

**Donatella Castelli**

Consiglio Nazionale delle Ricerche- ISTI

# L'infrastruttura OpenAIRE: uno strumento di supporto alla ricerca europea ad Accesso Aperto

"Scienza aperta in Europa: politiche e infrastrutture".

13 October 2014, Potenza





# Outline

- **Mission & History**
- **Human networking**
- **e-Services**
- **Next steps**



# OA EU Pilot (2009)



## Support EC's and ERC Open Access policy

- Grant agreement SC39
- 20% programme areas
- Deposit in Repositories
- OA after embargo period (6-12 months)
- Gold payments during project

Widest possible dissemination and access to research outputs through the creation and operation of an Open Access Infrastructure for Research in Europe



# OpenAIRE

Open Access Infrastructure for Research in Europe

2009  
–  
2012



**Infrastructure for facilitating the deposition, identification, access, and monitoring of FP7 and ERC funded articles and compliance to OA mandates**

*Point of reference for Open Access in Europe*





# OpenAIREPlus

Open Access Infrastructure for Research in Europe

2011  
–  
2014



**Infrastructure for the identification, deposition, access, linking and monitoring of FP7, ERC, and other organizations funded outcomes and resources**



# OpenAIRE infrastructure



**Human Network**



**e-Infrastructure**

# A participatory approach

Capitalizing on previous investment



**REPOSITORIES**  
**TECHNOLOGIES**  
**ORGANIZATIONS**  
**PEOPLE**





# OpenAIRE for the users today

## 1 SUPPORT

Helpdesk. Engaging people and scientific repositories in 28 EU member states and beyond

## 2 PORTAL

24 x 7 Service. Access to Research records. Linking publications to datasets, author information and above all, funding information

## 3 ZENODO

Repository for data and articles that can be stored neither in institutional nor in subject-based/thematic repositories



OpenAIRE

Open Access Infrastructure for Research in Europe



# Supporting OA in Europe



## OpenAIREplus Networking Organization

Operational Support (eIFL)

Strategic Coordination (UGOE)

Helpdesk Management (UMINHO)

Region 1 North (DTU)	Region 2 South (UMINHO)	Region 3 East (eIFL)	Region 4 West (UGENT)
Denmark	Cyprus	Bulgaria	Austria
Finland	Greece	Croatia	Belgium
<b>Iceland</b>	Italy	Czech Republic	France
Norway	Malta	Estonia	Germany
Sweden	Portugal	Hungary	Ireland
	Spain	Latvia	<b>Luxemburg</b>
	<b>Turkey</b>	Lithuania	Netherlands
		Poland	<b>Switzerland</b>
		Romania	UK
		Slovakia	
		Slovenia	

- 32 National Open Access Desks
  - Involving the research libraries
  - Diverse national research environments
- OA advocacy through targeted activities
  - Liaison with National Reference Points
  - Helpdesk, workshops, training
- Harmonisation of OA policies
- Definition of shared guidelines

# OpenAIRE Guidelines

Literature Repository, Data Archive and CRIS managers



## **GUIDELINES FOR LITERATURE REPOSITORIES**

based on Dublin Core

## **GUIDELINES FOR DATA REPOSITORIES**

based on Datacite

## **GUIDELINES FOR CRIS MANAGERS**

based on CERIF



<http://guidelines.openaire.eu>



**PARTICIPATE**  
DEPOSIT, JOIN

**SEARCH**  
PUBLICATIONS, DATA, PROJECTS

**STATISTICS**  
OA, PROJECTS, TOPICS

**SUPPORT**  
FAQ, HELPDESK, GUIDES

**OPEN ACCESS**  
IN EUROPE

Repositories ▾



[More search options](#)



## Researchers

- > Deposit publications & data
- > Link research to funder/project
- > Download author's guide for OA



## Data Providers

- > Register & validate content
- > Get guidelines for interoperability
- > Enrich repository content



## Research Managers

- > Learn about EC & national policies
- > Create project reports
- > Get statistical information



## Funding Agencies

- > Learn how to embrace OA
- > Participate in OpenAIRE
- > Find aggregated statistics

**OpenAIRE** Get support (NOADs)  


**Deposit Publications & data**



**Visualize - Manage Enhanced Publications**



**Search & Browse**



**Curate & collaborate**

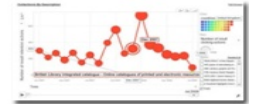


**Linked Content Statistics**



**Research impact Citations, usage statistics**

+++



**Metadata**  
And pdfs

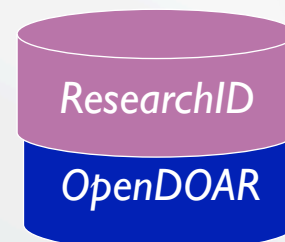
**Usage data**



**Publication repositories**  
*Institutional & Thematic*  
**Open Access Journals**



**CERN/OpenAIRE "catch-all" repository**



**Metadata on data**



**Data repositories**  
**Data Journals**



# Importing from data sources

- **Publication Repositories**
  - Institutional, Journal's and thematic
- **Data repositories**
  - Data Center's and thematic, e.g. ZENODO, PANGAEA (under testing), DRYAD (under testing),
- **Aggregators**
  - Repositories, e.g. NARCIS
  - Journals, e.g. DOAJ, Copernicus
  - Datasets, e.g. DataCite
- **Entity registries (rewarding-reusing efforts of other initiatives)**
  - OpenDOAR, CORDA, ORCID, re3data.org, Wellcome Trust
- **CRIS systems (feature ready, but not yet in operation)**
  - Institutional and national





