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EIFL

# OpenAIRE in a nutshell and what can it do for you

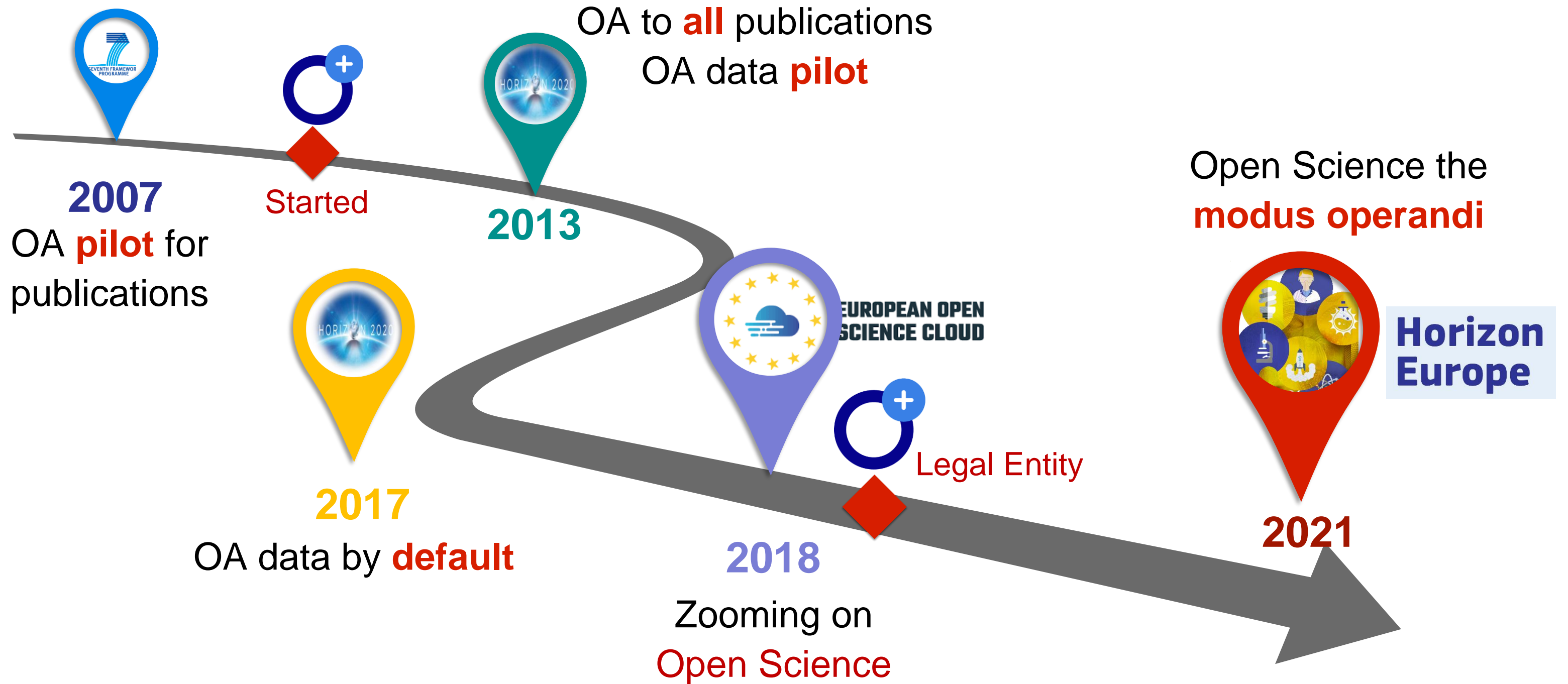


EaPConnect's OpenAIRE Training | Kyiv | June 4<sup>th</sup>, 2019



# A brief history

# Open Science in the EU and OpenAIRE





# OpenAIRE

**open** and **reproducible** science

scientific/scholarly **communication**

data **infrastructure**

**social** + **technical** links

service + data **interoperability**



# Open Science

Not just about open access to publications...

Open/FAIR research data

Open software

Open methodologies/protocols

Open educational resources

Open processes (peer review)

