

# Persistent Identifiers (PIDs): Are there still important PIDs missing? Investigation on agreements with publishers

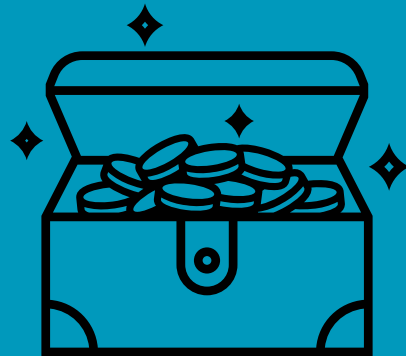
Open Repositories

11/June/2026

Julia Bartlewski, Robert Bosek, Christoph Broschinski, Gernot Deinzer, Cornelia Lang, Dirk Pieper, Bianca Schweighofer, Colin Sippl, Lisa-Marie Stein, Alexander Wagner, Silke Weiheit



# Contents



- The openCost project
- Metadata of a publication
- Where to store cost data?
- Integrating agreements/contracts into repositories
- Metadata schema
  - Agreements/Contracts
- New PID: openCost-ID
- Registry of Agreements

## The project openCost

- **Project partners:** University Library of Regensburg, Bielefeld University Library, Deutsches Elektronen-Synchrotron DESY Hamburg
- Funded by the German Research Foundation (DFG)
- **Goals:**
  - Creating a technical infrastructure that allows to comprehensively record **all** publication costs and subsequently make them **freely** accessible by means of standardized interfaces
  - Enabling cost transparency on an institutional, national, and international level

## Project focus

- Development of a **standardized metadata schema** for the collection/recording and transfer of data on publication costs
- Implementation of an open interface for **harvesting** and querying this data
- Extension of the **Electronic Journals Library** (EZB) with special functions for displaying information on open access publication costs and on the assumption of cost

## Project focus

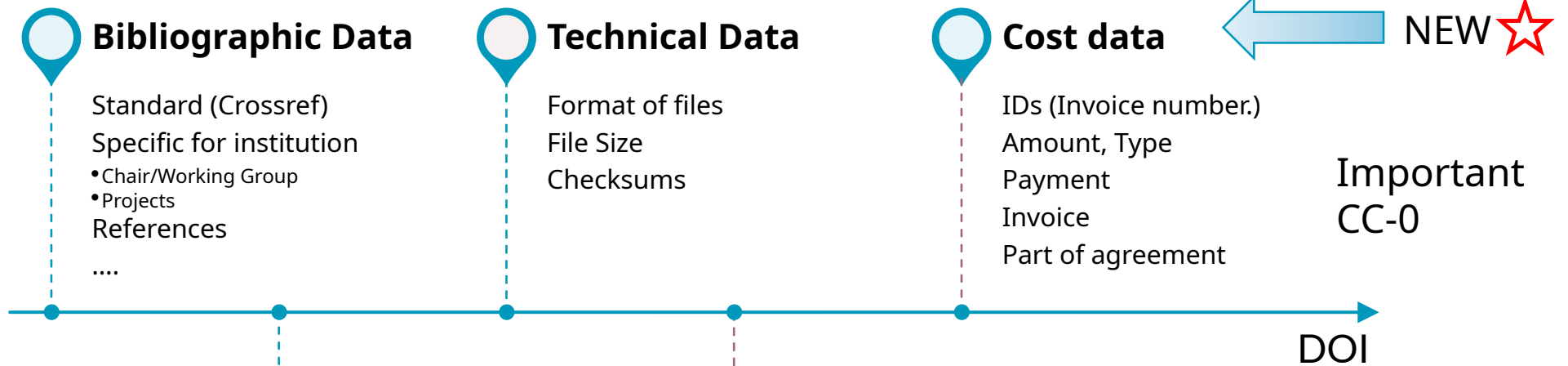
- Development of a internal **metadata schema** for the recording of data on publication costs as a superset of the exchange format
- Provide an validator for the exchange format
- Extension of the **Electronic Journals Library** (EZB) with a new, unique, and persistent identifier for any agreements with publishing institutions including Diamond Open Access and Open Access infrastructures

