



OpenCitations' steps towards sustainability

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OpenCitations for Open Research Information

The openness of Research Information, including the provision of open citation data, is fundamental for enabling science policy decisions to be made based on transparent evidence and inclusive data and information used in research evaluations to be accessible and auditable by those being assessed.

Since its creation in 2010, OpenCitations has always advocated and actively worked to produce open research information and develop infrastructural technologies to maximise its sharing and reuse in different applicative contexts



OpenCitations supports the Barcelona Declaration on Open Research Information

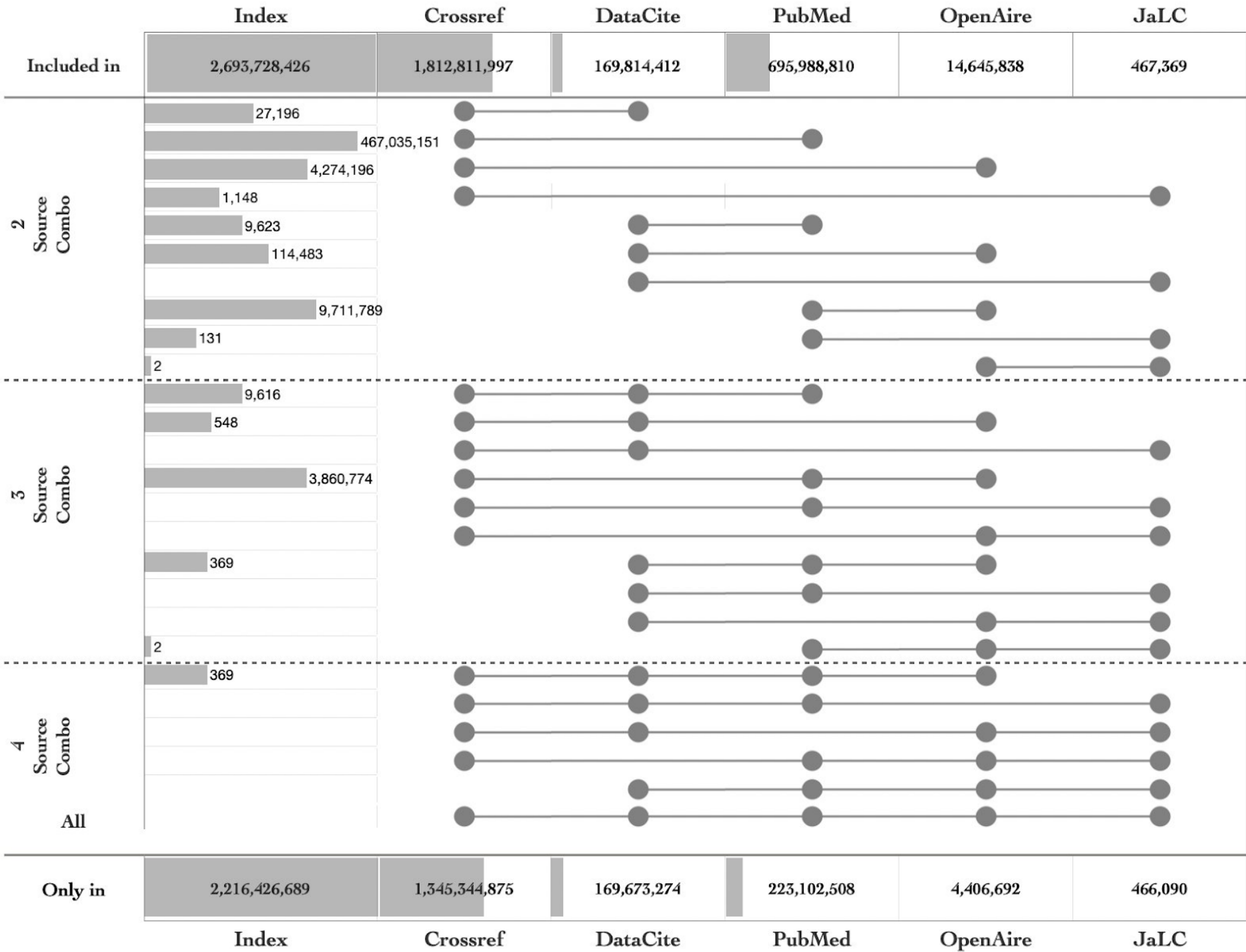
OUR MISSION

OpenCitations mission is to harvest, openly publish, preserve and provide accurate metadata on academic publications and their citations, freely accessible to all, both in human- and machine-readable formats, for unrestricted reuse and analysis.

