is an archived fork of the New York Times Covid-19 data public repo, created August 10th, 2020. It is purely for archiving and citing purposes for academic publication. All work, credit, and...

Uploaded on August 27, 2020

August 13, 2020 (v1.0) [Software](#) [Open Access](#)

tsleng93/SocialBubble: SocialBubble

tsleng93; Stefan Flasche

This release contains the underlying code and extended data for the paper "The effectiveness of social bubbles as part of a COVID-19 lockdown exit strategy, a modelling study" by Leng et al.

Uploaded on August 27, 2020

GENERAL

Home

About

PUBLISHED

Published DMPs

Published Dataset Descriptions

Welcome to ARGOS

Create, Link, Share Data Management Plans



DMPs
7

[VIEW ALL](#)



Dataset Descr...
7

[VIEW ALL](#)



Grants
7



Related Organ...
5

What is ARGOS?

ARGOS is an open extensible service that simplifies the management, validation, monitoring and maintenance and of Data Management Plans. It allows actors (researchers, managers, supervisors etc) to create actionable DMPs that may be freely exchanged among infrastructures for carrying out specific aspects of the Data management process in accordance with the intentions and commitment of Data owners.

DATA MANAGEMENT PLANS

7 DMPs

[VIEW ALL](#)

DATASETS

7 Dataset Descriptions

[VIEW ALL](#)

[User Guide](#)

[Glossary](#)

[FAQ](#)

[Terms Of Service](#)

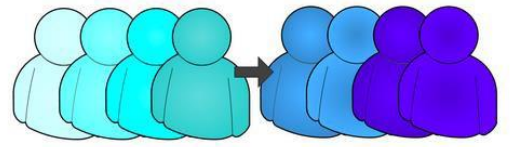


Amnesia

Amnesia is a data anonymization tool, that allows to remove identifying information from data. Amnesia not only removes direct identifiers like names, SSNs etc but also transforms secondary identifiers like birth date and zip code so that individuals cannot be identified in the data. Amnesia supports k -anonymity and k^m -anonymity.

version: 1.2.1 (release date: 11/07/2020)

