Natalia Manola

University of Athens
Department of Informatics and Telecommunications

OpenAIRE

The Open Scholarly Communication & Scientific Information Infrastructure for Europe

SciencePad PID Workshop @ Geneva, January 30, 2013

Outline

- Project basics
- Overview of the system
- Services & OpenAIRE in practice
- OpenAIRE & PIDs

OpenAIRE

- **Characteristics**
  - A policy driven project
  - Horizontal infrastructure

- **OpenAIRE 2009 – 2012**
  - Implementing the FP7 OA pilot (links to EC funding)

- **OpenAIREplus 2011 – 2014**
  - Supporting OA in all Europe (links to all European funding)
  - Providing links to data

- **Expanding to Scientific Information Infrastructure**

Who we are

Multifaceted consortium

- **Scholarly communication institutions**
  - Gottingen, Ghent, Minho, e-IFL, DTU, SURF – OA policies, digital library services
- **Technological institutions**
  - CNR-ISTI, UoA, ICM – data infrastructures
  - Bielefeld Library IT, CERN Digital Library Services – library IT & digital library
- **Scientific communities**
  - EBI (life sciences), DANS (social sciences) BADC (climate)
- **National Open Access Desks**

32 members

Human
PARTICIPATORY DESIGN
Technical

Human infrastructure

Research is globalizing, policy implementation **is at the local level**

All member states

Challenge - Aggregate at a global level this local information, taking into account socio-cultural & regional differences of the communities involved

- **32 National Open Access Desks**
  - **Diverse national research environments**
- **OA advocacy through targeted activities**
  - **Reach out to researchers, organizations, infras - Helpdesk, workshops, training**
- **European network of people sharing experiences & best practices**

Technical Infrastructure

Multifaceted endeavour

24x7 OPERATIONAL SYSTEM SINCE 2010

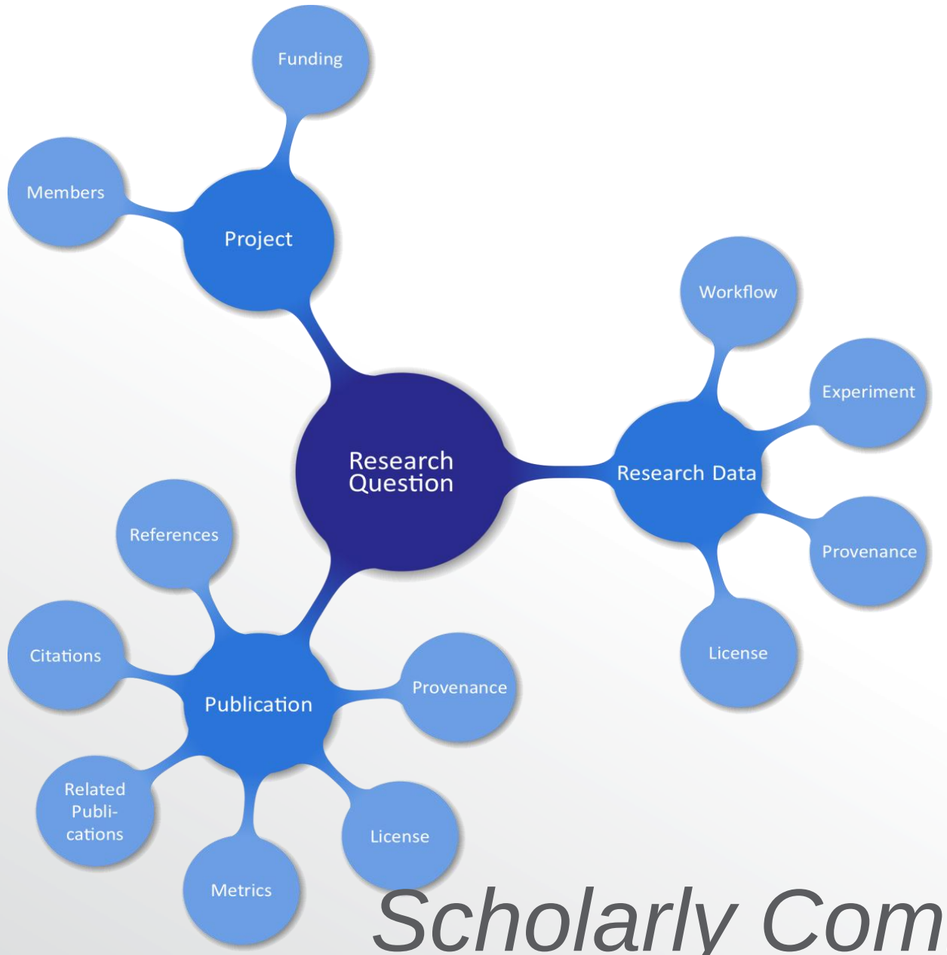
Number of unscheduled downtimes = 0

Building on existing efforts in the scholarly communication and OA domain

- Publication and research data repositories/data infrastructures
- Open Access Journals
- Funders' systems
- Authoritative registries
- Usage data from repositories
- 3rd party services

