RISIS

RESEARCH INFRASTRUCTURE FOR SCIENCE
AND INNOVATION POLICY STUDIES

RISIS Tool Demonstration Event:
The OpenAIRE Research Graph: an Open Access resource for research on research

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Who are we

RISIS

Claudio Atzori

Software & Data Engineer / Data quality

Miriam Baglioni

Researcher / Data Quality

Alessia Bardi

Researcher / Product Manager of the OpenAIRE Research Community Dashboard (CONNECT)

Getting started

RISIS

- Ensure you can enter the RISIS Lab Virtual Research Environment of the D4Science infrastructure

About

RISIS LAB

An environment for collaborative analysis and discussion of RISIS contributions to OpenAIRE and to deliver a computational environment for exploration and validation of datasets dedicated to OpenAIRE communities.

Request access (if needed) RISIS

https://risis2.d4science.org/explore

RISIS2 a series of services made available by the D4Science and the federation and integration of the resources provided by the RISIS2 consortium.
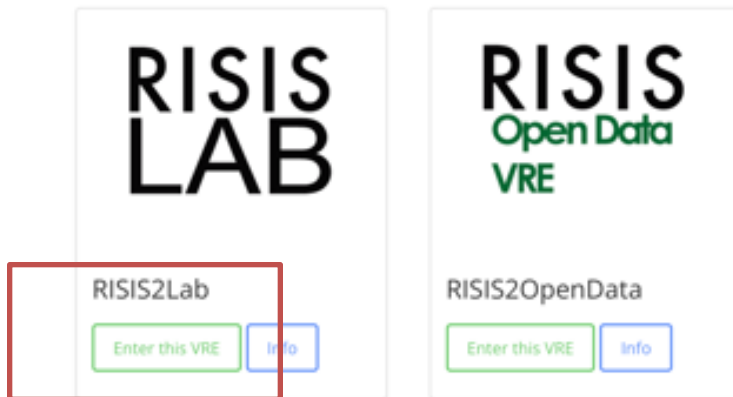
RISIS LAB

RISIS2Lab

Request Access | Info

RISIS Open Data VRE

RISIS2OpenData

Private | Info
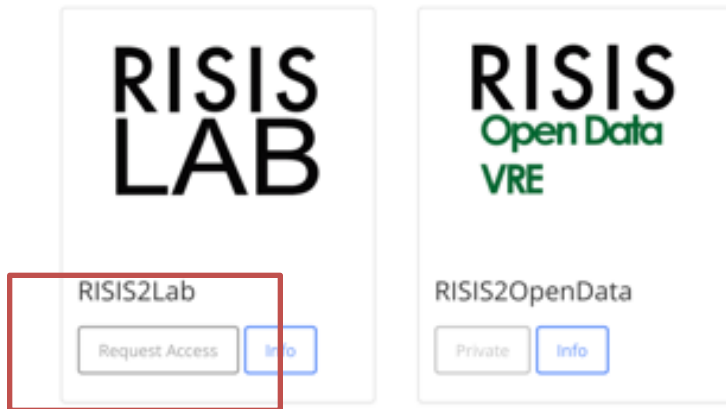
Request access, wait for the acceptance email. 10 minutes later you should be able to enter the VRE.

