

MERIL

An e-infrastructure to connect Research Infrastructures

*10th euroCRIS Strategic Seminar
11 Sept 2012, Brussels*

Valérie Brasse, ESF, MERIL IS/QA Officer

“The **e-Infrastructures** activity, as a part of the **Research Infrastructures** programme (...) aims at empowering researchers with an easy and controlled online **access** to facilities, resources and **collaboration** tools, bringing to them the power of ICT for computing, connectivity, storage and instrumentation. This allows for instant access to data and remote instruments, "in silico" experimentation, as well as the setup of virtual research **communities** (i.e. research **collaborations formed across geographical, disciplinary and organisational boundaries**).”

Source: <http://cordis.europa.eu/fp7/ict/e-infrastructure/>

“In Horizon 2020, **e-Infrastructures** are seen as a critical foundation for e-science and **open access** to scientific data, enabling researchers to push the boundaries of science. The continued improvement in e-Infrastructures and further federation of national efforts will enable knowledge and **innovation** for research infrastructures. This will in turn foster the development of genuine **pan-European** infrastructures. The most important aspects of e-Infrastructure in the years to come are: development of innovative services to exploit the data deluge, facilitate **open access**, **interoperability** and a stronger **user-centric approach**.”

Source: <http://www.isgtw.org/feature/horizon-2020-structural-funds-2014%E2%80%932020-%E2%80%93what-expect>

- MERIL as a directory of research (e-)infrastructures
- MERIL as an e-infrastructure to collect, share and manage Research Infrastructure knowledge

RI = Research Infrastructure

MERIL = Mapping of the European Research Infrastructures Landscape

Use-cases:

- Scientific community: look for adequate infrastructures providing **access** to run research experimentations, identify new cutting edge / **innovative** developments at an early stage, look for partners for research **collaborations**,...
- Policymakers: get data allowing the analysis of the current RI landscape **across geographical, disciplinary and organisational boundaries**, thus providing for improved decision making capacity and funding efficiency

Achievements from the project (2011-2012):

- Fine-tuning the criteria to identify RIs of "more than national relevance" => minimum standards of *management*, *quality* assessment process, rules for *access* to facility time or resource...
- Setting up classifications (8 "Scientific Domains", 71 "RI Categories")
- Gathering the information on the relevant RIs
- Setting up MERIL as an e-infrastructure

MERIL
MAPPING OF THE EUROPEAN
RESEARCH INFRASTRUCTURE
LANDSCAPE[FAQ](#) | [ABOUT](#) | [GLOSSARY](#) | [LOGIN](#)

Latest additions

Added on: 2012-08-29 at 11:04

[SYNTHESYS DK-TAF](#)

Added on: 2012-08-29 at 07:35

[SYNTHESYS ES-TAF](#)

Added on: 2012-08-29 at 07:35

[SYNTHESYS SE-TAF](#)

Added on: 2012-08-29 at 07:35

[SYNTHESYS GB-TAF](#)

Added on: 2012-08-29 at 07:35

[See all RI's »](#)

MERIL - Mapping of the European Research Infrastructure Landscape

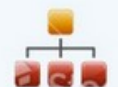
The MERIL portal is a comprehensive inventory of research infrastructures of European relevance across all science domains. The information is made publicly available through this on-line tool. It is a unique resource for the scientific community, policy makers, the research infrastructures themselves and other communities such as research performing and research funding organisations. [Read more ...](#)

Browse and search for RIs

General search¹

Free text search in the database on all Research Infrastructure related topics

Search



Scientific Domain

All Scientific Domains

RI Category

All RI Categories

Country

All Countries

Browse



Create a report

Click here to know more about the generation of Reports.