ARCHITECTURE

The “new” publication

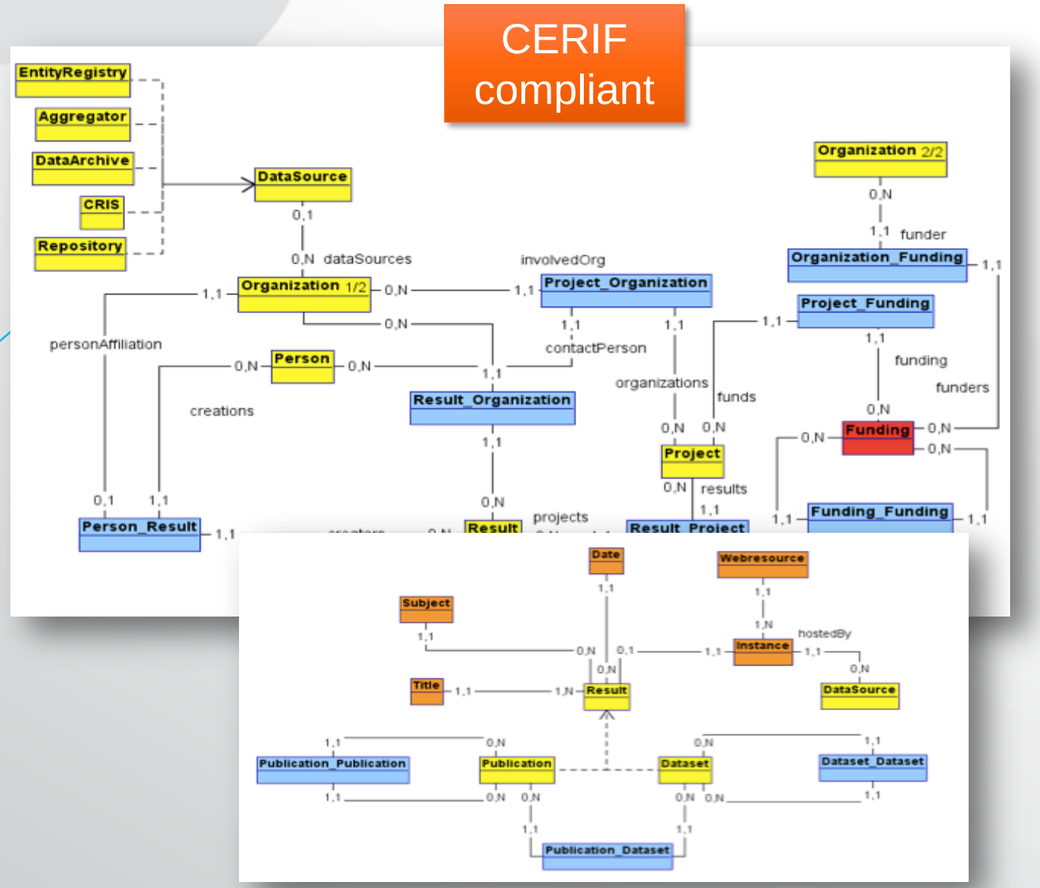


Scholarly Communication Model in tran

Information in Context

The OpenAIRE data model

Main entities and relationships



- **Research results & licences**
  - Publications
  - Research data (datasets & databases)
  - ….
- **People**
  - Authors, PIs
- **Research organizations**
- **Funders and funding schemes**
- **Data Sources**
  - Repositories, aggregators, registries, CRIS

OpenAIRE

Get support (NOADs)

Deposit Publications & data

Visualize - Manage Enhanced Publications

Search & Browse

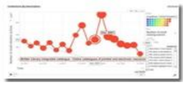
Curate & collaborate

Linked Content Statistics

+++

Research impact Citations, usage statistics

+++



OpenAIRE HUB

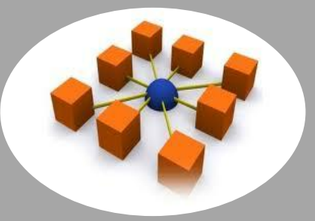
CERN Invenio

Link | Classify

Text Mine

De-duplicate | Cite

APIs



Metadata *on publications*

Usage data

6,500,000 OA publications

345 validated repositories

Guidelines for Publications

Publication repositories

Institutional & Thematic

Open Access Journals

Guidelines for Funding Info

CRIS Systems

EC funding

National funding

ResearchID (ORCID, ..)

OpenDOAR

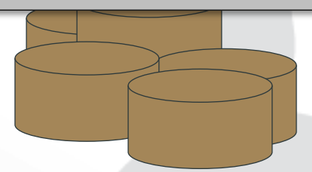
...

