

# Open Government for Open Science: An International Perspective



November 7<sup>th</sup>, Strategic Thinking About Openness for 2014

Carolina Rossini, LL.M, MBA, MA, JD

*Project Director, Latin America Center*

Open Technology Institute at the [New America Foundation](#)

And *Advisory Board member* – [Open Knowledge Foundation Brazil](#)

- examples of “citizen” driven open science are rapidly emerging
- government is experimenting with openness, but policies and institutions still need to catch-up
- these two things are not yet connected

So how do we make the most of them to tackle our society's problems?



40%

OF THE WORLD POPULATION  
WILL SOON LACK ACCESS TO

**HEALTH CARE  
CLEAN WATER  
& EDUCATION**

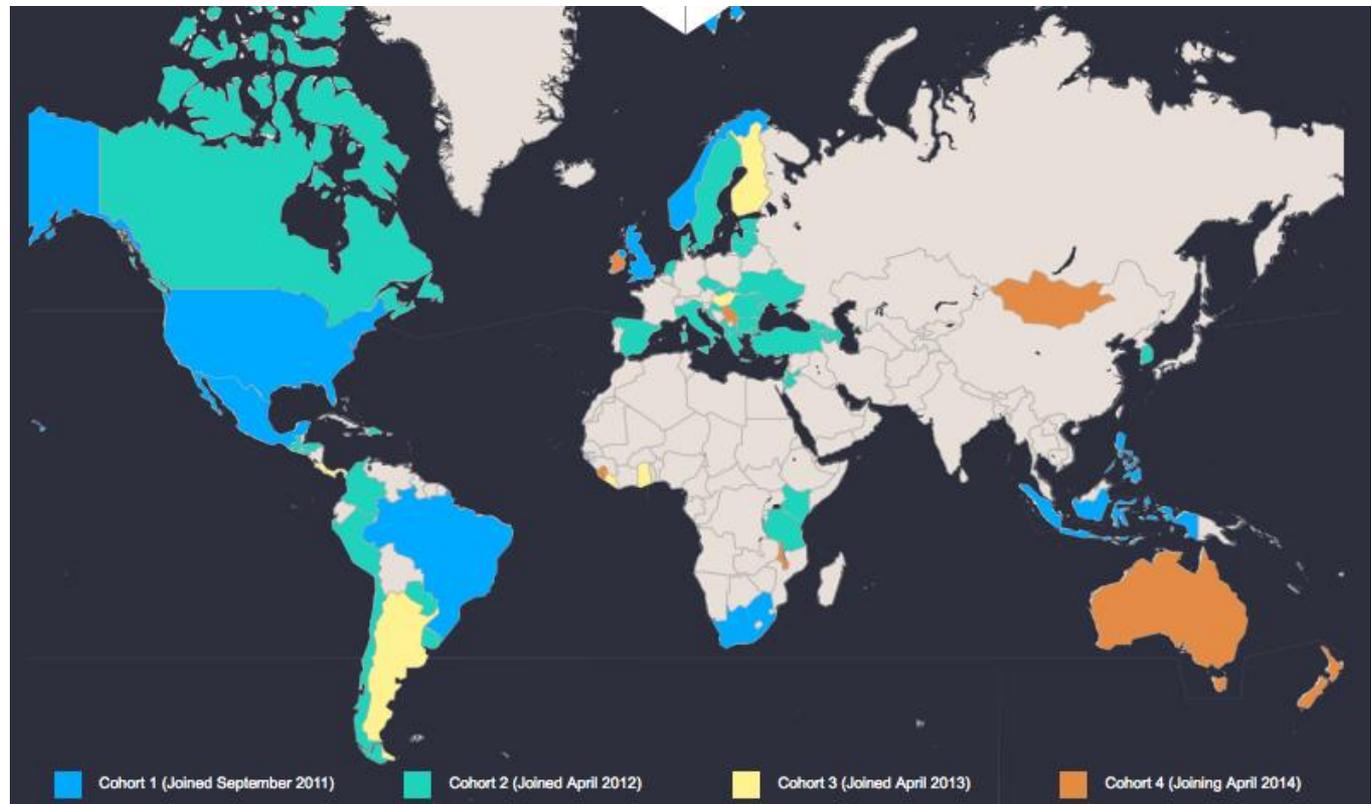
- It is intuitive to want to get rid of hidebound institutions and partisan politics but what do we replace them with? What happens the “Day After” the Arab Spring? What works?





Open  
Government  
Partnership

OGP was launched in 2011 to provide an international platform for domestic reformers committed to making their governments more open, accountable, and responsive to citizens. Since then, OGP has grown from 8 countries to the 62 participating countries indicated on the map below. In all of these countries, government and civil society are working together to develop and implement ambitious open government reforms



## EU Budget 2014-2020 (MFF)



Search

About

Visualisations ▾



As agreed by European Council 8 February 2013. Source: [http://consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ec/135344.pdf](http://consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/135344.pdf)

Embed

Change

Data



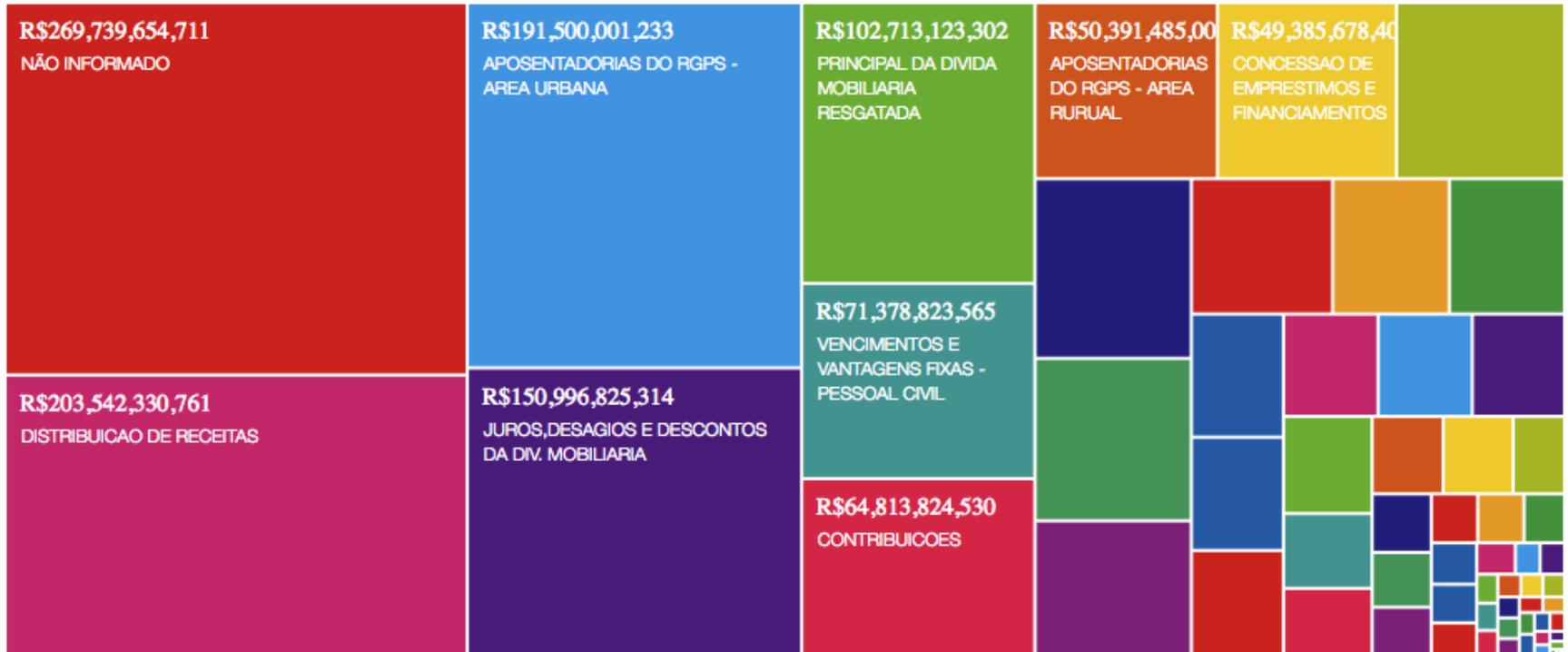
# Orçamento Público Brasil



Search

About

Visualisations ▾



Embed

Change

Data



- “Opening up [government data](#) drives democracy, accountability and innovation. It enables citizens to know and exercise their rights, and it brings benefits across society: from transport, to education and health”

Rufus Pollock, founder and CEO  
Open Knowledge Foundation



NUMBER OF COUNTRIES **70**

NUMBER OF DATASETS **700**

NUMBER OF OPEN DATASETS **86**

PERCENTAGE OPEN **12%**

The Open Data Index is an initiative of the [Open Knowledge Foundation](#) based on contributions from [open data](#) advocates and experts around the world. You can see a list of our global community of contributors [here](#).