Go

Analyse the RI landscape

[DISCLAIMER](#) | [CONTACT](#)



MERIL

MAPPING OF THE EUROPEAN
RESEARCH INFRASTRUCTURE
LANDSCAPE

Search

Reset all filters

Scientific Domains

+ Biological and Medical
Sciences (3)

RI Categories

+ Agronomy, Forestry, Plant
Breeding Centres (3)

Countries

+ Germany (3)

Status

+ Operational (3)

RI Type

+ Single-sited (3)

Reset all filters

Free text and faceted search

[Homepage](#) » List of Research Infrastructures

3 Research infrastructures

[List](#) | [Map](#)

Sort by: [Name](#) | [Last update](#) | [Country](#) | [RI Type](#)

Elements per page: [10](#) | [25](#) | [50](#) | [100](#)

[E](#) | [I](#) | [J](#) | [All](#)

EUS »

Acronym: EUS
Countries: Germany
Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods, phytopathology
RI Type: Single-sited
Last updated on: 2012-08-29 at 11:04

IPK-APPP »

Acronym: IPK
Countries: Germany
Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods,
RI Type: Single-sited
Last updated on: 2012-08-29 at 11:04

JPPC »

Acronym: Juelich
Countries: Germany
Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods,
RI Type: Single-sited
Last updated on: 2012-08-29 at 11:04

RSS 2

[Reports](#)

[Share Link \[+\]](#)

[Create as PDF \[+\]](#)



List of Research Infrastructures

2012-08-30 05:14

EUS

Acronym: EUS

RI Type:

Country: Germany

Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods, phytopathology

Last update: 2012-08-29 11:04

IPK-APPP

Acronym: IPK

RI Type:

Country: Germany

Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods,

Last update: 2012-08-29 11:04

JPPC

Acronym: Juelich

RI Type:

Country: Germany

Keywords: phenotyping, genotype, crops, resource use efficiency, plant traits, functional traits, structural traits, non-invasive methods,

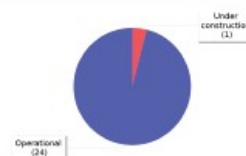
Last update: 2012-08-29 11:04

For details about the MERIL Portal content, see <http://esf.avedas.com/converis-esf/static/about> 1