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Citizen Science Activities

Schools
Seismograph
Network

Seismic Data



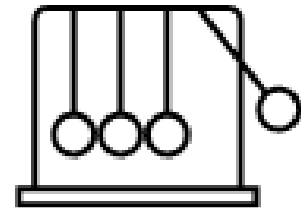
Open Schools
Journal for
Open Science

Open Science Journal



Bringing
Nobel Prize
Physics
to Classroom

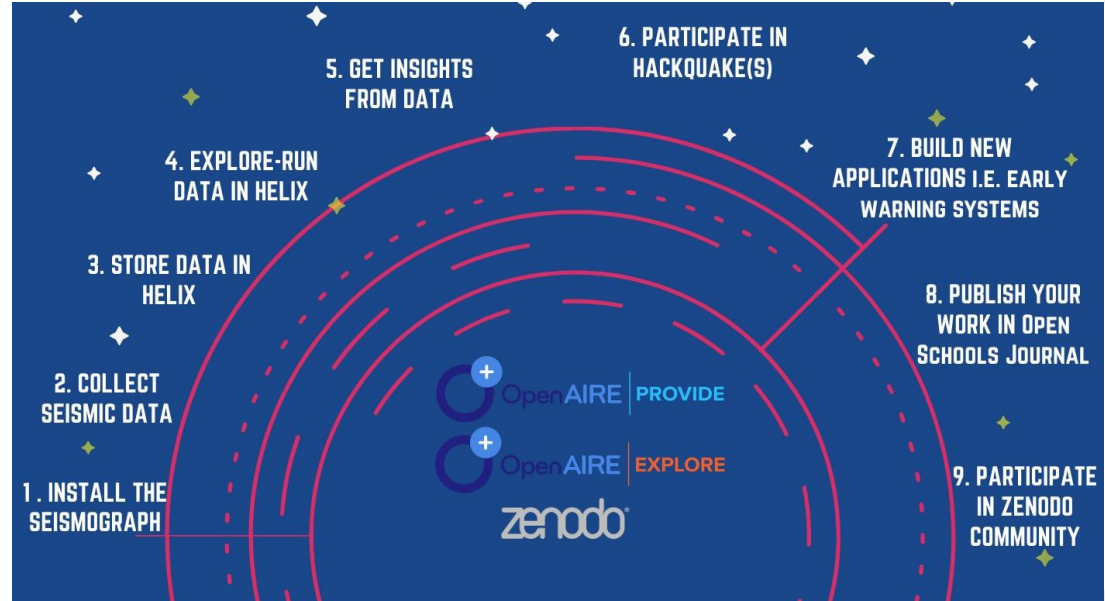
Access Research Data



Integration with OpenAIRE Services

Journal Articles

- Assigned DOI
- Indexed on OpenAIRE
- Findability
- Accessibility
- Interoperability
- Reusage



New discovery!

Κυνήγι Εξωπλανητών

Ανδρέας Βατίστας Βατίστας, Θανάσης Βασιλαίνας Βασιλαίνας, Εμμέλεια Βουτιέρου, Φωτεινή-Μαρία Δραβίλλα, Γιώργος Καλπαξής, Ρένια Μενέγου, Παναγιώτης Μιχάλαϊνας, Ιάσωνας Παυλόπουλος, Δήμητρα Πίνα, Θωμάς Πιτσαργιώτης, Γιώργος Τσακίρης, Στέλιος Φραγκουδάκης, Δρ. Σωτήριος Τσαντίλας Views: 64 Downloads: 41

DOI: <https://doi.org/10.12681/osj.22398>

Abstract

Από το 2009 το διαστημικό τηλεσκόπιο Kepler καταγράφει τις μικρές ελαττώσεις (εκλείψεις) στο φως μακρινών αστέρων που οφείλονται στη διάβαση (transit) πλανητών από μπροστά τους. Σκοπός μας είναι να εντοπίσουμε πλανήτες σε τροχιά γύρω από μακρινά άστρα από τα δεδομένα της αποστολής Kepler, χρησιμοποιώντας τη Μέθοδο των Διαβάσεων με τη βοήθεια δύο προγραμμάτων που έχει γράψει η ομάδα μας σε γλώσσα C. Εφόσον εντοπιστούν και επιβεβαιωθούν οι διαβάσεις, προχωρούμε στην ανάλυση των χαρακτηριστικών του πλανήτη: Ακτίνα, κλίση, απόσταση από το αστέρι, και κυρίως αν βρίσκεται στη λεγόμενη «κατοικήσιμη ζώνη» πράγμα που θα κάνει δυνατή τη διατήρηση ζωής. Λόγω του πολύ μικρού μεγέθους των πλανητών σε σχέση με το αστέρι τους, ο εντοπισμός αυτός είναι εξαιρετικά δύσκολος. Παρόλα αυτά έχουμε ήδη εντοπίσει έναν τέτοιο εξωπλανήτη σε τροχιά γύρω από τον αστέρα KIC 1432789 τα χαρακτηριστικά του οποίου ανέλυσε η ομάδα μας για πρώτη φορά.

Since 2009, Kepler Space Telescope has been recording small reductions (eclipses) in the light of distant stars due to the transit of planets in front of them. Our goal is to detect planets in orbit around distant stars from Kepler's mission data, following the Reading Method using two programs written by our team in programme language C. If the readings are detected and confirmed, we proceed to their analysis. characteristics of the planet: Ray, inclination, distance from the star, and especially if it is in the so-called "habitable zone" which will make it possible to maintain life.

However, we have already identified such an exoplanet in orbit around the star KIC 1432789, the characteristics of which our team analyzed for the **first time**.