Get into the VRE

- Click on « Enter this VRE »
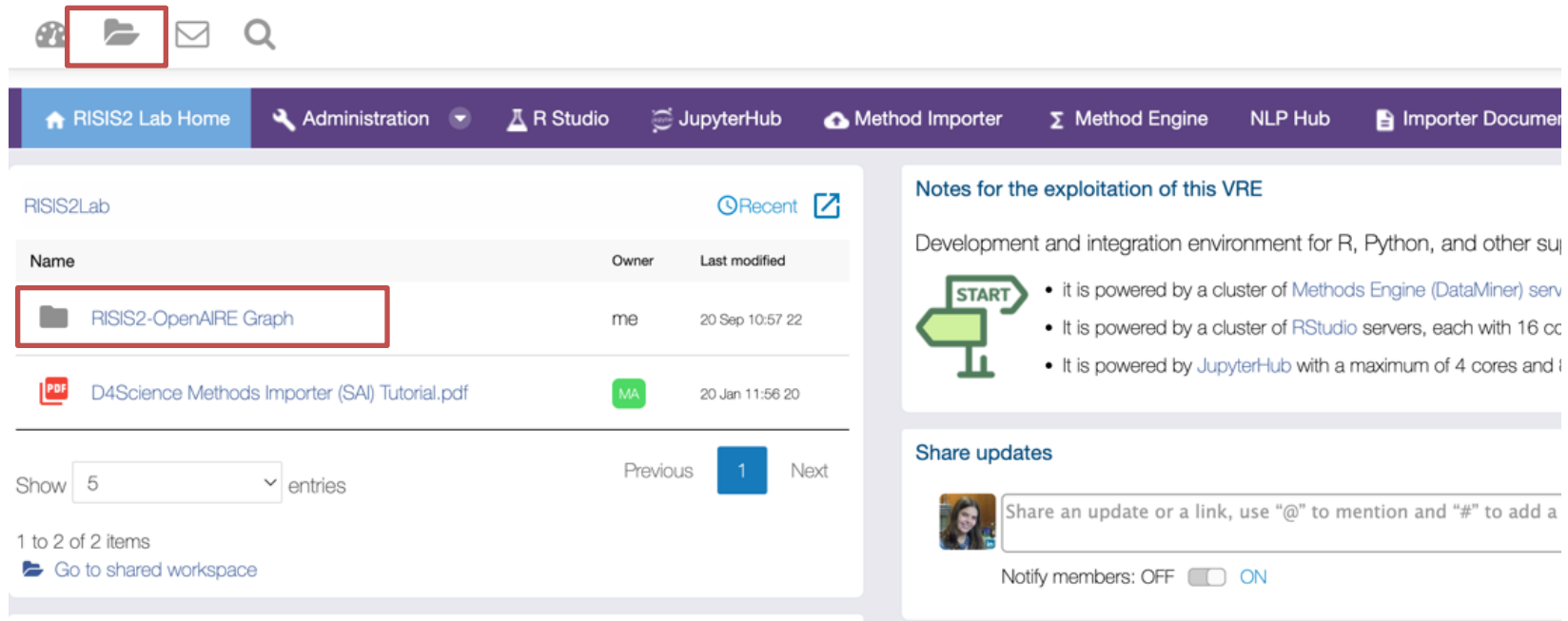
- You can also access directly to https://risis2.d4science.org/group/risis2lab

RISIS2 a series of services made available by the D4Science and the federation and integration of the resources provided by the RISIS2 consortium.

RISIS2Lab

Enter this VRE   Info

RISIS2OpenData

Enter this VRE   Info

Supporting Material

- You can find everything in the VRE workspace, under the folder RISIS2-OpenAIRE Graph:

  - Slides

  - Examples

Agenda

12:35 – 13:00 OpenAIRE Research Graph

- Concept and data model

- The json dumps

13:00 – 14:15 Practical session

- Dataset description (selection of the subset, format)

- Dataset queries with JupyterHub

14:15 – 14:30 Final discussion

Why today?

International **Open Access** Week

Open for Climate Justice
Відкритість для кліматичної справедливості
为气候正义开放
Uwazi kwa Machapisho ya Haki ya Tabianchi
الانفتاح لأجل عدالة مناخية
Ouvert pour la justice climatique
気候正義のためのオープンデータ
Abierto para la justicia climática

OCTOBER 24-30, 2022
#OpenForClimateJustice

Who is OpenAIRE?