## Metadata of publication

Extending the metadata of a publication with costs associated for publishing



# Metadata of publication



Cost data: Can be included in other metadata schemas like Datacite

## What are Cost Data for publication?

1. Payment for a single article (APC), book (BPC), conference publication (CPC) etc.

→ Cost data can directly be included in article metadata

2. The publication is published Open Access, because it is part of a contract

- How can someone identify the contract?
- Possible additional cost on article level (e.g. page charges, colour charges)

## Types of Agreements with publisher with some kind of publishing component

- Contract clause, which allows additional deposit in institutional repository, e.g. the Version of Record (VoR)
  - German national license
- Subscription with publishing component (institutional level, either fixed payment or based on number of publications)
  - Transformative Agreement, Vouchers
- Consortial Contracts with fixed payments
  - SCOAP<sup>3</sup>
- Payments for Diamond Open Access
  - Sponsorships, Memberships, Subscribe2Open etc.

# Repositories

Achievement of transparency in the transformation process to open access



## Repositories

- Repositories as designated location for sustainable publication of research results
  - Parallel publication of Gold, Hybrid and Diamond Open Access Publications
- Further: Source of excellent metadata
  - Metadata is automatically gathered from various sources: Crossref, DataCite, OpenAlex
- Enrichment with local requirements to obtain additional value
  - institutions, chairs, and local identifiers to obtain additional value
- Funding of research: funder and project number
  - provision of financial information, no exact figures

## Where to store data on publication costs?

- Metadata of a publication that is stored in a repository:
  - **Bibliographic metadata:** all data describing the publication
  - **Technical metadata:** technical information and data about the publication
  - **Legal metadata:** mainly rights that are assigned to the publication
  - **Administrative metadata:** all relationships between a publication to an organization
- Metadata in library or management systems:
  - Cost data, but no information about the publication
  - Difficult to expand
  - Transformative agreements: publications have to be assigned to single payments
  - Diamond Open Access: Maybe there is no payment

## **Cost data in repositories**

### Advantages:

- Open System
- Possibility of modeling own metadata
- Free combination of metadata
- Enabling statistical analyses
- Budget planning for libraries: Publication costs
- Standardized interfaces (OAI-PMH and APIs) for easy and automated data exchange



## Article part of Agreement

Articles of transformative agreements, community models, diamond open access



# Information about related agreements

## Case 1: Mentioned in copyright

*Published by the American Physical Society under the terms of the Creative Commons Attribution 4.0 International license. Further distribution of this work must maintain attribution to the author(s) and the published article's title, journal citation, and DOI. Funded by SCOAP 3*

## Case 2: Mentioned in Acknowledgement - Funding

*Open Access funding enabled and organized by Projekt DEAL.*

**Others: No mention at all**

???

# Information about related agreements

## Case 1: Mentioned in copyright

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## Case 2: Mentioned in Acknowledgement - Funding

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**Others: No mention at all**