Who is OpenAIRE

34 National Open Access Desks

Organizations experts in OA

Regional / Topical Experts

4 regional coordinators
3 topical coordinators



50 partners
from all of
Europe

e-Infrastructure / e-Science Service Providers

Infrastructure experts
Metadata experts
Big data technologists
Text & data analytics experts

Legal Experts

IPR
Data privacy

Data Communities

EU Research Infrastructures

Citizen Science

Schools
Citizen science groups

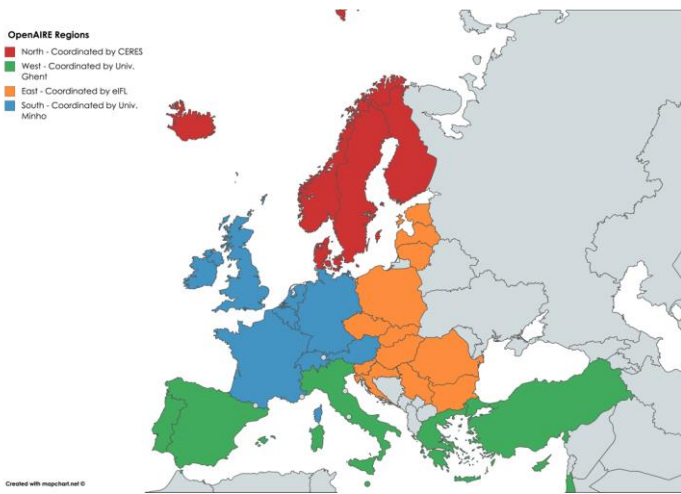
Open Innovation

Industrial cluster facilitators
Innovation management coordinators

National Open Access Desks (NOADs)

Facts

- Research is global, support is local
- Diversity in culture & maturity of national/local infras
- Not one size fits all in OA and open science



