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SUB, University of Göttingen

# OpenAIRE

DINI Workshop, 21.01.13





# Today

- **OpenAIRE & Open Access**
- **Services for Research Administrators**
- **Repositories, CRIS**
- **OpenAIREplus**
- **A Look Ahead**





# What is OpenAIRE?

- **Funded by EC in 2009**
- **Building an OA Publication Infrastructure**
- **Collaborative project of 32 countries**
- **Cross-Discipline**
- **Supporting European Research Area**
- **Measure Impact of FP7**



**“Open access to research  
IS A MUST  
For the competitiveness of  
Europe”**

**Neelie Kroes, the EU Commissioner for Digital Agenda**

# European OA Mandate

At funding level

**Europe's Open  
Access Pilot  
,Special Clause  
39'**

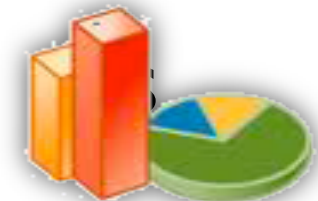
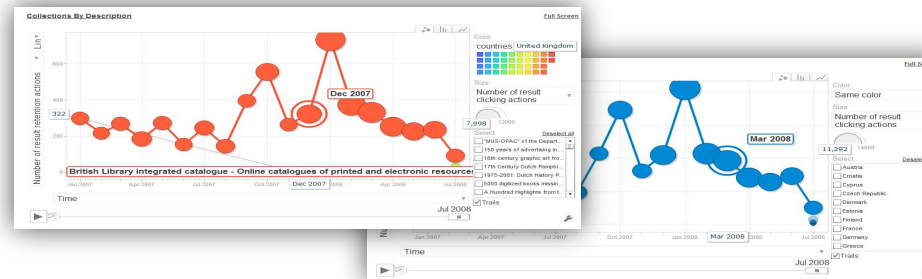
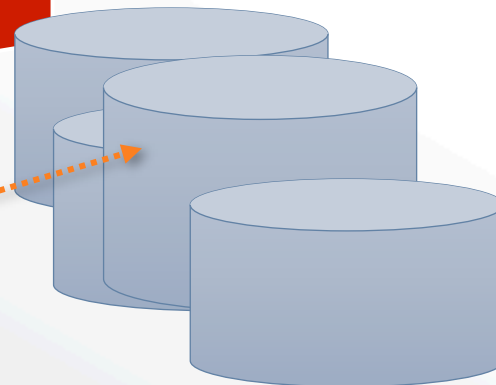
- FP7 Funding scheme
- Seven thematic Areas (20%)
- Open access to publications
- System of deposit
- ..or pay Gold OA charges

# Research Impact

Download  
Rate

Funde

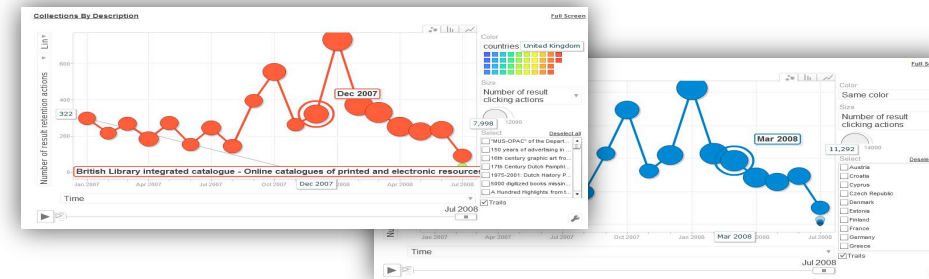
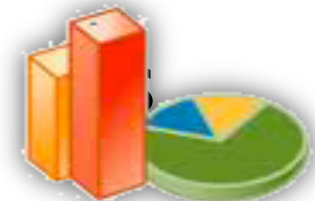
Researchers