# Importing from inference

## Examples

- **Relationship inference by mining publication PDFs**
  - **Project-publication: EC and National projects (e.g. WT)**
  - **Dataset-publication: DOI connections**
  - **Publication-publication: citations by bibliography, text similarity**
- **Property inference by mining publication PDFs**
  - **Title of papers**
  - **Authors of papers**
  - **Affiliating organizations of the authors at time of publication**
  - **Subject classification**





# Importing from end-users

## Depositing, claiming, feedback


- **OpenAIRE Zenodo Deposition:** authors who are orphans of a repository of reference for publication and datasets can deposit file and metadata into the Zenodo repository
- **CrossRef Claiming:** authors who have a repository of reference can “claim” their depositions into OpenAIRE by specifying the relative DOIs
- **Data Curation:** OpenAIRE data curators (and registered end-user feedbacks, prior validation from data curators) can enrich or fix the information space





**OpenAIRE** Get support (NOADs)  


**Deposit Publications & data**  

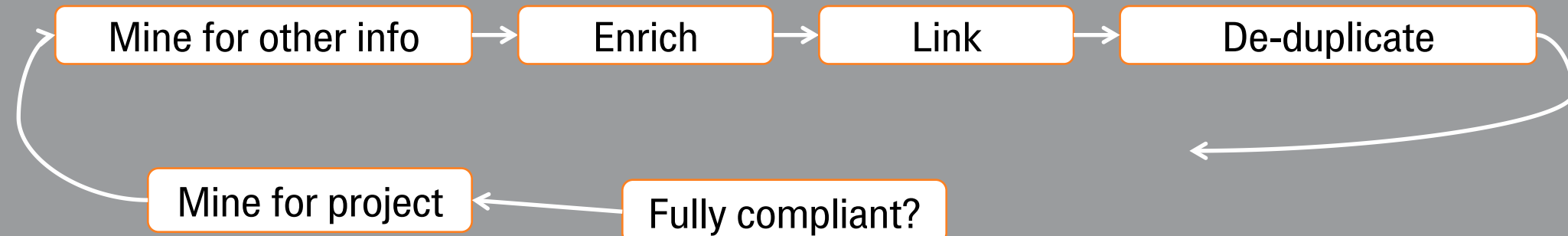

**Visualize - Manage Enhanced Publications**  
  


**Search & Browse**  


**Curate & collaborate**  
  
**Linked Content Statistics**  


**Research impact Citations, usage statistics**  
 +++  


Infrastructure coordination



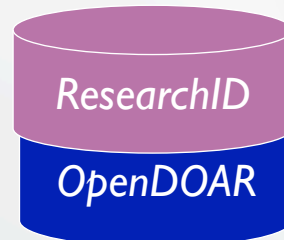
**Metadata**  
And pdfs  
**Usage data**