**???**

**Is this information  
Findable  
Accessible  
Interoperable  
Reusable**

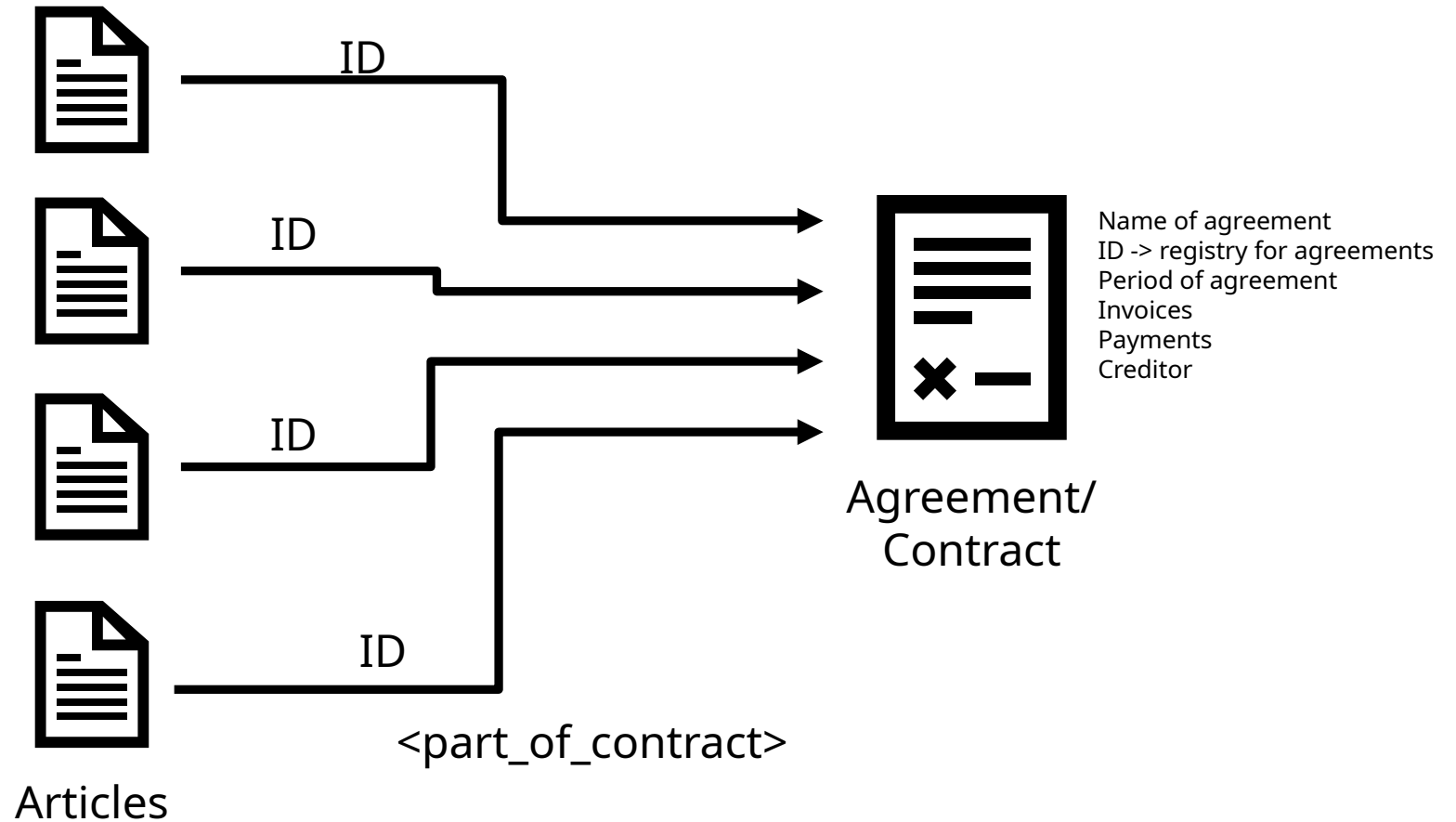
## Why is a publication published under a CC-by license in a repository

Possible reasons:

- Primary publication in the repository
  - Phd Thesis
  - Preprints/working paper
  - university press
- Republished
  - Transformative agreement
  - Consortia (SCOAP<sup>3</sup>)
  - Diamond OA
    - Without financial support of the institution
    - With financial support of the institution

**No information about funding of publication just of funding of research**

## New Entity in Repository: Contract Reference in Article Metadata to Contract



## Contract entity

```
<contract>
  <contract_name>DEAL</contract_name>
  <institution>...</institution>
  <invoice_group>...
    <payment>...</payment>
  </invoice_group>
</contract>
```

Solution for:

Machine Readable Data

Exchange of data possible via

- OAI-PMH
- API

```
contract:{
  contract_name:DEAL,
  institution:{...},
  invoice_group:{...
    payment:{...}
  }
}
```