Our services

OpenCitations Meta is a database that stores and delivers bibliographic **metadata** for all publications involved in the OpenCitations Index – every entity in OpenCitations Meta is assigned a persistent internal identifier called OpenCitations Meta Identifier (OMID)

OpenCitations Index is a collection recording citations between bibliographic resources – **citations** are treated as first-class data entities and are identified by an Open Citation Identifier (OCI)



Some of our users



- Cited by
- load citations from opencitations.net and semanticscholar.org
- Minhyuk Park, Yasamin Tabatabaee, Vikram R. Tandy J. Warnow:

Identifying Well-Connected Communities in R

(missing metadata) [doi:10.5334/johd.178]
- Mohamed Ben Aouicha, Houcemeddine Turki, M

Editorial: Linked open bibliographic data for i

(missing metadata) [doi:10.3897/bdj.11.e107914]
- Michele De Bonis, Fabrizio Falchi, Paolo Mangi

Graph-based methods for Author Name Disa
- Ornella Irrera, Andrea Mannocci, Paolo Man

A Novel Curated Scholarly Graph Connecting

Citations

We do not collect and store citation information ourselves within the dblp computer science bibliography. Instead, we make use of the open citation data released by the marvelous folks at [OpenCitations](#). Please be aware that while OpenCitations may be the best open collection of citation data available, it is still incomplete and numerous citation links may not be openly available. However, the corpus is making steady [progress to match the data provided by commercial services](#).

<https://dblp.org/rec/journals/corr/abs-2206-07476.html>

<https://cherry.chem.bg.ac.rs/handle/123456789/2135>

Faculty of Chemistry Repository - Cherry

University of Belgrade - Faculty of Chemistry

Cherry

Hemijski fakultet / Faculty of Chemistry

Publikacije / Publications

View Item

Converting Insulin-like Growth Factors 1 and 2 into High-Affinity Ligands for Insulin Receptor Isoform A by the Introduction of an Evolutionarily Divergent Mutation

Biochemistry

Converting Insulin-like Growth Factors 1 and 2 into High-Affinity Ligands for Insulin Receptor Isoform A by the Introduction of an Evolutionarily Divergent Mutation

Heimerl et al., 2016

2018

Download

2133.pdf (3.114Mb)

Source:

Biochemistry, 2018, 57, 16, 2373-2382

Publisher:

Amer Chemical Soc, Washington

Funding / projects:

Czech Academy of Sciences [RVO 61388963, 68378050]

Medical Research Council [MR/K000179/1]

Medical Research Council Grant [MR/R009066/1]

Czech Science Foundation [15-19018S]

Note:

Supplementary material: <http://cherry.chem.bg.ac.rs/handle/123456789/3185>

DOI: 10.1021/acs.biochem.7b01260

ISSN: 0006-2960

PubMed: 29608283

WoS: 000431088300011

Scopus: 2-s2.0-85045898101

[\[Google Scholar \]](#)

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Brzozowski, Andrzej M.

Zakova, Lenka

Jiracek, Jiri

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grasp

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3

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12

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PURE suggest

4 SELECTED

CIT, VISUAL, MAP, PUBLI, LITERAT

Selected

24

PaperPoles: Facilitating adaptive visual exploration of scientific publications by citation links (He et al., 2019)

16

Visual Analysis and Dissemination of Scientific Literature Collections with SurVis (Beck et al., 2016)

16

CiteRivers: Visual Analytics of Citation Patterns (Heimerl et al., 2016)

8

Visually Explaining Publication Ranks in Citation-based Literature Search with PURE Suggest (Beck and Krause, 2022)

Suggested

16

CiteSpace II: Detecting and visualizing emerging trends and transient patterns in scientific literature (Chen, 2005)

12

A Survey on Visual Approaches for Analyzing Scientific Literature and Patents (Federico et al., 2017)

8

LitVis: a visual analytics approach for managing and exploring literature (Tian et al., 2023)

8

RelPath: an interactive tool to visualize branches of studies and quantify the expertise of authors by citation paths (Guilarte et al., 2021)

Citation network

Mode: Timeline Clusters

MAP

CIT

VISUAL

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BF

<https://fabian-beck.github.io/pure-suggest/>



Why OpenCitations?