Key: ■ Yes ■ No ■ Unsure ■ No data

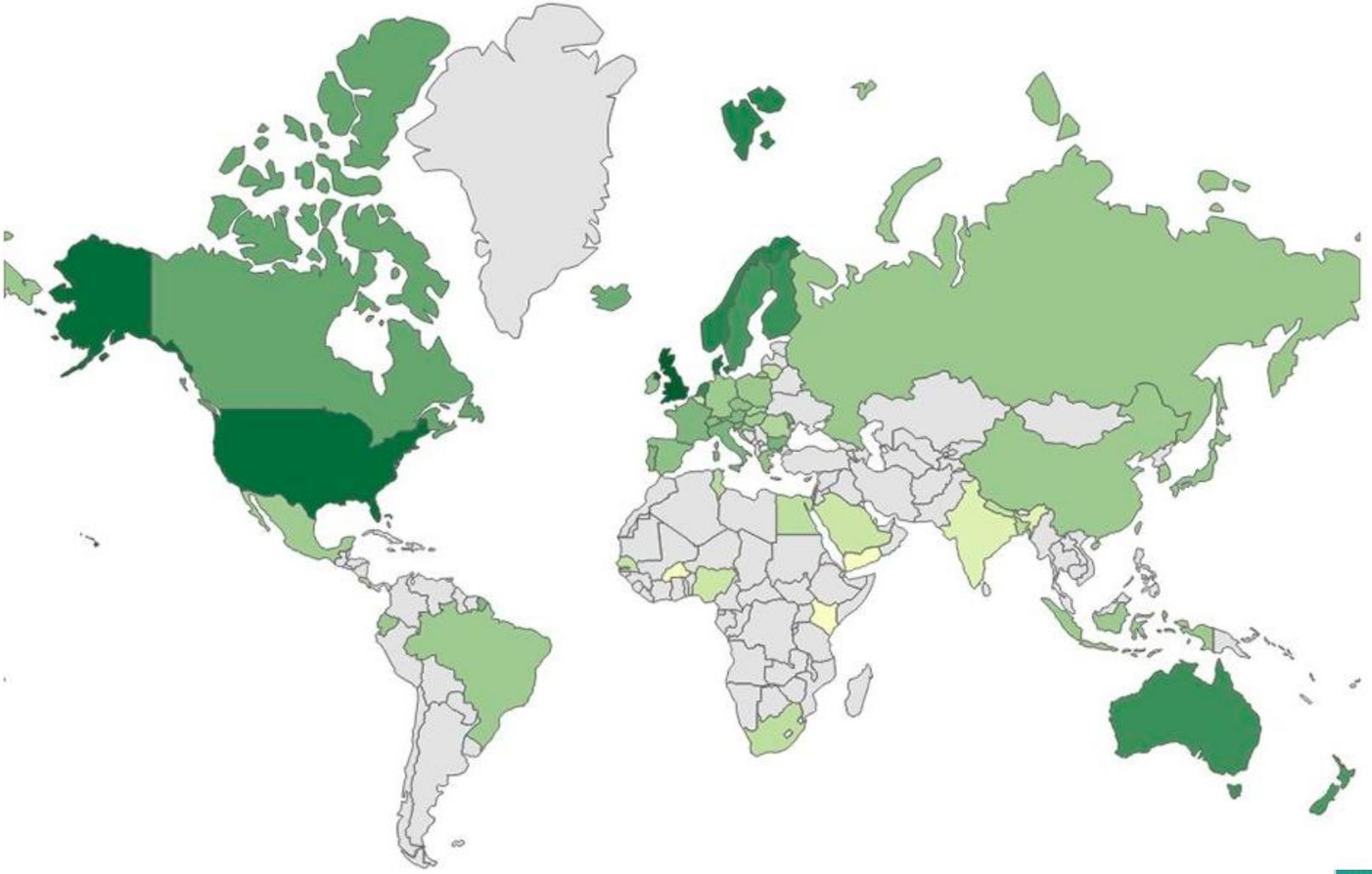
### Sort

- alphabetically
- by score

	Transport Timetables	Government Budget	Government Spending	Election Results	Company Register	National Map	National Statistics	Legislation	Postcodes / Zipcodes	Emissions of pollutants	Total Score
<b>United Kingdom</b>											940
<b>United States</b>											870
<b>Denmark</b>											835
<b>Norway</b>											755
<b>Netherlands</b>											740
<b>Australia</b>											705
<b>Finland</b>											700



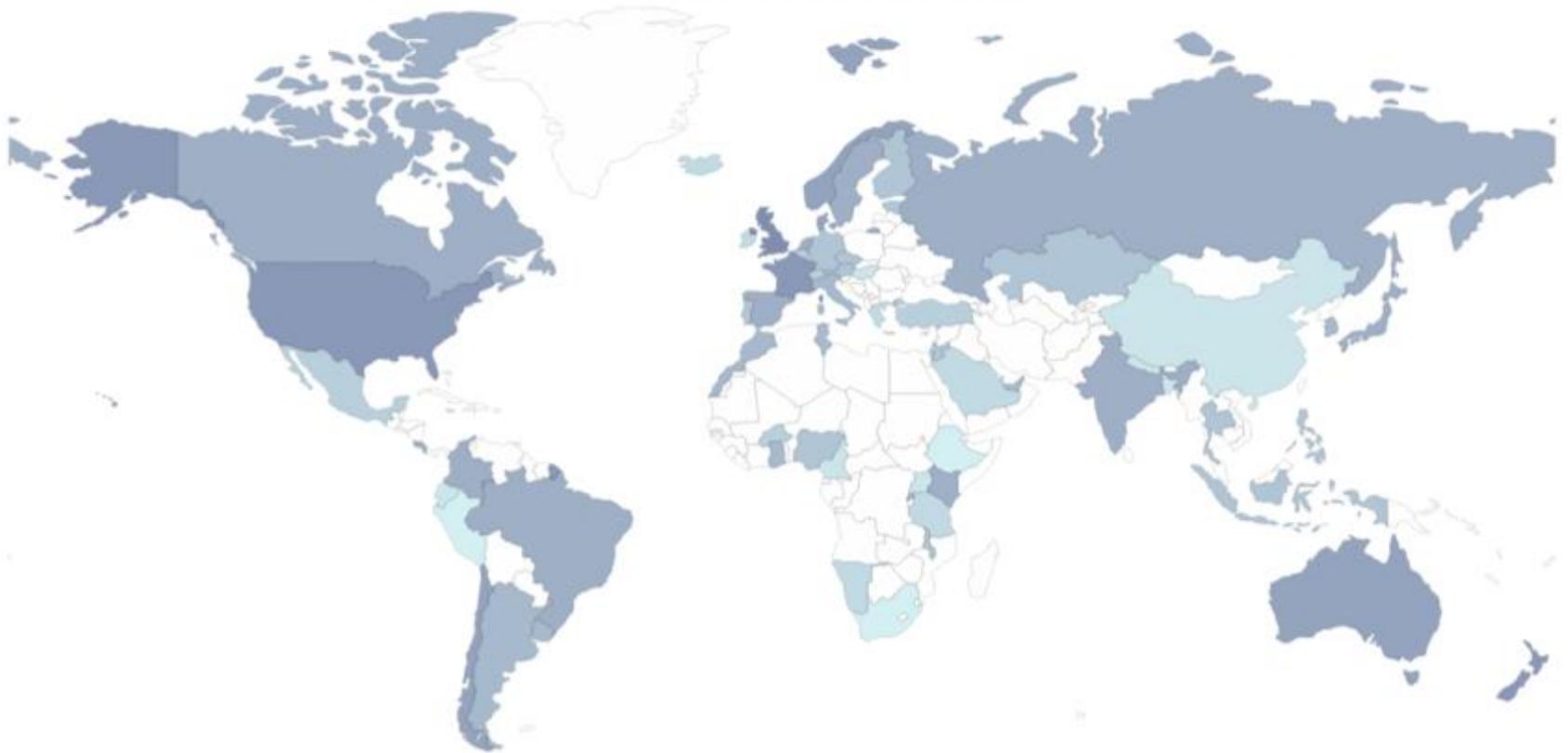
close 



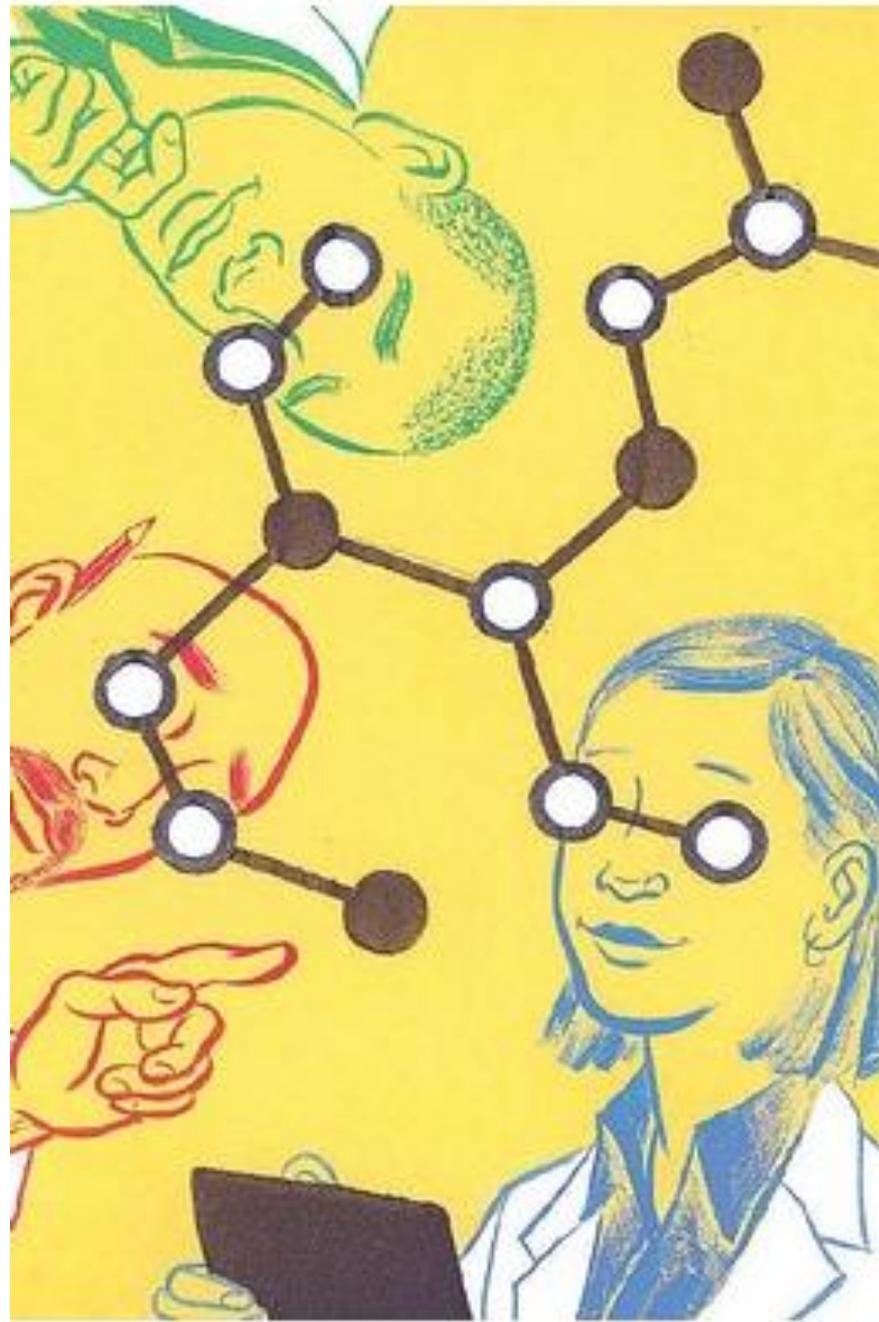
Choropleth map of open data index scores. Darker colours reflect higher scores, whereas grey indicates an absence of data. Map created by the Open Knowledge Foundation.



