



# World landscape of repositories and repository networks: achievements, challenges, opportunities

Dominique Babini



**OAI 10 - CERN - UNIGE Workshop on Innovations in Scholarly Communications.  
Session on the Future of Repositories  
University of Geneva, 21-23 June 2017  
<http://indico.cern.ch/e/oai10>  
Video of presentation: <https://bit.ly/2xsk7Bt>**

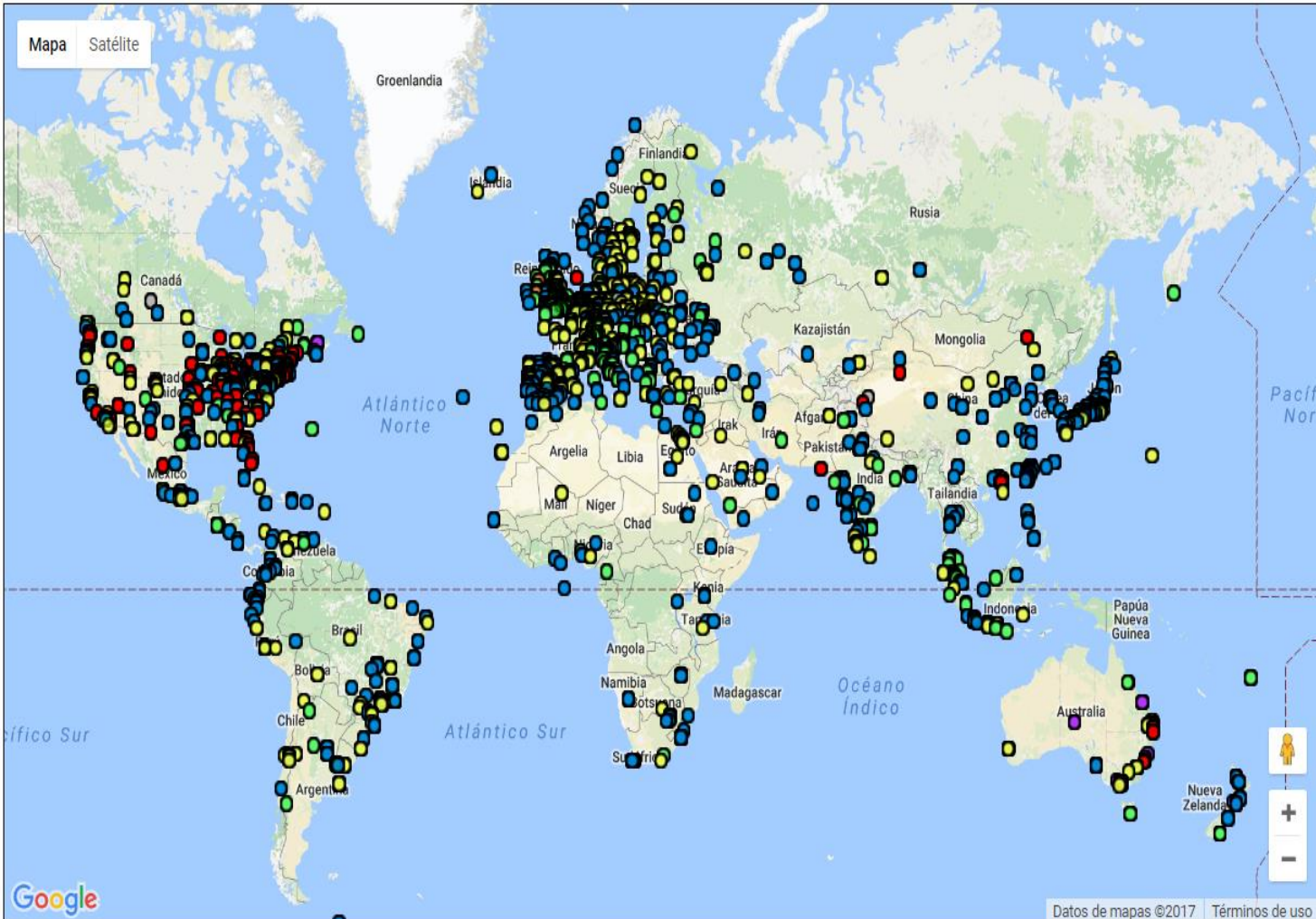
# repositories

An open access repository is a set of services that provide open access to research or educational content created at an institution or by a specific research community. They may be institutionally-based or subject based collections.