OpenCitations :

- provides an **enduring** source of comprehensive high-quality scholarly bibliographic and citation metadata
- enables **integration** with complementary sources of open scholarly information;
- provides information, both in human-readable form and in **interoperable** machine-readable Linked Open Data formats;
- its data is published under a Creative Commons CC0 Public Domain Waiver, and may be freely **reused** for any purpose, including commercial purposes.
- is a disruptive and **free** alternative to proprietary citation services;
- shares the values of **Open Science**.

Two pillars

OPENNESS



OpenCitations' main priority is to keep its services, software and data always without charge under open licenses (CC0 for data ISC for software) for fostering maximum reuse.

COMMUNITY



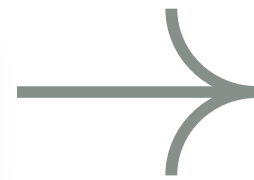
OpenCitations will be always free for the global community. Indeed, OpenCitations works for the community and with the community as a community-based and community-guided open science infrastructure.

A brief history of our business model



2010

OpenCitations started in **2010** as a one-year grant-funded project at the University of Oxford.



2015

OpenCitations “enters” in the **University of Bologna** with the first instanton of the OpenCitations Data Model hosted by Department of Computer Science and Engineering.



2019

OpenCitations is selected by the **Global Sustainability Coalition for Open Science Services** for its second funding round.



2025

Currently, OpenCitations is hosted by the Research Centre for Open Scholarly Metadata at the University of Bologna, and relies on the **community support** from its members and donors.

A business model shaped by openness

OpenCitations services are free and will always be free. **This means that our activities generate no income.** While this poses an obvious financial problem, it also provides our unique 'selling point' in terms of charitable and institutional stakeholder support.

Currently, OpenCitations' business model is based on

- In-kind support from the University of Bologna;
- Time-limited grant income from public and private funding agencies;
- Support from members and donors.

 OpenCitations is seeking a business model to move from being “sustainable” to being a **financially sustained** infrastructure organization.

How we intend sustainability

The Principles of Open Scholarly Infrastructure offer a robust framework for building open, sustainable, and community-governed scholarly infrastructure; building strong trust relationships within the research community.



Governance

Coverage across the research enterprise	We gather citations from global scholarship
Stakeholder governed	We are stakeholder-advised, but advisory board currently lacks executive power
Non-discriminatory membership	Membership open to all those espousing open science
Transparent operations	Everything is open
Cannot lobby	OpenCitations lobbies to achieve open scholarly citations and bibliographic metadata; it does not engage in political or financial lobbying
Living will	Since all our data open, others can recreate our service
Formal incentives to fulfill mission & wind-down	No formal plan for wind-down has yet been drawn up

Insurance

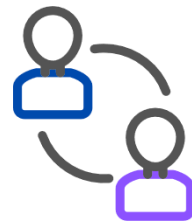
Open source	All software under open source licenses
Open data	All data available under CC0 waiver
Available data	All data available via REST APIs, SPARQL endpoints, query interfaces and data dumps
Patent non-assertion	We will not patent anything: OpenCitations' infrastructure is free to replicate

Sustainability

Time-limited funds used only for time-limited activities	Grant income should be used solely for grant projects
Goal to generate surplus	Goal partially realized – surplus to sustain mid-term activities
Goal to create contingency fund to support operations for 12 months	Goal realized – contingency fund available
Mission-consistent revenue generation	Membership fees and solicited donations
Revenue based on services, not data	All data and services freely given to community, and thus do not generate income

Chiara Di Giambattista, "OpenCitations' compliance with the Principles of Open Scholarly Infrastructure," in OpenCitations blog, 09/08/2021, <https://opencitations.hypotheses.org/1260>

A community-based and community-guided infrastructure organization



COMMUNITY ENGAGEMENT

Community engagement in OpenCitations has three aspects:

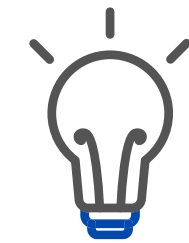
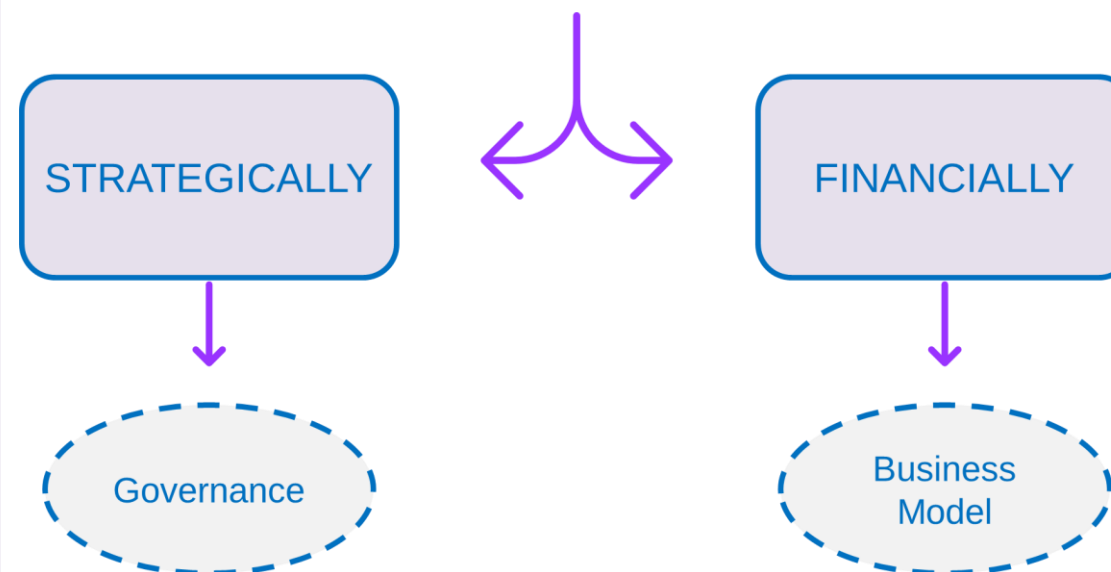
Collaborative partnerships with like-minded individuals, infrastructures, services and data providers, including involvement of third parties (for instance by university librarians) in the direct **provision** and **curation** of OpenCitations data.

Community crowdfunding to provide financial support for OpenCitations.

Community participation in the development and governance of OpenCitations.



STAKEHOLDERS INTEGRATED IN OPENCITATIONS' EXISTENCE



WORKING ON THE WEAK POINTS

To guide the non-technical development of OpenCitations, members of the OpenCitations International Advisory Board have been serving in **two working groups** – focusing on the themes of **Governance Evolution** and **Community Building** – that have met several times over the past two years, and whose activities resulted in a Governance renewal to be announced in 2026

OpenCitations' community

OpenCitations collaborates with a wide network of Open Science Infrastructures and organizations and is involved in communities focusing on the creation of a more equal and open research environment:

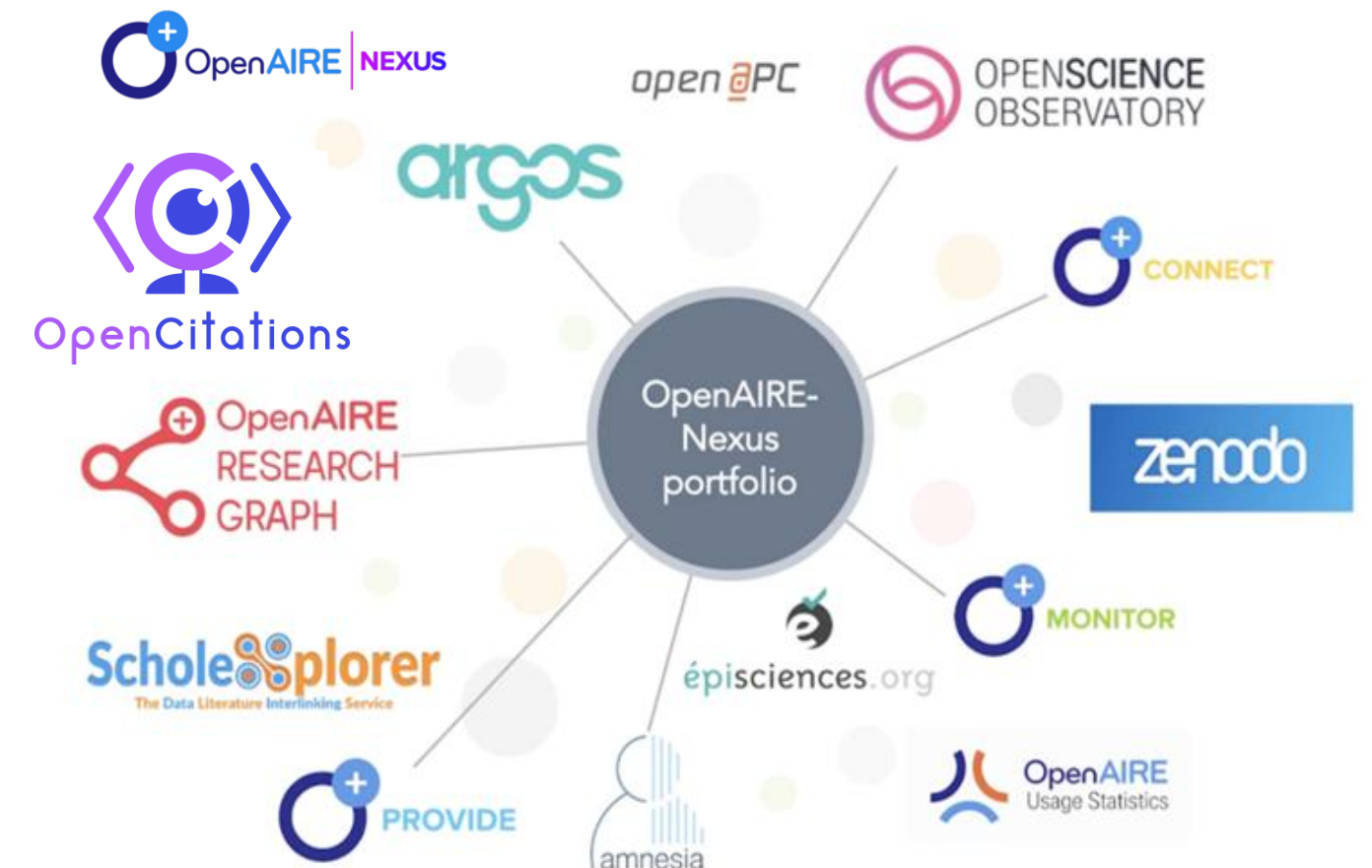
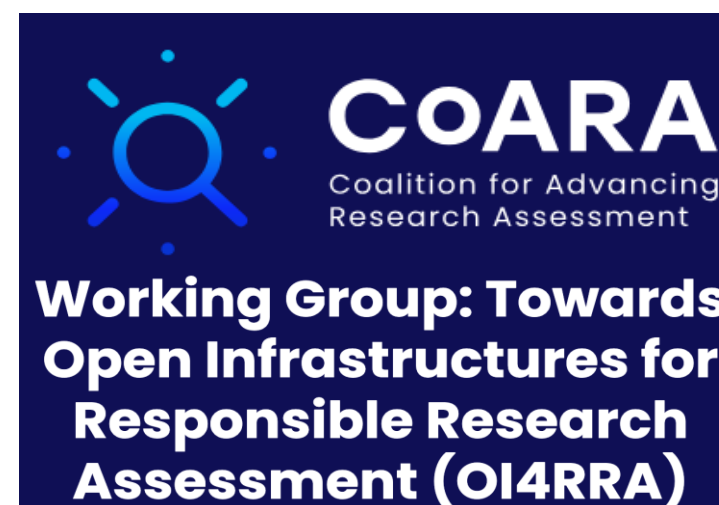