Metadata *on data*

DataCite

EUDAT

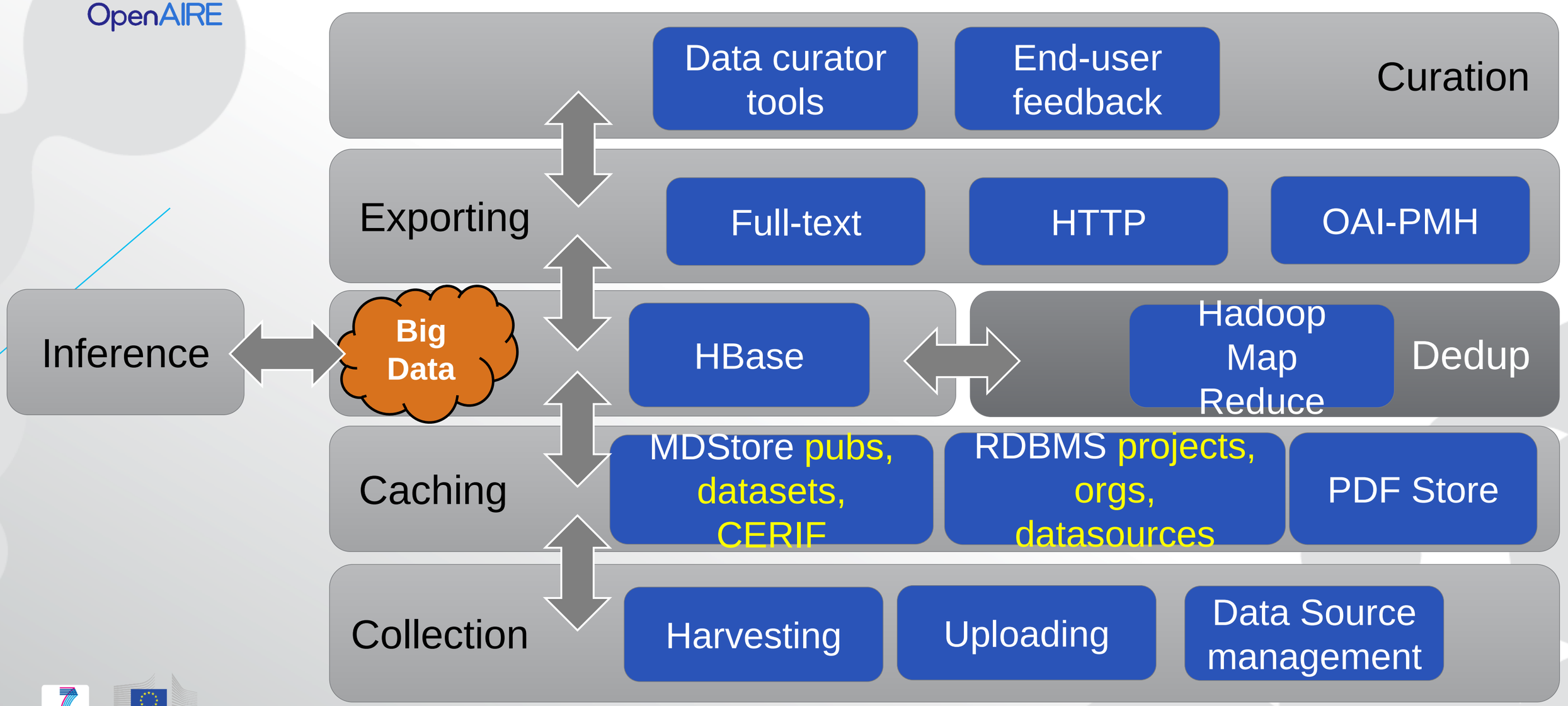
Guidelines for Data Providers



Data repositories

Data Journals

Data Management Services



Some numbers

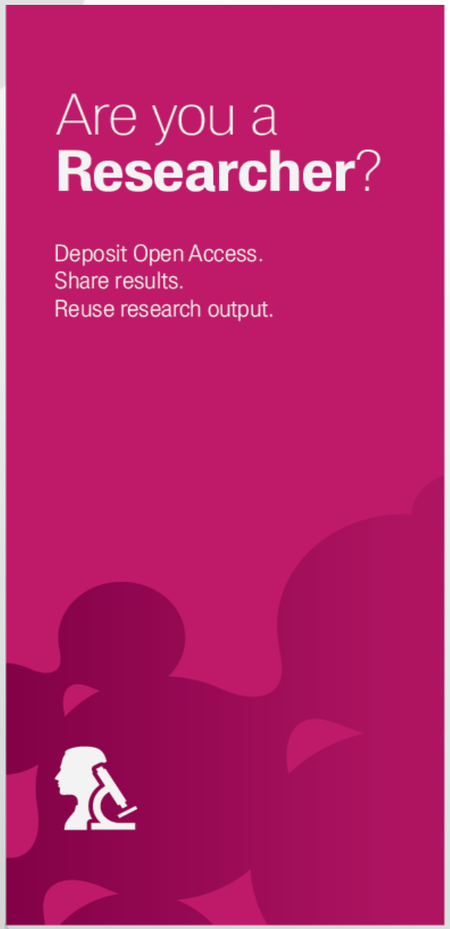
… to appear in the next months

- **Publications**
  - **~ 6,600,000 OA + non-OA if related to a project**
- **Persons**
  - **~ 60,000,000**
- **Projects**
  - **around 26,000 from FP7 and WT**
  - **+ member states…**
- **Organizations**
  - **~50,000 from OpenDOAR and CORDA**

SERVICES

Researchers

…except for the usual benefits of Open Access



- **One stop-shop for deposition – publications & data**
  - **Identify local or thematic repository**
  - **Deposit in CERN repository for *"homeless"* researchers - ZENODO**
- **Mechanisms to link publications to projects & data**
  - **Harvesting and aggregation**
  - **Manual - through the portal**
  - **Automated - through crawling and text mining (repositories, ArXiv, UKPMC, Lib DBs, …)**
- **Alerts and Notifications**
- **Online curation**

Data Providers

… interoperation through internationally accepted guidelines

- **Different levels of compatibility**
  - **Publication, funding, research data**
  - **Usage statistics (impact)**
- **Get back enriched information**
  - **Links to funding and research data**
  - **Aggregated statistics**
- **Enrich content through notifications about publications in other repositories**

Research Managers

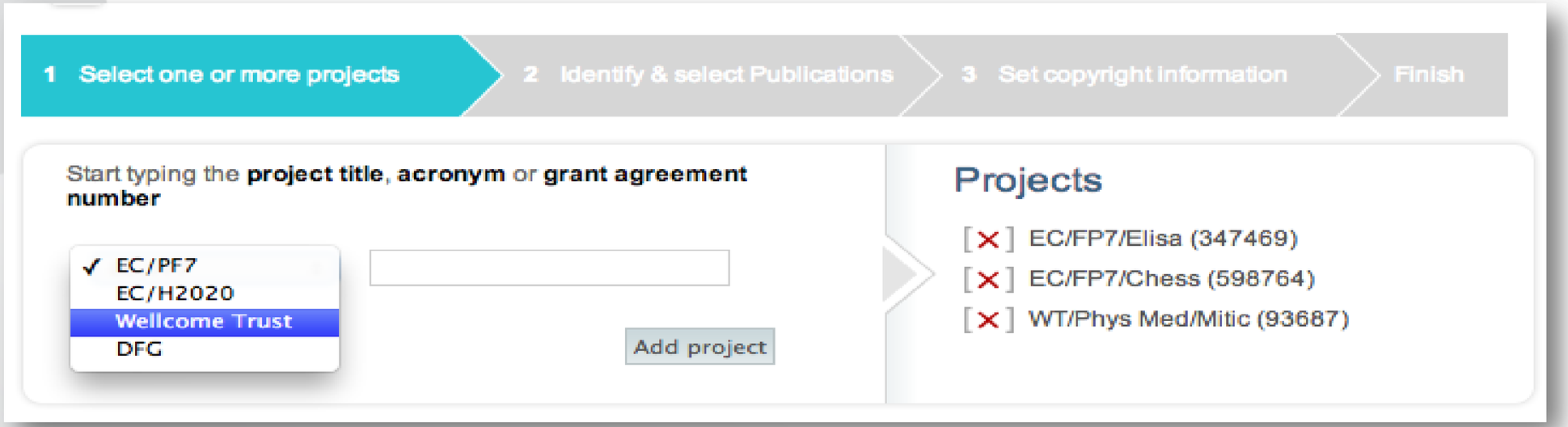
tools to measure impact; Aggregated statistics for research

- **National funders/infras**
  - **What is the output/impact of your country**
- **Institutional research admins**
  - **Link to CRIS systems**
  - **Output and impact of institution**
- **Open Access evaluation**
- **Statistics on projects/scientific areas/countries/institutions**
- **Advanced tools for science trends**