# Research Impact

Download  
Rate

Funde



Orphan

Researchers



OA repositories

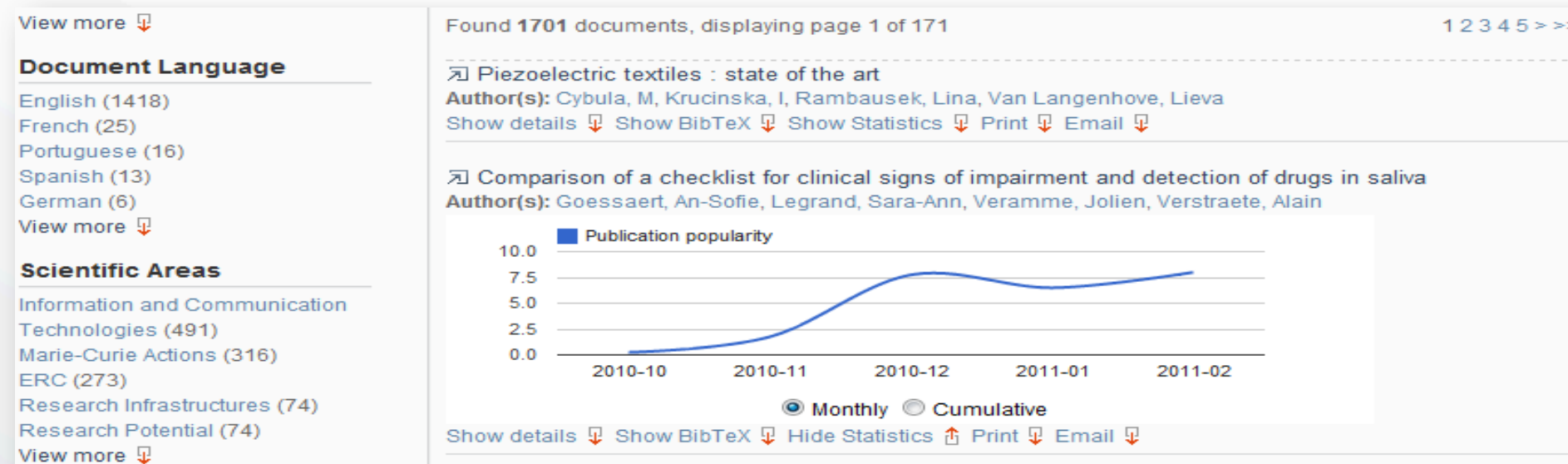


FP7 Project  
Information

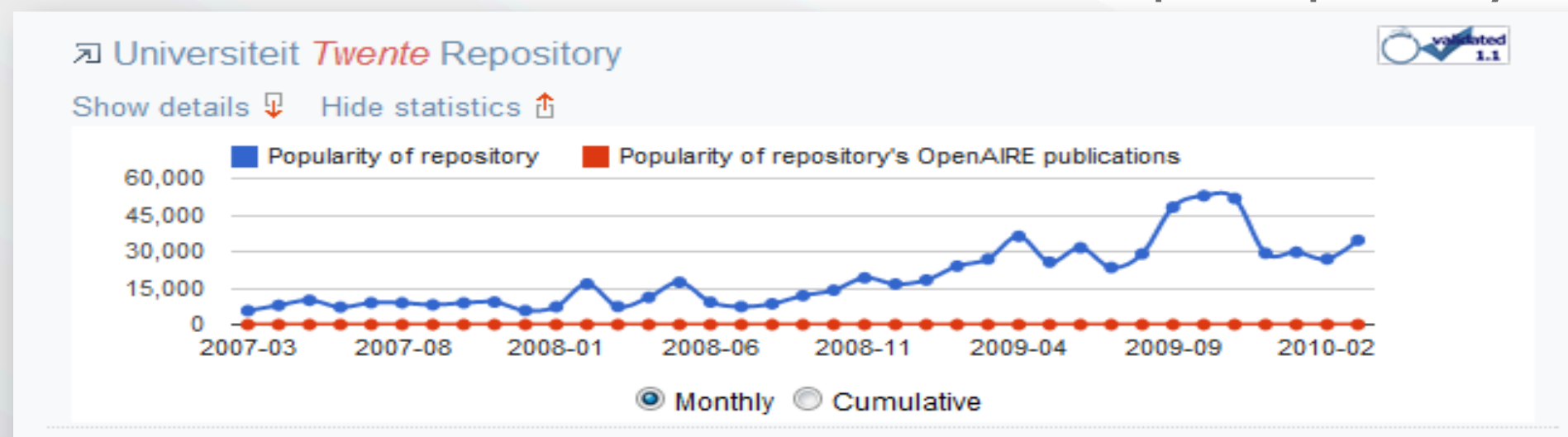
# Usage statistics

... alternative measures of impact

... per publication



...per repository



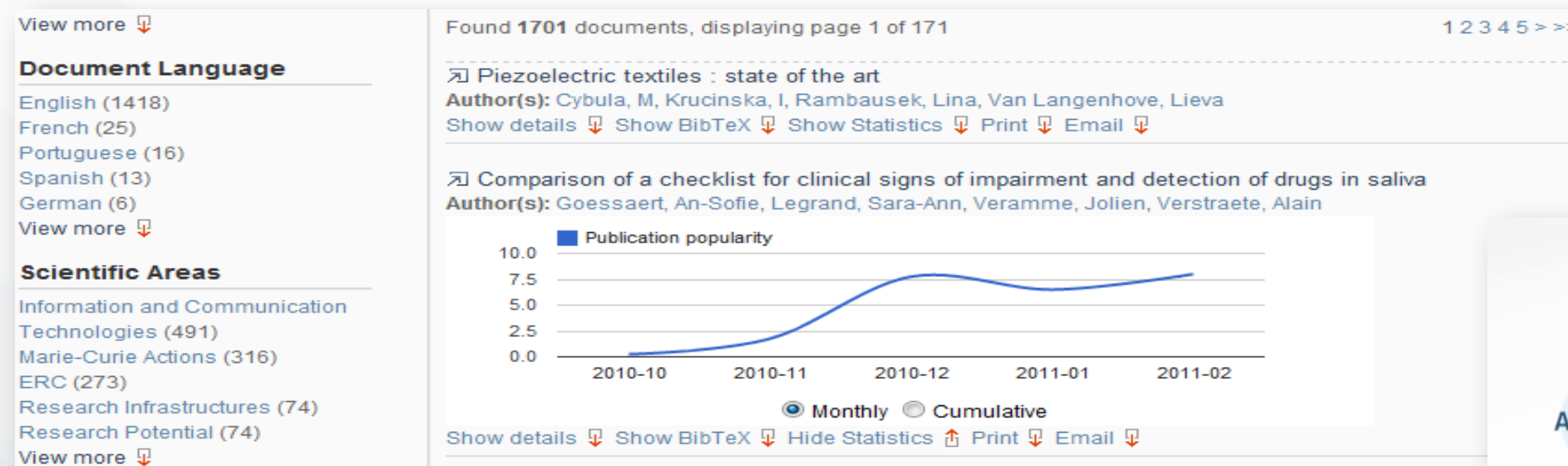
... per project



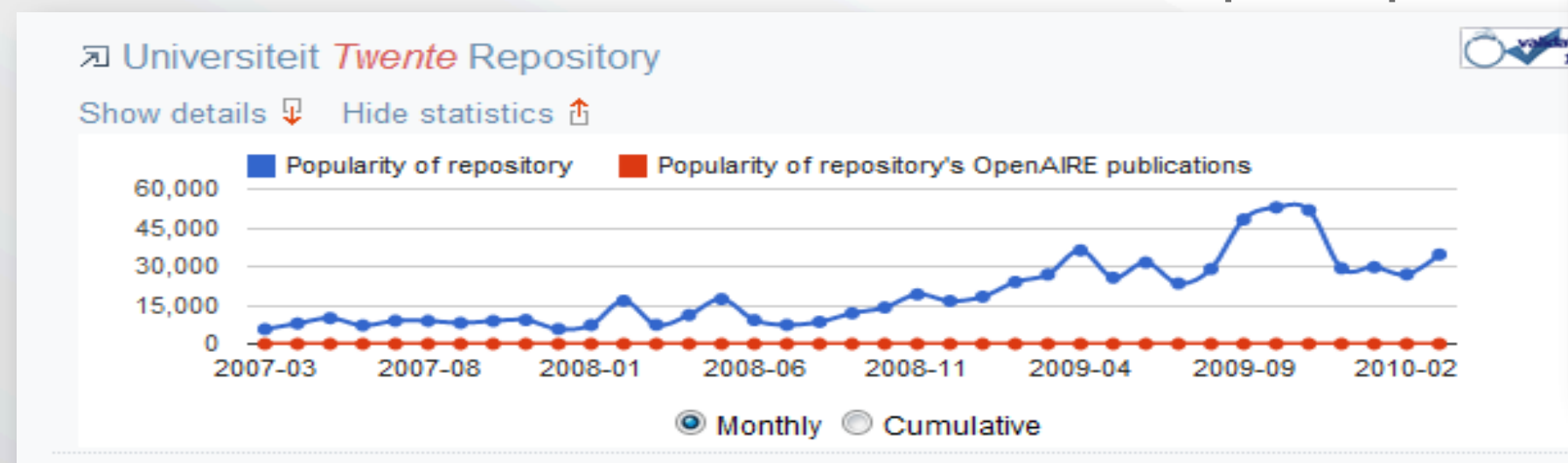
# Usage statistics

... alternative measures of impact

... per publication



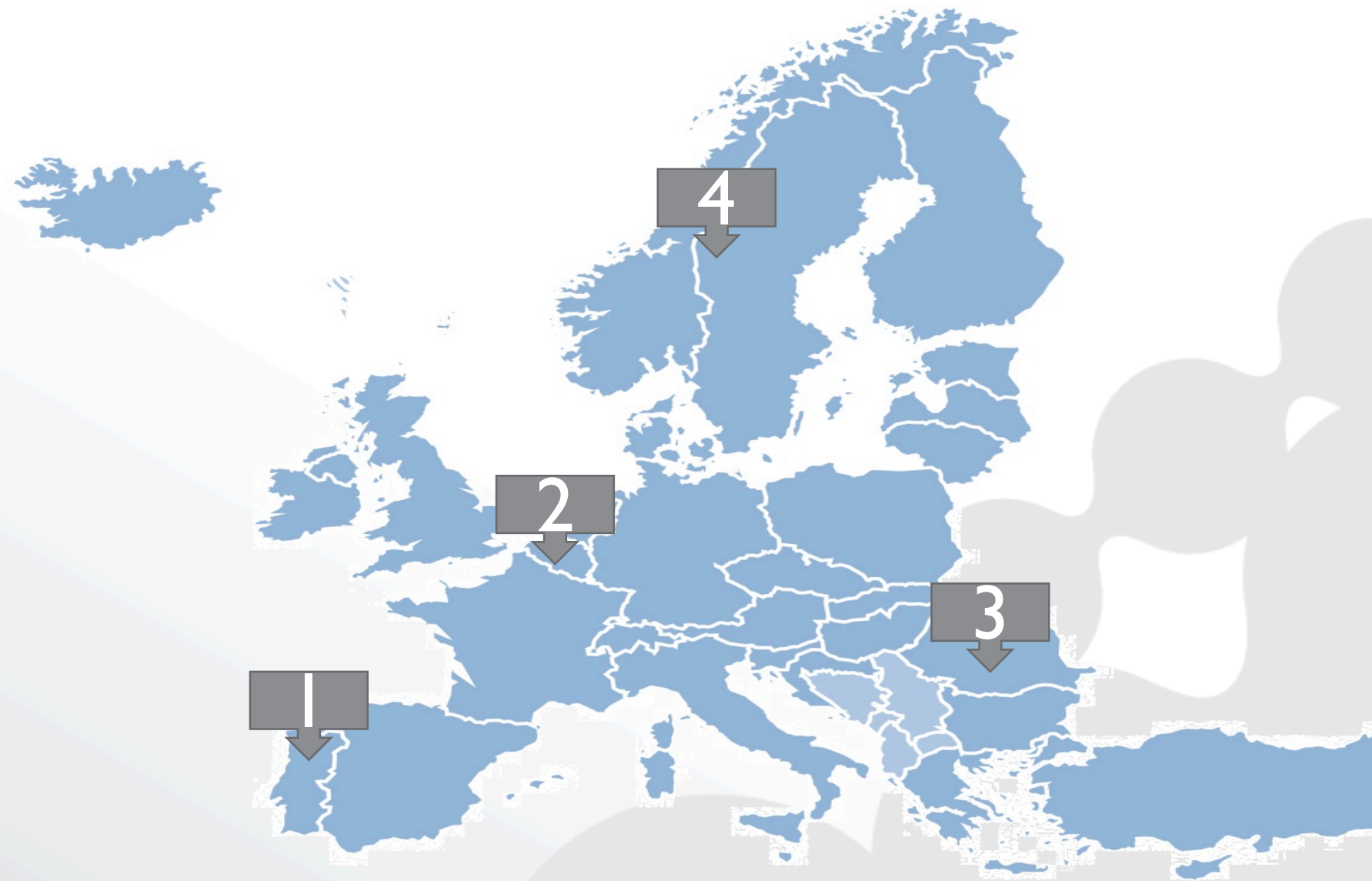
...per repository



... per project

# Supporting OA in Europe

- Network of EU Open Access Knowledge
- Expertise in OA, repositories & services
- Champion Open Access
- Helpdesk
- Workshops, Training
- Data ,Awareness‘
- 41 partners



# Technical Infrastructure

- Based on existing infrastructures (eg DRIVER)
- Harvest Repositories via OAI-PMH
- Repositories have to use our ‚Guidelines‘