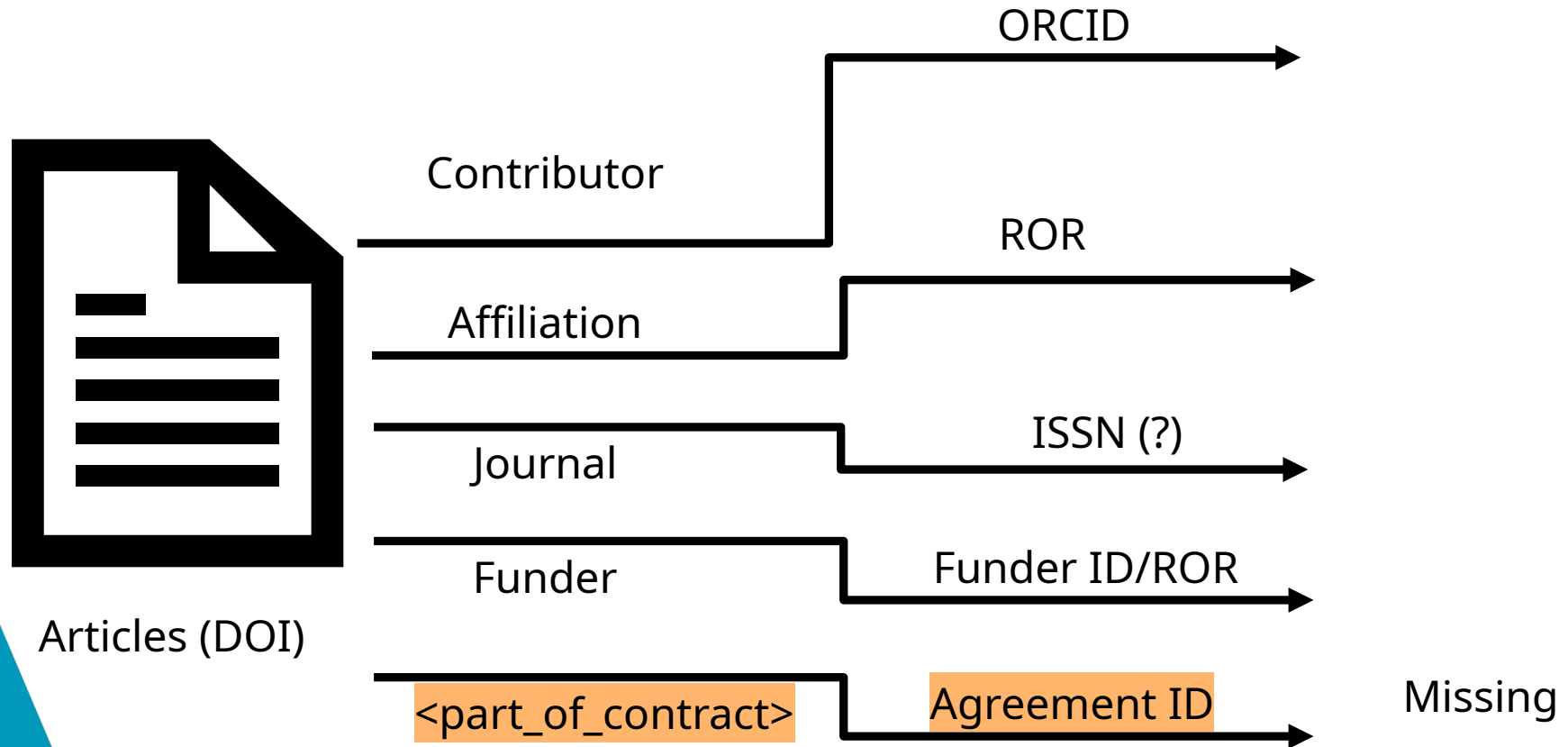
Remaining Problems:

local metadata

Name not always well defined

Ambiguity of name contracts

## Connection of an article with different entities



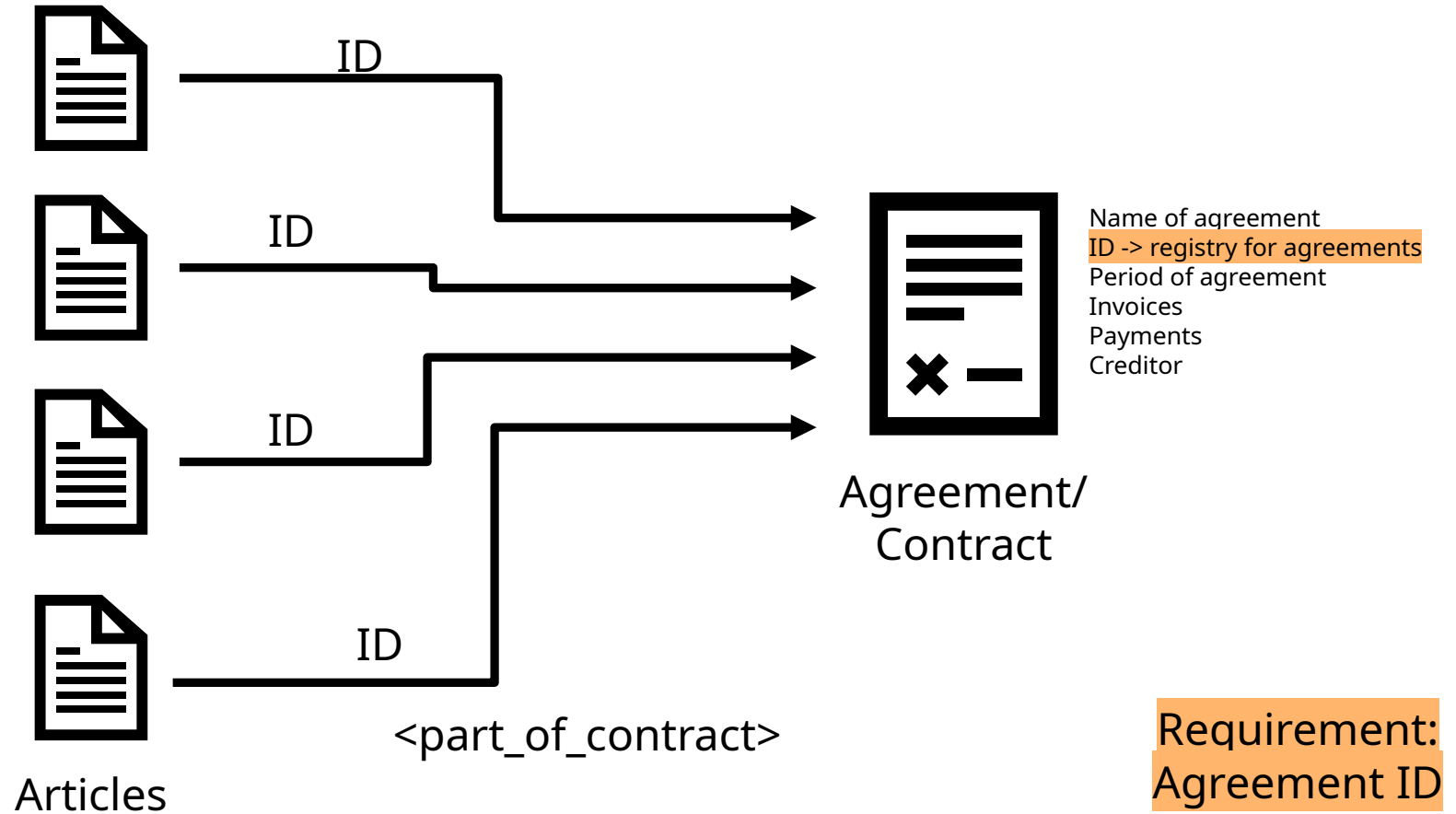


## **New PID: openCost-ID**

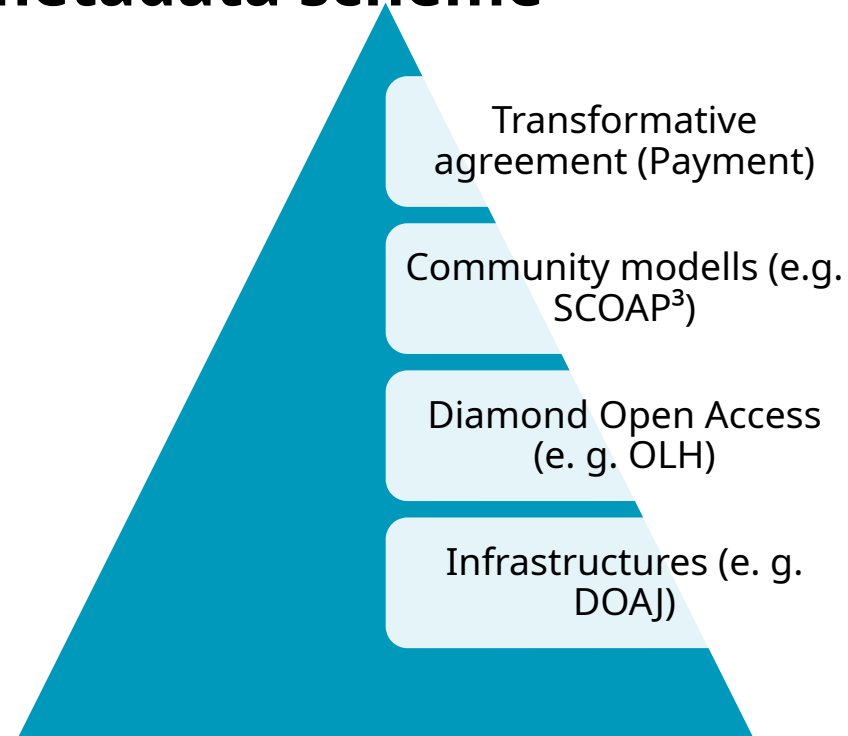
Create a registry für Agreements/Contracts with a uniquely and persitent ID analogous to ORCID, ROR etc.



## New Entity in Repository: Contract Reference in Article Metadata to Contract



## Flexibility of metadata scheme



See Transparency to Sustain Open Science Infrastructure, <https://tsosi.org/>



### **Important:**

No payments on registry level

Must include consortia models but also institutional agreements



# New Registry openCost-Registry for publishing agreements

<https://opencost.de>



## Agreement ID (with Negotiator, e.g. consortia)

**oc-[Provider][Start\_Date][Negotiator]-[Number\_substructure]**

**Examples: oc-koala2026tib-1  
(<https://opencost.de/oc-koala2026tib-1>)**

- **Metadata**

- Name of Agreement\*
- Provider Name (Consortia, Publisher)\*
- Negotiator (Consortia Lead, Institution)
- Date: Start – End
- Substructure (e.g. specific subject)
- URL (Link to the Webpage)

\* Mandatory fields

## Agreement ID (without Negotiator, e.g. individuell contract)

**oc-[Provider]-[Number\_substructure]**

**Examples: oc-scipost-1  
(<https://opencost.de/oc-scipost-1>)**

- **Metadata**

- Name of Agreement\*
- Provider Name (Consortia, Publisher)
- Negotiator (Consortia Lead, Institution)
- Date: Start – End
- Substructure (e.g. specific subject)
- URL (Link to the Webpage)

\* Mandatory fields

# Search & Browse the registry

[Login](#) [Create Account](#)



[Home](#)

## openCost Registry

The opencostid is a **unique, machine-readable identifier** for contracts and business models in the field of scholarly publishing. It enables agreements to be uniquely identified and linked to the participating institutions and the journals involved. In this way, the opencostid creates greater transparency and facilitates analysis, monitoring, and data exchange between systems.

It complements existing services such as the ESAC Registry by mapping not only information on transformative agreements but also on other business models such as memberships or Subscribe-to-Open. The goal is to provide as comprehensive and practical a representation of the current contractual landscape as possible.

The opencostid registry is managed within the context of the Electronic Journals Library (EZB), but is independent of EZB membership and is available worldwide free of charge.

[An overview of all opencostids already assigned can be found here](#)



[Advanced Search](#)

## Requesting an opencostid

By registering a contributor account and logging in to this site, you are able to submit missing agreements to openCost registry. Editors will approve requests and new opencostids are assigned automatically.

## Contact

[Project Partners](#)

[Email Us](#)

## The openCost Project

The aim of **openCost** is to create a technical infrastructure enabling publication costs to be accessed freely via standardized interfaces and formats. This facilitates cost transparency at institutional and (inter-)national level.