Opening up science to non-researchers

All linked together



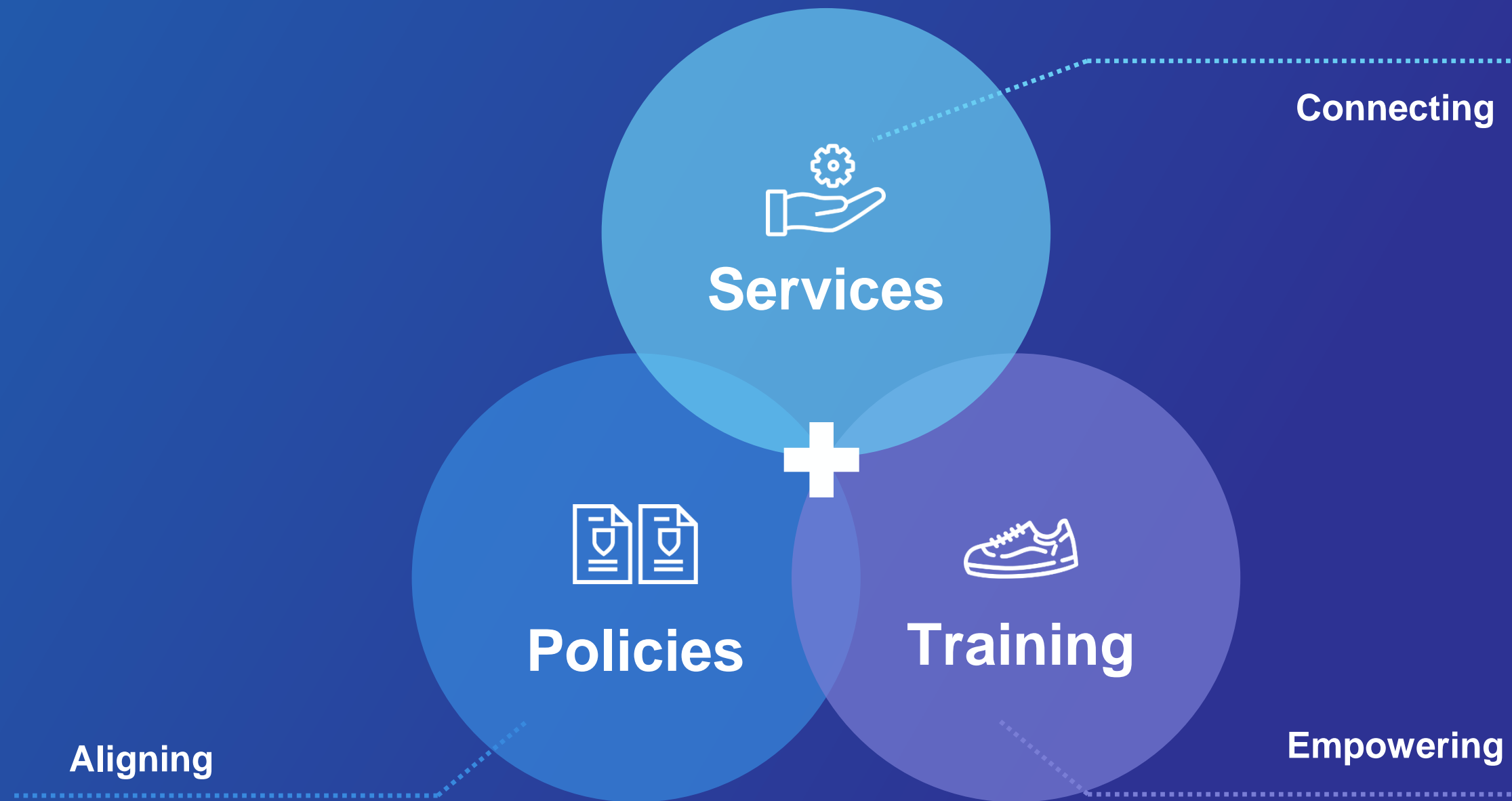


<https://www.youtube.com/watch?v=nyyANaM4uCU>

# Key characteristics

- **Distributed and participatory infrastructure**
  - Connecting different actors across Europe
- **Based on existing initiatives**
  - Institutional and national investments
- **Linked open science**
  - Support for all types of research outcomes
  - Contextual intelligent discovery

# 3 pillars of action





# 3 levels of operation



# What we do

For funders, institutions, RIs, initiatives



**Monitor**

- Open Science
- Research outcomes

For Content providers, RIs



**Accelerate**

- Interoperability
- Exchange

For Researchers, ...



**Support**

- OS Helpdesk
- RDM services



# Services for all stakeholders



# Blowing on the fire of Open Science

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Facilitate Research Communities adoption of **Open Science publishing** principles by supporting artefact publishing tools as-a-Service

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Facilitate Content Providers at moving towards **Open Science publishing** by supporting notification-based research communication as-a-Service.





# Thematic Strategy (RIs)

## Open Science as a Service: Common approach for OS

- Accelerate uptake of OS
- Shared investments

### Research Communities/RIs

[UN Sustainable Development Solutions Network](#)

[RDA: Research Data Alliance](#)

[CLARIN ERIC](#)

[Fisheries and Aquaculture Management](#)

[European Marine Science](#)

[Neuroinformatics](#)

[Digital Humanities and Cultural Heritage](#)

[Instruct-ERIC](#)

[EGI: advanced computing for research](#)

[Food Sciences](#)

### Pending

- SoBigData.eu – RI on social mining data
- EPOS – RI in seismology
- RISIS – RI on science & technology impact
- BE OPEN - Transport research
- Ariadne - Archaeology