**Publication repositories**  
*Institutional & Thematic*  
**Open Access Journals**



**CERN/OpenAIRE "catch-all" repository**



**Metadata on data**



**Data repositories**  
**Data Journals**



**Deposit Publications & data**



**Visualize - Manage Enhanced Publications**



**Search & Browse**



**Curate & collaborate**

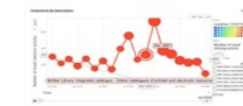


**Linked Content Statistics**

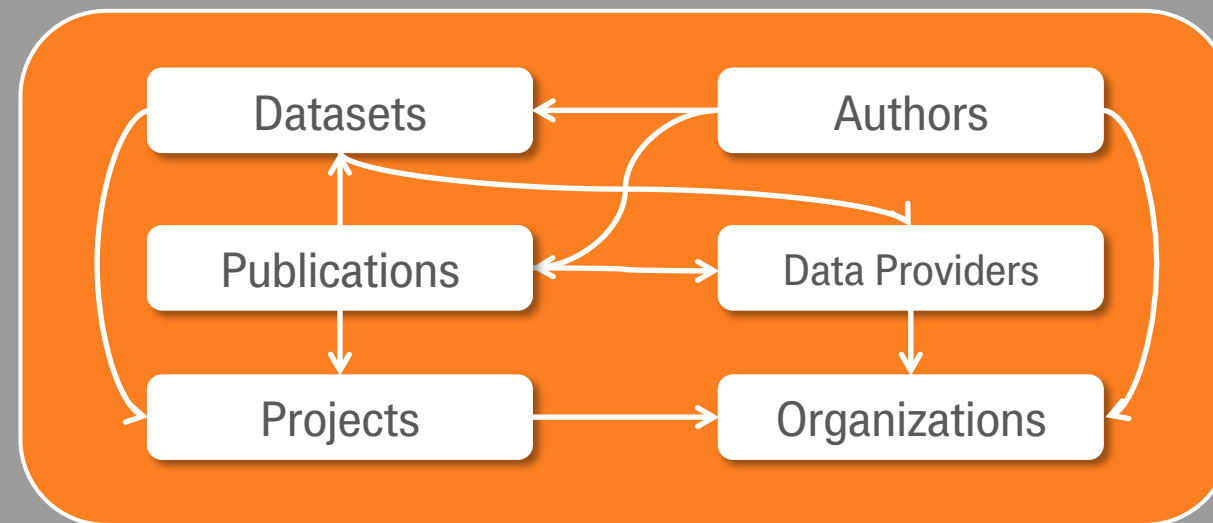


**Research impact Citations, usage statistics**

+++



Infrastructure coordination



**Metadata**  
And pdfs

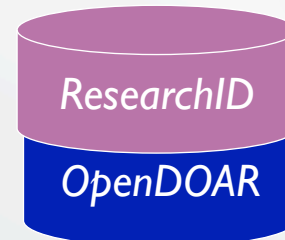
**Usage data**



**Publication repositories**  
*Institutional & Thematic*  
**Open Access Journals**



**CERN/OpenAIRE "catch-all" repository**

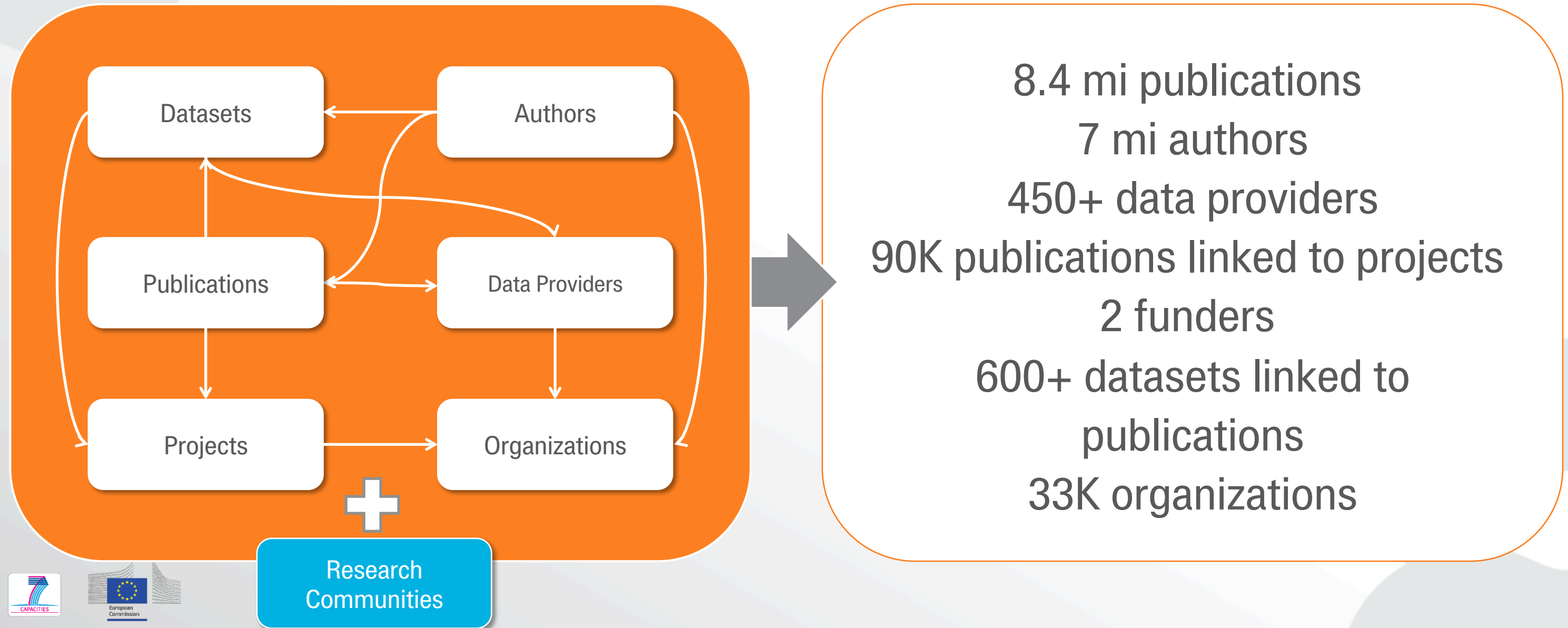


**Metadata**  
on data