- The idea of Open Government Data (OGD) has seen rapid diffusion across the globe. At the end of the last decade few governments had engaged at all with the idea of open data, and the number of OGD initiatives could be counted on one hand. By mid-2013 the concept of OGD has spread across the globe.
- There are now OGD portals and projects to be found on every continent, and in an increasing number of cities and international institutions. Open data has made it into strategies and actions plans at the highest levels, from Open Government Partnership National Action Plans, to the G8 Open Data Charter, and from initiatives on open data in Aid, Extractives and Agriculture to the UN High Level Report on the Post-2015 Development Agenda, which calls for a 'data revolution' incorporating a move towards open data.



**Figure 1: Heatmap of scores for expert survey question: "To what extent is there a well-resourced open government data initiative in this country?"** Higher scores (darker colours on the map) indicate a well-resourced initiative, with strong political commitment. Countries in white were not included in the Open Data Barometer study.



my page discussion view source history Log in

**Main Page**

**my experiment**

Welcome to the myExperiment Wiki. Here you can find out more about the myExperiment website. Check out our [Bioinformatics](#) and [Virtual Research Environments](#) videos.

myExperiment is a collaborative environment where scientists can safely publish their workflows and in silico experiments, share them with groups and find those of others. Workflows, other digital objects and bundle Web. Unlike Facebook or MySpace, myExperiment fully understands the needs of the researcher and makes it really easy for the next generation of scientists to contribute to a pool of scientific methods, build conventions, myExperiment is now the largest public repository of scientific workflows. It supports Linked Data, and new features for workflow preservation are under development in the WHEEver project, one of several

**Citing myExperiment**

If you use myExperiment in your research, please cite us and let us know so we can cite you:

- If you are citing myExperiment in a computer science context, please use: De Rube, D., Goble, C. and Stevens, R. (2009) The Design and Realisation of the myExperiment Virtual Research Environment for Science doi:10.1016/j.future.2008.06.010
- If you are citing myExperiment in a domain context (for example life-sciences), please use: Goble, C.A., Bhagat, J., Alekseyev, S., Cruickshank, D., Michaelides, D., Newman, D., Borzum, M., Bechhofer, S., Ross et al. (2010) myExperiment: a domain-specific workflow management system. *Proc. 10th International Conference on Semantic Computing (ISC)*, pp. 10-15. doi:10.1007/978-1-4200-5412-9\_10

Please keep us informed - our hashtag is #myexperiment

**For myExperiment Users**

The myexperiment.org social web site, launched in November 2007, contains the largest public collection of workflows across multiple workflow systems including Tavernier (over 2000 workflows) and is used by thousands of users ranging from life sciences to fast moving. The most recent addition is support for the Galaxy open web-based platform for data intensive biomedical research. Go to [www.myexperiment.org](http://www.myexperiment.org) to access publicly available content or create an account.

See our User Pages for Features, FAQ, Videos and Roadmap.

**For myExperiment Developers**

All the myExperiment and a SPARC2, an functionality - or it

See our Developer

There are two other available for genre <http://github.com/myExperiment>. See

**News and Events**

David De Rube will give a talk on **Knowledge Infrastructure for Global Systems Science** at First Open Systems Science Conference in Brussels on Saturday 10th November.

See our News pages for information about this and other events.

**The myExperiment Project**

See our About pages for Papers. Prior myExperiment is brought to you by a David De Rube and Goble Goble. myExperiment is currently supported by no. 283359, SCAPE# (Grant no. 270 and myGrid4 EPRAC Platform grants. Previously, myExperiment was funded by New features are under development. Authorized users may also access in





ABOUT EXPLORE POLLINATOR INFO ADD A COUNT MY DATA

CLASSIFY STORY SCIENCE **GALAXY ZOO** DISCUSS PROFILE LANGUAGE

**Few have witnessed what you're about to see**  
Experience a privileged glimpse of the distant universe as observed by the SDSS, the Hubble Space Telescope, and UKIRT

We are trying something new! Come help us understand a very specific type of galaxy and experience science from start to end. [Take part](#)

**Classify Galaxies**

To understand how galaxies formed we need your help to classify them according to their shapes. If you're quick, you may even be the first person to see the galaxies you're asked to classify.

[Begin Classifying](#)



**scistarter** beta  
Science we can do together.

home project finder our blog

log in / sign up search:

**project finder**

pick an activity  
pick a topic  
search keywords  
advanced search  search

**projects of the day**

**Sing About Science**

goal Promote science & math learning with music.  
task Find & catalogue relevant songs for the searchable database.

Like 0 Online comments

**our blog**

Absolute pitch, also known as "perfect pitch" is the ability to instantaneously identify a musical note or recreate that note ...  
[read more](#)

**newsletter**

Get awesome projects delivered to your inbox each week. Enter your email address:  
 GO

**for scientists**

Add a project and we'll connect you to our community of doers!  
[add a project](#) [premium services](#)  
[edit your project](#)

as seen in

DISCOVER FORBES npr BBC WRITERS nature publishing group



**NANODOC**

TREATMENT - TREATMENT 3

0hr 12hr 24hr 36hr 48hr

NANOPARTICLES

EDITOR

Nano

PATIENT 1, TUMOR 6

**Play the Game!**

Selection interface  
 Selected 4 segments  
 Click: Select  
 Shift click: Select range  
 Control click: Add to selection  
 Control+shift click, drag: Select multiple

View Options

View Options:

- Show clashes
- Show exposed
- Show voids
- Show bonds (sheet)
- Show bonds (helix)
- Show bonds (loop)
- Show bonds (sidechain)
- Show bonds (non-protein)
- Show bondable atoms
- Show constraints
- Show isosurface
- Color mutated segments
- X-ray tunnel for ligand
- Use relative score coloring
- Color relative to guide
- X Show guide
- X Fade GUI
- Hide GUI
- Default view options

Color:

Color:

View Protein:

- Cartoon
- Cartoon Thin
- Line
- Line+H
- Line+sheet
- Sphere

View Sidechains:

- Don't Show (Fast)
- Show Sticks
- Show All (Slow)
- X Show sidechains with clashes or exposed
- Use issue analysis display
- X Show outlines
- Dark background
- Pulse when working

Rank: 131 Score: 8587.582

Issue: Beginner Puzzle: "Mistake Pneumonia"

Expires: 6/22/2011 20:00 ADT (6 hours, 23 minutes)

No bonuses or conditions

Group: Longhorn  
Solved Competition

Talk's "Technique for Matching a Guide" in the fold wiki has these great View Options for using the guide

Use "Default view options" in the options screen to return to normal viewing

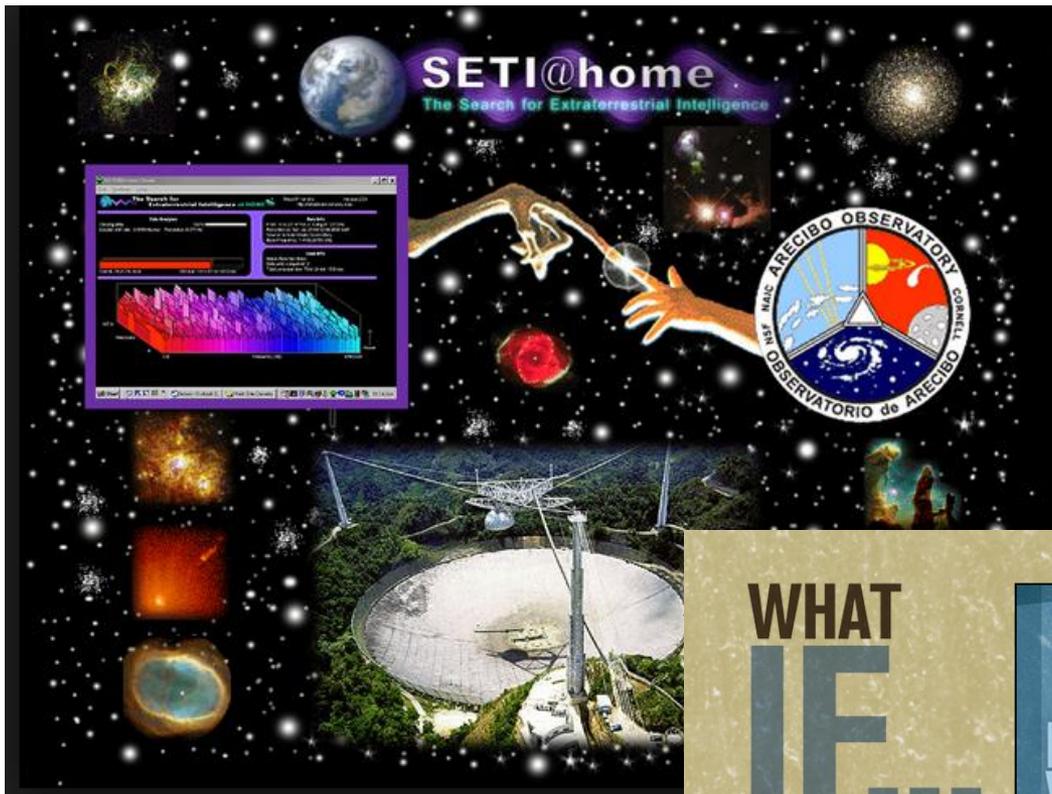
selected this list and aligned the guide here by pressing the "A" align tool at bottom left

in the original interface right-click on a structure to bring up a menu with Align to Guide

which, looks like this part needs to go to the right to match the other part

fold.it

Chat - Group  
 Chat - Puzzle  
 Chat - Global  
 Notifications



WHAT  
IF...



you  
could help  
find a cure?

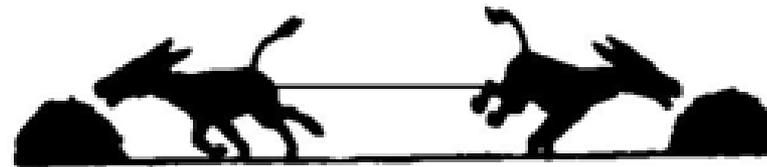
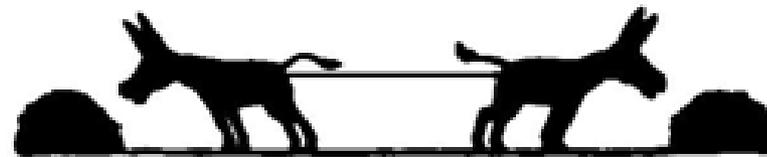
↑ PLAY VIDEO

Help Stanford University scientists studying Alzheimer's, Huntington's, Parkinson's, and many cancers by simply running a piece of software on your computer.