A European infrastructure on open scholarly communication since 2009

Mission: Shift scholarly communication towards openness and transparency and facilitate innovative ways to communicate and monitor research.
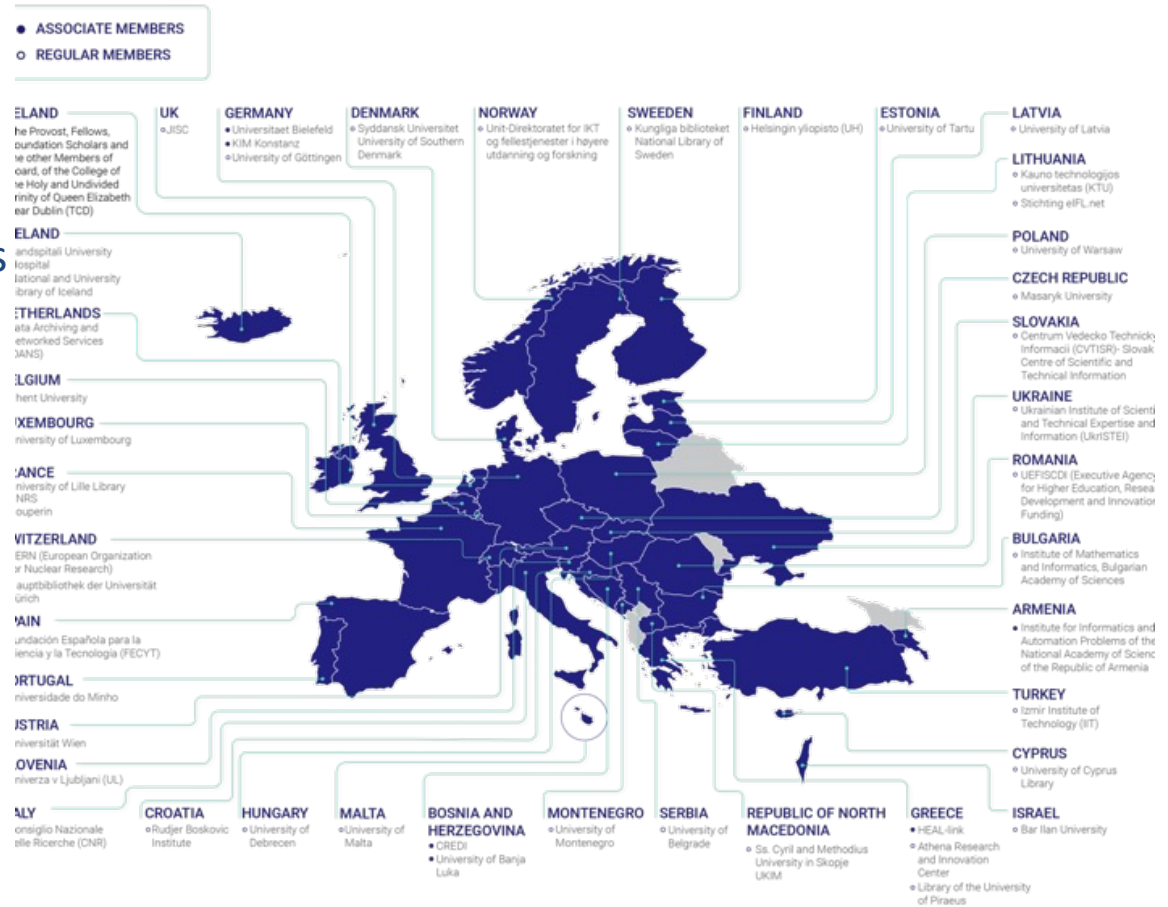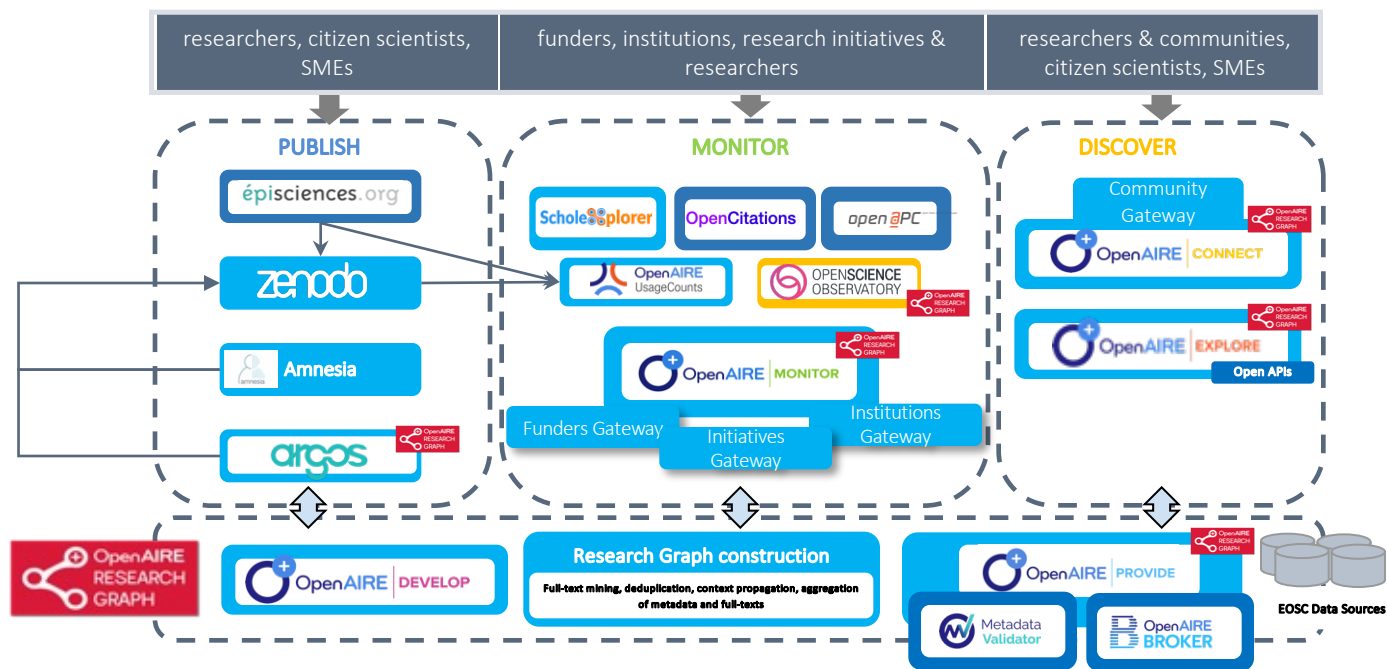
Non-profit organization