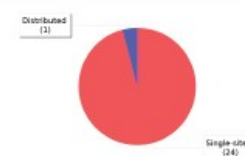


2012-08-30 05:20

Research Infrastructures by Status



Research Infrastructures by Type



Research Infrastructures by Scientific domain

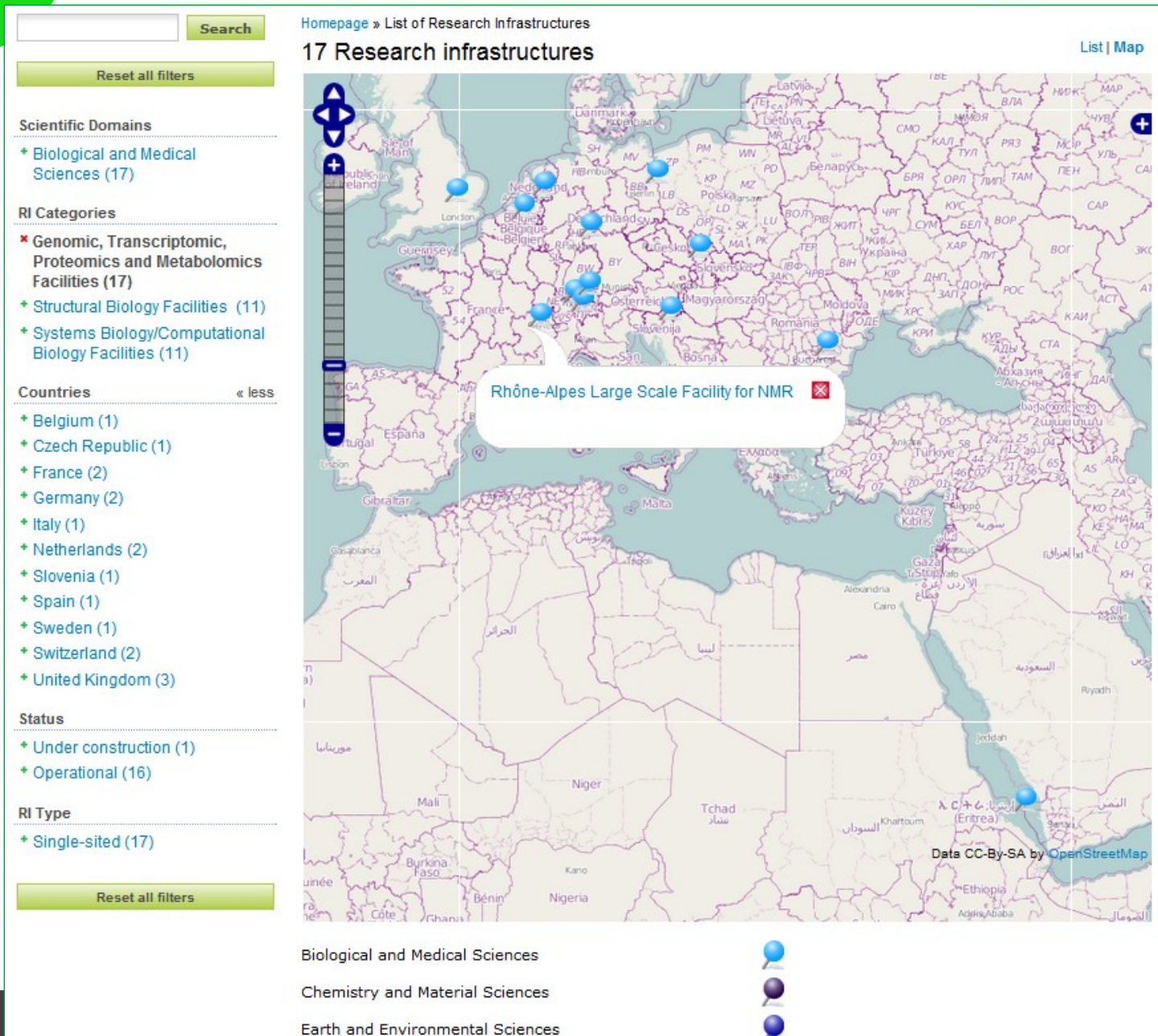


Research Infrastructures by RI Category



For details about the MERIL Portal content, see <http://esf.avedas.com/converis-esf/static/about> 1

Geographical analysis



cfClass x4

Scientific Domain
* Biological and Medical Sciences

RI Category
* Genomic, Transcriptomic, Proteomics and Metabolomics Facilities

Homepage » List of Research Infrastructures » Functional Genomics Center Zurich
ETHZ-FCGZ - Functional Genomics Center Zurich
<http://www.fgcz.ch/>

cfFacility

Hosting organisation:
ETH Zurich

cfOrgUnit

Location:
Winterthurerstrasse 190 | 8057 Zurich
Switzerland

Contact:
Ralph Schlapbach

cfPers

Details:
Average number of national users per year: 56
Average number of European users per year: 13
Average number of international users per year: 8

Main status: Operational since 2001
RI Type: Single-sited

Description:

The Functional Genomics Center Zurich (FGCZ) is a joint state-of-the-art research facility of the ETH Zurich and the University of Zurich since 2001. The FGCZ offers access to technologies, provides training, and collaboratively develops new analytical approaches in the areas of genomics, transcriptomics, proteomics, and metabolomics. The Proteomics platform of the center currently consists of 15 high-end mass spectrometers which allows FGCZ to support all of today's cutting edge proteomics approaches, as well as the development of the next generation of proteomics methods and tools.

Keywords:

proteomics

Research Service(s):

Targeted proteomics: SRM
Protein quantification: Chemical labeling (iTRAQ, ICAT, Dimethyl)
Protein identification: Offgel - LC-MS/MS
Protein identification: Gel electrophoresis - LC-MS/MS
Computational analysis
Protein quantification: Label free

Equipment(s):

Q-ToF Mass Spectrometer
Ion Trap Mass Spectrometer
Orbitrap Mass Spectrometer
Triple Quadrupole Mass Spectrometer
FT-ICR Mass Spectrometer

cfEquipment

cfService

Last updated on: 2012-08-29 at 11:04

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[View big map](#)



Geomap



Research Infrastructure – Detail format
2012-08-30 05:35

Functional Genomics Center Zurich
<http://www.fgcz.ch/>

Hosting organisation:
ETH Zurich

Location:
Winterthurerstrasse 190 | 8057 Zurich | -
Switzerland

Contact:

Scientific Domain(s):
Biological and Medical Sciences

RI Category(ies):
Genomic, Transcriptomic, Proteomics and Metabolomics Facilities

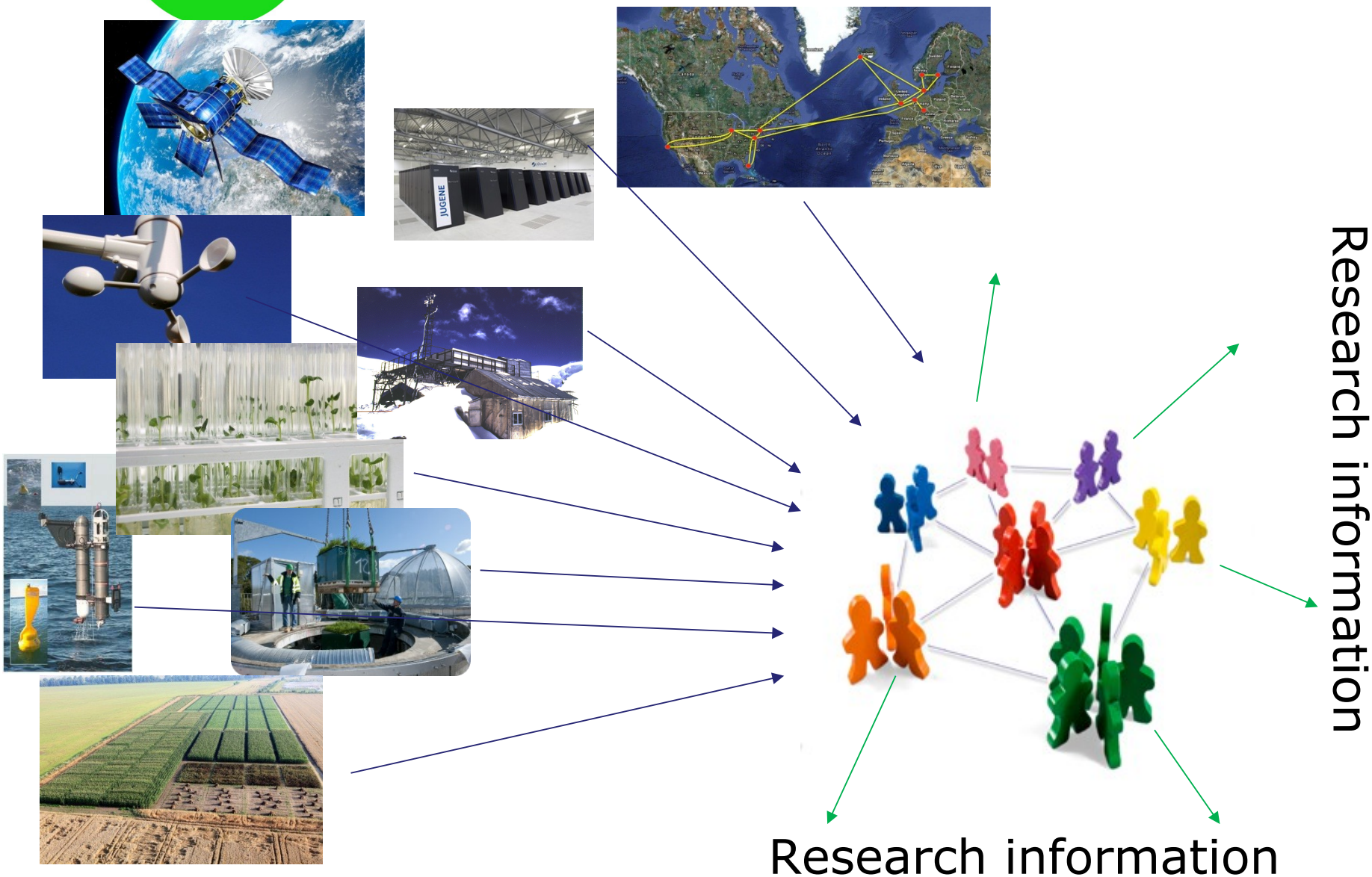
Details:
Number of national users per year:
Number of European users per year:
Number of international users per year:
Status:
Since:
RI Type:

Description:
The Functional Genomics Center Zurich (FGCZ) is a joint state-of-the-art research facility of the ETH Zurich and the University of Zurich since 2001. The FGCZ offers access to technologies, provides training, and collaboratively develops new analytical approaches in the areas of genomics, transcriptomics, proteomics, and metabolomics. The Proteomics platform of the center currently consists of 15 high-end mass spectrometers which allows FGCZ to support all of today's cutting edge proteomics approaches, as well as the development of the next generation of proteomics methods and tools.

RI Type = 'Virtual'
for e-infrastructures

Report

MERIL as a connected e-infrastructure



MERIL as a connected e-infrastructure

MERIL as an *e-infrastructure* allowing for ‘instant access to data’ about Research Infrastructures:

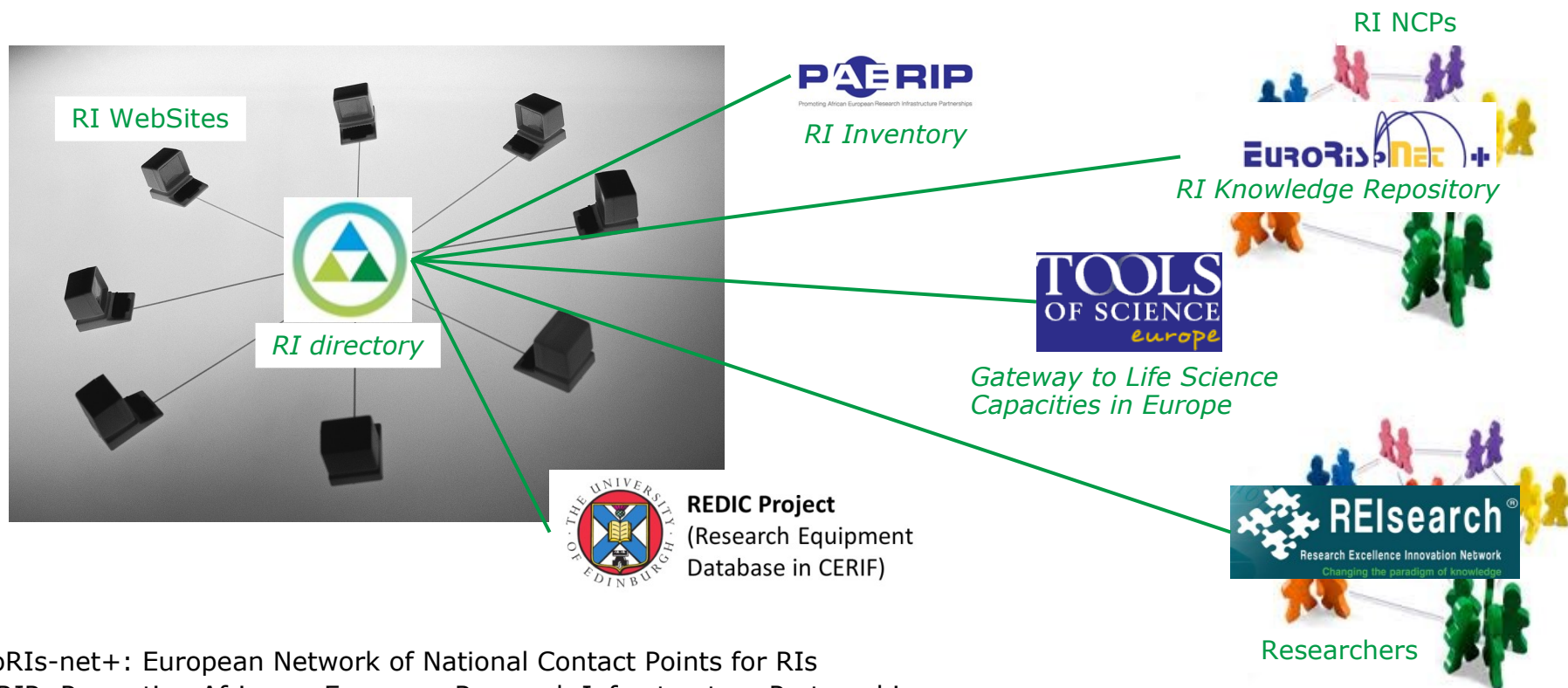
- Data storage and classification (geographical, scientific domain, hosting organisation, single-sited/ distributed/ virtual type,...)
- Data search (filters/facets, free-text)
- Data visualisation (geomaps, statistics reports)
- Interoperability with other systems managing such data (extending CERIF as a standard)