# classes of citizen science

- Data collection
- Gamified analysis
- Processing capacity
- Analysis (not yet widespread)

# "Co-operation"



# G8 Science Ministers Statement

Organisation: [Foreign & Commonwealth Office](#)

Page history: [Published 13 June 2013](#)

On 12 June the Royal Society hosted the first ever G8 joint Science Ministers and national science academies meeting in London



## Introduction

We, the G8 Science Ministers met in London on Wednesday 12 June with Presidents of our respective national science academies, as part of the UK's G8 Presidency. At this unique meeting we discussed how our nations could lead efforts to improve the transparency, coherence and coordination of the global scientific research enterprise in order to address global challenges and maximise the social and economic benefits of research.

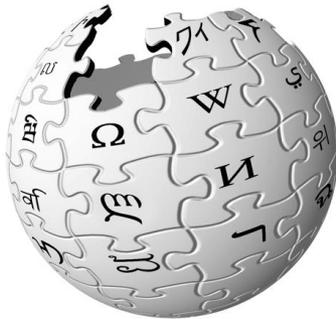
So today, recognising the role that science has to play in securing present and future sustainable growth, we approved a statement which proposes to the G8 for consideration new areas for collaboration and agreement on global challenges, global research infrastructure, open scientific research data, and increasing access to the peer-reviewed, published results of scientific research.

“In the past decade and a half, we have begun to see a radical change in the organization of information production. Enabled by technological change, we are beginning to see a series of economic, social, and cultural adaptations that make possible a radical transformation of how we make the information environment we occupy as autonomous individuals, citizens, and members of cultural and social groups.”

Yochai Benkler



**10 years**



**2001**



**2011**

**12 years**



**2001**

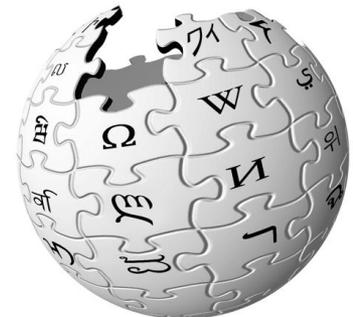


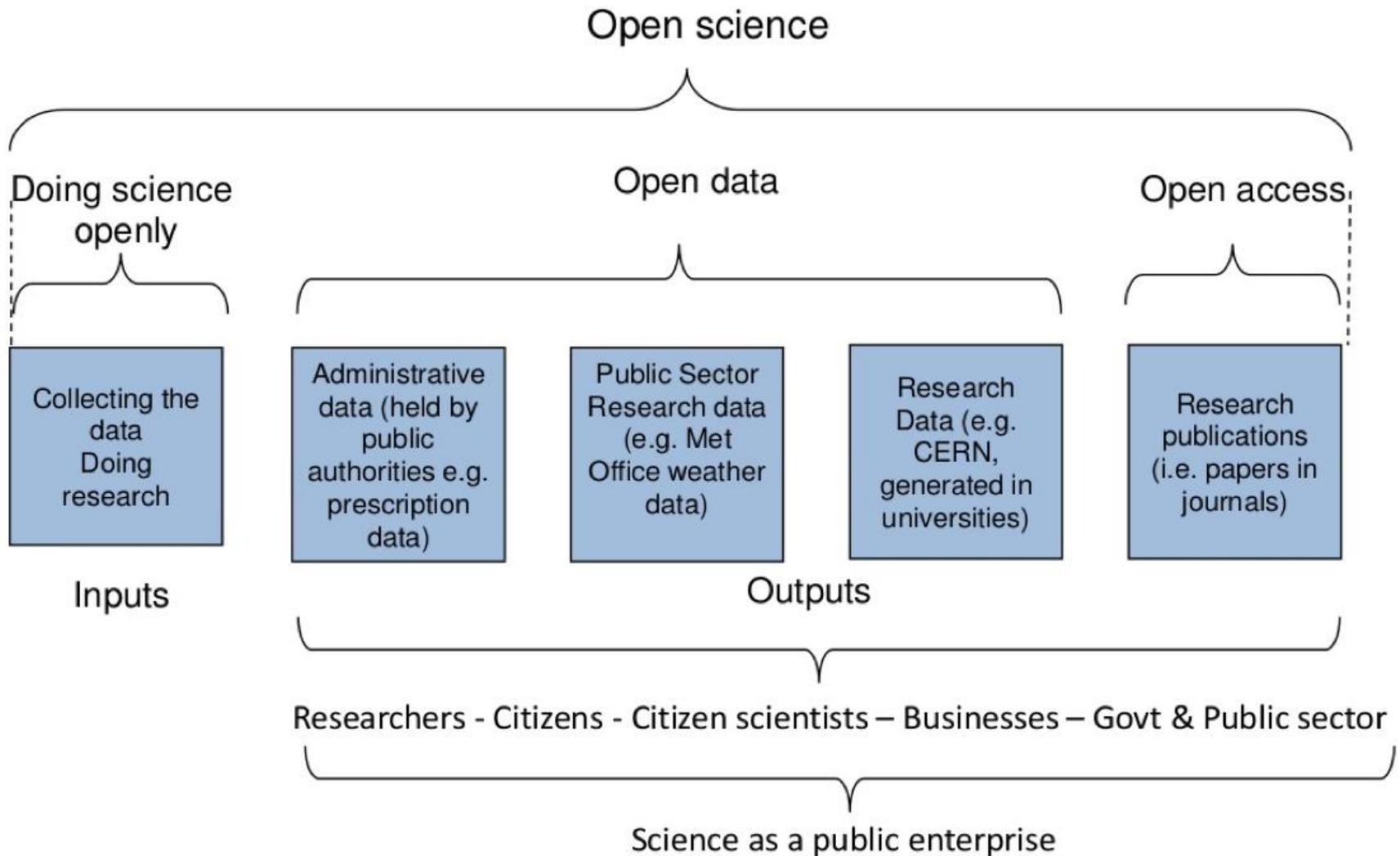
**2013**

“If we are to make use of these impressive new capabilities to address the kinds of problems that governments have historically failed to solve, we also need to think differently about the problems themselves. Social problems, that is, must be viewed not as the subject of rhetorical debates, but as scientific problems, in the sense that some combination of theory, data, and experiment can provide useful insights beyond that which can be derived through intuition and experience alone.”

Duncan Watts

- **Open science** is the umbrella term of the movement to make scientific research, data and dissemination accessible to all levels of an inquiring society, amateur or professional. It encompasses practices such as publishing [open research](#), campaigning for [open access](#), encouraging scientists to practice [open notebook science](#), and generally making it easier to publish and communicate scientific knowledge.





Source: Geoffrey Boulton at LIBER 2013

<http://www.slideshare.net/libereurope/boulton-gsb-presentationlibermunich>



% of private investments in comparison to public investments

% of GDP invested in R&D

0,00% - 0,25%

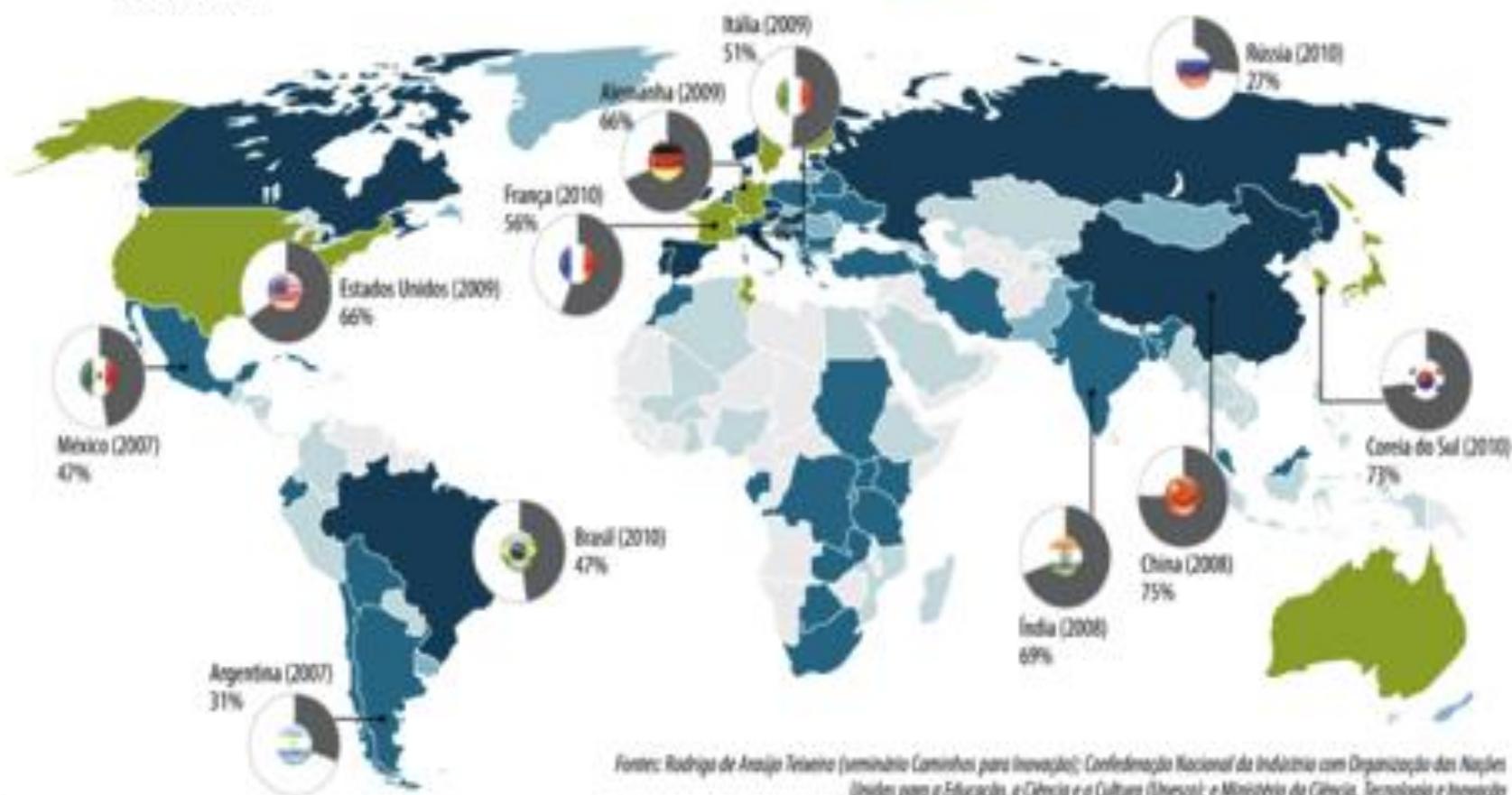
0,26% - 0,50%

0,51% - 1,00%

1,01% - 2,00%

Acima de 2,01%

Dados não disponíveis



Fonte: Rodrigo de Araújo Teixeira (seminário Consórcios para Inovação); Confederação Nacional da Indústria com Organização das Nações Unidas para a Educação, a Ciência e a Cultura (Unesco); e Ministério da Ciência, Tecnologia e Inovação



