

Open Access
Infrastructure
for Research in Europe

OpenAIRE

Open Access Repository
Infrastructure for European Research
Publications



e-infrastructure

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OpenAIRE & Open Access

○ Science is all about

- **communication** and **collaboration**
- **scholarship** and stepping on earlier results
- **derivation** of new results

○ **Open Access:** the public funds research → the public has access to research results

- promotes scientific **collaboration**
- facilitates wide **use & reuse** of scientific info
- **accelerates** research and **improves** its efficiency



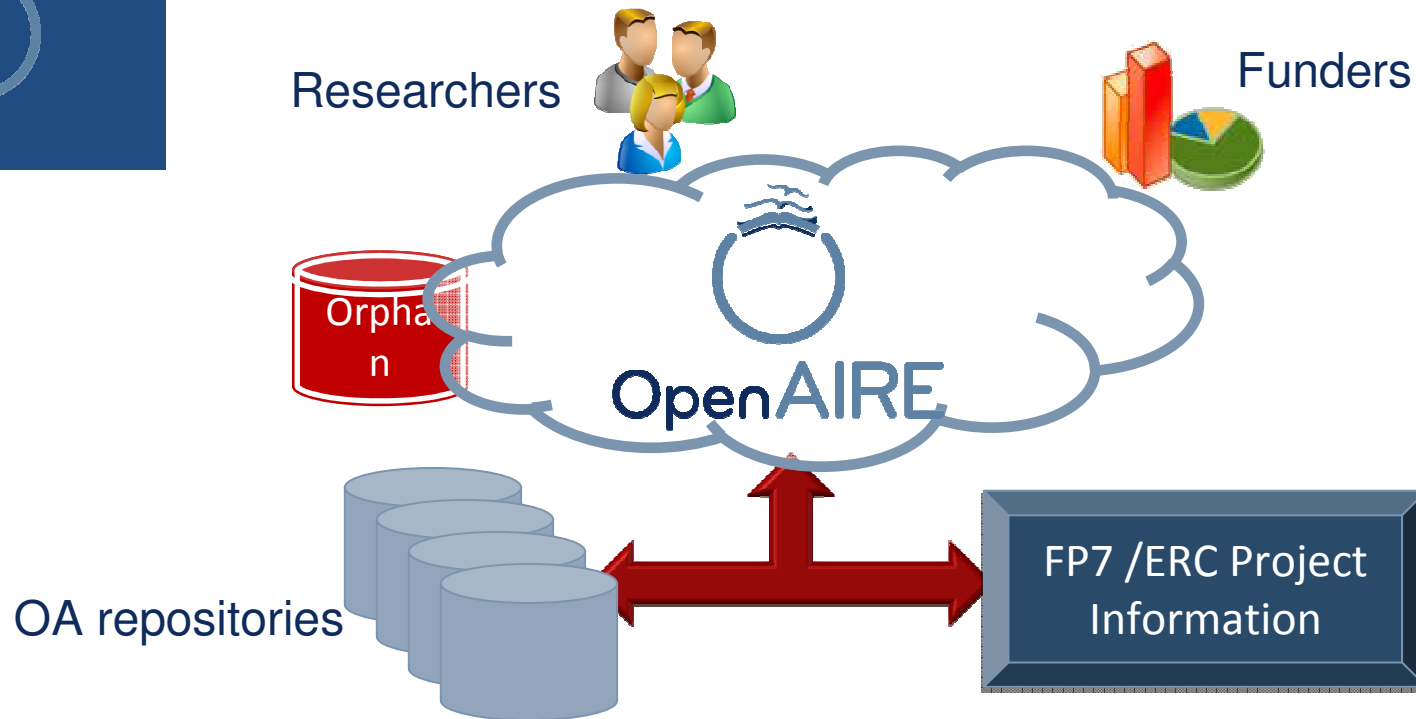
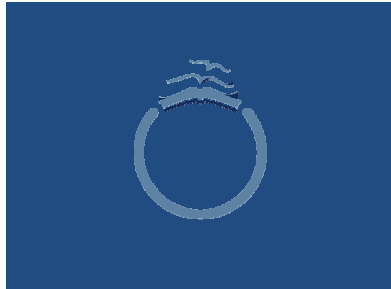
OpenAIRE & Open Access