Hide information bar

Platform: All (3045) Country: All (3045) Registered between January 1990 and May 2014 filter results show all



### Information bar

- DSpace (1225)
- EPrints (468)
- BEPress (168)
- ETD-db (44)
- Fedora (40)
- OPUS (26)
- OpenRepository (15)
- Other repository (1059) [\(Show all\)](#)

[Normal icons](#) | [Repository size icons](#)

There are **12,301,750** items held in the 3045 repositories on this map.

Download a map for [Google Earth](#):  
>> [Google Earth map](#) <<

Data provided by: [ROAR](#) & [OpenDOAR](#)

Copyright 2017 [Stuart Lewis](#).



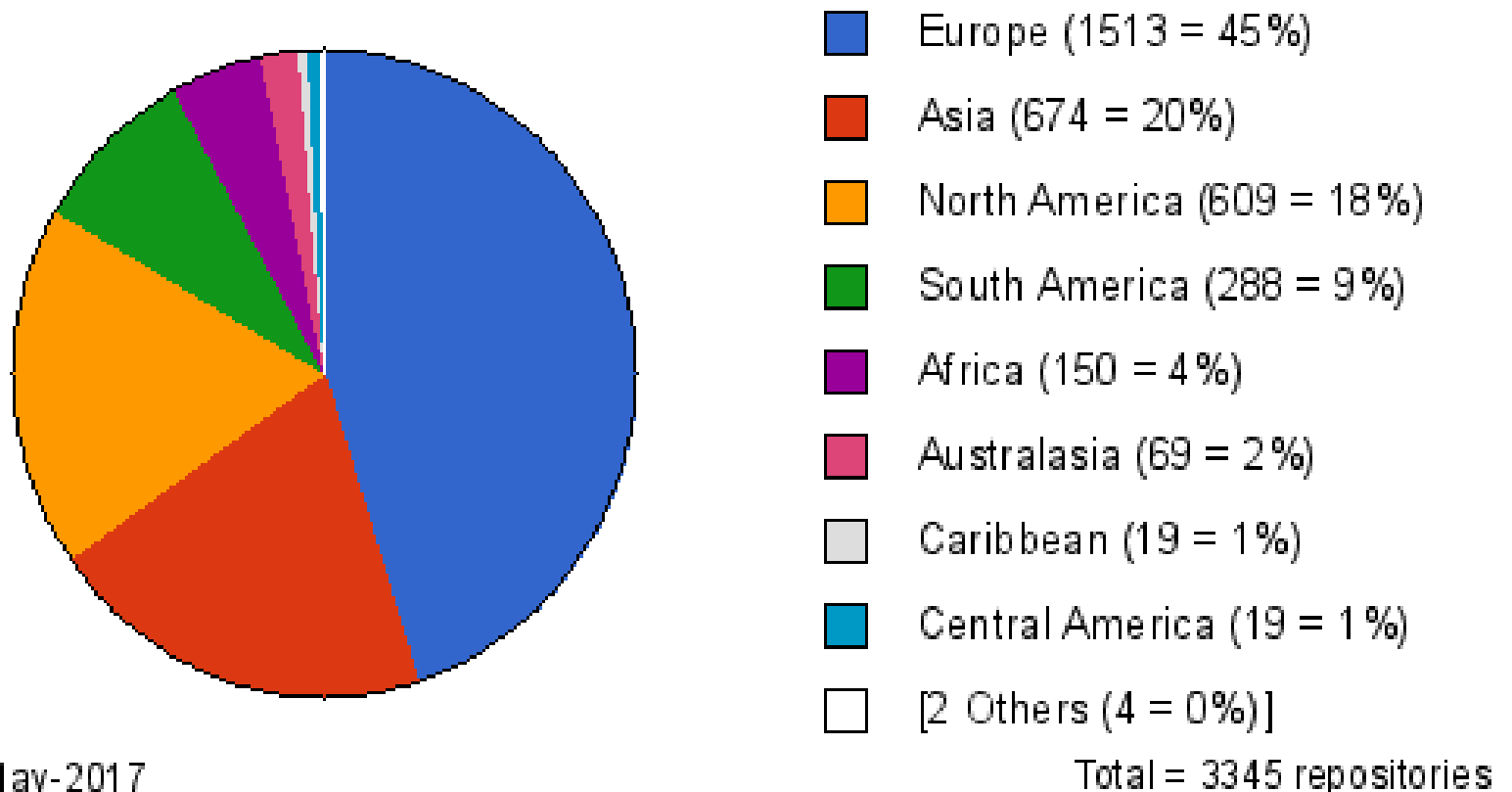
- [About the maps](#) -

- [Incorrect or missing repository location?](#) -

Data last harvested: 20-Apr-2014 12:15

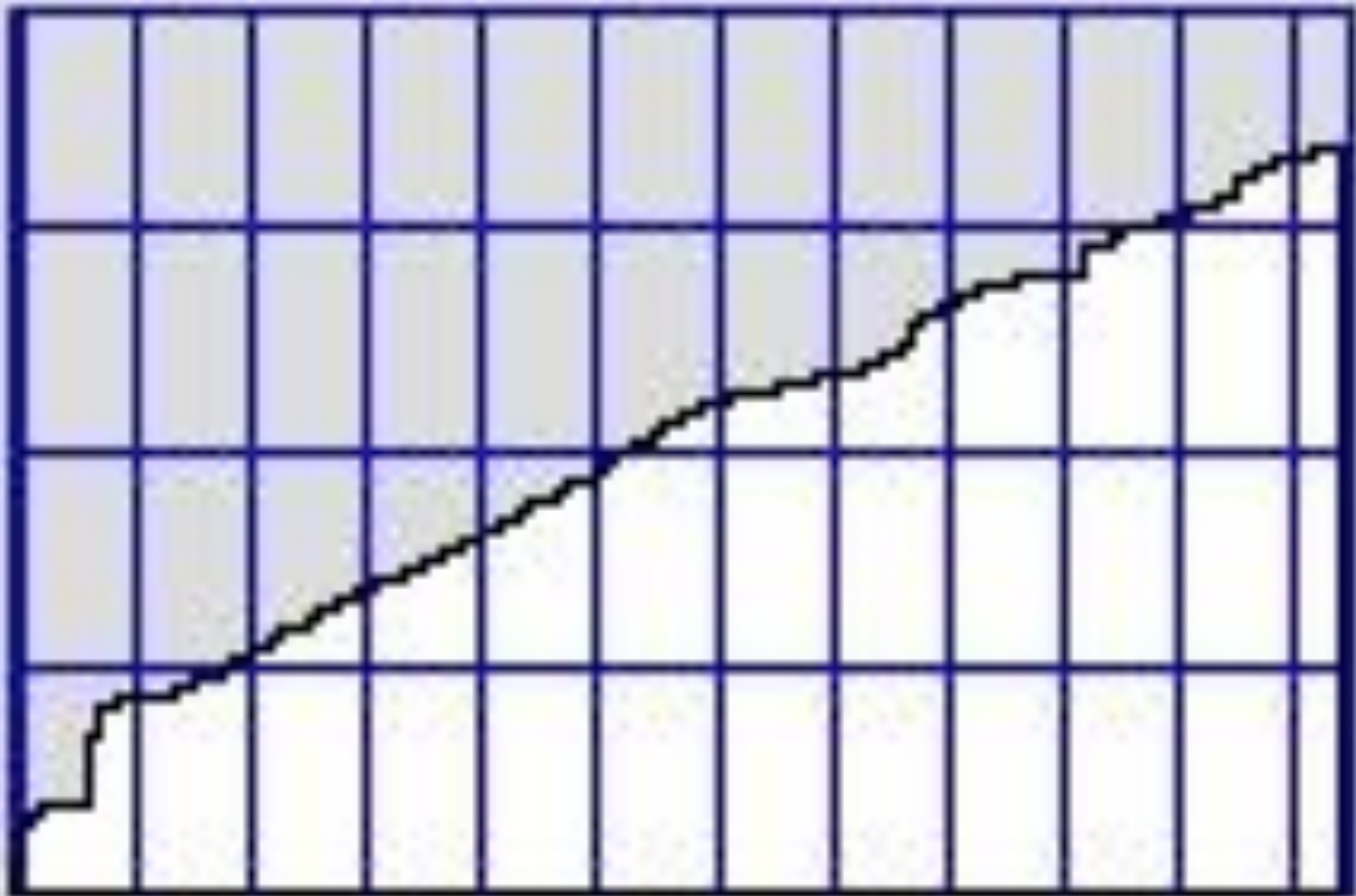
# current geographic distribution of repositories around the world