# Nearly 10,000 Open Access Journals

**DOAJ** DIRECTORY OF  
OPEN ACCESS  
JOURNALS

**10 YEARS**  
2003-2013

[Search](#)

[Browse](#)

[Suggest](#)

[Support DOAJ](#)

[For publishers](#)

[About](#)

[Contact us](#)



hypoglycemia continuous glucose



[Advanced Search](#)

In:  Journals  Articles

**Search results:** Found **36**

Listing **1 - 10** of **36**

<< page  of 4 >>

Sort by



Article

**Application of continuous glucose monitoring to identify nocturnal hypoglycemia in people with type 1 diabetes**

**Author:** [Eric Renard](#)

**Journal:** [Diabetic Hypoglycemia](#) **ISSN/EISSN:** 17572428 **Year:** 2012 **Volume:** 5 **Issue:** 1 **Pages:** 12-14

**Publisher:** ESP Bioscience

**Narrow your search**

**Resource type**

■ [article](#) (36)

**Language**

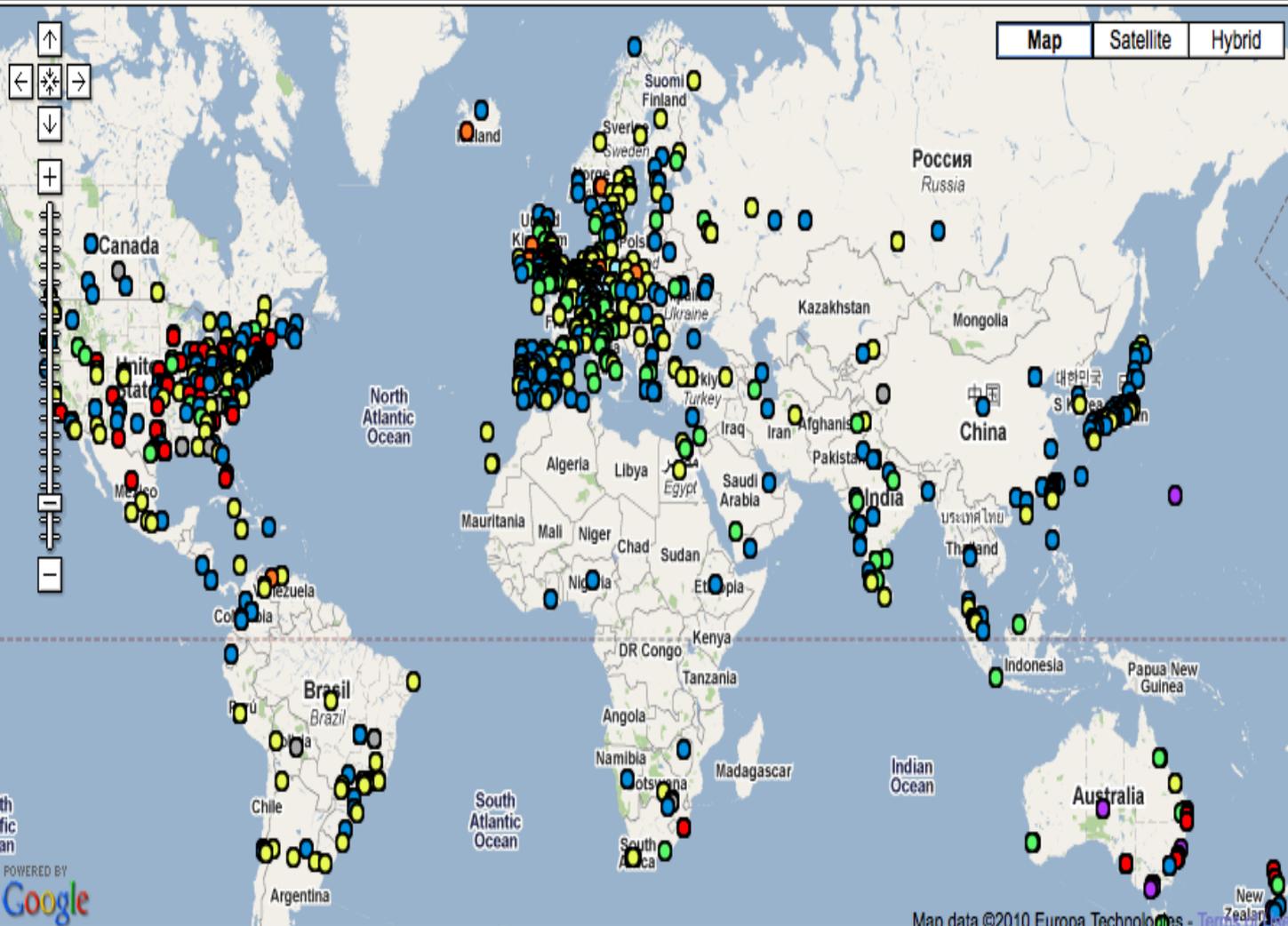
■ [english](#) (18)

**License**

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



Platform: All (1422) Country: All (1422) Registered between January 1990 and February 2010 filter results show all



Map Satellite Hybrid

Information bar

- DSpace (480)
EPrints (283)
BEPress (91)
ETD-db (36)
OPUS (28)
Fedora (23)
OpenRepository (15)
Other repository (466)
>Show all

Normal icons | Repository size icons

There are 21,500,046 items held in the 1422 repositories on this map.

Download a map for Google Earth: >> Google Earth map <<

Data provided by: ROAR & OpenDOAR

Copyright 2010 Stuart Lewis.

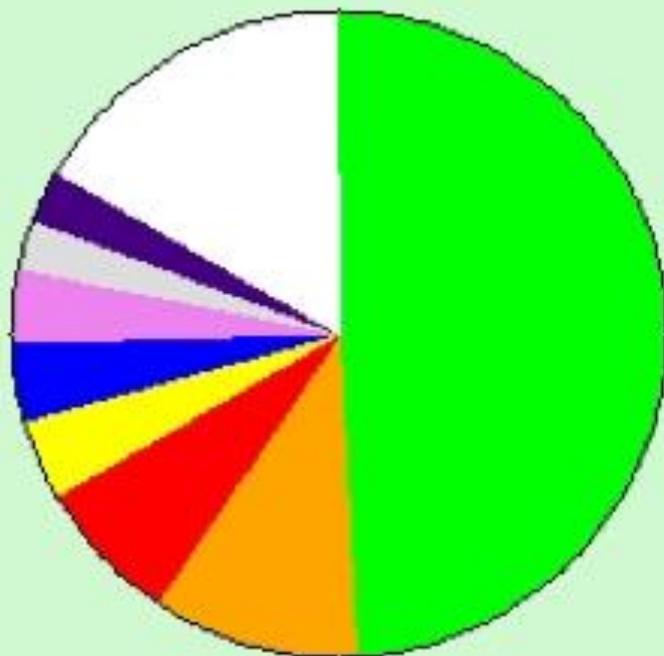


- About the maps -
- Read the Repository map mashup blog -

# Open Access Policies



## Funders by Country



	<b>United Kingdom (62 = 49%)</b>
	<b>Canada (13 = 10%)</b>
	<b>United States (9 = 7%)</b>
	<b>Denmark (5 = 4%)</b>
	<b>Ireland (5 = 4%)</b>
	<b>Sweden (5 = 4%)</b>
	<b>[International] (3 = 2%)</b>
	<b>Australia (3 = 2%)</b>
	<b>[11 Others (21 = 17%)]</b>

Total = 126 funders

# HowOpenIsIt? Open Access Spectrum

## Assess Where You Are On the Grid

Access	Reader Rights	Reuse Rights	Copyrights	Author Posting Rights	Automatic Posting	Machine Readability	Access
 OPEN ACCESS 	Free readership rights to all articles immediately upon publication	Generous reuse & remixing rights (e.g., CC BY license)	Author holds copyright with no restrictions	Author may post any version to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) immediately upon publication	Article full text, metadata, citations, & data, including supplementary data, provided in community machine-readable standard formats through a community standard API or protocol	 OPEN ACCESS 
	Free readership rights to all articles after an embargo of no more than 6 months	Reuse, remixing, & further building upon the work subject to certain restrictions & conditions (e.g., CC BY-NC & CC BY-SA licenses)	Author holds copyright, with some restrictions on author reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 6 months	Article full text, metadata, citations, & data, including supplementary data, may be crawled or accessed through a community standard API or protocol	
	Free readership rights to all articles after an embargo greater than 6 months	Reuse (no remixing or further building upon the work) subject to certain restrictions and conditions (e.g., CC BY-ND license)	Publisher holds copyright, with some allowances for author and reader reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to certain repositories or websites	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 12 months	Article full text, metadata, & citations may be crawled or accessed without special permission or registration	
	Free and immediate readership rights to some, but not all, articles (including "hybrid" models)	_____	Publisher holds copyright, with some allowances for author reuse of published version	Author may post submitted version/draft of final work ("preprint") to certain repositories or websites	_____	Article full text, metadata, & citations may be crawled or accessed with permission	
 CLOSED ACCESS 	Subscription, membership, pay-per-view, or other fees required to read all articles	No reuse rights beyond fair use/limitations & exceptions to copyright (all rights reserved copyright) to read	Publisher holds copyright, with no author reuse of published version beyond fair use	Author may not deposit any versions to repositories or websites	No automatic posting in third-party repositories	Article full text & metadata not available in machine-readable format	 CLOSED ACCESS 