- **OpenAIRE** makes **Open Access** a reality for **research publications**
- **OpenAIRE** implements the **OA pilot in FP7** of the EC
- **OpenAIRE** addresses projects with **special clause 39** in their grant agreement



OpenAIRE & Infrastructures

- **OpenAIRE** delivers **participatory infrastructure of repositories, technologies, people**
 - building on **existing** European infrastructures
pushing **coordination** of repositories
 - capitalizing on **existing** technologies
opening up to **third-party** services
 - building up **support networks** for and of people

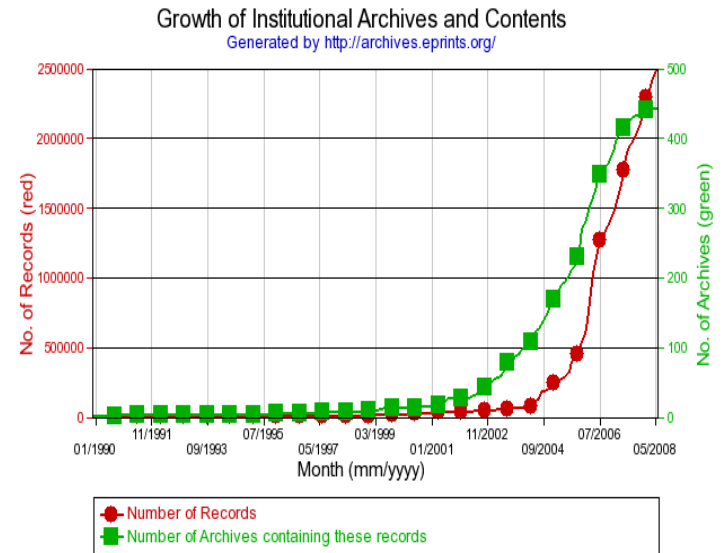


- Links OA repositories with FP7 / ERC projects
- Provides repository for “orphan” publications
- Calculates statistics on OA/FP7/ERC deposition



OpenAIRE Participatory Design

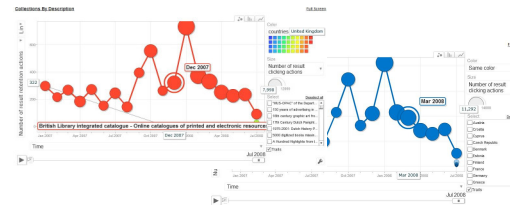
- Institutional repositories and depositions **growing over time**
- Strong institutional **commitment**: responsibility and **mission** for maintaining central repository
- Individual cost can be **very high**: Participatory design **avoids expense** duplication