Established Oct 2018

Headquarter Greece, virtual office

48 members

From 34 countries

- ASSOCIATE MEMBERS
- REGULAR MEMBERS

IRELAND
The Provost, Fellows, Foundation Scholars and the other Members of Board, of the College of the Holy and Undivided Trinity of Queen Elizabeth near Dublin (TCD)

ICELAND
Landspitali University Hospital
National and University Library of Iceland

NETHERLANDS
Data Archiving and Networked Services (DANS)

BELGIUM
Ghent University

LUXEMBOURG
University of Luxembourg

FRANCE
University of Lille Library
CNRS
Couperin

SWITZERLAND
CERN (European Organization for Nuclear Research)
Hauptbibliothek der Universität Zürich

SPAIN
Fundación Española para la Ciencia y la Tecnología (FECYT)

PORTUGAL
Universidade do Minho

AUSTRIA
Universität Wien

SLOVENIA
Univerza v Ljubljani (UL)

ITALY
Consiglio Nazionale delle Ricerche (CNR)

UK
JISC

GERMANY
- Universitaet Bielefeld
- KIM Konstanz
- University of Göttingen

DENMARK
Syddansk Universitet University of Southern Denmark

NORWAY
Unit-Direktoratet for IKT og fellestjenester i høyere utdanning og forskning

SWEDEN
Kungliga biblioteket National Library of Sweden

FINLAND
Helsingin yliopisto (UH)

ESTONIA
University of Tartu

LATVIA
University of Latvia

LITHUANIA
- Kauno technologijos universitetas (KTU)
- Stichting eIFL.net

POLAND
University of Warsaw

CZECH REPUBLIC
Masaryk University

SLOVAKIA
Centrum Vedecko Technickej Informacii (CVTISR)- Slovak Centre of Scientific and Technical Information

UKRAINE
Ukrainian Institute of Scientific and Technical Expertise and Information (UkrISTEI)

ROMANIA
UEFISCDI (Executive Agency for Higher Education, Research Development and Innovation Funding)

BULGARIA
Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

ARMENIA
Institute for Informatics and Automation Problems of the National Academy of Sciences of the Republic of Armenia

TURKEY
Izmir Institute of Technology (IIT)

CYPRUS
University of Cyprus Library

CROATIA
Rudjer Boskovic Institute

HUNGARY
University of Debrecen

MALTA
University of Malta

BOSNIA AND HERZEGOVINA
- CREDI
- University of Banja Luka

MONTENEGRO
University of Montenegro

SERBIA
University of Belgrade

REPUBLIC OF NORTH MACEDONIA
Ss. Cyril and Methodius University in Skopje UKIM

GREECE
- HEAL-link
- Athena Research and Innovation Center
- Library of the University of Piraeus

ISRAEL
Bar Ilan University

OpenAIRE services for Open Science

The OpenAIRE Research Graph: why?