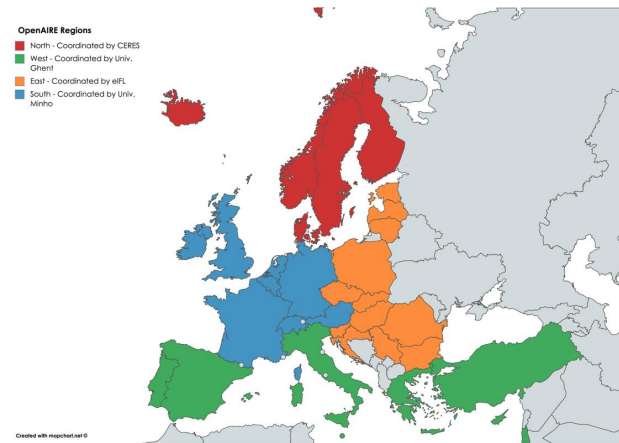


**People**

# Our consortium

## 34 National Open Access Desks

Organizations experts in OA



## Regional NOAD Offices

Univ. of Gottingen  
Univ. of Minho  
Univ. of Gent  
Unit  
EIFL  
DANS  
DCC



## e-Infrastructure / e-Science Service Providers

CNR-ISTI  
Athena RC  
ICM  
CERN  
Univ. of Bielefeld  
Univ. of Bonn

## Legal Experts

Univ. of Glasgow / Licenses  
Athena RC / GDPR

## Data Communities

EPOS-IT  
Elixir-GR  
DARIAH-DE  
+ 5 more targeted research communities

## Citizen Science

EllinoGermaniki

## Open Innovation

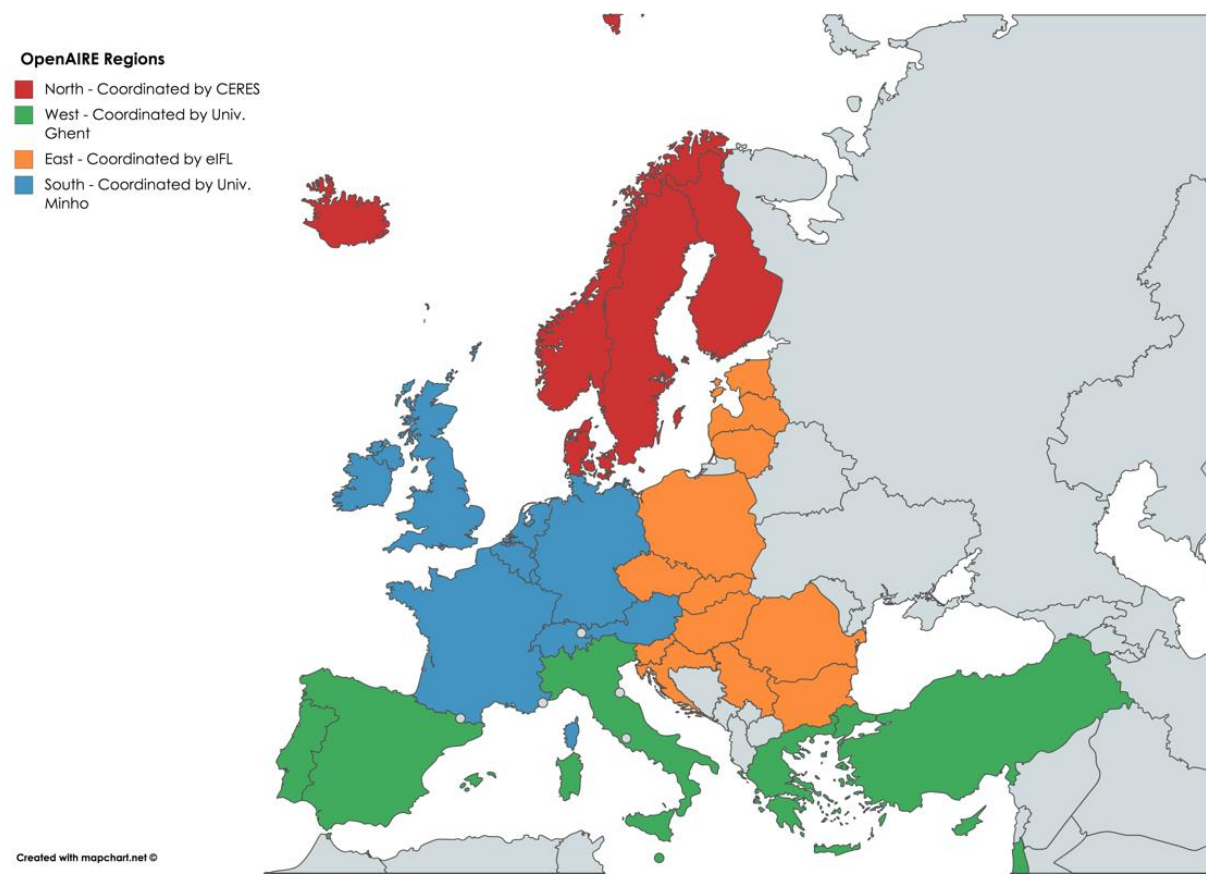
Athena RC



# 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 regional coordinators

3 coordinators for

- Policies
- RDM
- Legal

Moving to OS

Linked to infras  
around the world



# Support



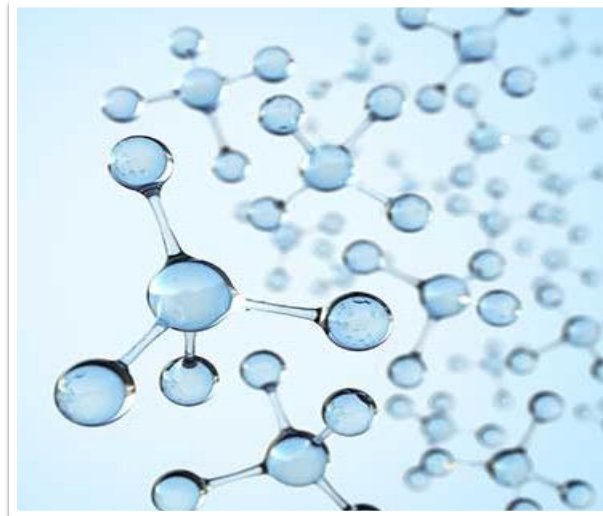
# What we support

## 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

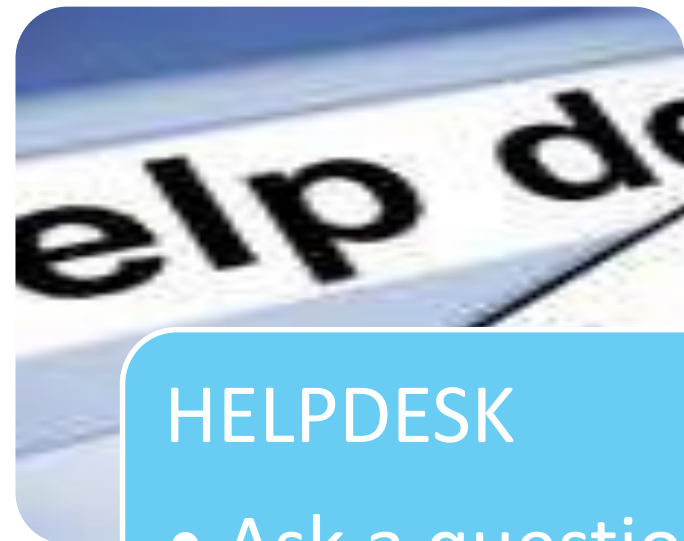


- Guides
- Tools/repositories
- Licenses
- Compliance

# How we support

Distributed and hierarchical training: ***train-the-trainers***

**NOADs** → National / research infras, organizations → **Researchers**



## HELPDESK

- Ask a question
- FAQs



## RESOURCES

- OA guides
- Copyright issues
- Factsheets



## TRAINING

- Webinars
- Workshops



# Guiding you in Open Science

# GUIDES

## RESOURCES

Open Science Primers

Guides

Factsheets

Use cases

## HELPDESK

FAQs

Ask a Question

## TRAINING

Webinars

Workshops

Community of Practice

## Researchers

How to comply with H2020 mandates - publications

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



Use cases | Menus

https://www.openaire.eu/use-cases

OpenAIRE

SERVICES SUPPORT OPEN SCIENCE IN EUROPE ABOUT SIGN IN

**MATCHBOOK**  
Spark scientific collaboration

Matchbook: service to spark scientific collaboration

*Service use case*

**Viper**

Viper: the visual project explorer

*Service use case*

**Data2Paper**

Data2Paper: Scholix integration

*Service use case*

**BIBLIOTECA ISCTE IUL**  
INSTITUTO UNIVERSITÁRIO DE LISBOA

Open Science Management at ISCTE-IUL

*Research manager use case*

**ADDOCK**  
High-Ambiguity Driven Docking

Collaborations made easy using HADDOCK and Zenodo

*Researcher use case*

**VIRT A**

VIRT A: Finnish Publication Information Service

*Service use case*

**OJS**  
OPEN JOURNAL SYSTEMS