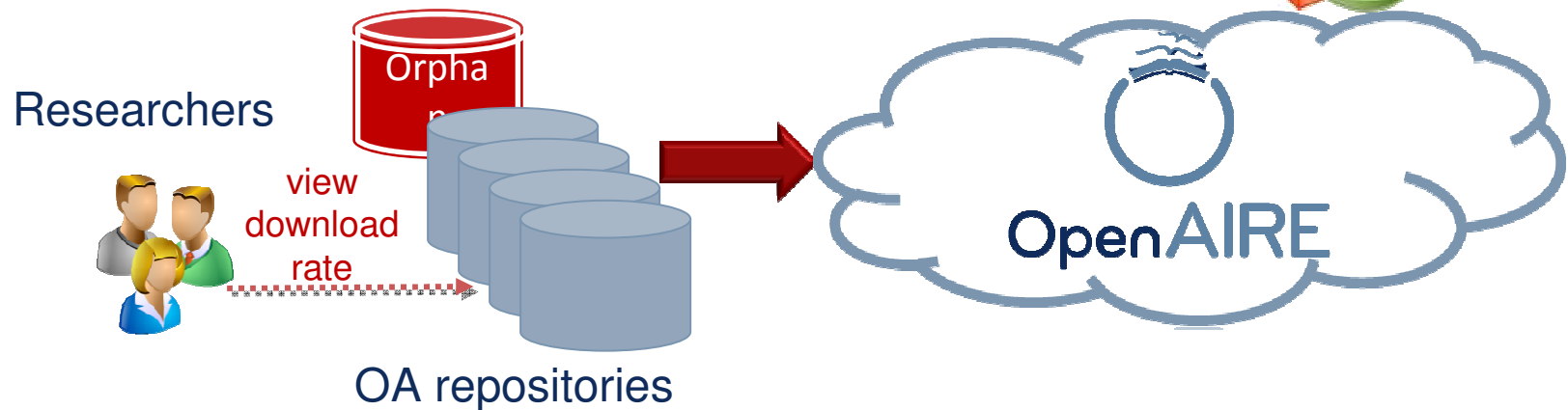


OpenAIRE & Research Impact

Repository Managers



Funders



OpenAIRE measures **research impact** per publication, researcher, project, institution, country, ...



OpenAIRE & European Freedoms

- For 30 years, Europe has developed as a Union guided by **Four Freedoms**
 - Free movement of **goods**
 - Free movement of **persons** (labour)
 - Free movement of **services**
 - Free movement of **capital**
- **Fifth Freedom** established in 2007
 - Free movement of **knowledge**



OpenAIRE & European Freedoms

- **OpenAIRE** improves **scientific information access, use and reuse** - easier & more reliable
- **OpenAIRE** improves **free info movement in *European Research Area*** benefiting
 - researchers, students, citizens
 - funding officers and industry



OpenAIRE Unique Added Values

- **Researchers:** One-step deposition of publications
 - for local reporting
 - for global dissemination

- **Researchers/industry:** One-stop shop for European open access research publications



OpenAIRE Unique Added Values

- **Funding agencies:** Comprehensive assessment of research impact
- **Repository managers:** Interoperability and harmonization of repositories
 - standards and guidelines



OpenAIRE Unique Added Values

- **Policy makers:** Generic infrastructures applicable/available beyond OA pilot mandate
 - other EC programs
 - national funding agencies and programs
 - funding organizations around the globe
 - data linked to research publications
 - any scientific area



OpenAIRE - factsheet

Open Access Infrastructure for Research in Europe

- Programme: FP7 – Research Infrastructures
- Starting date: December 1, 2009
- Duration: 36 months
- Budget: 4.1 Million
- 38 partners covering all European member-states
- To be reached at www.openaire.eu



OpenAIRE European Footprint

- Coordination
 - University of Athens (Coordinator)
 - Göttingen State and University Library
 - CNR-ISTI
- 5 technical partners
 - Digital libraries, e-Infrastructure experts
- 6 libraries/library ITs
 - Active on OA - European & international level
- 5 scientific communities
- 27 national organizations covering **entire European Union**
 - National research infrastructures on scholarly publications

Liaison Offices





Liaison Offices

Region 1 North (DTU)

Denmark
(Danish Technical
University)

Finland
(University of Helsinki)

Sweden
(National Library of
Sweden)

Region 2 South (UMINHO)

Cyprus
(University of Cyprus)

Greece
(National
Documentation Center)

Italy
(CASPAR)

Malta
(Malta Council for
Science & Technology)

Portugal
(University of Minho)

Spain
(Spanish Foundation for
Science & Technology)

Region 3 East (eIFL)

Czech Republic
(Technical University of
Ostrava)

Hungary (HUNOR)

Lithuania
(Kaunas Technical
University)

Romania
(Kosson)

Slovakia
(university Library of
Bratislava)

Bulgaria
(Bulgarian Academy of
Sciences)

Estonia
(University of Tartu)

Latvia
(University of Latvia)

Poland
(ICM – University of
Warsaw)

Slovenia
(University of Ljubljana)

Region 4 West (UGENT)

Austria
(University of Wien)

Belgium
(University of Gent)

France
(Couperin)

Germany
(University of Konstanz)

Ireland
(Trinity College)

Netherlands
(Utrecht University)

UK
(SHERPA)