Proportion of Repositories by Continent  
Worldwide



OpenDOAR 17-May-2017

Source: OpenDOAR May 2017

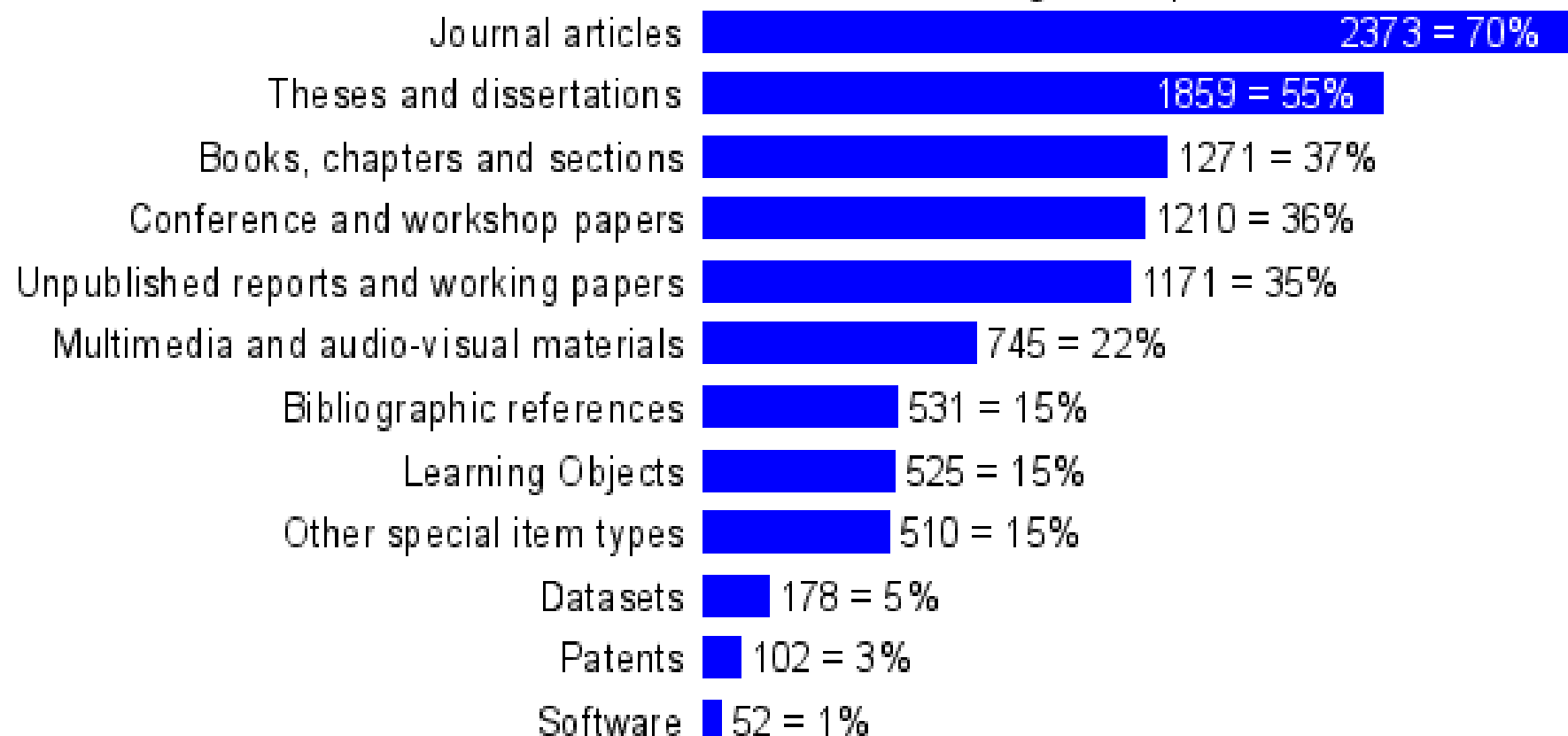


Growth of the OpenDOAR Database since 2007 <http://www.opendoar.org/find.php?format=charts>