- Other funding schemes eg Wellcome Trust, FWF, EGI.eu
- Orphan Repository (publications and data)
- Plug-ins (Dspace, Eprints, OJS)
- CORDA database

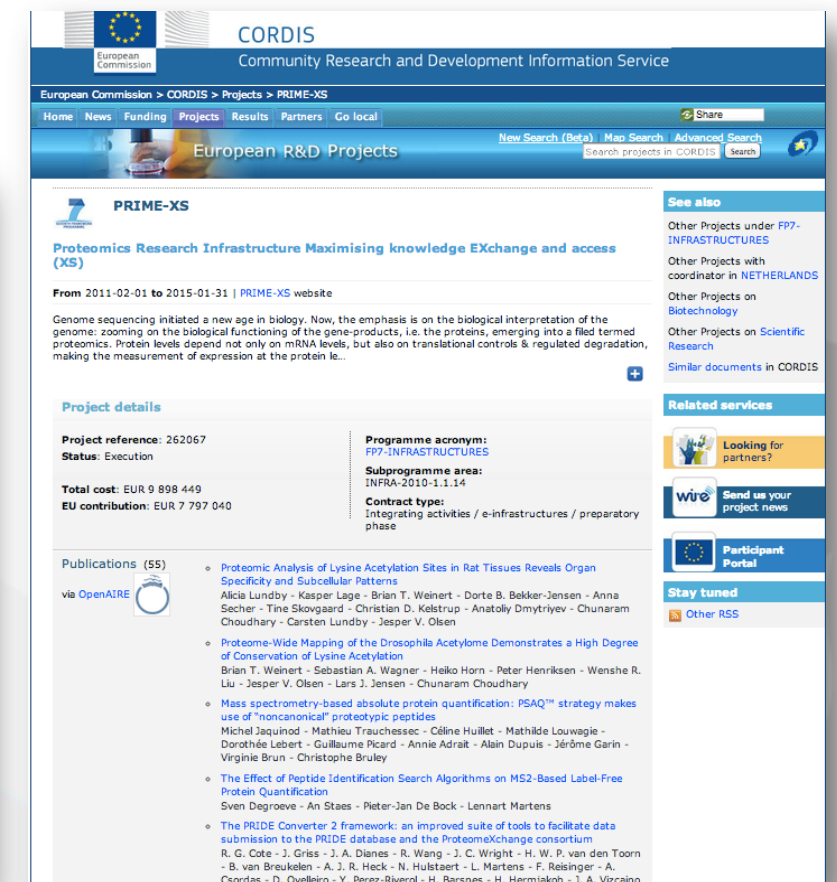
# Project Coordinators

Tools to ease some workflows

- Dissemination of research output
- Reporting
- CORDIS

Are you a  
**Research  
Coordinator  
or Project  
Manager?**

Report open access publications.  
Monitor, disseminate research  
results.





# Research Administrators

Measure OA and Impact; Aggregated statistics for research

Are you a  
**Research  
Coordinator  
or Project  
Manager?**

Report open access publications.  
Monitor, disseminate research  
results.



- **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 measurement**
- **Advanced tools for science trends**

# Data Providers

Be part of a community

Are you a  
**Data  
Provider?**

Join the Open Access Network.  
Increase visibility.  
Impact Open Science.