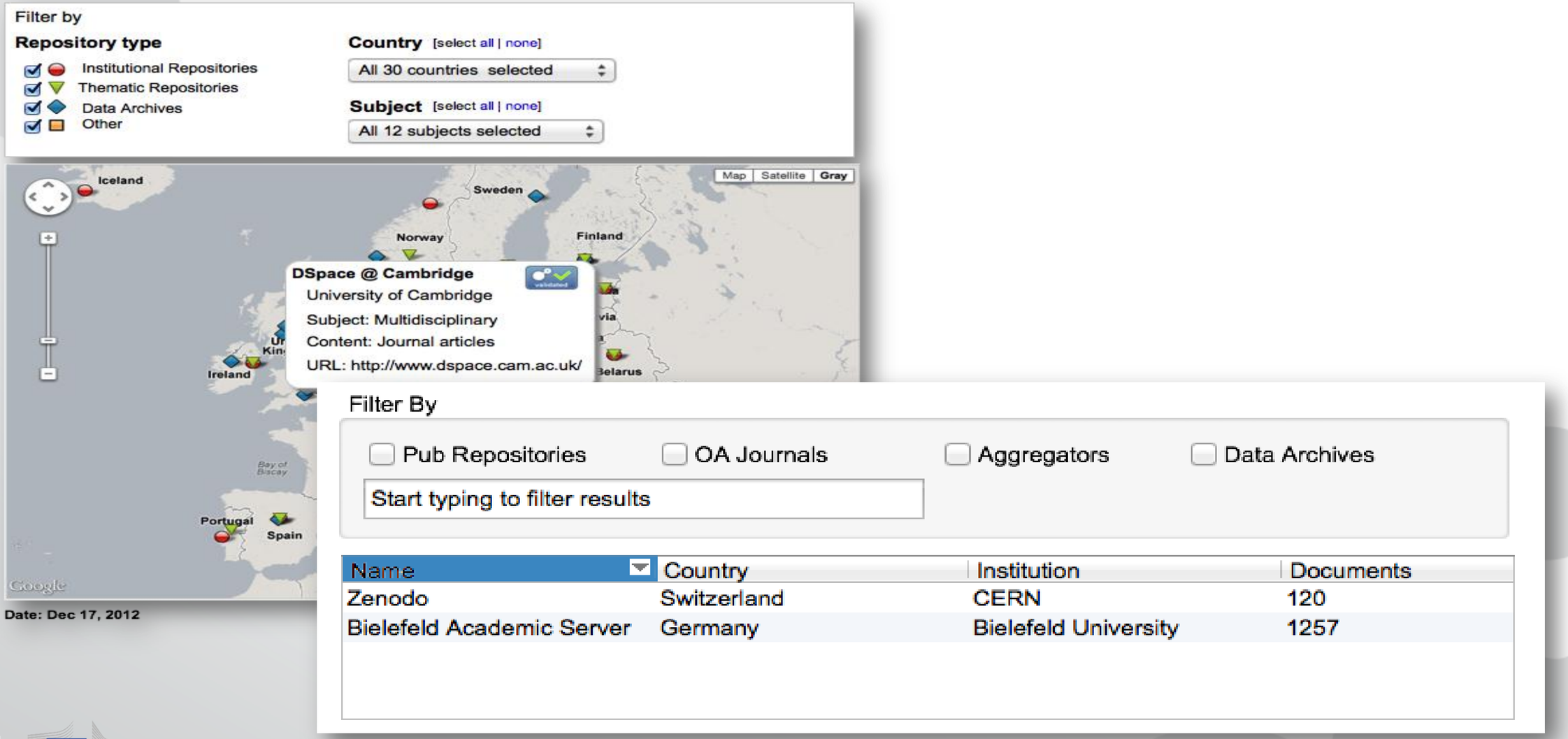
OPENAIRE IN PRACTICE

A publication view

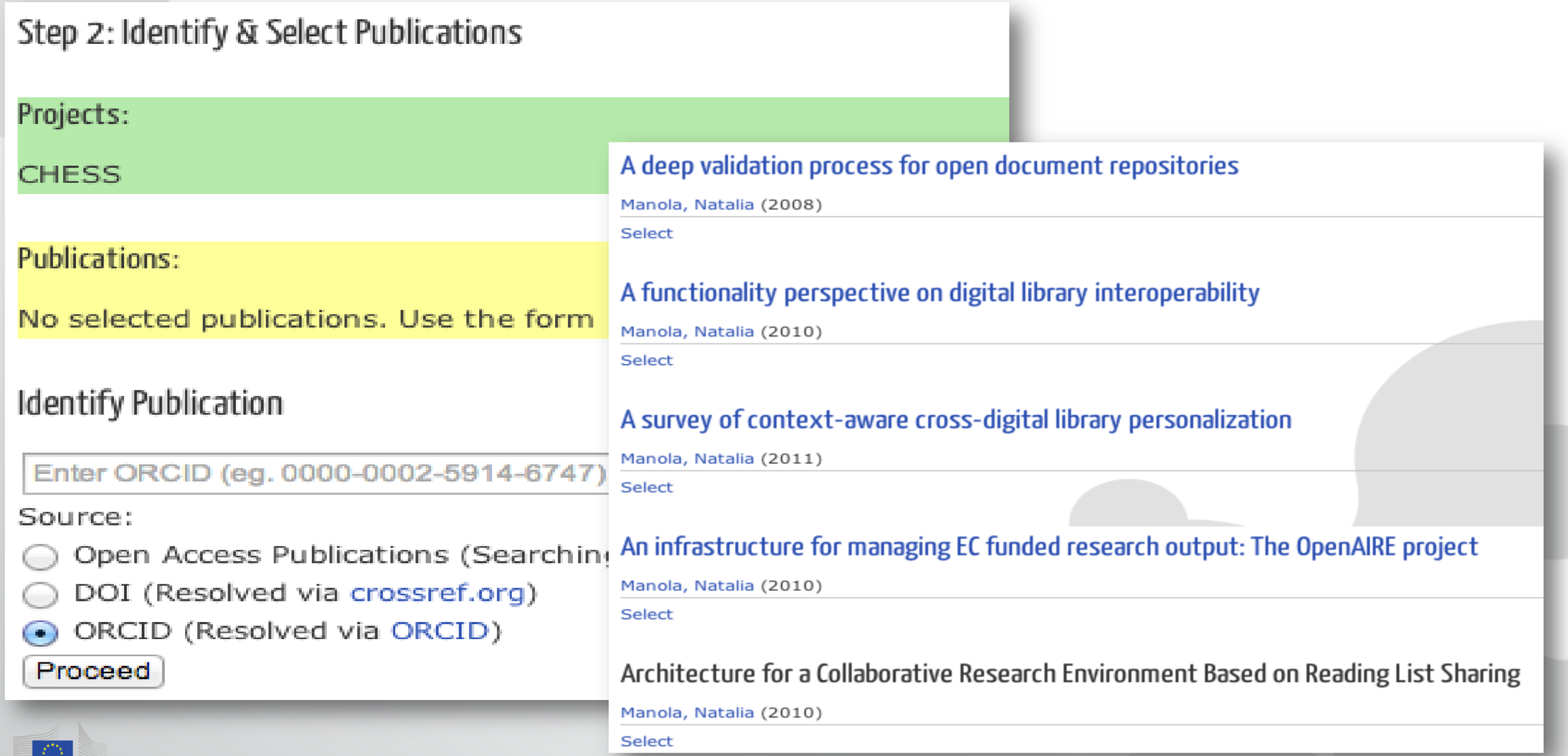
Going beyond FP7 and EC



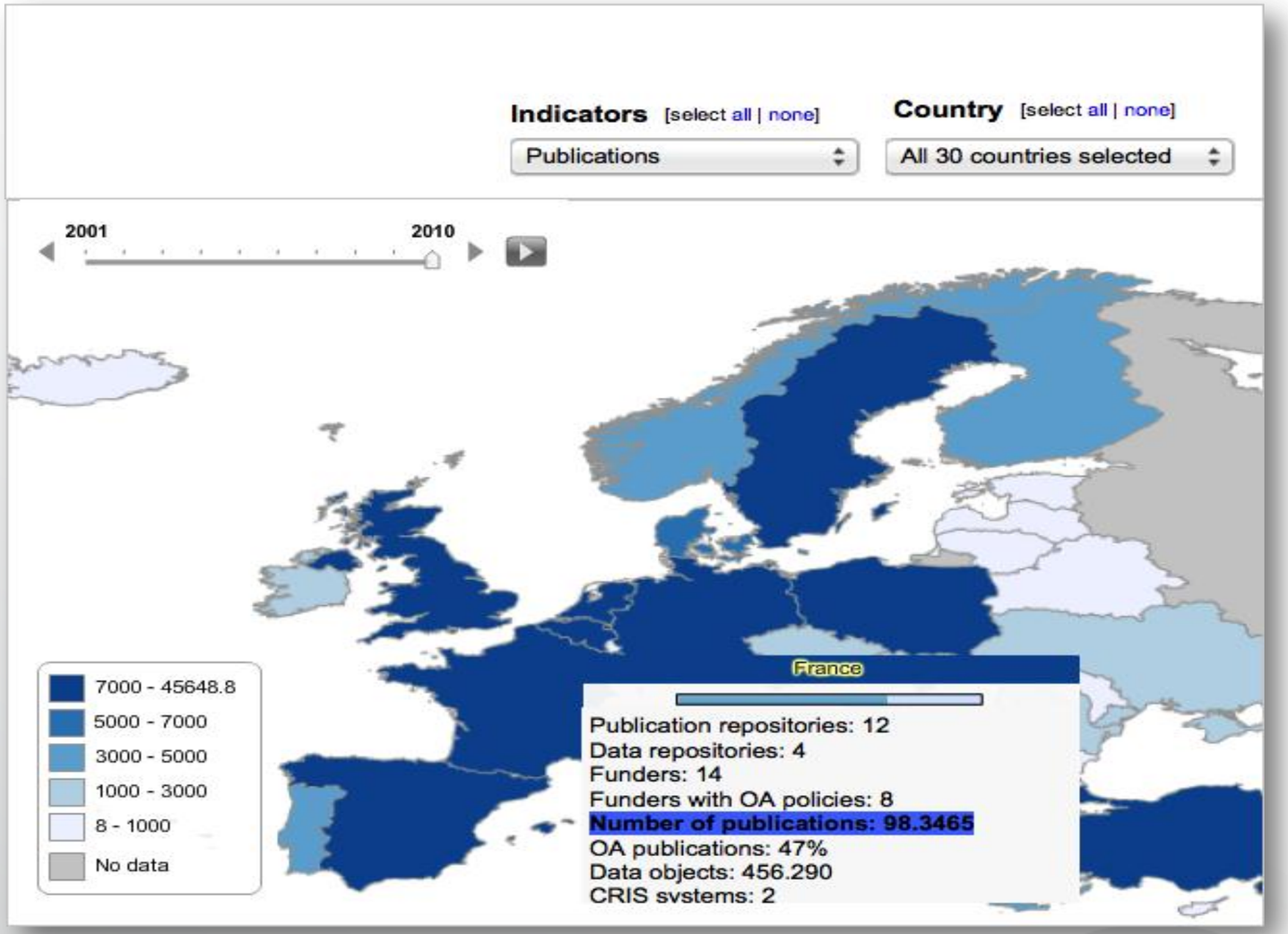
Support multiple types of data sources



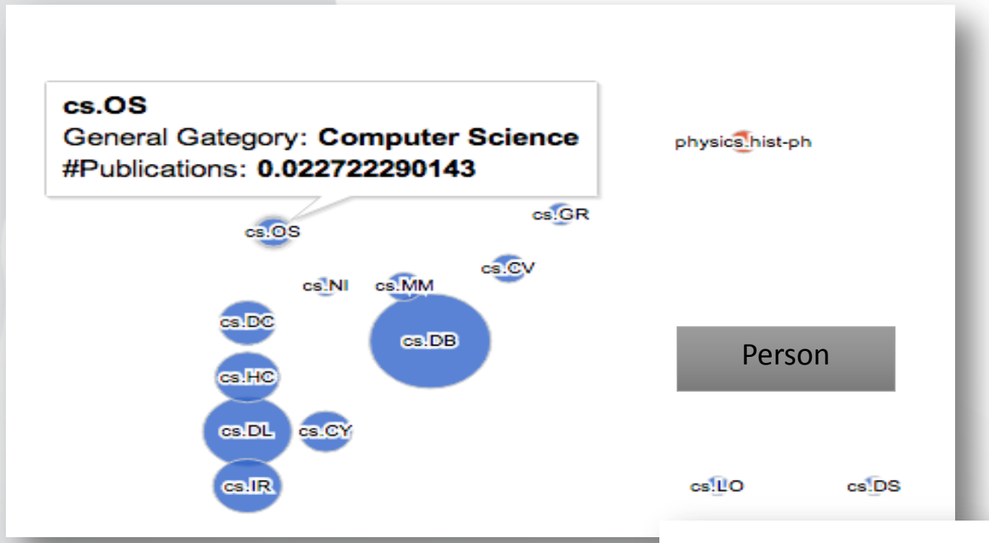
Working with PIDs

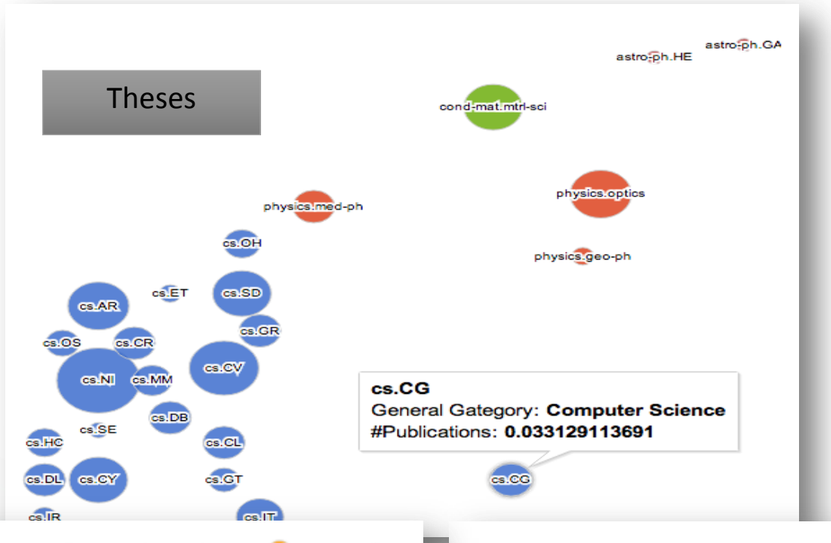


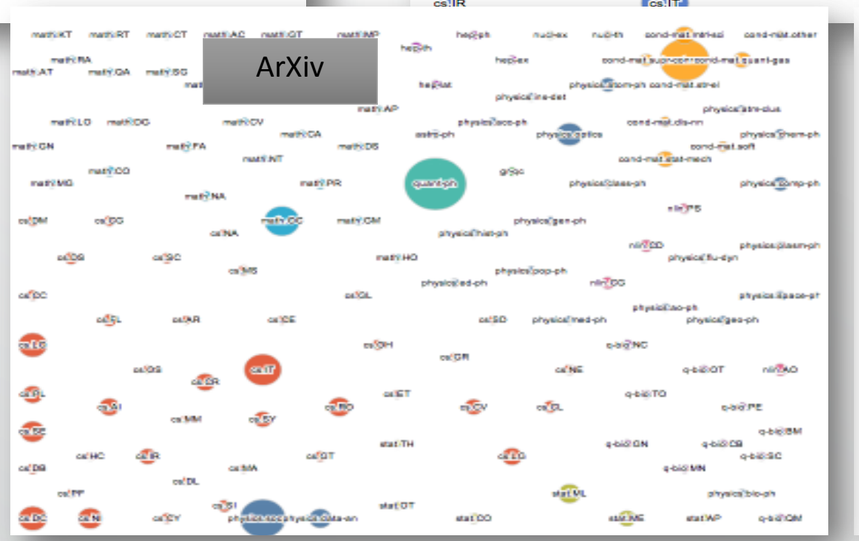