# Content Types in OpenDOAR Repositories

Worldwide

Percentage of Repositories





# research data repositories

## Filter

### Subjects

- Humanities and Social Sciences (527)
  - Humanities (168)
    - Ancient Cultures (25)
      - Prehistory (3)
      - Ancient History (1)
      - Classical Archaeology (7)
      - Egyptology and Ancient Near Eastern Studies (2)
    - History (47)
      - Medieval History (1)
      - Early Modern History (2)
      - Modern and Current History (6)
      - History of Science (7)
  - Fine Arts, Music, Theatre and Media Studies (39)
    - Art History (11)
    - Musicology (5)
    - Theatre and Media Studies (3)
  - Linguistics (74)
    - General and Applied Linguistics (2)
    - Individual Linguistics (2)
    - Typology, Non-European Languages, Historical Linguistics (6)
  - Literary Studies (11)
    - European and American Literature (2)
    - General and Comparative Literature and Cultural Studies (2)
  - Non-European Languages and Cultures, Social and Cultural Anthropology, Jewish Studies and Religious Studies (24)
    - Social and Cultural Anthropology and Ethnology/Folklore (6)
    - Asian Studies (2)
    - African, American and Oceania Studies (3)
    - Islamic Studies, Arabian Studies, Semitic Studies (2)

Search...

Search

Toggle short help

← Previous 1 2 3 4 5 6 7 ... 75 Next →

Sort by ▾

Found 1859 result(s)

## C. Elegans Gene Expression



Subject(s)

Animal Genetics, Cell and Developmental Biology Zoology Biology Life Sciences

Content type(s)

Networkbased data Scientific and statistical data formats Databases other

Country

Canada

Using serial analysis of gene expression (SAGE) and microarrays, we are examining total mRNA populations in all developmental stages, both in whole worms and in specific cells and tissues. In addition, we are building promoter::GFP constructs to monitor gene expression in transgenic worms, focusing on C. elegans genes that have human orthologues. Also available are web-based PCR primer design tools, and access to information about our C. elegans Fosmid library.

## BRENDA



the comprehensive enzyme information system

Subject(s)

Basic Biological and Medical Research Biochemistry Bioinformatics and Theoretical Biology Medicine Biology

Life Sciences

Content type(s)

Plain text Structured graphics other Scientific and statistical data formats

Country

Germany

BRENDA is the main collection of enzyme functional data available to the scientific community worldwide. The enzymes are classified