=> Allowing for ‘the setup of virtual research communities (i.e. research collaborations formed across geographical, disciplinary and organisational boundaries)’

MERIL as a connected e-infrastructure

MERIL as a *connected* e-infrastructure:

- MERIL = Hub in a distributed information system, starting with the RI websites
- Potential other nodes = EuroRIs-net+, PAERIP, REIsearch, REDIC, public-private clusters inventories...



EuroRIs-net+: European Network of National Contact Points for RIs

PAERIP: Promoting African – European Research Infrastructure Partnerships

REIsearch: Research Excellence Innovation Network

REDIC: Research Equipment Database in CERIF

MERIL as a connected e-infrastructure

Further features under investigation:

- Data discovery: external search and visualisation through clustering, graphs/networks or word/tag cloud
- Dataviz: visual navigation (tree, network) through classifications (Scientific Domains, RI Categories, Countries)
- RI classifications master: publish RSS feeds with updates on Scientific Domains and RI Categories

External search

[Overview](#)

[New search engine...](#)

[My search engines](#)

Select search engine... ▾

Control panel

[Basics](#)

[Sites](#)

[Indexing](#)

[Refinements](#)

[Promotions](#)

[Synonyms](#)

[Autocompletions](#)

[Google Analytics](#) New!

Control panel - Sites: RI Websites Search Engine

Included sites

Viewing 1 - 9 of 9

URL contains:

☐

☐ <http://grid.desy.de>

☐ <http://www.renater.fr>

☐ <http://www.rediris.es>

☐ <http://www.cineca.it>

☐ <http://www.fz-juelich.de/nic>

☐ <http://www.newton.cam.ac.uk/>

☐ <http://www.cesca.es>

☐ <http://www.begrid.be/>

☐ <http://www.bsc.es>

Excluded sites

You have not excluded any sites - E



MERIL
MAPPING OF THE EUROPEAN
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LANDSCAPE

Scientific Domains

✖ **Astronomy and Astrophysics (17)**

+ Information Science and Technology (1)

+ Name of Scientific Domain Testdomain (1)

RI Categories

» more

+ Ground-based Telescopes (13)

+ Astro-Particles and neutrinos detectors and observatories (2)

+ Underground Laboratories (1)

+ Computing Grids (1)

+ Software depositories (1)

Countries

» more

+ Spain (10)

+ Other (2)

+ Netherlands (2)

+ Germany (1)

+ Turkey (1)

Status

+ Under construction (2)

RI Type

+ Distributed (7)

+ Single-sited (10)

[FAQ](#) | [ABOUT](#) |

[Homepage](#) » [List of Research Infrastructures](#) » [External Search](#)

External Search

About 82 results (0.27 seconds)

Spain takes part in major global astronomy project with 9

telescopes and 2 satellites in Spain will take part in a major global astronomical observation on 3 and 5 April 2009. In total fourteen **telescopes** around the ...

www.rediris.es/anuncios/2009/20090402_0.html.en



Isaac Newton Resources

The Whipple Museum contains a replica Newtonian reflecting **telescope**, and a number of portraits of Newton. Isaac Newton Exhibition at Cambridge University ... www.newton.cam.ac.uk/newton.html

Folie 1

File Format: PDF/Adobe Acrobat

Jul 11, 2011 ... LHC in Geneva, the neutrino **telescope** IceCube at the South Pole and the. International Linear Collider ILC. > DESY was founded 1959 and ... grid.desy.de/mytalks/gellrich_wlwg_2011-07-11.pdf