Aggregated, visual statistics

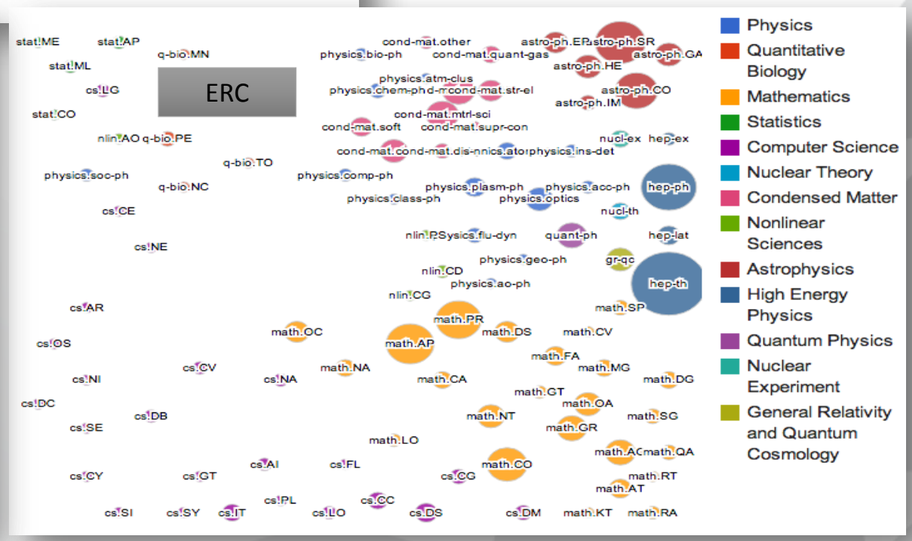


Statistics based on advanced classification



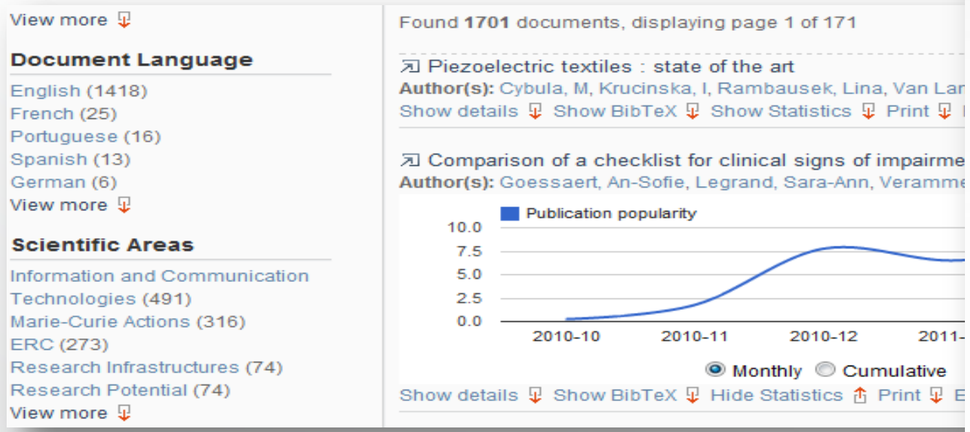


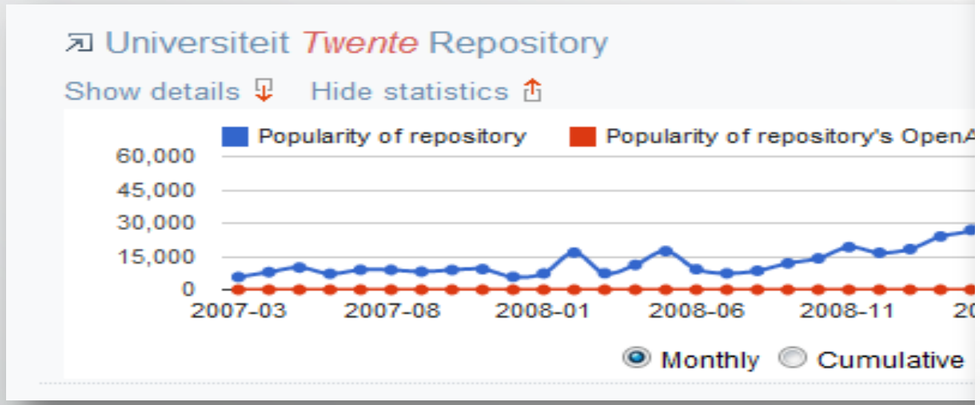


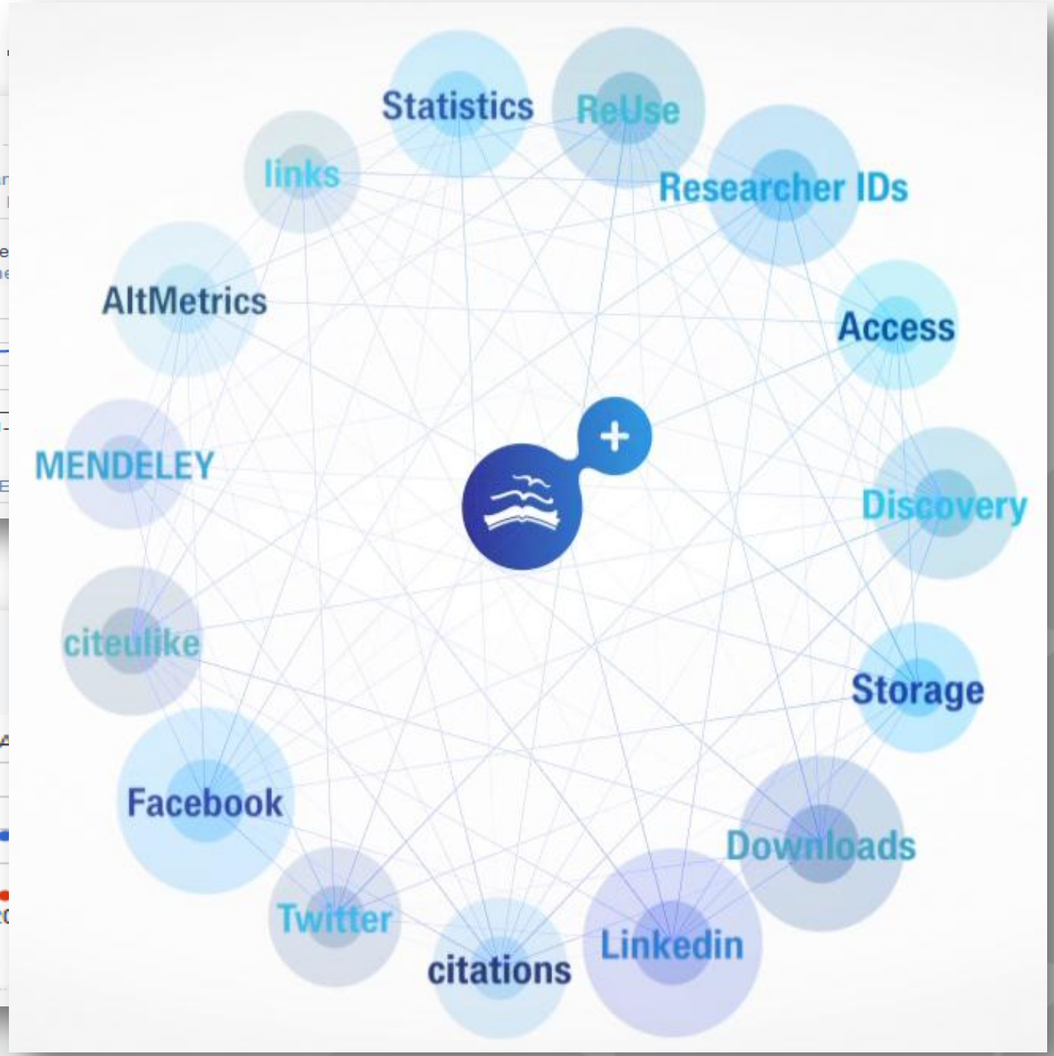


Usage statistics

… alternative measures of impact



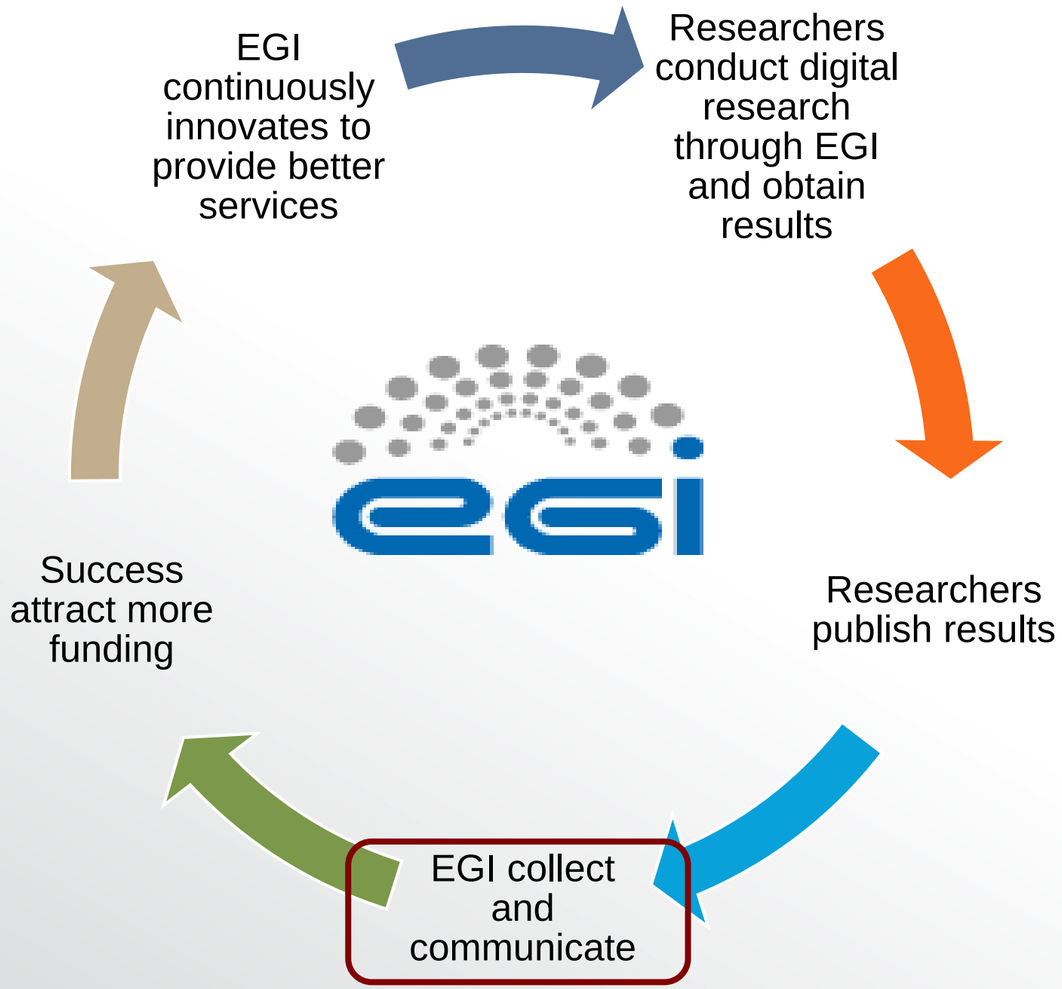