OJS: new standards to achieve OpenAIRE

Stay tuned!

# USE CASES



# WEBINARS

## Legal issues in Dealing with Research Data

★★★★★  
0.0/5 rating (0 votes)

New guides for researchers and project coordinators

SHARE



Date(s): 29 March 2019

OpenAIRE has released guides for researchers who want to know more about the legal issues related to their research data.

During this webinar, Prodromos Tsiavos and Thomas Margoni take you through this guides and answer questions (pre-submitted during registration and asked live during the webinar Q&A).

The first guide is called 'How do I know if

SERVIC

types of data are protected by copyright, learn about Sui Generis Database Rights and their influence on your research - this guide is for you. You can access it here: <https://www.openaire.eu/how-do-i-know-if-my-research-data-is-protected>

A second guide deals with research data licensing. What licenses should you use if you want to make your research data as open as possible? What is the meaning of different Creative Commons licenses and what are the consequences if you apply them to your research data? What licenses should be avoided? Does OpenAIRE make any specific recommendations? You can access the guide here: <https://www.openaire.eu/how-do-i-license-my-research-data>

Our third guide answers all your questions you might have about reusing someone else's research data. What data can you reuse, how to interpret copyright licenses, how to combine different datasets? Access the guide here: <https://www.openaire.eu/can-i-reuse-someone-else-research-data>

[creative commons](#) | [FAIR data](#) | [OA to research data](#) | [repository](#)

### Presenters

Prodromos Tsiavos  
Thomas Margoni

### Participants:

124

Recordings:  
[Here](#)

Slides: [Here](#)

The screenshot shows a SlideShare presentation slide. At the top, it says 'Be the first to clip this slide' and 'Clip slide'. The slide content includes the names of the presenters: Pedro Príncipe (University of Minho), Thomas Margoni (CREATE, Glasgow University), and Prodromos Tsiavos (Athena Research & Innovation Center). The main title is 'Legal issues in dealing with Research Data' and the subtitle is 'Guides for researchers and project coordinators'. The SlideShare interface includes a search bar and navigation options like 'Home', 'Explore', 'Presentation Courses', and 'PowerPoint C'.