"HowOpenIsIt? Open Access Spectrum", © 2012 SPARC and PLOS, Licensed under CC BY-NC-ND 3.0

Outcomes	Key indicators of progress
<b>Discoveries</b>	<ol style="list-style-type: none"> <li>1. significant advances in the generation of new knowledge</li> <li>2. contribute to discoveries with tangible impacts on health</li> </ol>
<b>Applications</b>	<ol style="list-style-type: none"> <li>3. contribute to the development of enabling technologies, products and devices</li> <li>4. uptake of research into policy and practice</li> </ol>
<b>Engagement</b>	<ol style="list-style-type: none"> <li>5. enhanced level of informed debate in biomedicine</li> <li>6. significant engagement of key audiences &amp; increased reach</li> </ol>
<b>Research leaders</b>	<ol style="list-style-type: none"> <li>7. develop a cadre of research leaders</li> <li>8. evidence of significant career progression among those we support</li> </ol>
<b>Research environment</b>	<ol style="list-style-type: none"> <li>9. key contributions to the creation, development and maintenance of major research resources</li> <li>10. contributions to the growth of centres of excellence</li> </ol>
<b>Influence</b>	<ol style="list-style-type: none"> <li>11. significant impact on science funding &amp; policy developments</li> <li>12. significant impact on global research priorities and processes</li> </ol>

**BOAI  
10**



Celebrating a decade  
of **OPEN**  **ACCESS**

OPEN

DATA

# What Kinds of Open Data?





European  
Commission



The central aim of the EU 2020 strategy is to put Europe's economies onto a high and sustainable growth path. To this end, Europe will have to strengthen its innovative potential and use its resources in the best possible way.

One of these resources is public data — all the information that public bodies in the European Union produce, collect or pay for. Examples are geographical information, statistics, weather data, data from publicly funded research projects, and digitised books from libraries. This information has a significant — currently untapped — potential for re-use in new products and services and for efficiency gains in administrations.

Overall economic gains from opening up this resource could amount to €40 billion a year in the EU. Opening up public data will also foster the participation of citizens in political and social life and contribute to policy areas such as the environment.

- Cultural heritage
  - Europeana, digital libraries, museums and archives
- Scientific information
- Public sector information



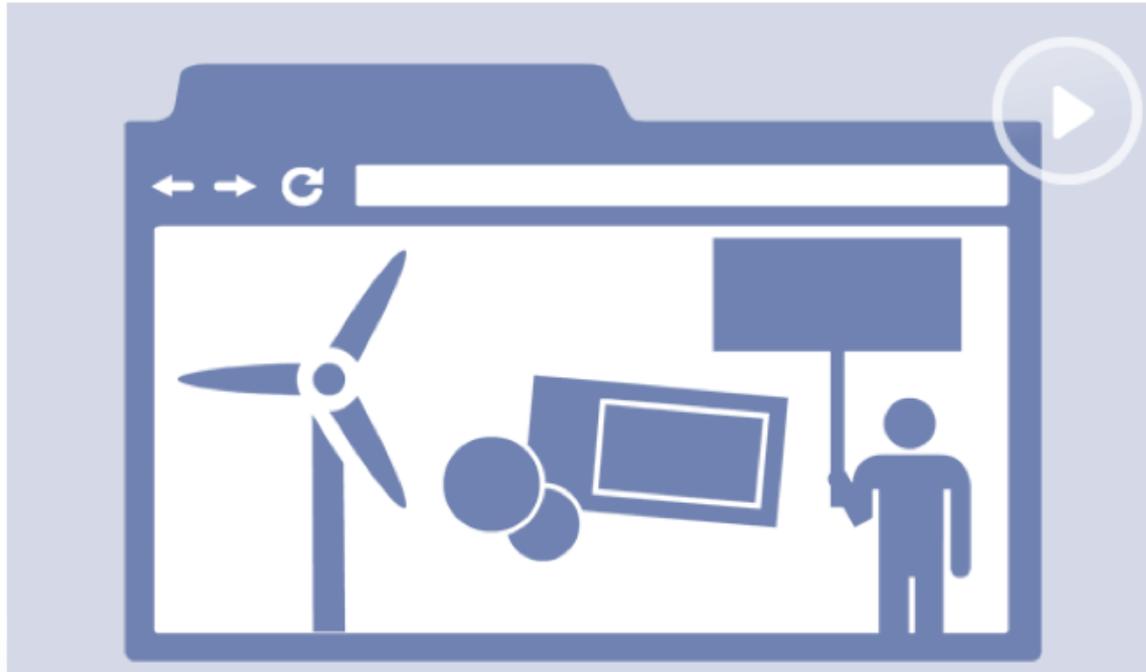
- Conclusions of the European Council in 2011, in particular:

21. The Commission is invited to make rapid progress in a of the Digital Single Market by 2015, including the promotion and protection of creativity, the development of e-commerce and the availability of public sector information

[http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ec/119175.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/119175.pdf)



The European Union Open Data Portal contains [6286 datasets](#) that you can browse, learn about and download.





# DIGITAL AGENDA FOR EUROPE

A Europe 2020 Initiative

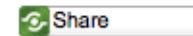
[European Commission](#) > [Digital Agenda for Europe](#) > [Newsroom](#)

- [Home](#)
- [Our Goals](#)
- [Life & Work](#)
- [Entrepreneurship & Innovation](#)
- [Science & Technology](#)
- [Telecoms & the Internet](#)
- [Content & Media](#)
- [DAE & U](#)

## Science & Technology

- [Emerging Technologies](#)
- [Language Technologies](#)
- [Digital Science](#)
- [Digital Futures](#)
- [Robotics](#)
- [Components & Systems](#)
- [Future Internet](#)

## Opening up Scientific Data



Speeches: 18/03/2013, Neelie Kroes, Vice-President of the European Commission responsible for the Digital Agenda

**Launch of the Research Data Alliance, Stockholm, 18 March 2013**

[More information](#)

Search the site

### Recommended reading

#### Our Targets:

- ▶ [Pillar I: Digital Single Market](#)
- ▶ [Pillar V: Research and innovation](#)
- ▶ [Action 3: Open up public data resources for re-use](#)

#### Newsroom:

- ▶ [Speeches](#)

#### See also:

- ▶ [Science and Technology](#)
- ▶ [Data](#)
- ▶ [Innovation](#)



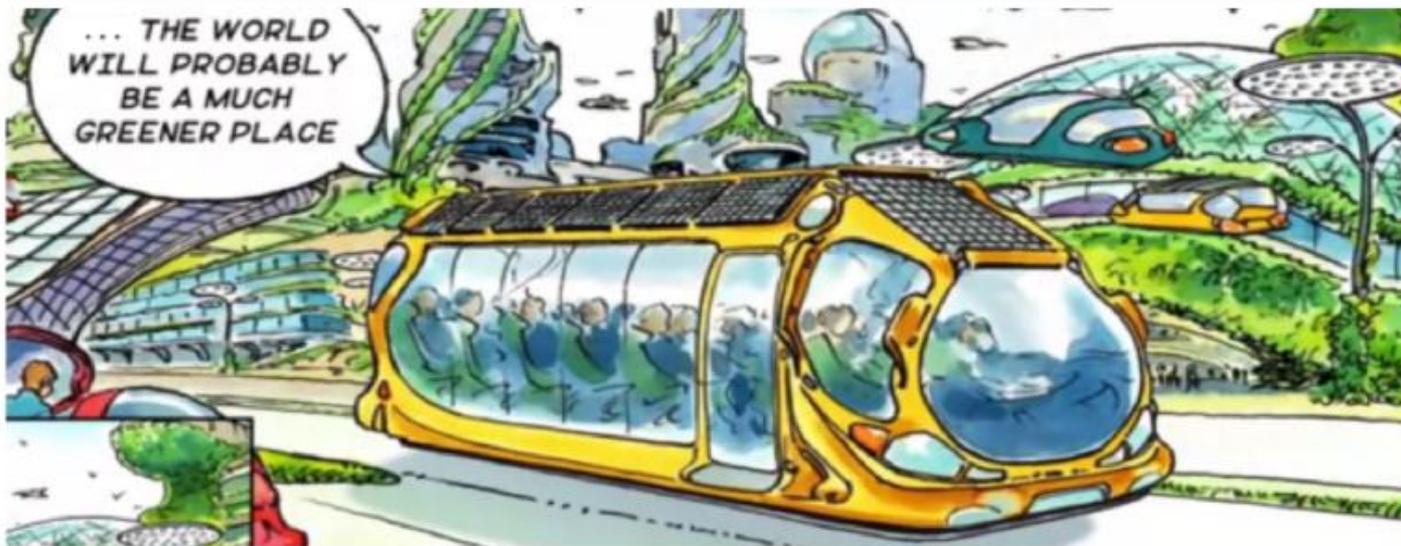


# DIGITAL AGENDA FOR EUROPE

## FUTURIUM

[European Commission](#) > [Futurium](#)

[Home](#) | [Themes](#) | [Futures](#) | [Policy Ideas](#) | [Interviews](#) | [Events](#) | [Library](#) | [Blogs](#) | [Polls](#) | [What's up](#)



[Login](#)

[Sign up](#)

”

I was doing something I'd never done before. And what will I be able to do tomorrow that I cannot yet do today?

Elizabeth Gilbert

“



Recent blog posts

Competition now open - enter your app

[Read more >](#)



[Neelie Kroes on Apps for Europe >](#)

- [Home](#)
- [Competition](#)
- [Business Lounge](#)
- [Open data events](#)
- [Blog](#)
- [Case Studies](#)
- [Resources](#)
- [About Us](#)

I'm a developer

Start making business with open data

[Read more >](#)

I'm an investor

Discover the potential of open data

[Read more >](#)

I'm an organiser

Connect business with open data

[Read more >](#)

Upcoming: Apps for Europe @ OKCon



## STACK

HOME ▾

Get an overview what's in.  
Click yourself through the LOD2-Stack below!

### The Stack

This is Version 3.0 of the LOD2 Stack, which comprises a number of tools for managing the life-cycle of Linked Data. The life-cycle comprises in particular the stages

- Extraction of RDF from text, XML and SQL
- Querying and Exploration using SPARQL
- Authoring of Linked Data using a Semantic Wiki
- Semi-automatic link discovery between Linked Data sources
- Knowledge-base Enrichment and Repair



Additional components ▾, with cross life cycle functions.