**Data repositories**  
**Data Journals**

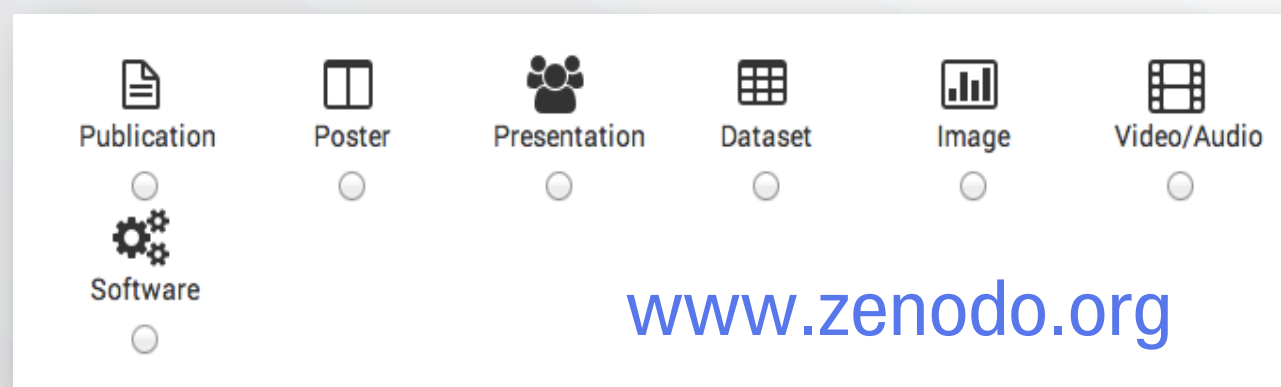
# Added Value: Integrated Scientific Information System



# Zenodo

“Catch-all” repository: OpenAIRE-CERN joint effort

- **Multiple data types**
  - Publications
  - Long tail of research data
- **Citable data (DOI)**
- **Links to funding, pubs, data, software**



A yellow graphic with rounded corners listing five key features of Zenodo, each with a blue circular icon:

- API** INTEGRATE YOUR APP VIA PROGRAMMABLE API.
- COMMUNITIES** YOUR DIGITAL REPOSITORY ON ZENODO.
- € FUNDING** INTEGRATE INTO REPORTING FOR RESEARCH FUNDED BY EUROPEAN COMMISSION.
- FLEXIBLE LICENSING** NOT EVERYTHING IS UNDER CREATIVE COMMONS.

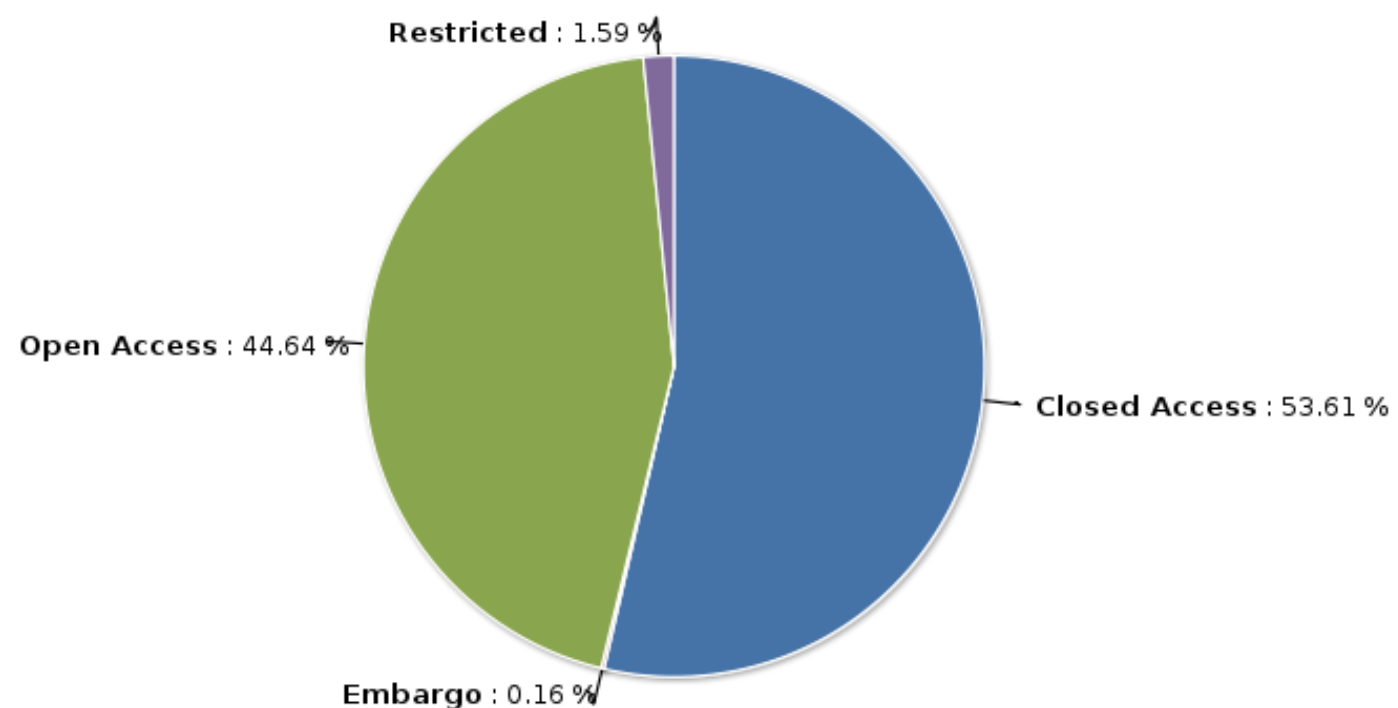
H2020: Option to gather, preserve and share your project's scientific output