# Outreach (March – April 2019)

**26 workshops in countries, 8  
workshops on the EU level  
1,877 participants**

**162 trainers trained**

# Services





# www.openaire.eu



SERVICES

SUPPORT

OPEN SCIENCE IN EUROPE

ABOUT

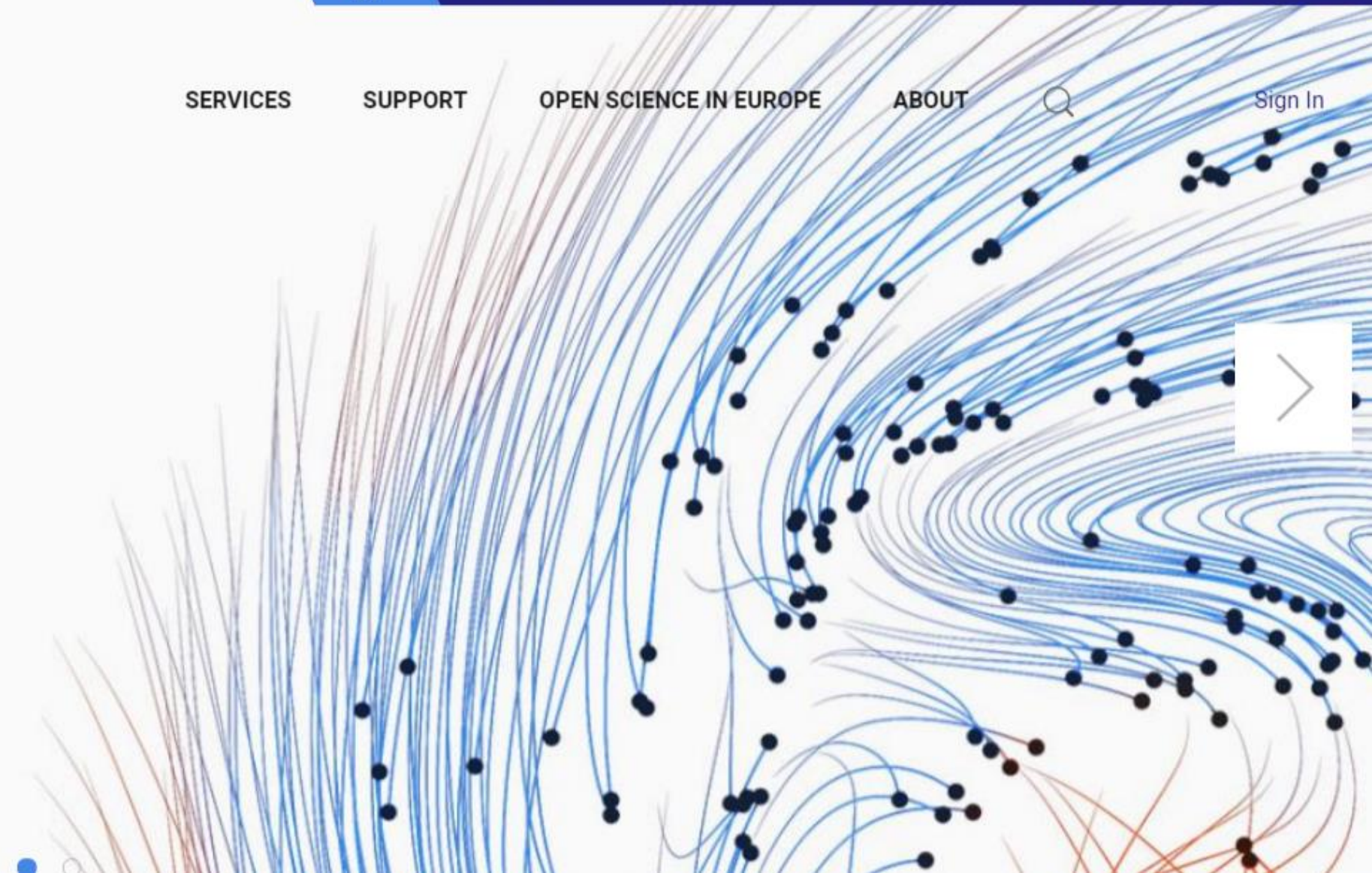


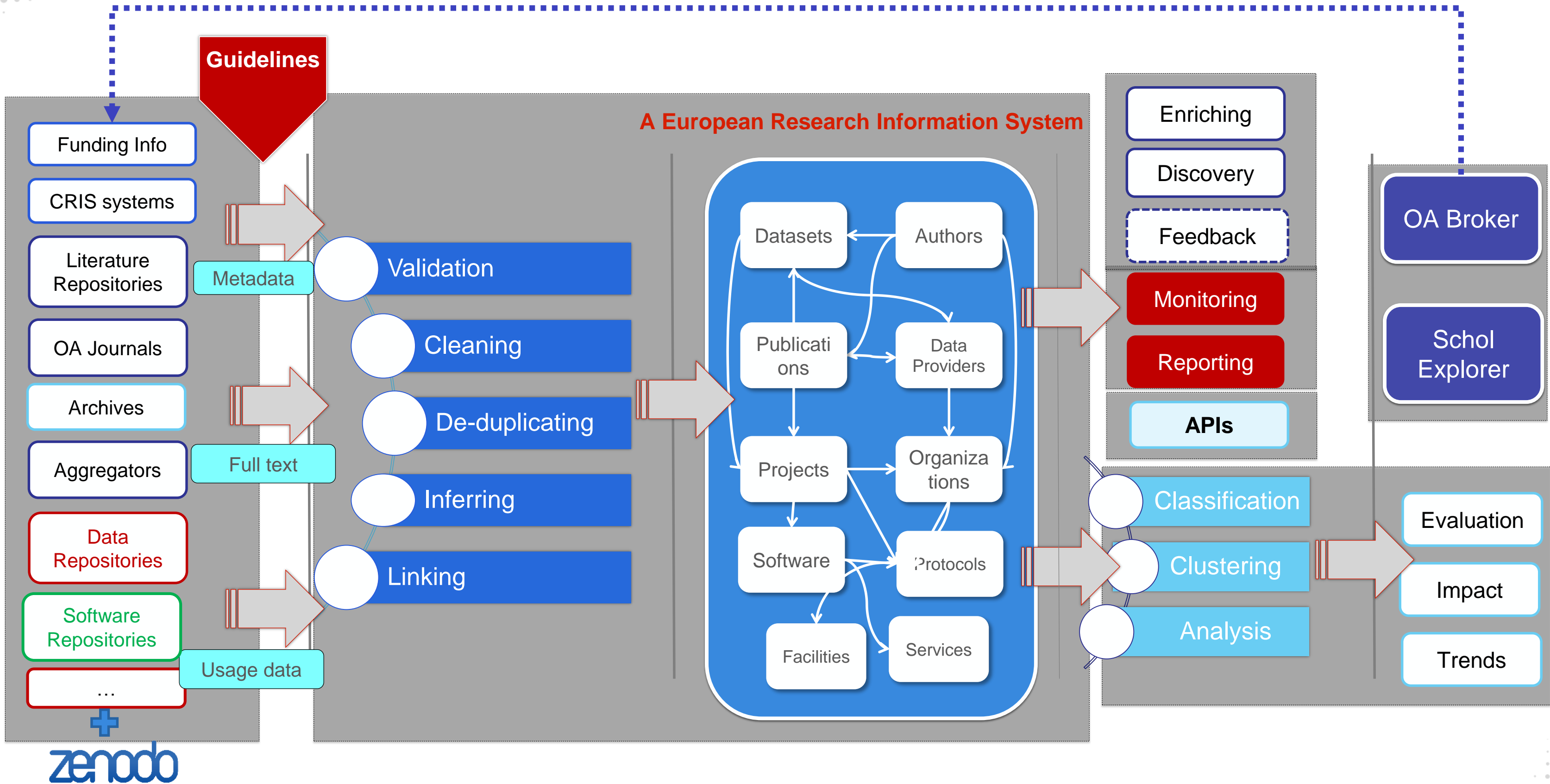
Sign In

## Science. Set Free.

Making the transition of  
how research is performed  
and how knowledge is shared.