### LEADING LINKED OPEN DATA TOOLS



### LOD2 WEBLOG ▾

- Domain-Specific Multilingual Linked Data Extraction from Natural Language Documents ▾
- Free Webinar: LOD2 stack – release 3 ▾

LOD2 is a large-scale integrating project co-funded by the European Commission within the FP7 Information and Communication Technologies Work Programme. This 4-year project comprises leading Linked Open Data technology researchers, companies, and service providers.

<http://stack.lod2.eu/blog/>

# data infrastructure: bridging islands



European  
Commission



SeaDataNet



LIFEWATCH

4D4Life

ENVRI

scidip-es

INSPIRE



CRISP

The Cluster of Research Infrastructures for Sciences in Portugal



NDB



elixir



metafor

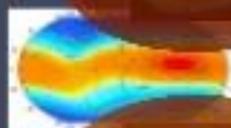
EUROVO

CESSDA

IMPACT



PESI



DARIAH

CLARIN



OpenAIRE



scientific data infrastructure

distributed computing/software infrastructure

network infrastructure, GÉANT

EUDAT

Opportunities for Data Exchange

PABSE

pandata

We support open data for 4 reasons:

- Public data has significant potential for re-use in new products and services.
- Overall economic gains from opening up this resource could amount to € 40 billion a year in the EU;
- Addressing societal challenges – having more data openly available will help us discover new and innovative solutions;
- Achieving efficiency gains through sharing data inside and between public administrations;
- Fostering participation of citizens in political and social life and increasing transparency of government.

<https://ec.europa.eu/digital-agenda/en/public-sector-information-raw-data-new-services-and-products>



For an easy-to-read introduction to FP7 in 21 languages, see the brochure, "FP7 - tomorrow's answers start today", on [\*\*Understanding the Seventh Framework Programme\*\*](#)

9 July 2012

## FP7: the future of European Union research policy

As part of a €10.8 billion budget for research and innovation agreed for 2013, the European Commission has announced an €8.1 billion euro package of calls for proposals under the EU's Seventh Framework Programme for Research (FP7). This is the final and largest ever package of FP7 calls, and is an important part of the Commission's commitment to work for growth and jobs in Europe.

- The budget and work programme are agreed in 2012 and funding will be awarded in 2013 – closing dates for proposals from September 2012. The calls address key concerns faced by Europeans where action at EU level is essential. €4.8 billion will be invested in thematic areas, with specific priorities to preserve oceans and water, better use of raw materials, efficient energy, promote efficiency in the processing of biological resources, develop smart cities and tackle issues such as public sector reform, brain research and anti-microbial resistance.
- Making Europe a destination for world-class researchers is another key priority. The European Research Council will invest over €1.7 billion in the best researchers and additional €963 million will support mobility through "Marie Curie Actions".
- Small and medium-sized enterprises, recognised as vital for innovation, are given special incentives to participate with a total package of €1.2 billion.

### FP7: 2013 CALLS FOR PROPOSALS

Find more at on the [participants portal calls page](#) and on the [FP7 press page](#)

# Policy context

**A Reinforced European Research Area  
Partnership for Excellence and Growth,**  
COM(2012) 392 – July 2012

**Towards better access to scientific  
information: boosting the benefits of  
public investments in research,** COM(2012)  
401 final - July 2012

**Commission, Recommendation on access  
and preservation of scientific information,**  
C(2012) 4890 final – July 2012



# open Modeller

openModeller is an ecological niche modelling library, providing a uniform method to model species distribution patterns with a variety of algorithms.

- [Home](#)
- [News](#)
- [Overview](#)
- [Developers](#)
- [Documentation](#)
- [View Source Code](#)
- [Environmental Data](#)
- [Screenshots](#)
- [oM Desktop](#)
- [Algorithms](#)
- [Publications](#)
- [Resources](#)
- [Download](#)
- [Bugs!](#)



## Welcome to the openModeller project home page!

openModeller aims to provide a flexible, user friendly, cross-platform environment where the entire process of conducting a fundamental niche modeling experiment can be carried out. The software includes facilities for reading species occurrence and environmental data, selection of environmental layers on which the model should be based, creating a fundamental niche model and projecting the model into an environmental scenario. A number of algorithms are provided as plugins, including GARP, Climate Space Model, Bioclimatic Envelopes, Support Vector Machines and others.

The project is currently being developed by the Centro de Referência em Informação Ambiental (**CRIA**), Escola Politécnica da USP (**Poli**), and Instituto Nacional de Pesquisas Espaciais (**INPE**) as an open-source initiative. It is funded by Fundação de Amparo à Pesquisa do Estado de São Paulo (**FAPESP**), the **Incofish** project, and by individuals that have generously contributed their time. Previous collaborators include the BDWorld project (University of Reading), the University of Kansas Natural History Museum & Biodiversity Research Center (**KU**), and other individual participants.

SOURCEFORGE.NET®

openModeller Funded by:





# BioVeL

## Biodiversity Virtual e-Laboratory

- Forum
- eNews Subscription
- BioVeL Portal
- Biodiversity Catalogue
- myExperiment WF Library

- Home
- About BioVeL
- Workflows
- Resources
- Support
- News and Updates
- Events
- Contact

### Discover our New Workflows for Biodiversity Research

Ecological Niche Modelling

Ecosystem Services

Metagenomics

Phylogenetics

Population Modeling

Send us your comments on our products

### News & Updates

#### Announcing our Friendship: SZTAKI PERL and BioVeL

The **Institute of Ecology and Botany of MTA ÖK** made a strategic agreement with the Laboratory of Parallel and Distributed Systems of MTA SZTAKI, aiming to apply leading-edge and sustainable technology and service of **BOINC - SZTAKI Desktop Grid**.



Furthermore SZTAKI PERL and the International **Desktop Grid Federation** provide access to the SZTAKI Desktop Grid and EDGeS@home volunteer based infrastructures. On the ground of this fruitful cooperation, the team of the SZTAKI PERL is very welcome as "Friend of BioVeL".

Let's join **EDGeS@Home** in supporting BioVeL – Biome-BGC Ecosystem Modeling and have fun with volunteer computing provided by SZTAKI PERL!

#### Autumn Training Workshops Schedule

Learn how to use BioVeL services at our training workshops:  
«Introduction to workflows for taxonomic refinement, biogeographic analysis, and species distribution modelling»  
November 26-27, 2013, Cardiff University, UK  
*Description of the workshop and registration*

«Building workflows with Taverna workbench»  
December 5-6, 2013, Manchester, UK



About the project

### Events

#### BioVeL at Conferences

- **TDWG 2013**, October 27-November 1, 2013, Florence, Italy

#### Training Workshops

- **November 26-27, 2013, Cardiff University, UK**  
«Introduction to workflows for taxonomic refinement, biogeographic analysis, and species distribution modelling»
- **December 5-6, 2013, University of Manchester, UK**



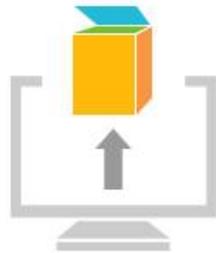
## An Ecosystem Approach to fisheries

iMarine is an open and collaborative initiative that will establish a data infrastructure to support the Ecosystem Approach to fisheries management and conservation of marine living resources...

[Read more](#)



e-Infrastructure Capacity



Application bundles



Data heterogeneity management



Policy Best Practices

[Home](#)[About](#)[Resources and Synergies](#)[Use Cases](#)[OpenBio eInfrastructure](#)[Community & Training](#)[News](#)[Events](#)[Media Room](#)[Publications](#)[English](#)[Português](#)

## Biodiversity Research across Europe and Brazil

*EUBrazilOpenBio aims to ambitiously combine the Biodiversity Science and the Open Access Movement, promoting the concept of the openness for scientific research. The project will deploy an open-access platform from the federation and integration of existing European and Brazilian infrastructures and resources, making significant strides towards fully supporting the needs and requirements of the biodiversity scientific community.*

Login to EUBrazilOpenBio!

 Stay signed in[Forgotten Your Password?](#) - [Register Now](#)[Advanced search](#) - [General archive](#)

## A scoping initiative to better address Biodiversity Challenges

### Resources & technologies

03/04/2013 - News



**EUBrazilOpenBio & i4Life: taxa cross checking**

The EUBrazilOpenBio Infrastructure will not be built from scratch. It will leverage previous efforts and activities to[...]

06/12/2012 - Project resources



**The EUBrazilOpenBio Infrastructure: the**

December 2012 In line with its implementation roadmap, the EUBrazilOpenBio eInfrastructure has[...]

# BIH213



### Niche modelling and cross mapping services

Two specific use cases within Biodiversity research have been chosen to highlight the benefits of an integrated e-Infrastructure for the biodiversity community.



### EUBrazilOpenBio eInfrastructure

EUBrazilOpenBio integrates different technologies to make available a large variety of services for managing, manipulating and processing data and metadata within an autonomously-managed infrastructure.

[How to access EUBrazilOpenBio Services?](#)
[Gateway Access](#)

## eTraining Tools

We welcome you in EUBrazilOpenBio training area, where you will access the training materials made available by the project and designed for researchers in biodiversity, life science, climate change, etc...; application developers and also regulatory authorities and policy decision-makers.

[Who is the Training for?](#)
[e-Training Programme](#)

## eTraining Modules

### Training for Biodiversity Researchers

If you are a biologist or a taxonomist learn how to use our applications for niche modelling and cross-mapping.