# Research Output Measures



Text mining - Supervised techniques

FP7 publications breakdown by access mode



FP7

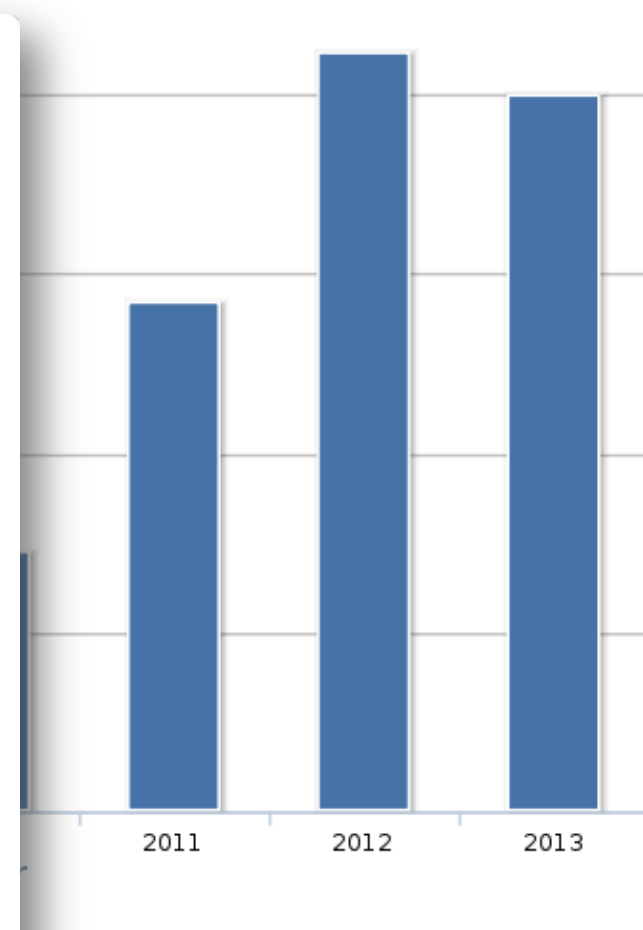
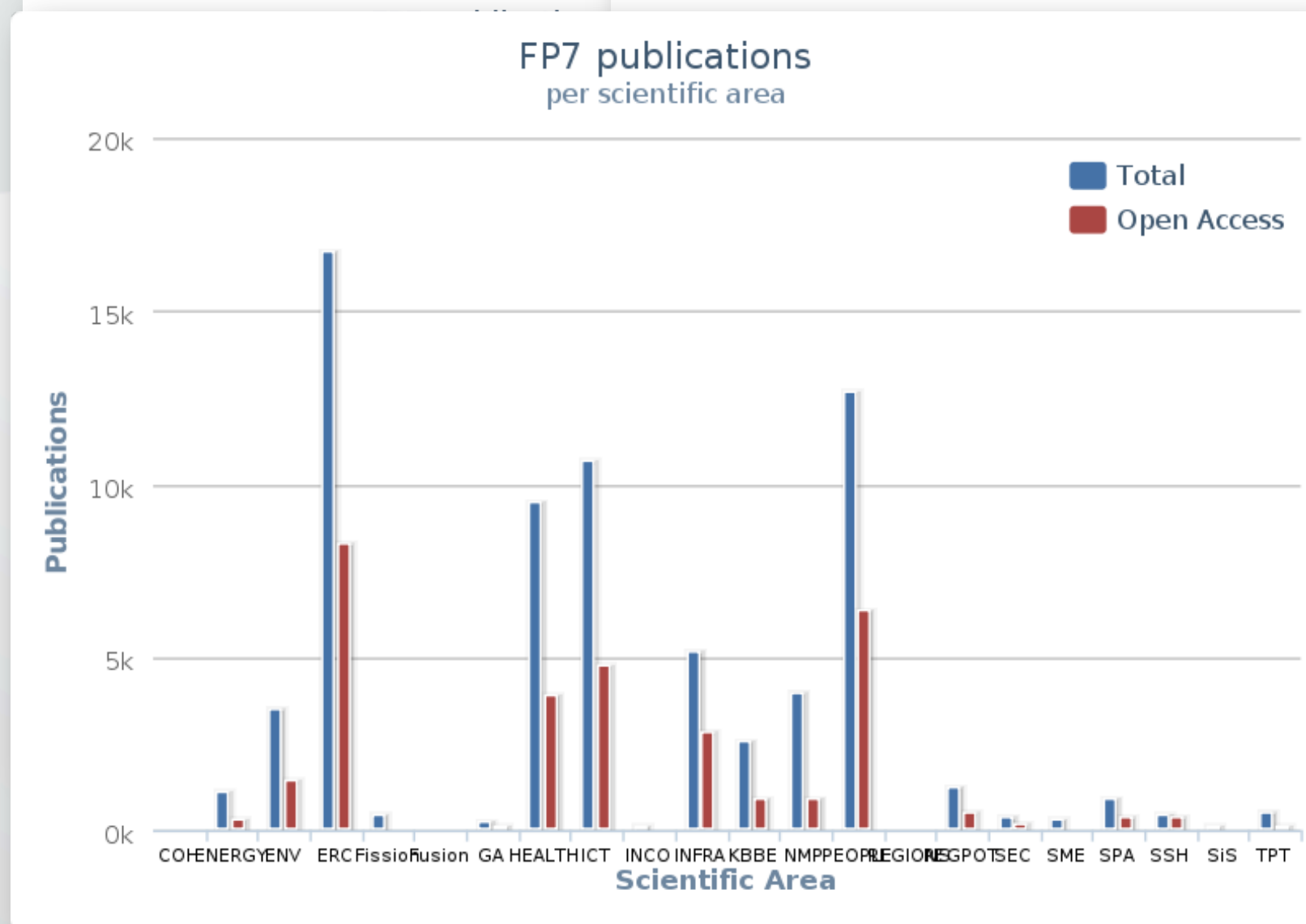
Monitoring OA policy