Our pan-European network

→ 34 countries

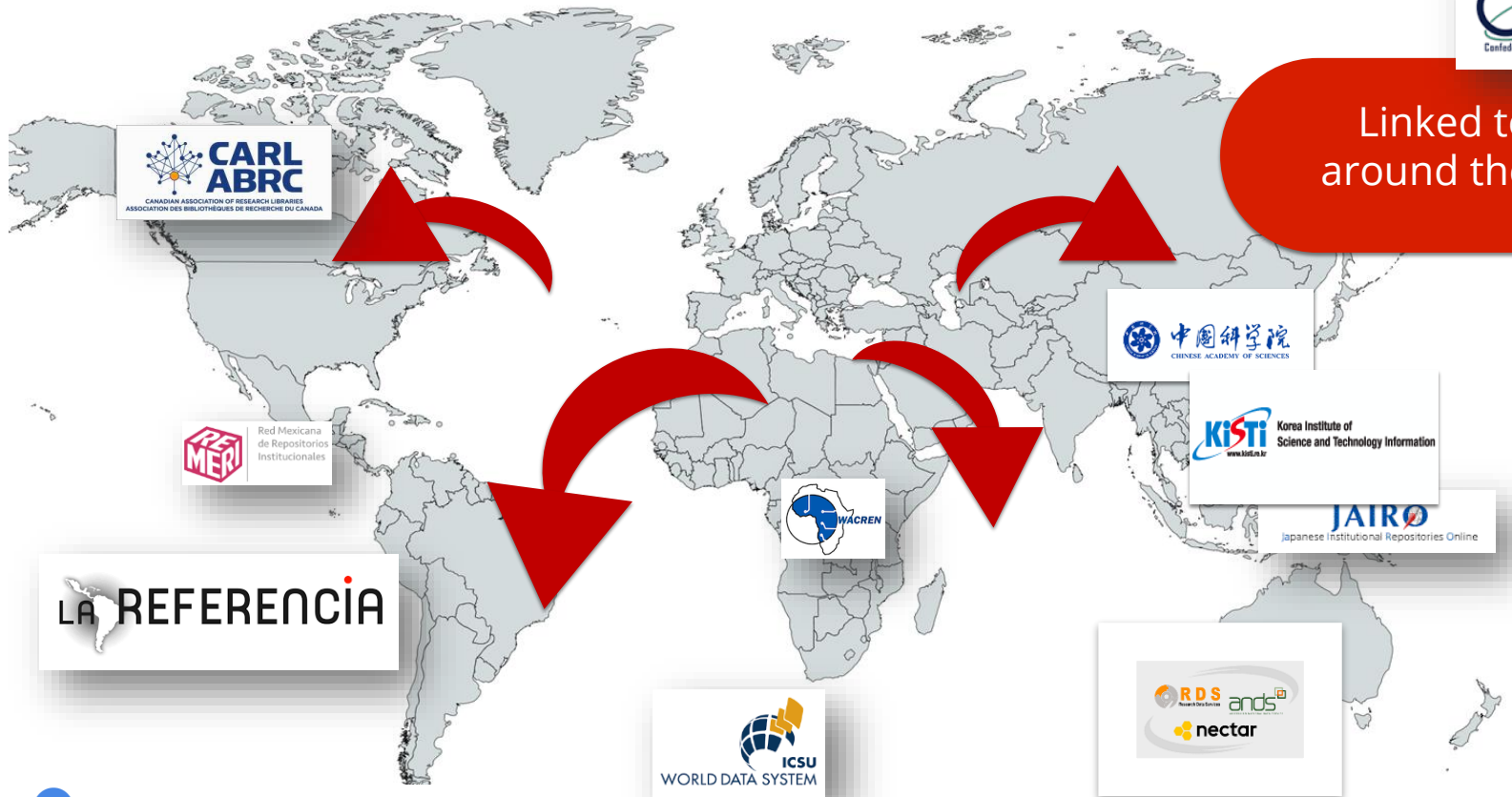
Key national organizations

→ 4 area coordinators

International outreach



Linked to infras
around the world



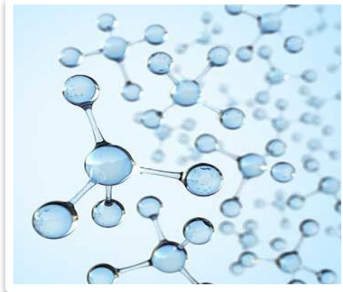
What we support

OS policies



- Harmonization for policy makers
- Training
- Support

Infrastructure



- Interoperability
- Setup
- Connectivity
- Repositories

Open Research Data



- FAIR
- Open data
- Tools
- Legal
- Compliance

OA to publications



- Guides
- Tools/repositories
- Licenses
- Compliance



Open Access Basics

An Open Access primer to get you started



An RDM Handbook

A primer on managing your research data

Toolkit for Policy Makers on Open Science and Open Access

[Read more](#)



Content providers

- [Making your repository Open](#)
- [Follow the OpenAIRE Guidelines](#)
- [Follow the OpenAIRE Usage Statistics Guidelines](#)



Funders

- [Why OpenAIRE Monitor](#)
- [How to join OpenAIRE](#)
- [Monitor Dashboard - Coming soon!](#)



Research Administrators

- [OS Policy Checklist for RFOs](#)
- [OS Policy Checklist for RPOs](#)
- [Model Policy on OS for RFOs](#)
- [Model Policy on OS for RPOs](#)

Guides for OpenAIRE services

Deposit your research outcomes

For researchers



Zenodo

Anonymize your data

For researchers



Anonymization

Report your publication and data to the EC

For project coordinators



Search & Share

Claim a publication or data to your funding

For researchers



Search & Share

Link literature & data

For content providers



Scholixplorer

Create, Link & Share DMPs

For researchers



ARGOS

Research Community Gateway

For researchers



CONNECT

Content Enrichment

For Repository Managers



OA Broker

Track the usage activity of your repository

For content providers



Usage Analytics

Register & Validate your repository

For content providers



Validator



Enhancing research outputs in Serbia

Service use case

New



API integration in RCAAP - Portuguese OA Repositories

Service use case



Enabling OS publishing for RIs: EPOS use case

Service use case



Matchbook: service to spark scientific collaboration

Service use case



Viper: the visual project explorer

Service use case



Data2Paper: Scholix integration

Service use case



Developing a national interoperable project catalogue in Croatia

Service use case



VIRTA: Finnish Publication Information Service

Service use case



OJS: new standards to achieve OpenAIRE compliance with JATS

Service use case



Collaborations made easy using HADDOCK and Zenodo

Researcher use case



Open Science Management at ISCTE-IUL

Research manager use case



Stay tuned!

Use cases

of OpenAIRE services for different stakeholders

Thank you!

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