Tracking
open research

Reproducibility and transparency require tracking of all outcomes of **science and related "context"**
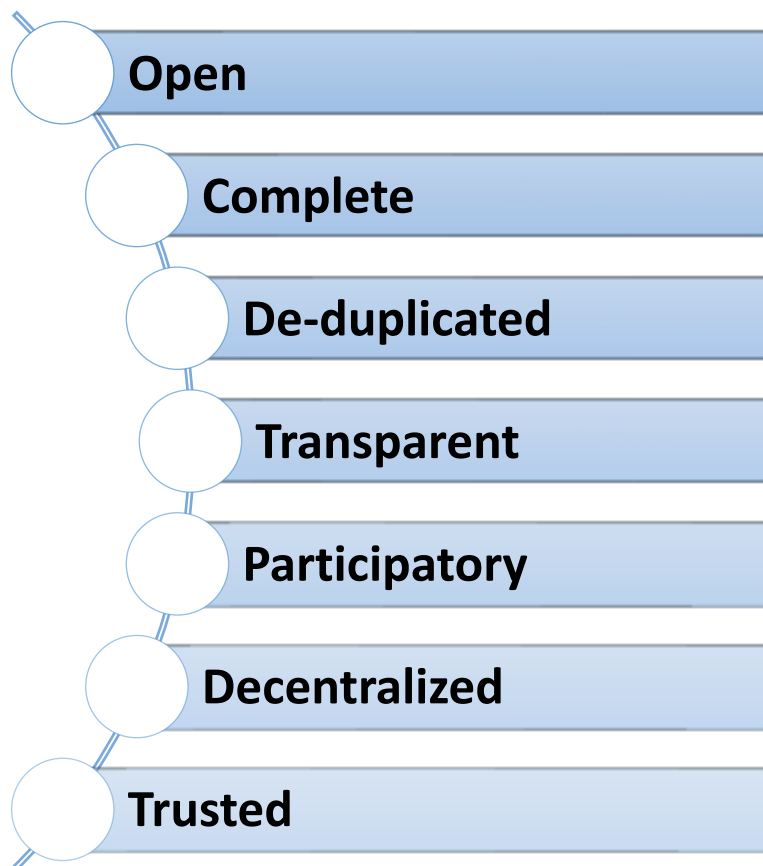
Discovering
open research

Discovery of **reproducible science** outcomes must find new ways, driven by "scientific intentions" that go beyond the "find articles related to a research topic"

Monitoring
(open) research

Monitoring quality, impact, and **openness** of science should be a transparent, reproducible process for all, inclusive of research "context"

The OpenAIRE Research Graph: what?

- **Open**
- **Complete**
- **De-duplicated**
- **Transparent**
- **Participatory**
- **Decentralized**
- **Trusted**

OpenAIRE ResearchGraph

A collection of metadata describing objects of the research lifecycle, with semantic relationships among them