European Helpdesk

- National Open Access Liaison Offices (27 countries)
- Provide OA “toolkits” for
 - Researchers
 - Institutions
- Setup 24/7 portal for deposit, search of OA publications
- Liaison with
 - Other European OA initiatives
 - Publishers
 - CRIS systems



OA Repositories in Europe

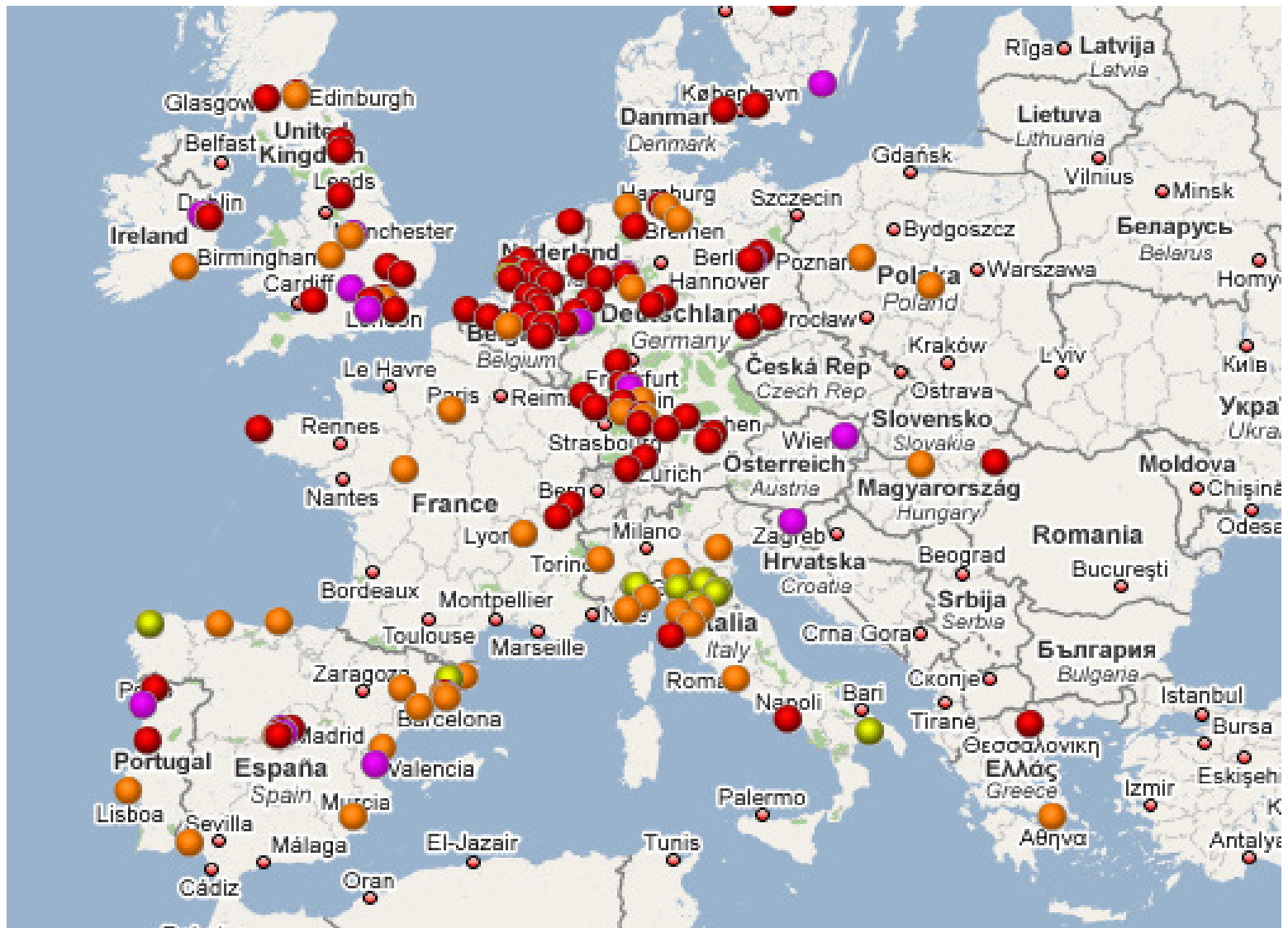
○ Heterogeneous situation

- Repository federated at National level
- Independent Institutional Repository
- Subject Repository
- No Repository yet