LEARN HOW





Data Providers (Infrastructure)

OpenAIRE Platform (Middleware)

Services

zenodo

## EXPLORE

Researchers - all



## SUPPORT

Researchers - all

## CONNECT

Research Communities

## DEVELOP

Innovators

## PROVIDE

Content Providers

## MONITOR

Funders & Research Admins



openDMP

Scholarexplorer





GWEN FRANCK 

Explore all OA research results.  
Link all your research. Build your  
profile

**OpenAIRE.EXPLORE**

Join OpenAIRE, use our tools and  
make your content more visible  
around the world.

**OpenAIRE.PROVIDE**

Use our monitoring services and  
easily track all relevant research  
results.

**OpenAIRE.MONITOR**

Get access to OpenAIRE data and  
capitalize on on Europe's open  
linked research

**OpenAIRE.DEVELOP**



27 mi publications, 1 mi research data  
from 15 K content providers and 18 funders  
linked together for an integrated research  
search

SEARCH

SHARE

LINK

CONTENT PROVIDERS



## Explore

Discover linked open  
research

Search for publications,  
datasets, software and other  
research products. See how  
these are linked together and  
how they are linked to funding  
and organizations.

View statistics on projects and  
institutions.



## Share

Deposit in a repository  
of your choice

Select an OpenAIRE compatible  
repository (2.0 +) so that your  
research is linked to your  
funding information.

Use [ZENODO](#), a catch-all  
repository hosted by CERN to  
deposit all your research results  
(publications, data, software,  
etc.)



## Link

Connect all your  
research

If you can't find your research  
results in OpenAIRE, don't  
worry!

Use our **LINK OUT service**, that  
reaches out to many external  
sources via APIs, to connect  
your research results and *claim*  
them to your project.

# PROVIDE



 [Sign in](#) | [Register](#)

## OpenAIRE Content Provider Dashboard

A ONE-STOP-SHOP FOR SHARING, FINDING AND ENRICHING YOUR CONTENT

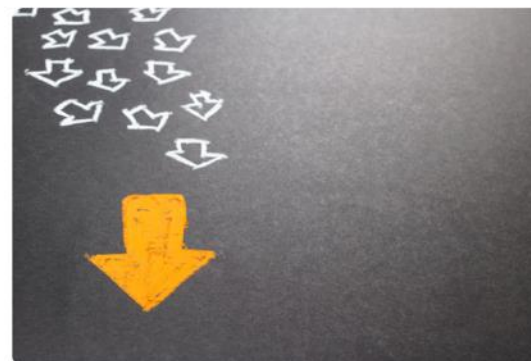
START HERE





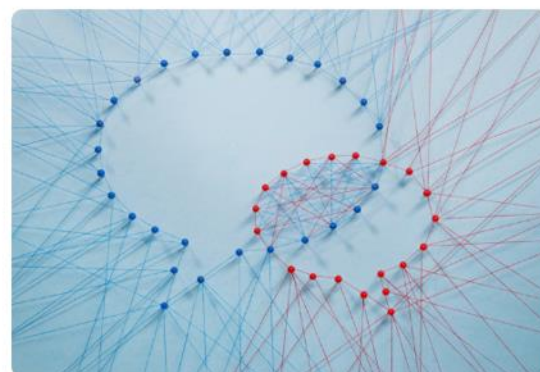
### Register

Register data sources in the OpenAIRE infrastructure



### Validate

Validate data sources against OpenAIRE guidelines



### Notifications

View notifications to enrich the metadata and the content



### Metrics

View aggregated, cleaned usage statistics for repository access





**Are you a  
researcher?**



for your community to:

share all your research results

---

link all your research

---

gather all your research results  
in one place

---

monitor & report



**Are you managing  
a research  
community?**

the community profile

---

the community content

---

statistics & charts

---







users links



beta

# OpenAIRE Research Communities **services status**

## COMMUNITY

 <p>European Marine Science</p>	 <p>Neuroinformatics</p>	 <p>Agricultural and Food Sciences</p>
 <p>Fisheries and Aquaculture Management</p>	 <p>Digital Humanities and Cultural Heritage</p>	 <p>Sustainable Development Solutions Network - Greece</p>

**Aims: publish, share and discovery**

## RESEARCH INITIATIVE

 <p>Instruct-ERIC</p>	 <p>ELIXIR-GR</p>	 <p>DARIAH EU</p>
 <p>EGI : advanced computing for research</p>	 <p>Research Data Alliance</p>	 <p>Common Language Resources and Technology Infrastructure</p>

**Aims: research impact**

# Research Communities and Open Science benefits

## Common repository for publishing (deposition) of datasets, methods, and packages

- Can continue their publishing practices, but, if needed they have support for deposition of any artefact

## Collaborative curation of a community-specific research communication domain

- Community information space to share, discovery, and reuse (reproduce) scientific results