https://graph.openaire.eu

Sources contributing to the graph

OpenAIRE Research Graph in numbers

- 25 funders

- ~2k direct data sources

- 3Mi projects

- 144Mi publications

- 304k software

- 17Mi research data

- 6.7Mi other research products
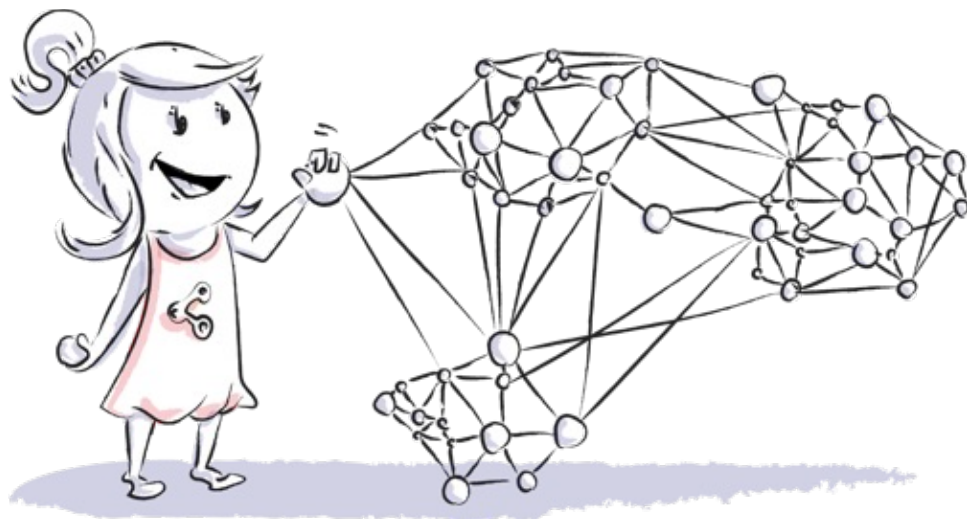
The challenges
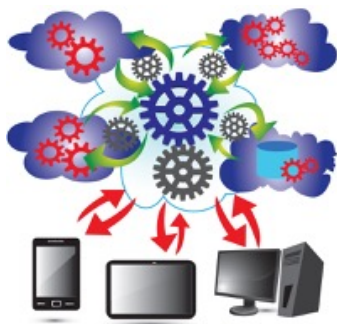
Heterogenity

Standards, crosswalks, community and cross-community view

guidelines.openaire.eu

Quality and accuracy

Trust and stability of the data: researchers and operators in the loop

PROVIDE (validation, brokering), user feedback, PIDs, provenance tracking, de-duplication

Completeness

Practices, sharing of technology and data (Scientific Knowledge Graphs)

Open Science publishing workflows, RDA OSG interperability, international network of repositories