# Research Output Measures



Text mining - Supervised techniques

FP7 publications through the years



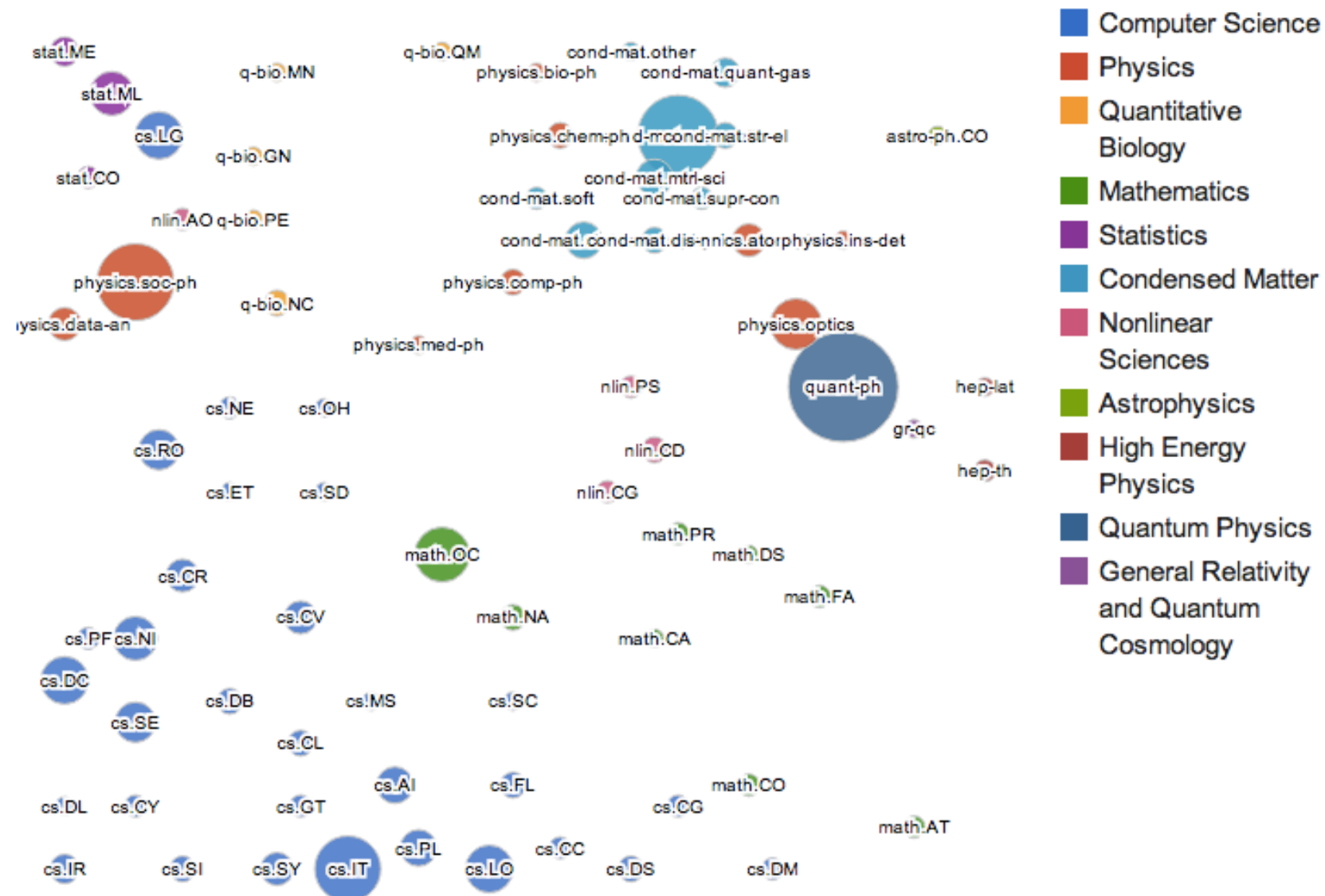
FP7 timeline - total

FP7 breakdowns

# Classification

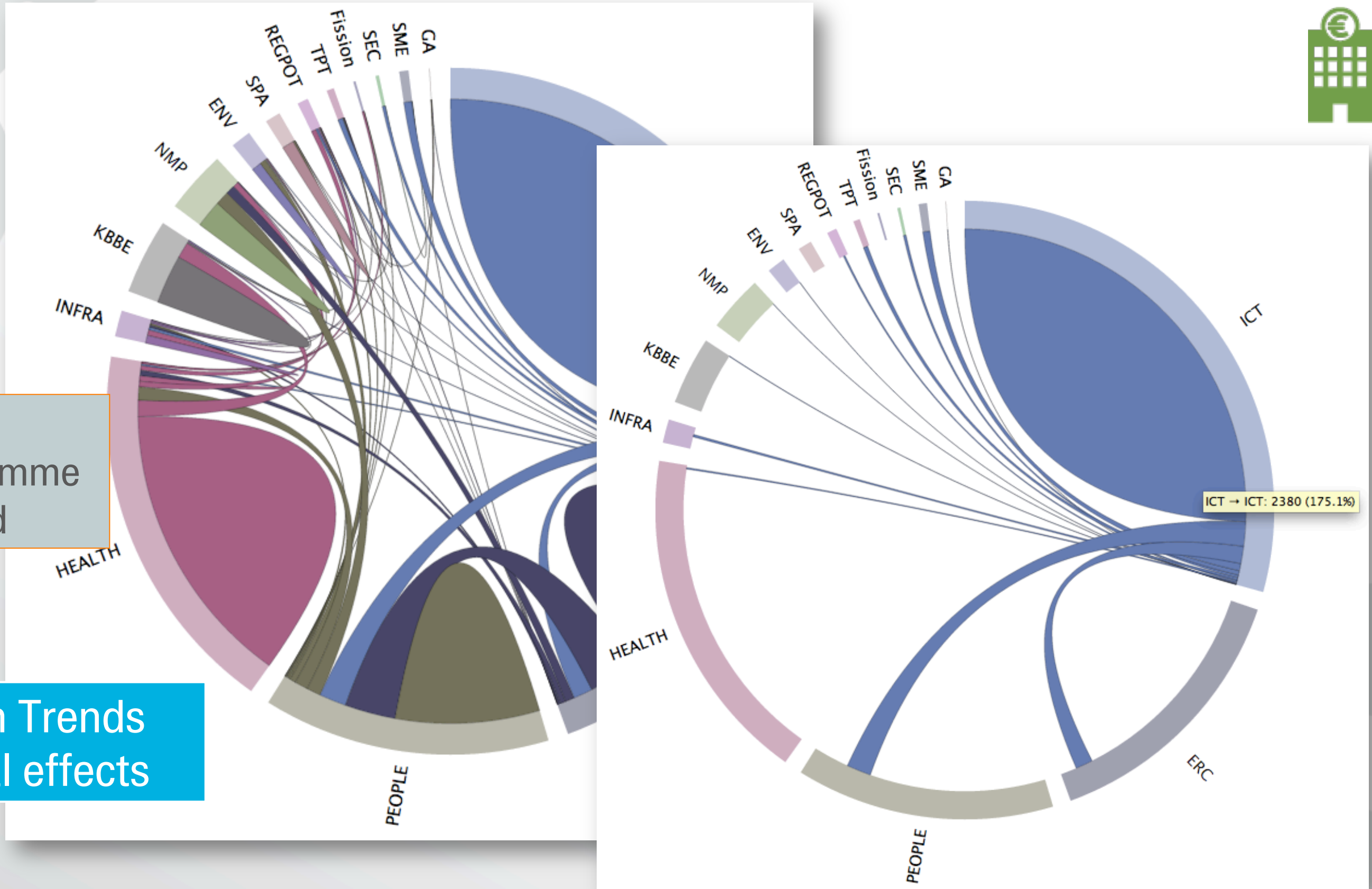
Text mining - Supervised techniques

FP7 ICT-funded publications content distribution : based on 1057 publications



**Example 2**  
How FP7 programme areas are related

Research Trends  
Structural effects



# EC OA Mandate Progression

## FP7 OA Pilot (2009)

- Grant agreement SC39
- 20% programme areas
- Deposit in Repositories
- OA after embargo period (6-12 months)
- Gold payments during project



## Horizon 2020 (2014)

- All grant agreements
- 100% programme areas
- Deposit in Repositories
- Gold payments *after* project end
- Open Data Pilot for a number of programme areas

# OpenAIRE2020 main activities

- **Solidify, consolidate and enhance services**
  - Interoperating, monitoring, measuring impact, reporting, Zenodo, ...
- **Interoperate with data repositories**
- **Support the OA Research Data Pilot**
- **Carry out the Gold OA pilot for FP7**
- **Test out new forms of scholarly communication**
- **Solidify international collaborations**
- **Establish OpenAIRE legal entity**

# Support the H2020 data pilot

In many different ways

- **Support institutions, PO's, PC's in their RDM activities**
  - Promote good practices through DMP tools (Jisc/DCC, DANS)
  - Educate NOAD's for deeper understanding of the need for RDM planning and policies, bring out the role of the library
- **Promote data repository validation mechanisms (DANS)**
- **Promote and enhance Zenodo services for H2020 needs**
- **Provide anonymization guidelines and services**
- **Support through a legal study on**
  - data protection, privacy law, confidentiality
  - research data under the PSI directive

# Gold OA pilot for FP7 – post project

Allocated amount: 4 mi. Work carried out by LIBER and UCL

- **Establish compliance criteria/specifications for articles**
- **Commission a market/economic impact study**
  - Roadmap of a sustainable and competitive OA publishing market
- **Develop and implement appropriate workflows**
  - Link workflows and monitoring to OpenAIRE platform
- **Engage all relevant stakeholders**
- **Report back to the EC...**