**SUSTAINING
THE OPEN**



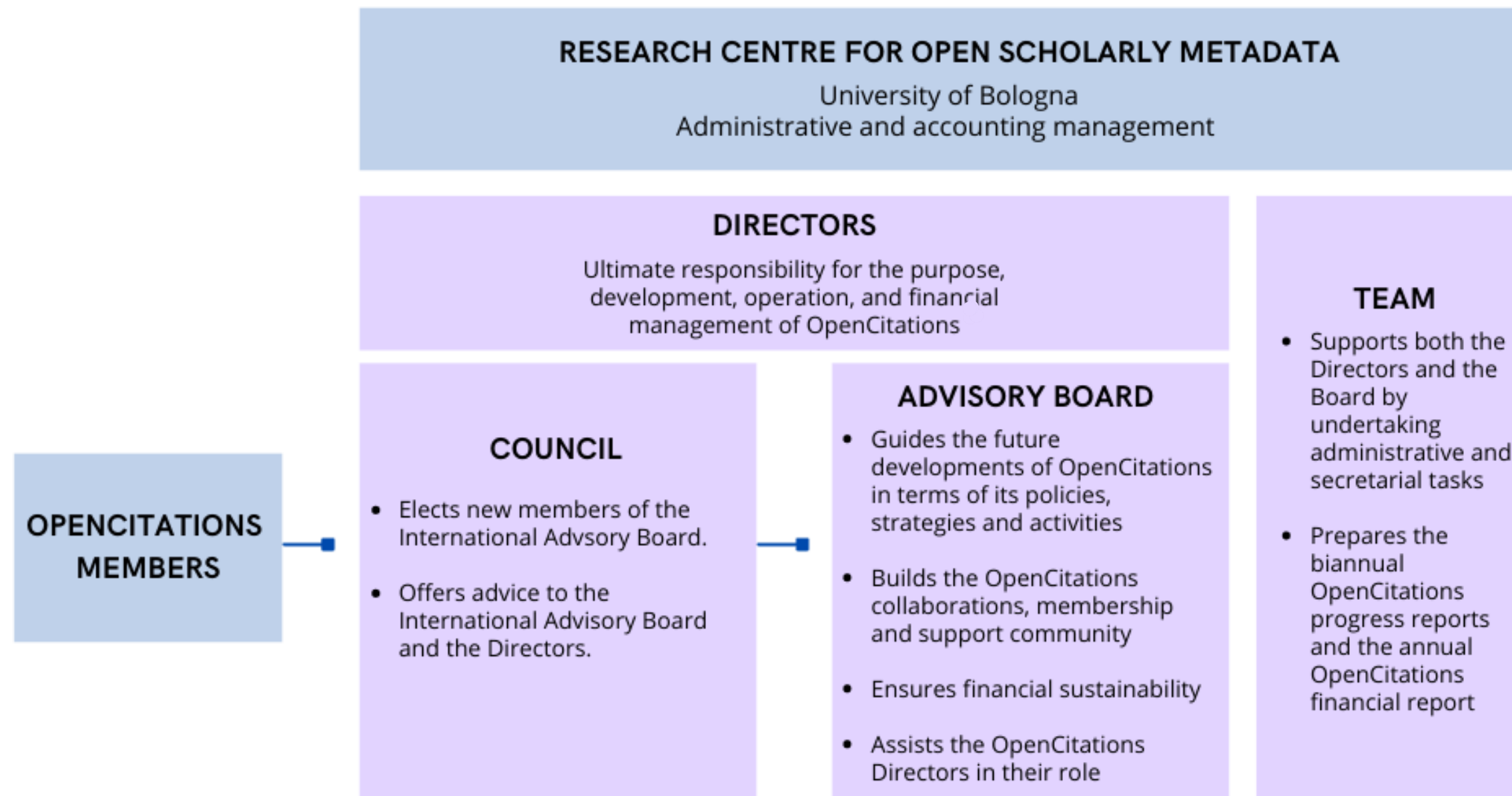
**The Principles of
Open Scholarly
Infrastructure**

**BARCELONA
DECLARATION ON
OPEN RESEARCH
INFORMATION**



The current Governance

The current OpenCitations' governance relies on the administrative management of the [Research Centre for Open Scholarly Metadata](#), an independent research centre within the University of Bologna, whose fundamental bodies are OpenCitations' Council (made up of OpenCitations members) and the International Advisory Board, which guides OpenCitations strategies.



Explore at



OpenCitations works **for** the community and **with** the community.

How to get involved?

OpenCitations seeks involvement from the community

- to **participate** in the shared governance of OpenCitations,
- to **improve** the software and services,
- for the **provision**, **annotation**, **curation** and **correction** of OpenCitations data,
- to **work together** to broaden the scope of scholarly metadata that is openly available, beyond citations and abstracts.

Why to support OpenCitations?

OpenCitations relies on the day-by-day work of a team of young researchers and developers, and its would not be possible without the effort and dedication of people and institutions who have espoused the cause.

There is a strong need from the community to help covering the costs of the technical management of the infrastructure and of the personnel working at OpenCitations.

More info about our membership programme at: <https://opencitations.net/membership>



How BD and WG5 can help

To strengthen the sustainability of OpenCitations, collaboration with WG5 and the Barcelona Declaration community could play a crucial role. Beyond technical alignment, what we really need is a combination of shared infrastructures, advocacy, long-term financial support, and an active community. In particular, meaningful support could take four main forms:

Practical and technical collaboration

Share infrastructures and expertise, develop common standards, and work together on data quality and interoperability.

Institutional and policy support

Promote OpenCitations as essential open infrastructure, raise awareness among institutions and funders, and advocate for its recognition as a public good.



Financial advisory

Help to build shared funding models and secure international grants.

Community strengthening

Foster training and exchange opportunities, and including underrepresented institutions worldwide.

Thank
you!

OpenCitations



opencitations.net



opencitations.hypotheses.org



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