EU Repository Map





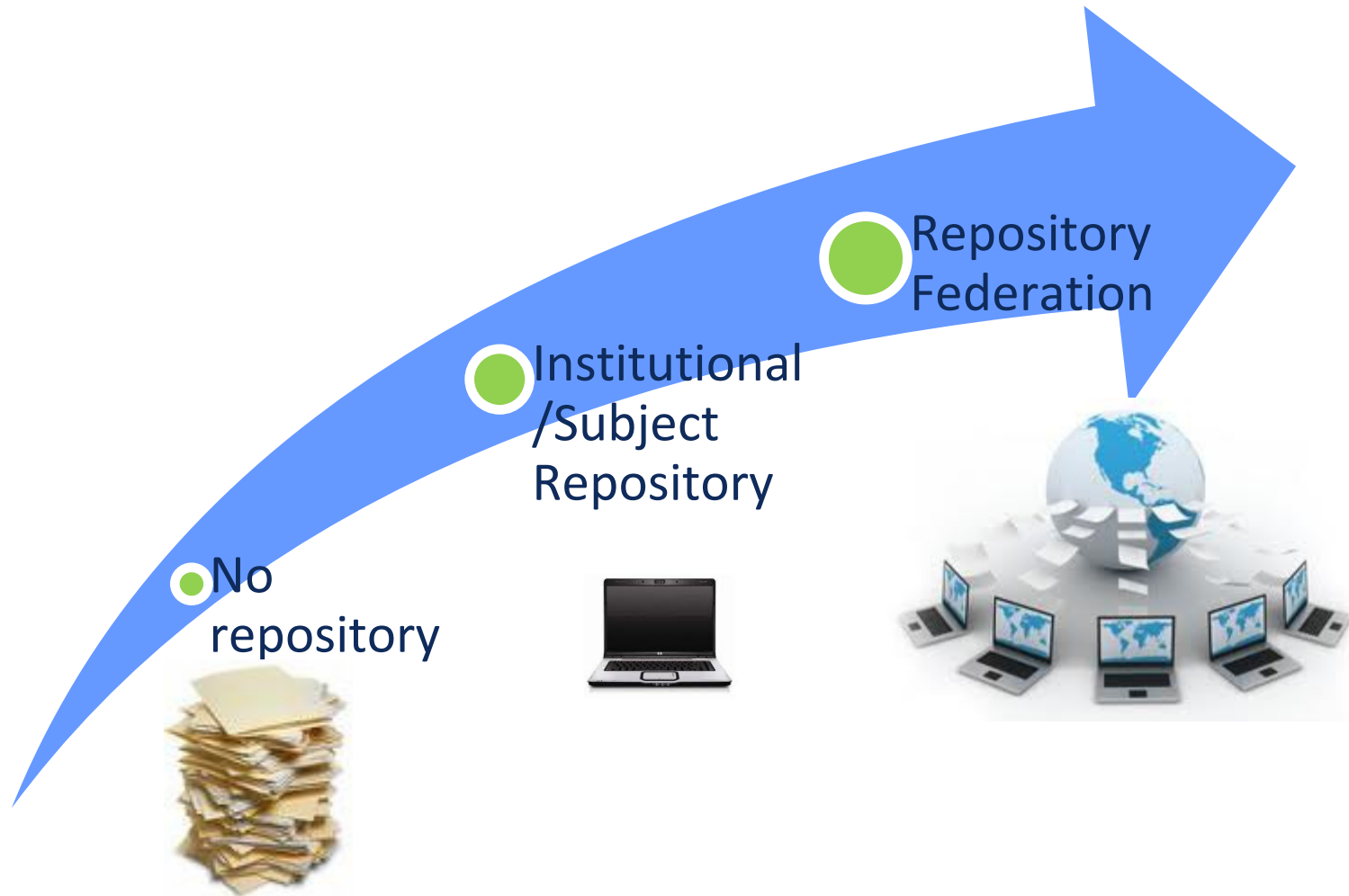
Other Heterogeneity Aspects

- Repository platforms
- Digital curation policies and procedures
- Research Information Systems