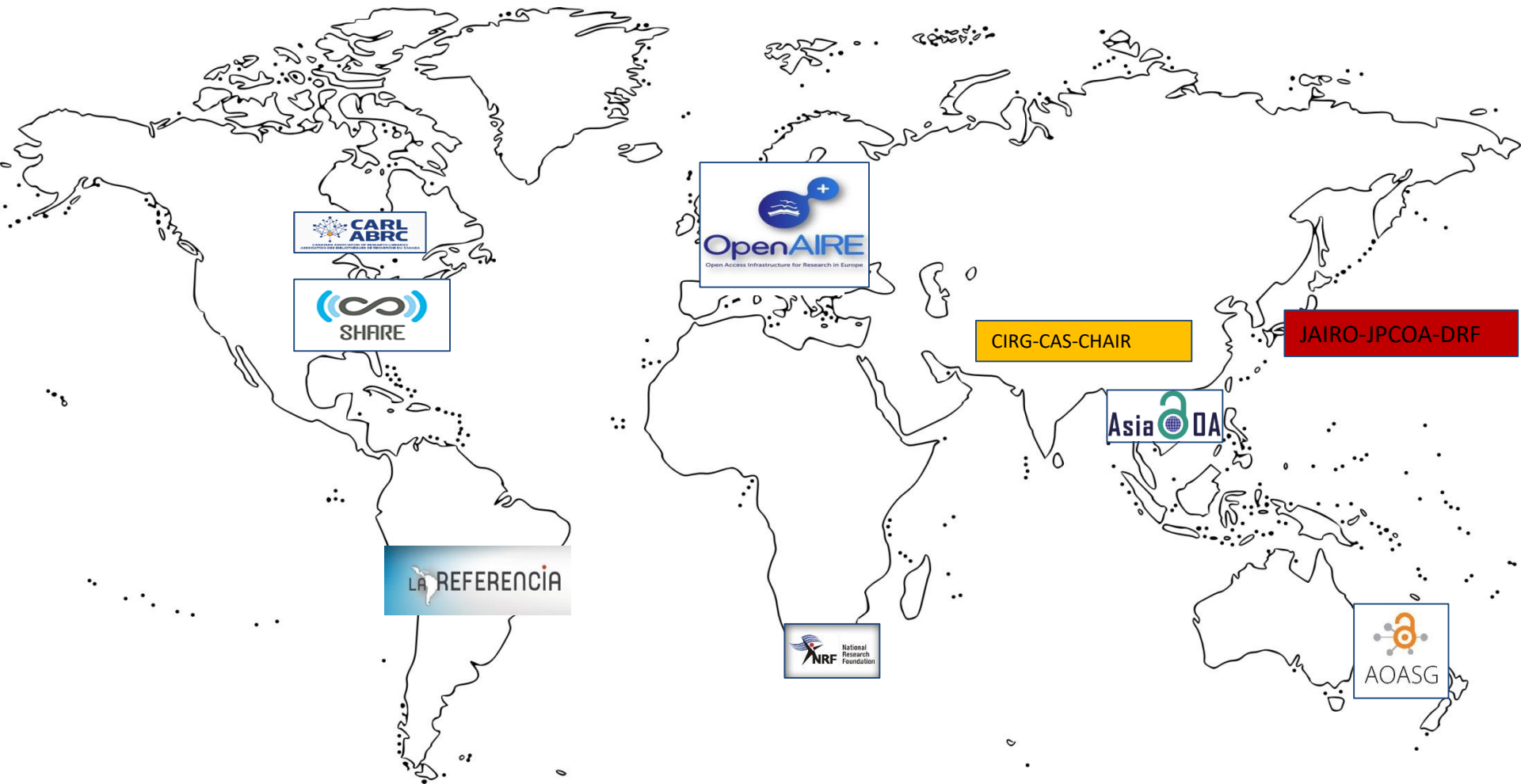
# Worldwide repository landscape

- initial repository development: North America, Western Europe and Australasia
- since 2010: East Asia, South America and Eastern Europe
- small number of large repositories and a large number of small repositories
- predominantly
  - Institutional
  - multidisciplinary
  - English-language-based
- open-source OAI-compliant software
- immature licensing arrangements



# repository networks

- National
- Regional





Partners

NOADs



Google

e.g. of repository aggregators



# Challenges: interoperability/synchronization

- Institutional repositories
- disciplinary/thematic repositories
- preprints repositories
- data repositories
- Journal repositories (international-regional-national-institutional)
- theses and dissertations repositories