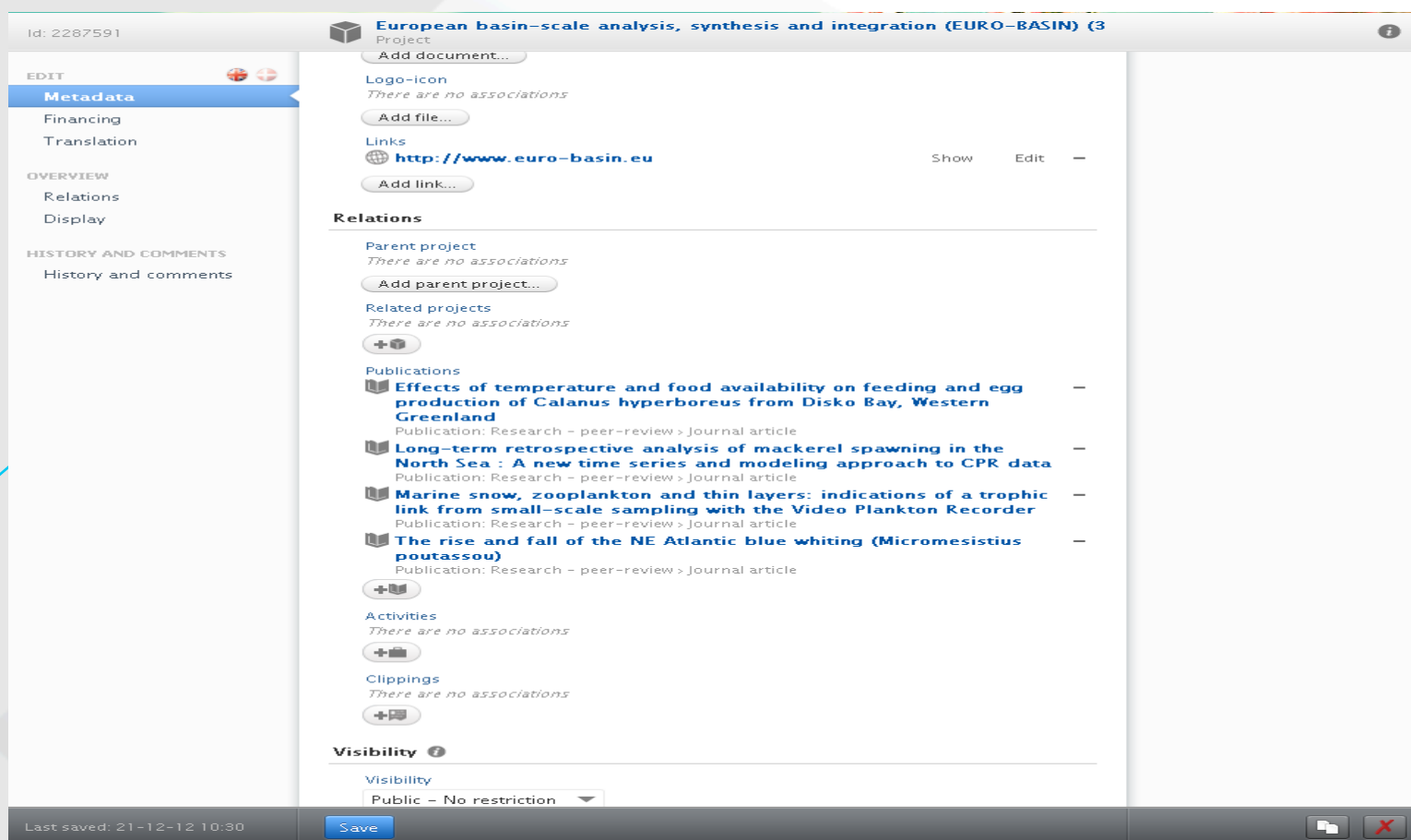


- **Increase your visibility**
  - To funders and research administrators
- **Interoperate through guidelines**
  - Publication, funding, research data
  - Usage statistics (impact)
- **Get back enriched information**
  - Links to funding and research data
  - Aggregated statistics
- **Notifications about publications in other repositories**

# Adopting CERIF

PUBLICATIONS – PROJECT – FUNDING - DATASETS

- Aligning data model
- Retrieving publication-project information
- PURE compliant v. 4.15
- Boost repository engagement



# **‘OpenAIRE is a natural fit**

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**With PURE’s functionality,  
metadata model and  
philosophy’**

Thomas Vestam, PURE project manager, Denmark



# To overcome..

A number of hurdles

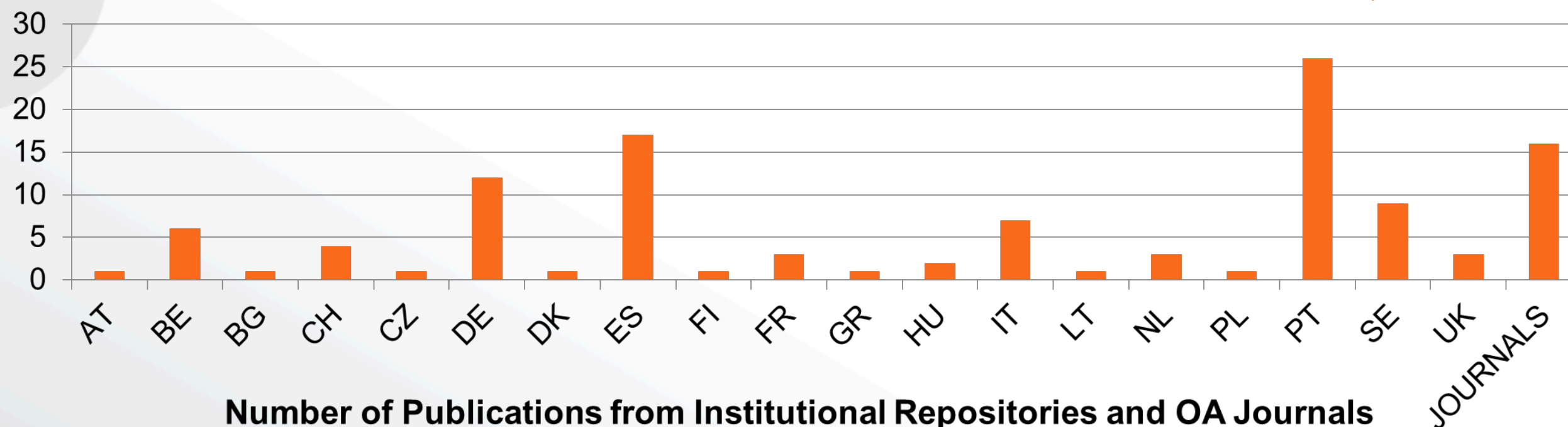
- **Misinformation from EC**
- **More advocacy**
- **Researchers Unaware**
- **Lack of urgency (soft mandate)**
- **Repository Managers**