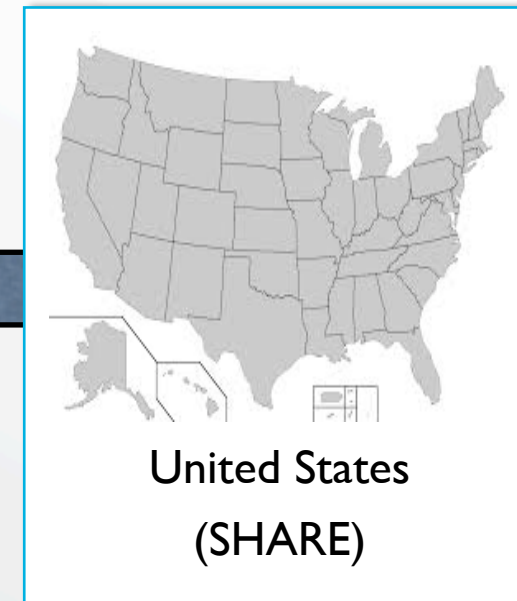
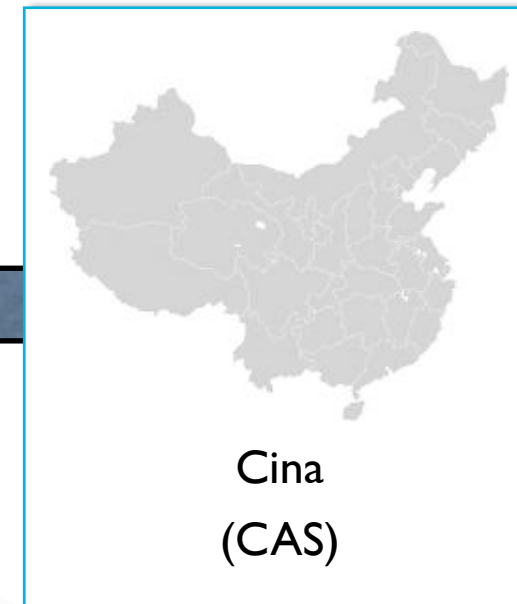
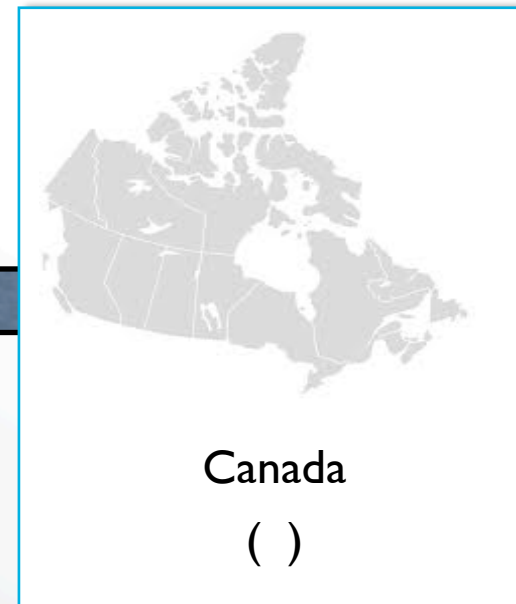
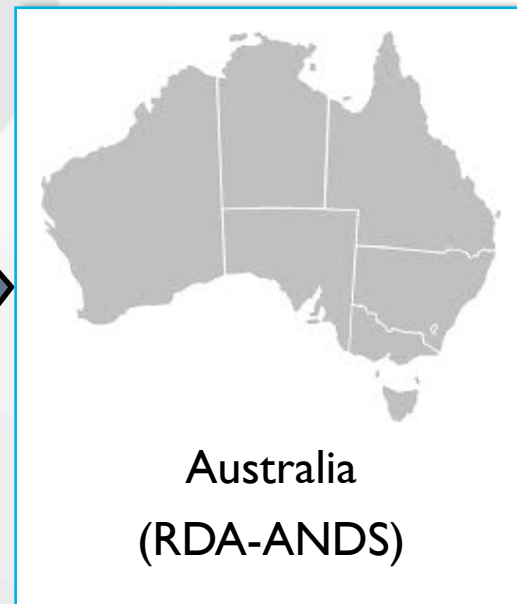
# Scholarly communication issues

- **Measuring impact**
  - **multidimensional indicators of scholarly performance based on data retrieved by the OpenAIRE platform**
  - **indicators for second level impact that link OA to possible social, cultural and economic impact**

# International collaboration: OpenAIRE & COAR



Coalition of Open Access Repositories <https://www.coar-repositories.org/>



Aligning Repository Networks  
Meeting, 20-21 March 2014,  
CNR, Roma



# Thank you!

## For additional information:

 [www.openaire.eu](http://www.openaire.eu)

 @openaire\_eu

 facebook.com/groups/openaire

 linkedin.com/groups/OpenAIRE-3893548

<http://eventi.isti.cnr.it/index.php/en/programme>

<http://eventi.isti.cnr.it/index.php/en/programme/35-video-os2020/104-jarkko-siren>