## Research impact and statistics

- Scientific reward strategies can be developed

**12,046**

publications

**16,109**

research data

**3,715**

software

**2,481**

other research  
products

**662**


projects

OpenAIRE - Monitor

https://monitor.openaire.eu

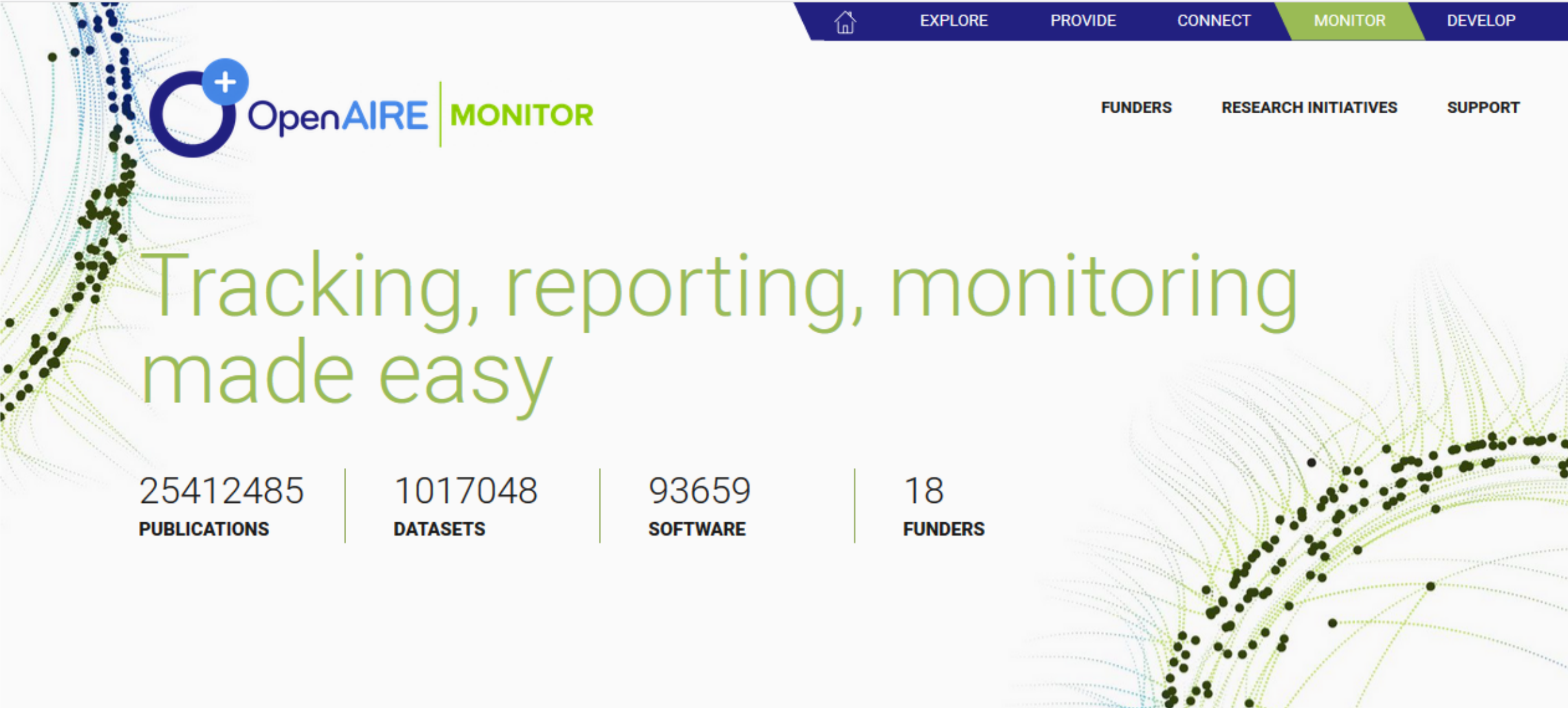
EXPLORE PROVIDE CONNECT MONITOR DEVELOP

FUNDERS RESEARCH INITIATIVES SUPPORT



# Tracking, reporting, monitoring made easy

25412485 PUBLICATIONS	1017048 DATASETS	93659 SOFTWARE	18 FUNDERS
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## Are you a funder?

All you need to do is to provide OpenAIRE with a 'very limited' set of metadata fields from your database and we will take it up from there.

Learn [how to participate and ensure that](#)



## Advanced Analytics

Using text mining (topic modeling) on the full texts we can discover hidden structures and identify useful patterns, similarities, correlations trends and communities.

Our tech team would be happy to work with new use cases as this is the real value of



## Have more questions?

[Learn about open science policies and how to align](#)

[Learn more on how to manage your data in the open science era](#)



## European Union

[European Commission – H2020](#)  
[European Commission – FP7](#)  
[ERC - European Research Council \(EU\)](#)



## International Funders

### Australia

[ARC - Australian Research Council](#)  
[NHMRC - National Health and Medical Research Council Statistics](#)

### USA

[NIH - National Institutes of Health](#)  
[NSF - National Science Foundation](#)

## European Funders

### Austria

[FWF - Austrian Science Fund](#)

### Croatia

[HRZZ - Croatian Science Foundation \(CSF\)](#)  
[MZOS - Ministry of Science, Education and Sports of the Republic of Croatia \(MSES\)](#)

### Finland

[AKA - Academy of Finland](#)

### France

[Tara - Tara Expeditions Foundation](#)

### Ireland

[SFI - Science Foundation Ireland](#)

### Netherlands

[NWO - Netherlands Organisation for Scientific Research](#)

### Portugal

[FCT - Fundação para a Ciência e a Tecnologia](#)

### Serbia

[MESTD - Ministry of Education, Science and Technological Development of Republic of Serbia](#)

### Switzerland

[SNSF - Swiss National Science Foundation](#)

### Turkey

[Tubitak - Türkiye Bilimsel ve Teknolojik Araştırma Kurumu](#)

### United Kingdom

[RCUK - Research Council](#)  
[WT - Wellcome Trust](#)

from many different sources from Europe and beyond.