# Repositories

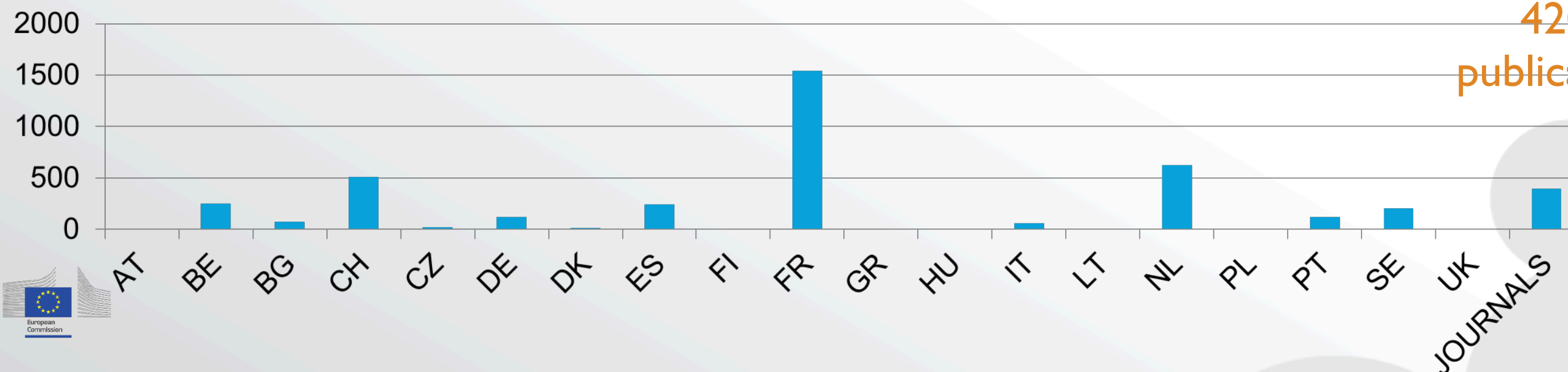
Number of Repositories and OA Journals

100 repositories  
16 journals

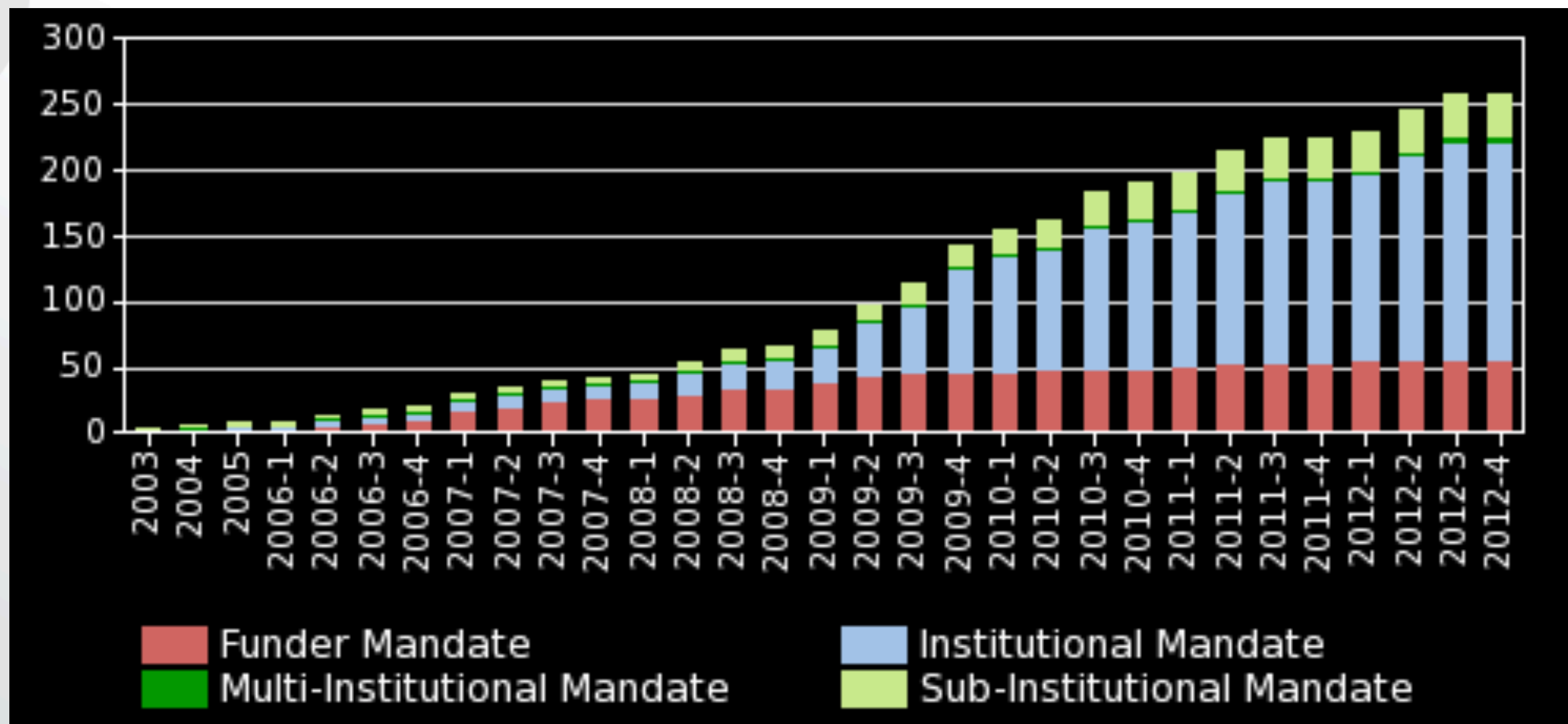


Number of Publications from Institutional Repositories and OA Journals

4205  
publications



# Mandates – Institutional & Funder



# German OA-Scene

**Strong on Advocacy, Low on OA mandates**

- DINI, OA-Net
- Policies – DFG
- Alliance of Scientific Organisations
- 144 OA Repositories



# German Repositories

## SIZE

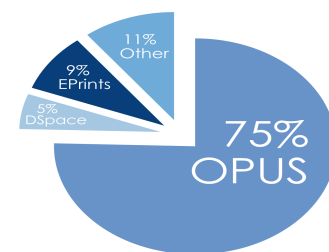
Amount of Items in all German  
Open Access Repositories