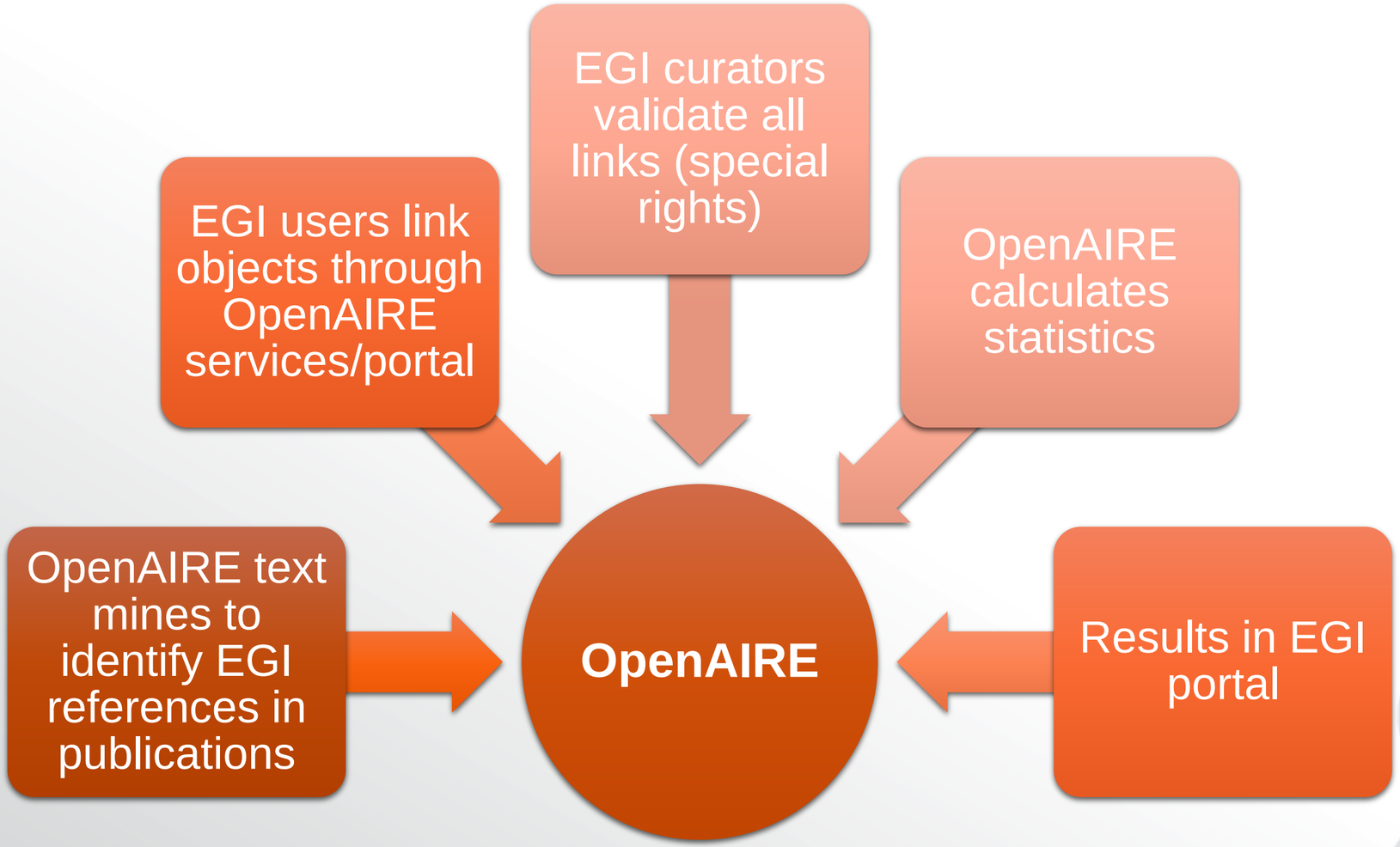
ASSESSING COMMUNITY SCIENTIFIC IMPACT

Assessing impact

The EGI use case



How it works


EGI curators validate all links (special rights)
EGI users link objects through OpenAIRE services/portal
OpenAIRE calculates statistics
OpenAIRE text mines to identify EGI references in publications
OpenAIRE
Results in EGI portal

OpenAIRE and PIDs

- **A PID in OpenAIRE is a reference**
  - **URI/URL + description of releasing agency (DOI, EPIC, ORCID)**
- **Maintain for persons & results**
  - **Multiple PIDs per object (e.g., DOI, PMID)**
- **OpenAIRE services to use PIDs**
  - **Zenodo generates PIDs for submitted publications and data**
  - **Linking services use external PIDs to identify entities**

Thank you!

Our next meetings: Minho, Portugal in February 2013 – Interoperability workshop

Ghent Library in May 2013 – Publication – data integration models

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@openaire_eu

facebook.com/groups/openaire

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natalia@di.uoa.gr