### But we don't stop there! We also:

Apply cleaning, transformation, disambiguation processes to identify relationships among all research entities: publications, data, funding, researchers, organisations and data sources

Identify grant ids in publications-data-software acknowledgement sections and make the appropriate links

Link research results to funding information, specifically programme information


Create online reports and statistics based on the OpenAIRE scholarly communication graph

Combine the OpenAIRE data with other types of data and provide custom research analytics

# Services for RDM



Data Management Plans PROJECTS PLANS DATASETS



easyDMP

Category	Count	Action
Projects	9	<input checked="" type="checkbox"/> Open Projects
DMPs	14	<input checked="" type="checkbox"/> Open DMPs
Datasets	24	<input checked="" type="checkbox"/> Open Datasets



[Home](#) [Get Amnesia!](#) [What is Amnesia?](#) [Documentation](#) [On-line version](#)  
[About](#)

## 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.

# OpenAIRE-Athena RC collaboration



[Home](#) [Get Amnesia!](#) [What is Amnesia?](#) [Documentation](#) [On-line version](#)  
[About](#)

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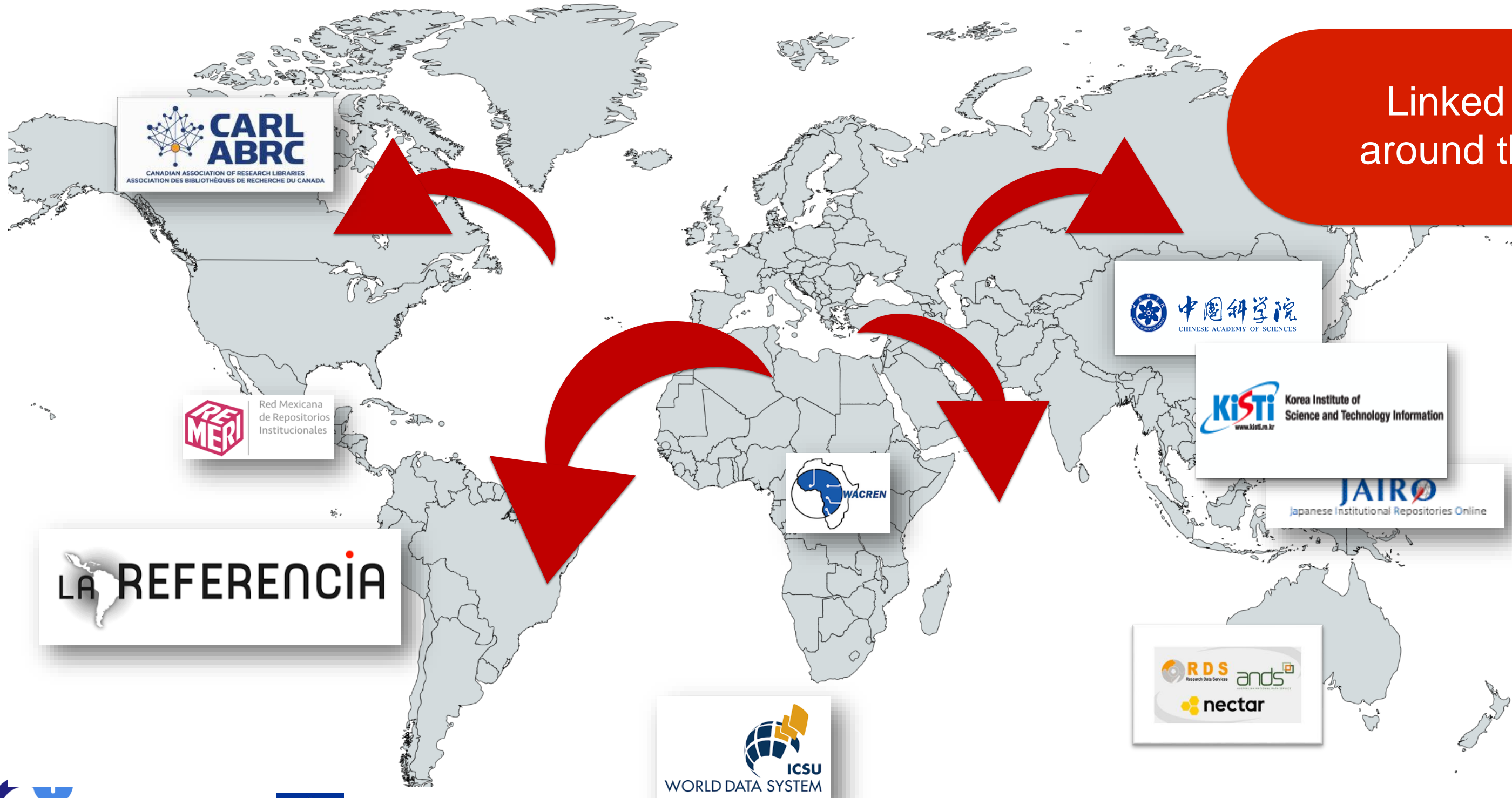
**Web platform for testing and intra-net use**  
**Local installations for use**

**RDA: sensitive data**

# International Strategy



Linked to infras around the world





# OpenAIRE: A pillar in EOSC

# Why European Open Science Cloud?

- **Now: A fragmented e-infrastructure landscape**
- **End-users, such as researchers, innovators or industry actors, often are unaware of the available e-infrastructure services**
  - Even if users find out about the availability of a certain e-service, it is difficult to gather further information and compare it with other existing services.
- **Service providers and data producers often have difficulty reaching out to potential new users**
  - Even when they reach them, service providers often lack user feedback on the ways they could improve their offerings.



### eInfraCentral

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eInfraCentral is the European catalogue of e-Infrastructure services and resources. For users, this standardised registry makes it easier to discover and access services and resources. For service providers, this quality oriented registry enables publishing of their services to meet researchers' expectations.

### OpenAIRE-Advance

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OpenAIRE-Advance facilitates the move to a more open and reproducible scientific landscape by offering a unique set of services to embed Open Science into researcher workflows to promote opening up, sharing and reusing of research outcomes.

### EOSC-hub

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EOSC-hub brings together multiple service providers to create the Hub: a single contact point for European researchers and innovators to discover, access, use and reuse a broad spectrum of resources for advanced data-driven research.

Driving forward and implementing the EOSC and interlinking **People, Data, Services and Training, Publications, Projects and Organisations**

 <http://einfracentral.eu/>

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

 <https://eosc-hub.eu/>

# Thank you!

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