704.121

Average Size of a German  
Open Access Repository

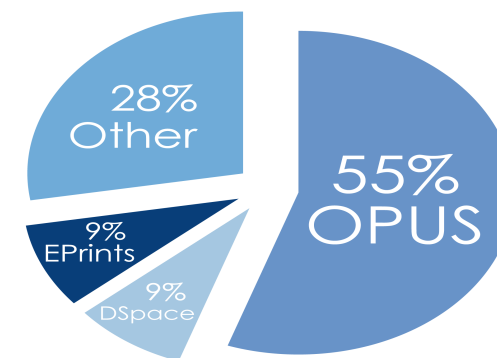
4.994

41%  
small



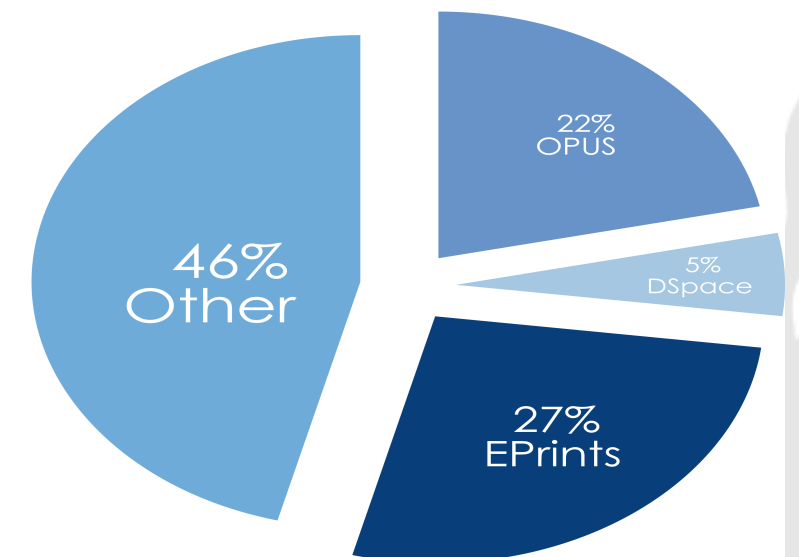
Repositories with  
0-1.000 Items

33%  
medium



Repositories with  
1.000-5.000 Items

26%  
large



Repositories with  
5.000-50.000 Items

# OpenAIRE **DATA** Plus

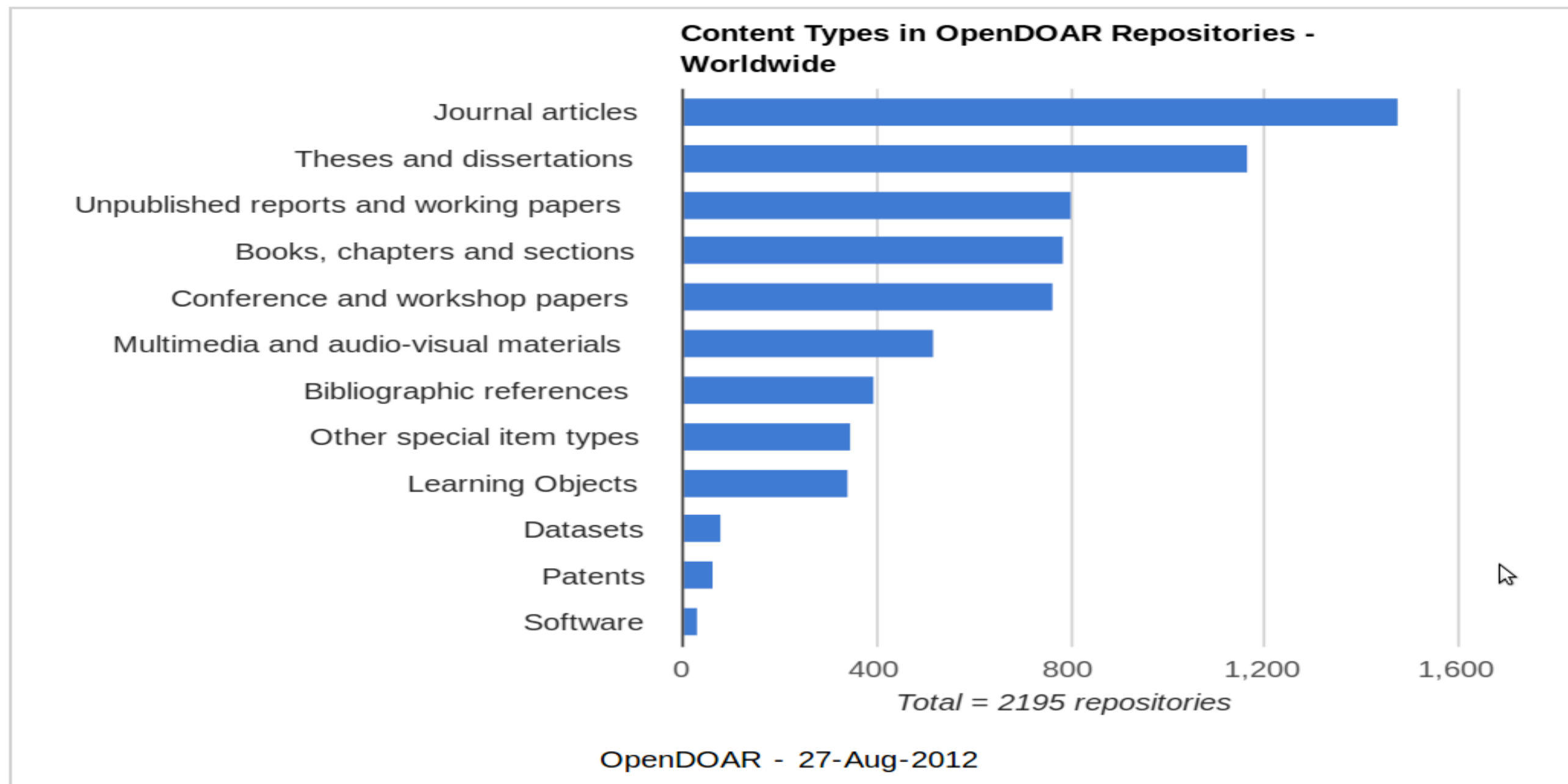


OpenDOAR

Directory of Open Access Repositories

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## Content Types in OpenDOAR Repositories - Worldwide



# Re-use of Research Data

Seems logical

- **Cross-disciplinary benefits**
- **Increased scientific progress**
- **Benefits of data citation, career boost**
- **Collaboration**





Table 6  
Overview on accuracies of chl-*a* algorithms (see also Table 4)  
applied on SeaWiFS data in July 2002 (07/20)

2002/07/20	HPLC	OC4	OC2	This study, July 2001+2002
<i>n</i> chl- <i>a</i> , all	22	17	17	17
<i>n</i> chl- <i>a</i> , case 1	17	17	17	17
Mean [ $\mu\text{g l}^{-1}$ ]	1.6	1.35	1.3	0.85
Median [ $\mu\text{g l}^{-1}$ ]	1.55	1.25	1.3	0.8
S.D. [ $\mu\text{g l}^{-1}$ ]	0.8	0.5	0.4	0.25
Accuracy, all [ $\mu\text{g l}^{-1}$ ]		$\pm 0.35$	$\pm 0.3$	$\pm 0.38$
		$\pm 27\%$	$\pm 24\%$	$\pm 27\%$
2002/07/20	HPLC	Iluz et al. (2003), years 1994–1996	Iluz et al. (2003), year 1996	Gordon and Morel (1983), case 1
<i>n</i> chl- <i>a</i> , all	22	17	17	17
<i>n</i> chl- <i>a</i> , case 1	17	17	17	17
Mean [ $\mu\text{g l}^{-1}$ ]	1.6	0.6	1	0.85
Median [ $\mu\text{g l}^{-1}$ ]	1.55	0.6	0.94	0.8
S.D. [ $\mu\text{g l}^{-1}$ ]	0.8	0.1	0.4	0.25
Accuracy, all [ $\mu\text{g l}^{-1}$ ]		$\pm 0.6$	$\pm 0.41$	$\pm 0.45$
		$\pm 54\%$	$\pm 27\%$	$\pm 27\%$

Chl-*a* algorithms are OC2 (A, Table 4) and OC4 (B, Table 4), empirical chl-*a* algorithm (D, Table 4) from ground truth data set of Lake Baikal in 2001 and 2002 (this study), chl-*a* algorithms from Iluz et al. (2003): coefficient of studies from 1994 to 1996 (F, Table 4), coefficient of 1996 separately (G, Table 4), and case 1, Gordon and Morel (1983) (H, Table 4).

According to ground truth and SeaWiFS spectra for 2001–2002, the green peak of the highly transparent waters of Lake Baikal is commonly located at SeaWiFS band 4 (510 nm). However, the absorbing and scattering optical activities in the presence of the terrigenous input shift the peak position towards SeaWiFS band 5 (555 nm). The waters in the observable cloud-free parts of the SeaWiFS acquisitions are not as turbid, so there does not occur a spectral shift in the peak position of the SeaWiFS spectra from SeaWiFS band 5 (555 nm) to band 6 (650 nm). This observed spectral behaviour of the peak shifting from 510 to 555 nm in the 2001–2002 SeaWiFS data sets of Lake Baikal can be simulated

and reproduced using the bio-optical software ‘Water Colour Simulator’ (WASI) (Gege, 2004). This described spectral behaviour has been similarly shown from previous historical limnological studies. For example, Thomson and Jerome (1975) stated that clear waters of Lakes Ontario and Superior (USA) had a dominant wavelength of 490–530 nm, biologically more productive waters had a dominant wavelength of 550–560 nm, and waters with heavy sediment loadings had a dominant wavelength of >565 nm.

This spectral shift is regarded as an indicator for the terrigenous input and can be used by applying a ‘mask of terrigenous input’ on the atmospherically corrected SeaWiFS data defined by reflectance ratio values of  $R_{RS510}/R_{RS555}$  below 0.9. This is in accordance to the SeaWiFS study done by Froidefond et al. (2002) in the Bay of Biscay, who observed chlorophyll overestimation (due to terrigenous input) in cases of  $R_{RS490}/R_{RS555}$  below 1.

When calculating standard suspended matter products (Jørgensen, 2000; Binding et al., 2003), the high organic fluvial input in Barguzinski Bay and local fluvial input into the South Basin shows inverse grading with lowest calculated SPM concentrations towards the river inlets. Field spectrometer measurements and ground truth data show that, for several bio-optical parameters or indices, the assumption

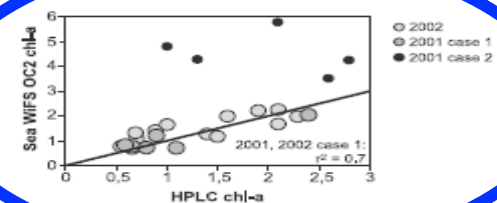


Fig. 2. The scattergram shows the relationship between concentrations of chl-*a* calculated from SeaWiFS OC2 and chl-*a* calculated determined from ground truth measurements during field expeditions in Lake Baikal during 2001 and 2002. Values of measured chlorophyll (HPLC) are the mean concentrations of each sampling point from 5 to 30 m depth. For the OC2 chl-*a* calculations, the most cloud-free acquisitions in 2001 (2001/07/19) and 2002 (2002/07/20) were chosen. Note the considerable chl-*a* overestimation caused by the influences of terrigenous input in case 2 waters. (Data available at: doi:10.1594/GFZ/ICDP/CON/2004).