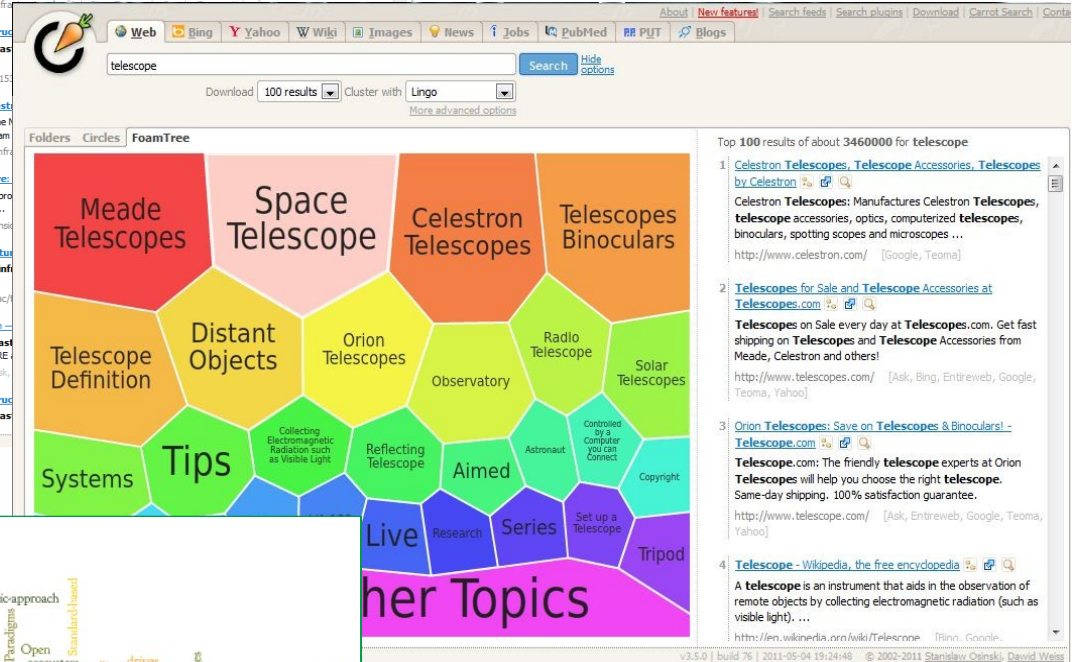
Instituto Astrofísico de Canarias - LaPalma Node -

... del Roque de Los Muchachos - above all through the incorporation of the Gran **Telescope** CANARIAS (GTC) - and in this way reinforce the telecommunication ... www.bsc.es/.../Instituto_Astrofisico_de_Canarias_-_LaPalma_Node.html

[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#)

Search engine (dynamically) set up on RI websites relevant to the filters

Search field and results to be integrated in MERIL List page



MERIL as a connected e-infrastructure

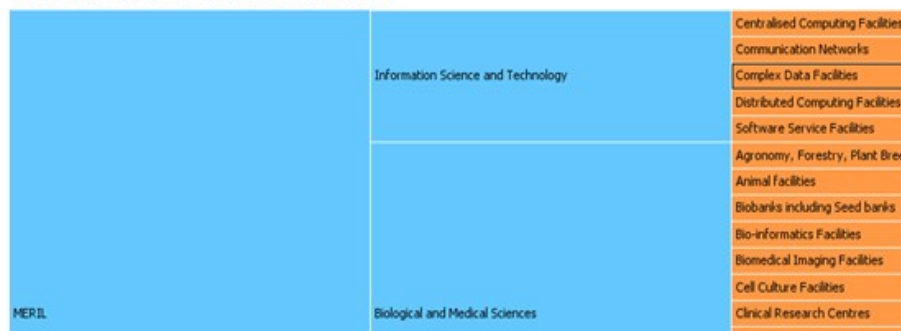
Dataviz
(structured data)



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Search

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128 Research infrastructures



☒ Hyperbolic Tree
☐ Sunburst Tree
☐ Sunray Tree
☐ Icicle Tree
☐ Force-Directed