[To openCost Project](#)

## Recent Posts

[OpenAPC: Ulm University Implements Data Harvesting](#)

[Report on the openCost Conference 2026](#)

[openCost conference 2026](#)



[openCost metadata schema in GitHub](#)

<https://www.opencost.de>

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## O...

[OAPublishing Collective \(1\)](#)  
[OAPublishing Collective \(Institutional Membership, Hosting\) \(1\)](#)  
[OAPublishing Collective: MedienPädagogik \(1\)](#)  
[Open Book Collective \(1\)](#)

[Open Book Publishers \(Institutional Support\) \(1\)](#)  
[Open Commons of Phenomenology \(Institutional Support\) \(1\)](#)  
[Open Library Economics \(ZBW\) \(Institutional Support\) \(1\)](#)  
[Open Library of Humanities \(1\)](#)

<https://www.opencost.de>

### Koala: Informatik und Mathematik (TIB) 2025-2027

**opencostid:** [oc-koala2025tib-1](#)

**Alternative Agreement Title:** KOALA Informatik und Mathematik (TIB) 2025-2027

**Date Start:** 2025

**Date End:** 2027

**Provider Name:** Koala

**Agreement Substructure:** Informatik und Mathematik

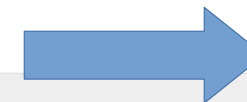
**Negotiator Name:** TIB

**URI:** <https://opencost.de/id/eprint/4>

Export Format  [Export](#)

<https://www.opencost.de>

# Propose new agreement/contract



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## Login/Create Account to register new contracts

[Home](#)

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[openCost conference 2026](#)



[openCost metadata schema in GitHub](#)

<https://www.opencost.de>

## Next Step: Integration of Electronic Journal Library (EZB)

<https://ezb.ur.de/>

The Electronic Journals Library is a service to facilitate the use of scholarly journals on the internet. It offers a fast, structured and unified interface to access full-text articles online.

The EZB contains 86967 journals which are accessible free of charge to anyone. Furthermore, the participating libraries provide their users access to the journals they subscribe to.

### Connection to

- Participating **institutions**
  - i.e. institutions paying for publishing or sponsorship etc.
- **Journals** within the agreements
  - List of journals, where publishing is free either
    - For participating institutions
    - For all authors

## **First Use Cases**

### **Reporting of Payments**

- For German Research Foundation (DFG)
- Starts June 2026

### **Transparency**

- Including openCost ID in OpenAPC
- Possibility to see all payments and publications of one agreement even over more institutions

## Conclusion

First time, that cost are published

Freely available

Standardized

Human readable

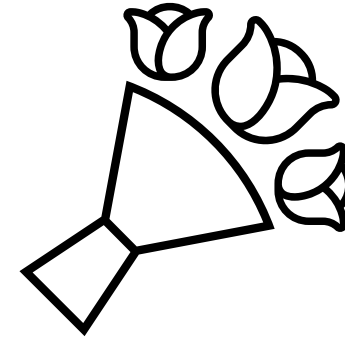
Machine readable

## Fulfilling **FAIR**-principles



# Thanks

- openCost
- DFG-Grant 457354095
  
- Team
- **Julia Bartlewski, Christoph Broschinski, Dirk Pieper (Bielefeld)**
- **Lisa-Marie Stein, Alexander Wagner (Hamburg)**
- **Bianca Schweighofer (thanks for slides), Colin Sippl, Lisa-Marie Stein, Alexander Wagner, Silke Weisheit (Regensburg)**





# Thank you for the attention!

- Website: <https://opencost.de/en>
- openCost publications: <https://www.opencost.de/en/publications/>
- openCost mailing list: [opencost.info@mailman.uni-regensburg.de](mailto:opencost.info@mailman.uni-regensburg.de)
  
- Github repository: <https://github.com/opencost-de/opencost>
- Contains the schema and its documentation (including FAQs, tabular description, XSD file for formal verification, and folder with valid sample files)
- Tracks the evolution of the schema in a transparent way