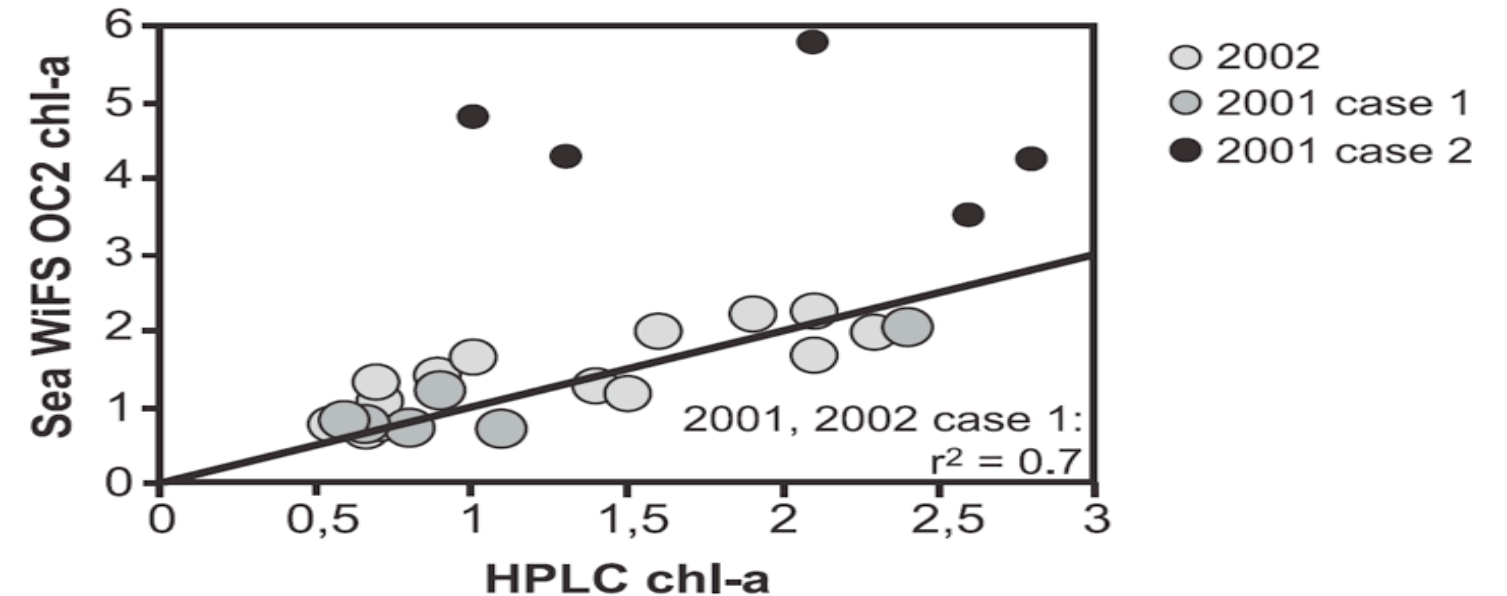





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# Research in Context


 Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

Organization

 Department  
Department of Chemistry

 Department  
Department of Chemistry

 Department  
Department of Genetics


 Aggregation

Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse


Description  
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 Image  
Additional file 2

 Video  
Additional file 3


 Video  
Additional file 4


 Article  
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
 Aggregation

Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse


Description  
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# Research in Context

Licensing?




Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

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Image

Additional file 1




Image

Additional file 2




Video

Additional file 3



Video

Additional file 4



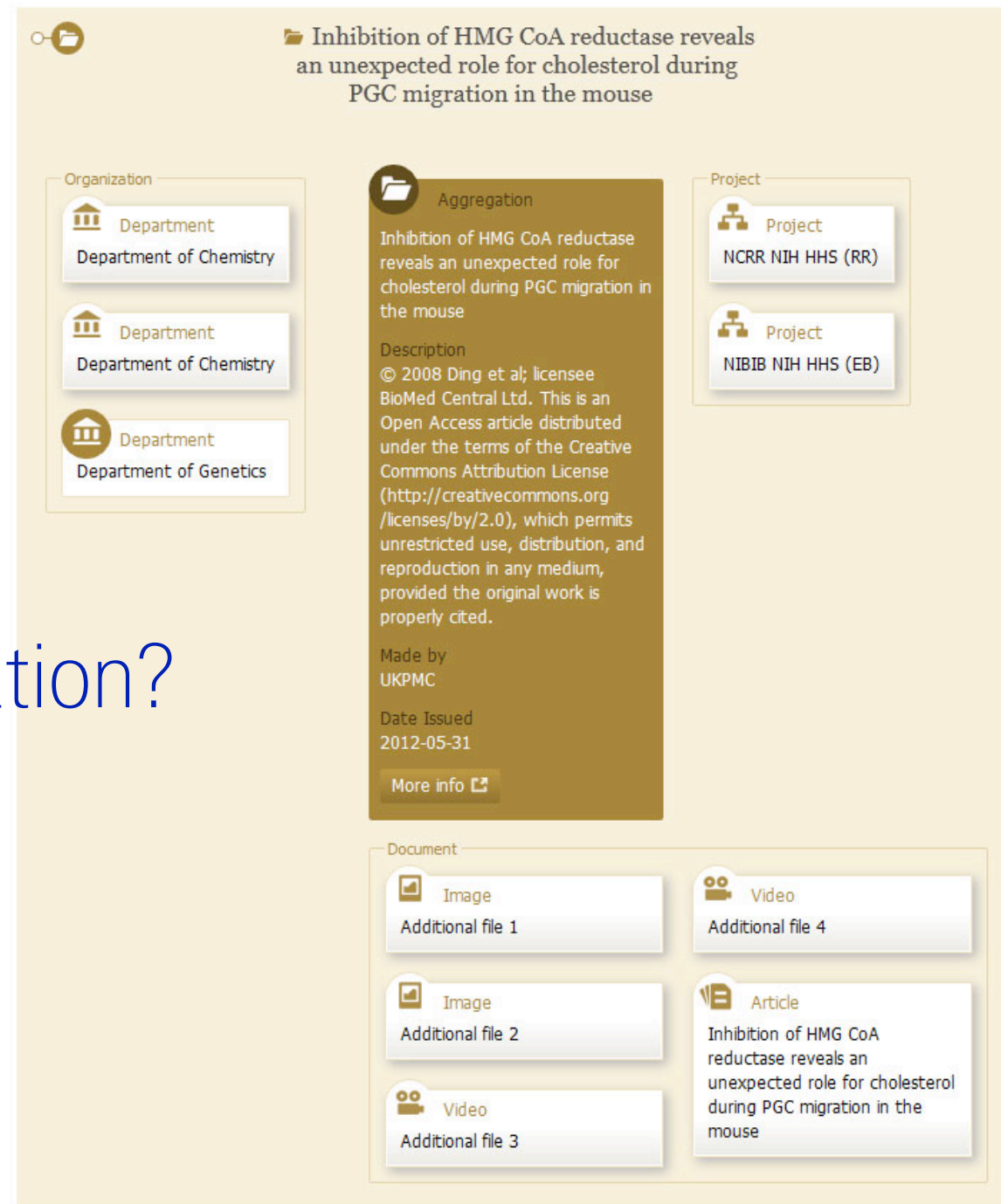
Article

Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

# Research in Context

Licensing?

Use & Implementation?



**Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse**

**Organization**

- Department of Chemistry
- Department of Chemistry
- Department of Genetics

**Aggregation**

Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

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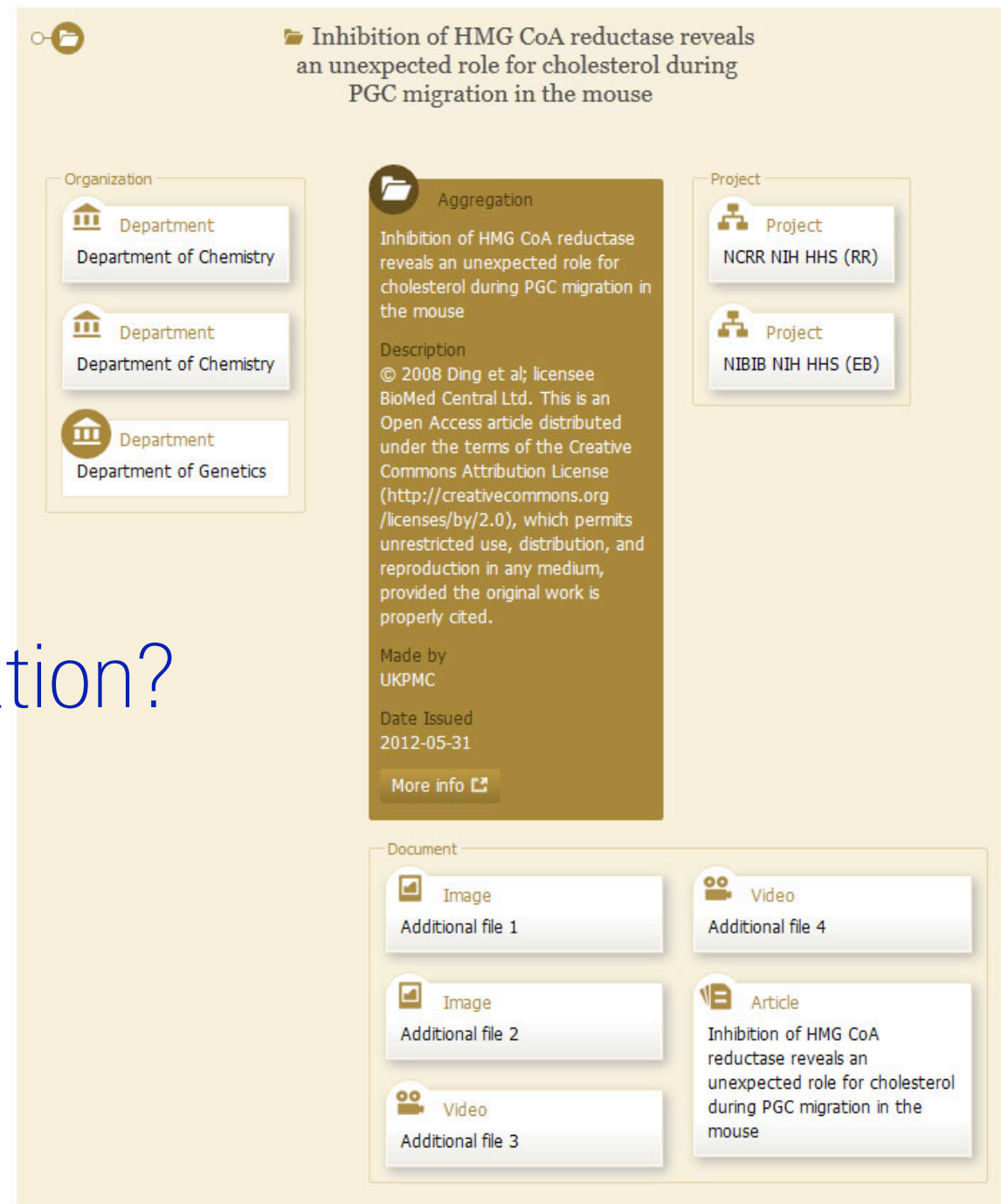
- Image  
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- Video  
Additional file 4
- Article  
Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

# Research in Context

Licensing?

Sustainability?

Use & Implementation?



**Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse**

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Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse

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# **OA** to 'results of publicly funded research' 100% --- Horizon **2020**

**EC's Communication & Recommendation , July 2012**

# Towards Horizon 2020

Adopting open access as the norm.

- **Workflow at institutional level**
- **Harmonisation – local to global**
- **Services on top of Repositories**
- **CRIS embedded**
- **Role of data**
- **Impact**
- **Invest in Interoperability**





It is not **IF** Open

---

It is **HOW** Open

**Access**

# Thank you!

**Come to our next meeting in Minho, Portugal in February 2013**  
**EuroCRIS will be there.**



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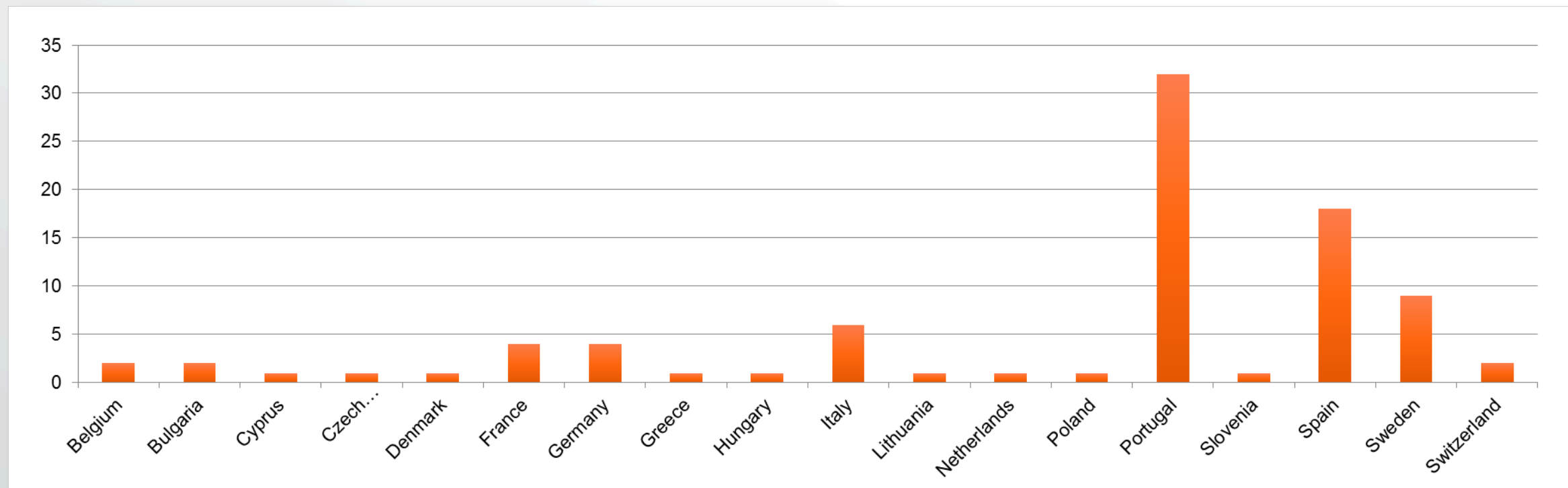


[nrettbe@gwdg.de](mailto:nrettbe@gwdg.de)



# OpenAIRE in numbers

- 26-27,000 FP7 publications from 5,000 projects
- ~ 10,000 Open Access – **40 %**
- from 94 OpenAIRE OA Repositories & Journals  
harvested + other sources (WoS, UKPMC, arXiv etc.)



- In parallel (1999-present) criticism of DC:

1.  Syntax and semantics not sufficiently formal

2.  <creator>, <contributor>, <publisher> are ROLES of person or

organisational unit not base entities

3. <relation> : extremely general

4. <source> : is a variant of a role-based relationship  
object<>object

5. <coverage> recently separated into geographic and temporal but needs formalisation

6. Formalised version of DC proposed 1999, considered, now in CERIF

7. Note: recent (2007) work on DC and SWAP going in this direction





# credits

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