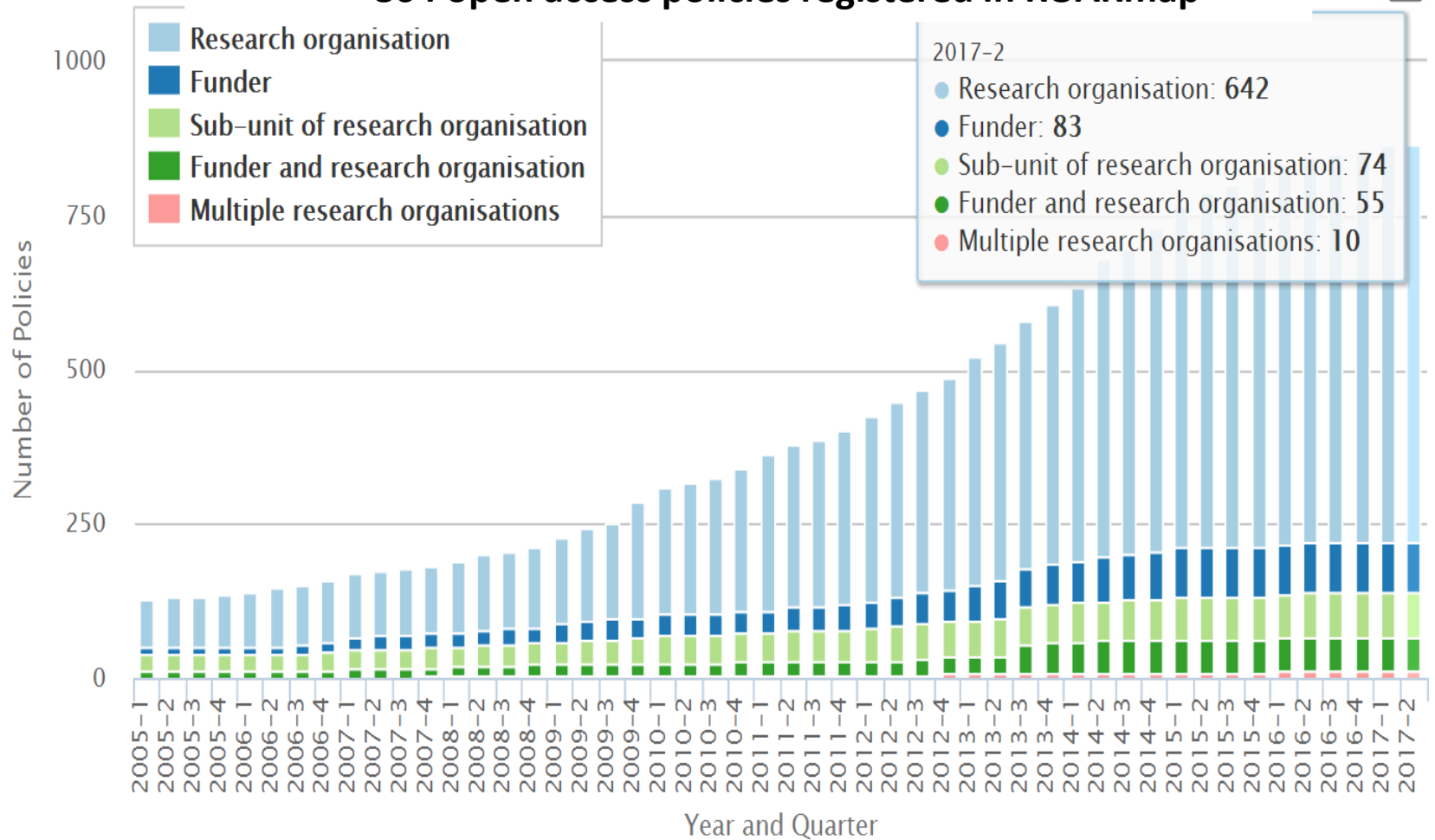
## Challenges (cont.)

- Position repositories in the scholarly and research lifecycle
- Open access/open science policies that support repositories
- Evaluation systems that incorporate repositories indicators
- Metadata that describes the quality assessment process of each digital object
- Technological challenges
- Governance and social interoperability

A global inclusive and distributed open  
science/open access infrastructure needs policies  
that support repositories



## 864 open access policies registered in ROARmap



Highcharts.com

indicators provided by repositories to  
complement traditional evaluation indicators

within the lifecycle of research, describe  
quality assessment of each output so this  
information is available when metadata is  
produced

Managing scholarly communications as a  
commons  
is  
innovation

# Principles of the scholarly commons

## **P1. The scholarly commons is an agreement among knowledge producers and users.**

*This means that:*

- The commons is developed by its members through their practice
- There is global commitment and participation in the commons' long-term viability and preservation

## **P2. Research and knowledge should be freely available to all who wish to use or reuse it.**

*This means that:*

- The commons is open by default
- Scholarly objects and content in the commons is FAIR: findable, accessible, interoperable and reusable by humans and machines

## **P3. Participation in the production and use of knowledge should be open to all who wish to participate.**

*This means that:*

- The commons welcomes and encourages participants of all backgrounds
- The commons is open to all participants who accept its principles



## CLACSO's working group “Natural and knowledge commons”

- 35 members from 23 countries
- Sub-group on **open access managed by the scholarly community as a commons** (coordinated by Eduardo Aguado-López, REDALYC-UAEM, Mexico)
- Main 2017 activities: virtual meetings, collaborative book, online seminar “Commons in the Latin American discussion”



# OPEN & COLLABORATIVE SCIENCE • MANIFESTO •

TOWARDS AN  
**INCLUSIVE**  
OPEN SCIENCE  
FOR SOCIAL AND  
ENVIRONMENTAL  
**WELL-BEING**



# knowledge as a commons in support of sustainable development agenda





[www.clacso.org](http://www.clacso.org)