### Training for IT Developers

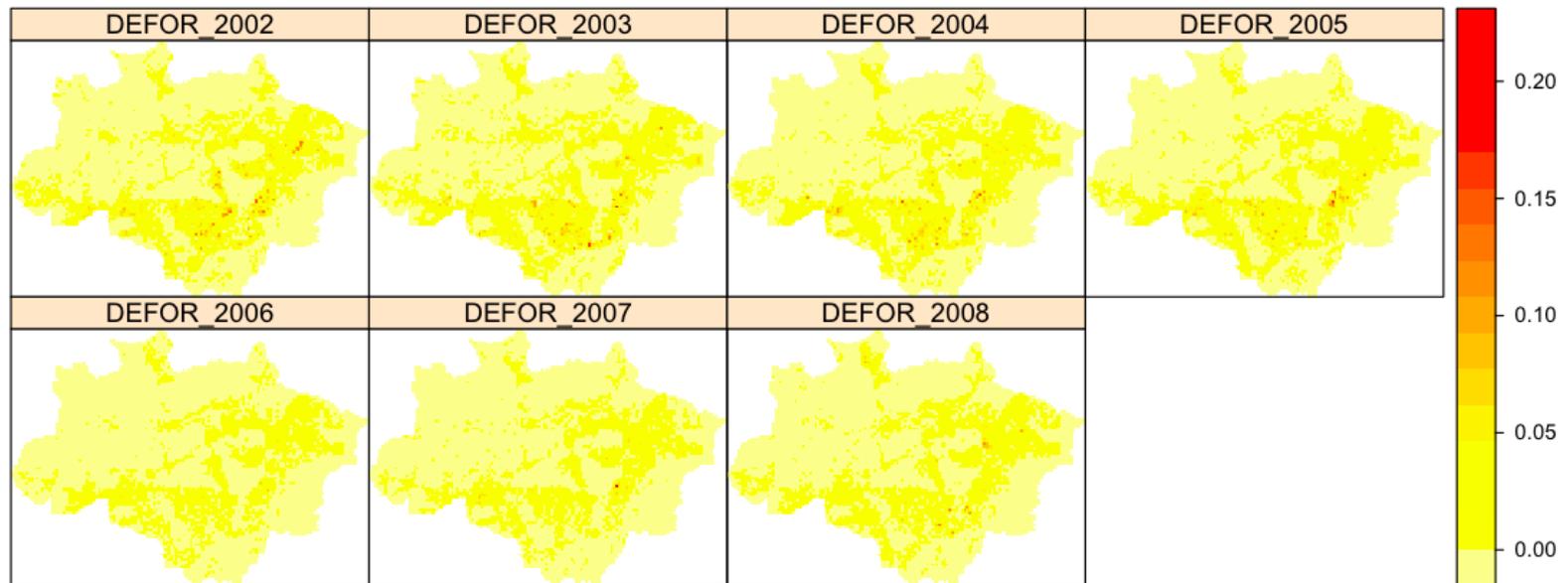
If you are a software developer discover here how to develop a new application on top of EUBrazilOpenBio platform.



<http://www.cria.org.br/projetos>

# Linked Brazilian Amazon Rainforest Data

**“Open Science needs Open Data to maximize the transparency, reproducibility and reuse of scientific efforts.** An example of a high demand for data is the research about climate change, for example about the role of deforestation in it.”



Tomi Kauppinen , Giovana Mira de Espindola , Jim Jones , Alber Sánchez , Benedikt Gräler , Thomas Bartoschek  
a Institute for Geoinformatics, University of Muenster, Germany  
b Earth System Science Center, National Institute for Space Research (INPE), Brazil

<http://linkedscience.org/data/linked-brazilian-amazon-rainforest/>



- Página principal
- Blog
- Eventos
- Projetos
- Reuniões
- Sobre nós
- About us (English)
- Imprensa
- Fale Conosco
- Veja nossos serviços

comunicação

- Listas de Discussão
- IRC
- Redes Sociais

[Criar conta](#) [Autenticar-se](#)

Página [Discussão](#)

Ler [Ver código-fonte](#) [Ver histórico](#)

## Página principal

Como faço pra montar um hackerpac na minha cidade?

### VENHA

Estamos em uma *casa* a apenas 5 minutos de caminhada do metrô Pinheiros. **Como chegar.**

**Rua Costa Carvalho, 567 FUNDOS  
CEP 05429-130**

Neste momento, o Garoa está



### SOBRE O GAROÁ

O Garoa Hacker Clube  é um **hackerspace** localizado na cidade de São Paulo.

Um hackerspace é um **laboratório comunitário**, aberto e colaborativo que propicia a troca de conhecimento através de uma infraestrutura para que entusiastas de tecnologia realizem projetos em diversas áreas, como eletrônica, software, robótica, segurança, espaçomodelismo, biologia, culinária, audiovisual e artes - ou o que mais a criatividade permitir.

### PROJETOS

- [Projetos em andamento](#)
- [Projetos concluídos](#)
- [Projetos em planejamento](#)
- [Projetos órfãos](#)



Qual [Home](#) [Projects](#) [Help](#)

## Estação meteorológica modular

- [Overview](#)
- [Activity](#)
- [Issues](#)
- [Gantt](#)
- [Calendar](#)
- [News](#)
- [Documents](#)
- [Wiki](#)
- [Forums](#)
- [Files](#)
- [Repository](#)

### • Estações meteorológicas Modulares: monitoramento climático e ambiental

« [History](#)

Wiki

[Start page](#)  
[Index by title](#)  
[Index by date](#)

Sobre o projeto

A espécie humana é profundamente dependente do clima do planeta, que afeta desde o nosso conforto até a produção dos nossos alimentos, fundamental para nossa sobrevivência. Neste sentido, o entendimento da situação climática do nosso planeta merece atenção especial.

Este projeto tem como principais objetivos:

1. Formação de redes de coleta, compartilhamento, análise e interpretação dos dados meteorológicos e ambientais através do
2. Desenvolvimento e implementação de estações meteorológicas modulares de código aberto e baixo custo para facilitar o monitoramento climático e ambiental de microclimas terrestres

Mais informações em [motivação do projeto](#).

Contamos com uma lista de discussão exclusiva para tratar das estações meteorológicas. Para cadastrar seu endereço de email, acesse [http://grupos.ufrgs.br/mailman/listinfo/fis\\_cta\\_estmet-l](http://grupos.ufrgs.br/mailman/listinfo/fis_cta_estmet-l) . O endereço para postagem das mensagens é [cta\\_estmet-l \(arroba\) if.ufrgs.br](mailto:cta_estmet-l@ufrgs.br)

Desenvolvimento

**Protótipos**

**Módulos:** grandezas a serem medidas e métodos de medição

Ensaio realizados: **MQ-7**

**Plataformas** de desenvolvimento, de armazenamento e processamento dos dados

**Referências**

**Didática**

**I Oficina de Montagem de Estações Meteorológicas**

**III Oficina de Montagem de Estações Meteorológicas**

**Tutoriais**

**Introdução a Física da Atmosfera** - Disciplina Eletiva do Colégio de Aplicação

**Projetos irmãos/referência**

- [Air Casting](#)
- [Air Quality egg](#)
- [Smart Citizen](#)
- [Citizen Sensor](#)

**New!**

Explore and contribute datasets on the Open Energy Info platform

## Clean Energy Economy CLEAN

coordinated low emissions assistance network

## Incentives and Policies

## International Clean Energy Analysis

## Latinoamérica

## LEDS

low emission development strategies

## Renewable Energy News

## U.S. OpenLabs

## Browse by Region



## Featured OpenEI Pages

**Oil and Gas Gateway**

## Energy Information, Data, and other Resources



**BIOFUEL**

**Weekly Schedule**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	2	3	4	5	6	7	8	9	10	11	12
2	13	14	15	16	17	18	19	20	21	22	23	24
3	25	26	27	28	29	30	31	1	2	3	4	5
4	6	7	8	9	10	11	12	13	14	15	16	17
5	18	19	20	21	22	23	24	25	26	27	28	29
6	30	31	1	2	3	4	5	6	7	8	9	10
7	11	12	13	14	15	16	17	18	19	20	21	22
8	23	24	25	26	27	28	29	30	31	1	2	3
9	4	5	6	7	8	9	10	11	12	13	14	15
10	16	17	18	19	20	21	22	23	24	25	26	27
11	28	29	30	31	1	2	3	4	5	6	7	8
12	9	10	11	12	13	14	15	16	17	18	19	20
13	21	22	23	24	25	26	27	28	29	30	31	1
14	2	3	4	5	6	7	8	9	10	11	12	13
15	14	15	16	17	18	19	20	21	22	23	24	25
16	26	27	28	29	30	31	1	2	3	4	5	6
17	7	8	9	10	11	12	13	14	15	16	17	18
18	19	20	21	22	23	24	25	26	27	28	29	30
19	31	1	2	3	4	5	6	7	8	9	10	11
20	12	13	14	15	16	17	18	19	20	21	22	23
21	24	25	26	27	28	29	30	31	1	2	3	4
22	5	6	7	8	9	10	11	12	13	14	15	16
23	17	18	19	20	21	22	23	24	25	26	27	28
24	29	30	31	1	2	3	4	5	6	7	8	9
25	10	11	12	13	14	15	16	17	18	19	20	21
26	22	23	24	25	26	27	28	29	30	31	1	2
27	3	4	5	6	7	8	9	10	11	12	13	14
28	15	16	17	18	19	20	21	22	23	24	25	26
29	27	28	29	30	31	1	2	3	4	5	6	7
30	8	9	10	11	12	13	14	15	16	17	18	19
31	20	21	22	23	24	25	26	27	28	29	30	31

**Bar Chart: Green of Color (Scale on Y-axis)**

Category	Value
Green	100
Dark	80
Light	60

**Map: BLACK WARRIOR BASIN PROVINCE**

**Map: TENNESSEE**

**Map: MISSISSIPPI**

**Map: ALABAMA**

**Map: National Residential Efficiency Measures Database**

**Map: International Clean Energy Analysis**

**Map: Clean Energy Plan brings lead...**

**Map: United States supports biomass research**

**Map: Vice President Joe Biden's visit to NREL...**

**Map: Highlights Most Important Attribut...**

**Map: Japan-U.S. Clean Energy Plan brings lead...**

**Map: United States supports biomass research**

## Latest News

- 23 May 2011 Vice President Joe Biden's visit to NREL...
- 20 May 2011 Study Highlights Most Important Attribut...
- 19 May 2011 Japan-U.S. Clean Energy Plan brings lead...
- 11 May 2011 United States supports biomass research

## Recent Updates

- Buildings
- Chatham County - Green Building Rebate Program
- National Residential Efficiency Measures Database

...see more updates (+)

## Recent Contributors

- new this week:
- Phonglan (1)
  - Chadc (1)

Let's wrap up

- examples of “citizen” driven open science are popping up everyday
- government is experimenting with openness, but policies and institutions still need to catch-up
- This things are not totally connected yet

So how do we make the most of them to tackle our society's problems?

- It is all about design of the:
  - Human Element
  - Technology Element
  - Policy (and legal) Element

Thank you!

Obrigada!

[Carolina.rossini@gmail.com](mailto:Carolina.rossini@gmail.com)