The OpenAIRE Research Graph: how?
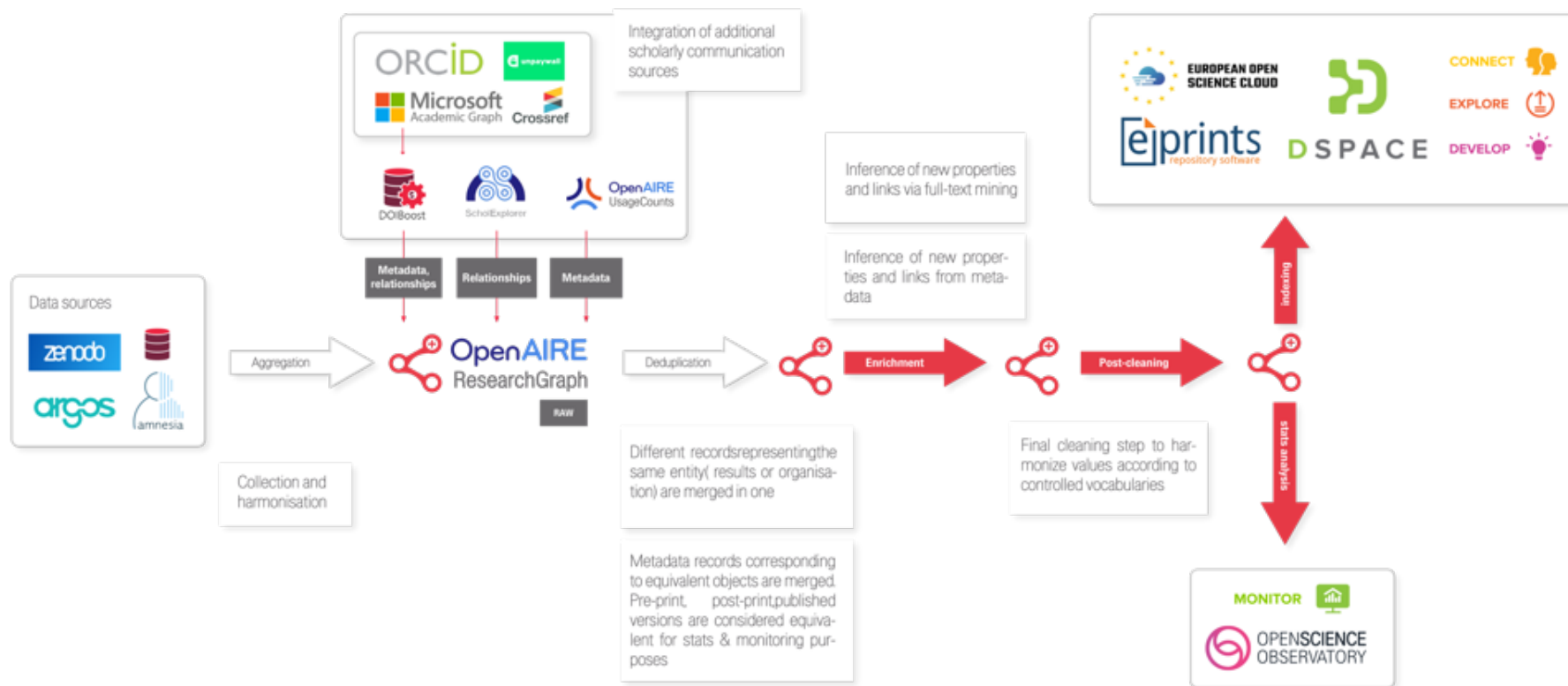
High level data model
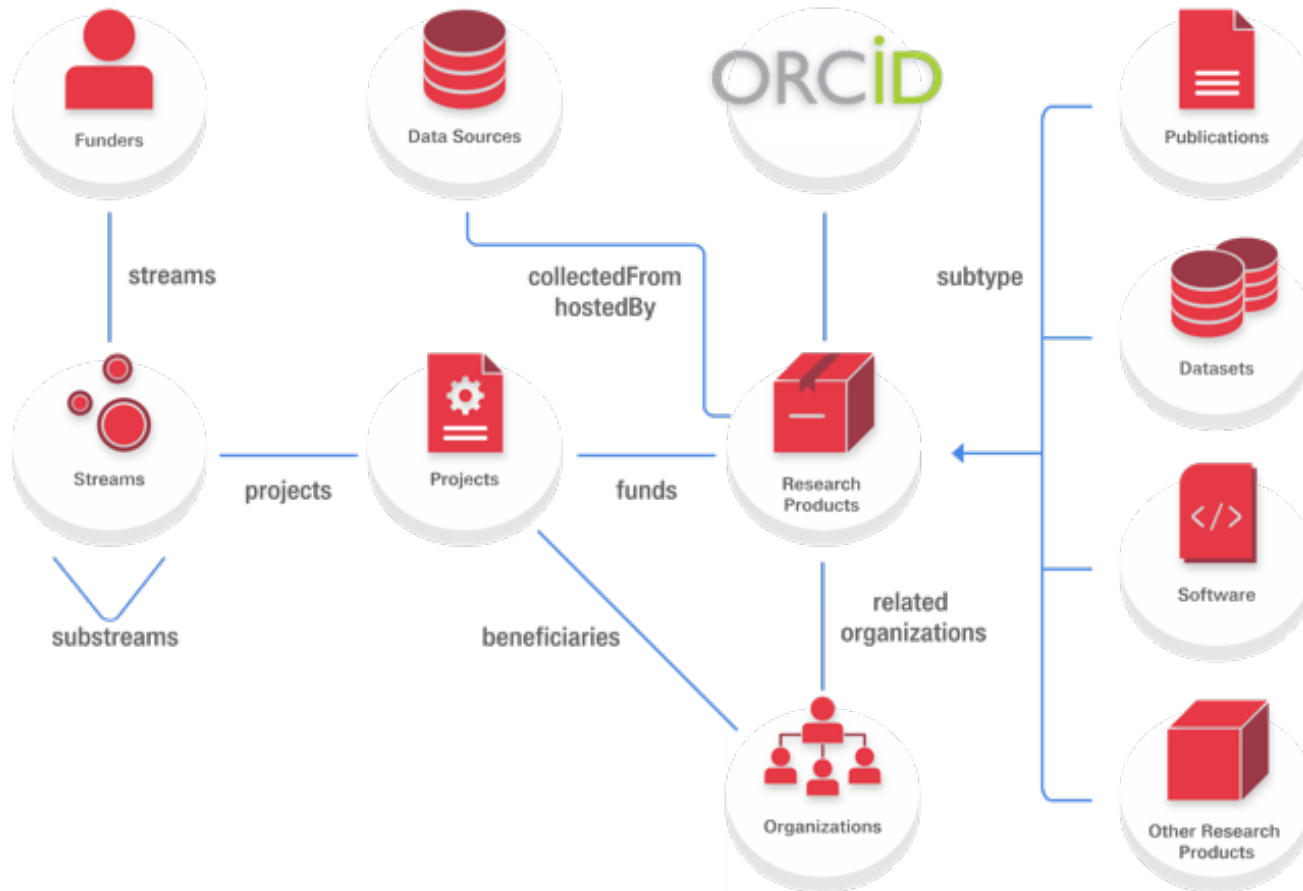
Accessing the graph
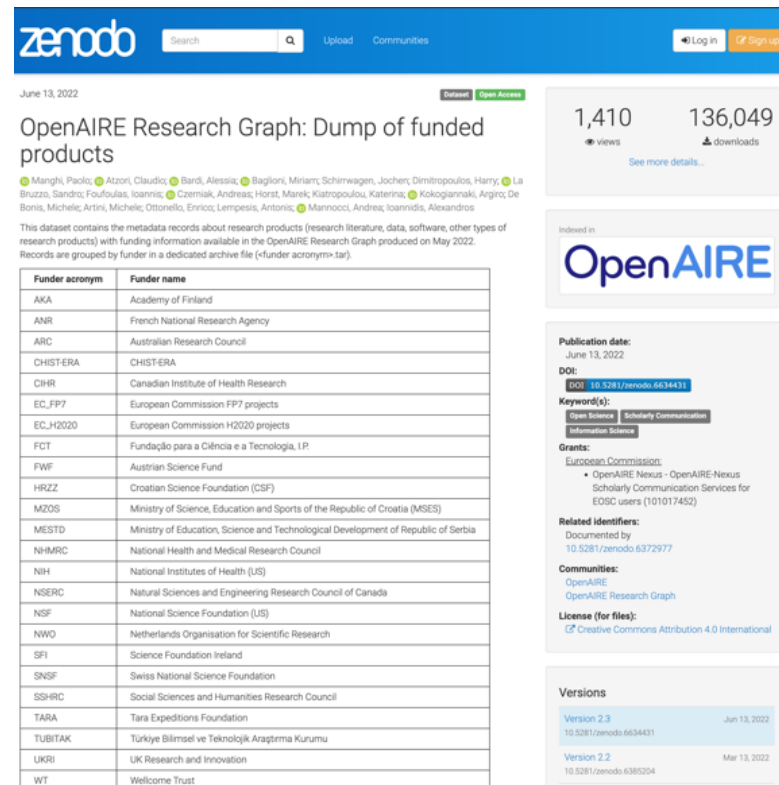
- EXPLORE: discovery portal of OpenAIRE explore.openaire.eu

- MONITOR: monitor dashboards with indicators on Open Science monitor.openaire.eu

- API: documentation at graph.openaire.eu/develop

- Json dumps on Zenodo (published every 6 months) https://graph.openaire.eu/develop/graph-dumps.html

The dumps

Published on Zenodo every 6 months

- Complete dump

- Funded products

- Products related to research initiatives and communities

- COVID-19 related products

- Publication – dataset links in Scholix format

https://zenodo.org/communities/openaire-research-graph

RISIS

RESEARCH INFRASTRUCTURE FOR SCIENCE AND INNOVATION POLICY STUDIES

THANK YOU !

www.risis2.eu

CONTACT@RISIS2.EU   ✉   🐦 @RISIS_EU

FACEBOOK.COM/RISIS.EU   f   ▶ RISIS2 EU PROJECT