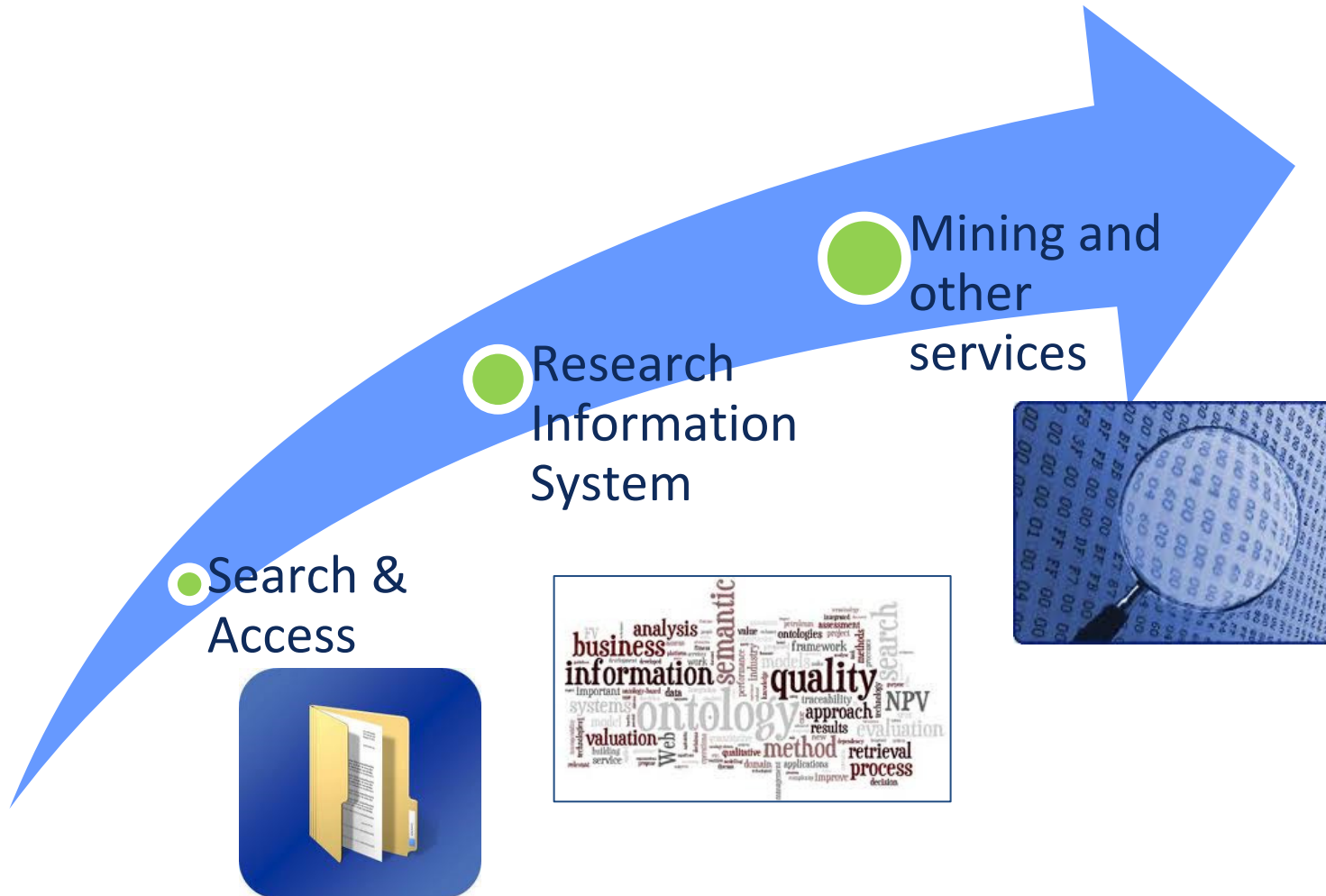


Evolving Scenario: Repositories





Evolving Scenario: Services





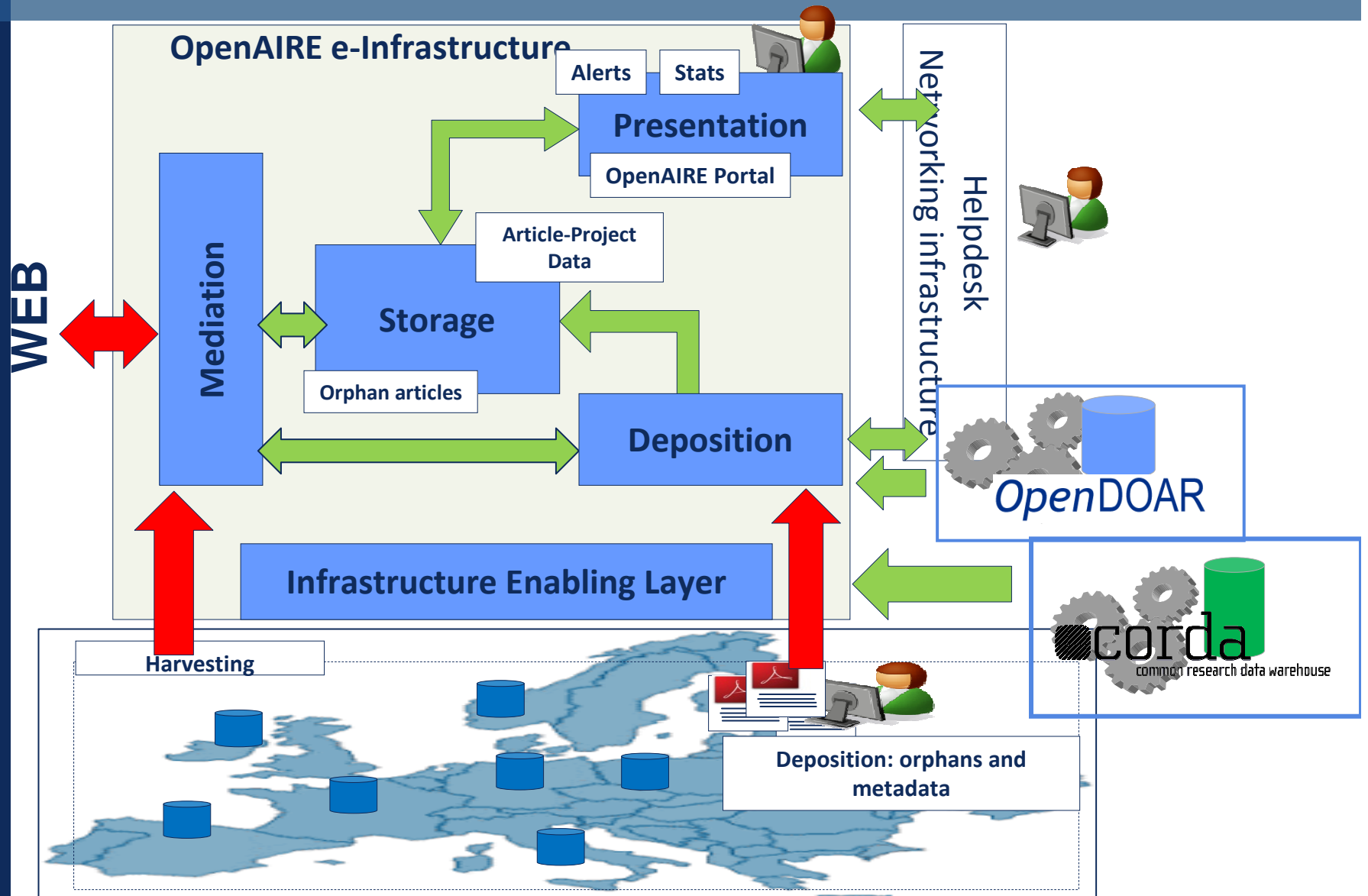
OpenAIRE Infrastructure

○ A data infrastructure

- Enabling different levels of engagement
- Supporting incremental evolution of facilities
- Support economy of scale

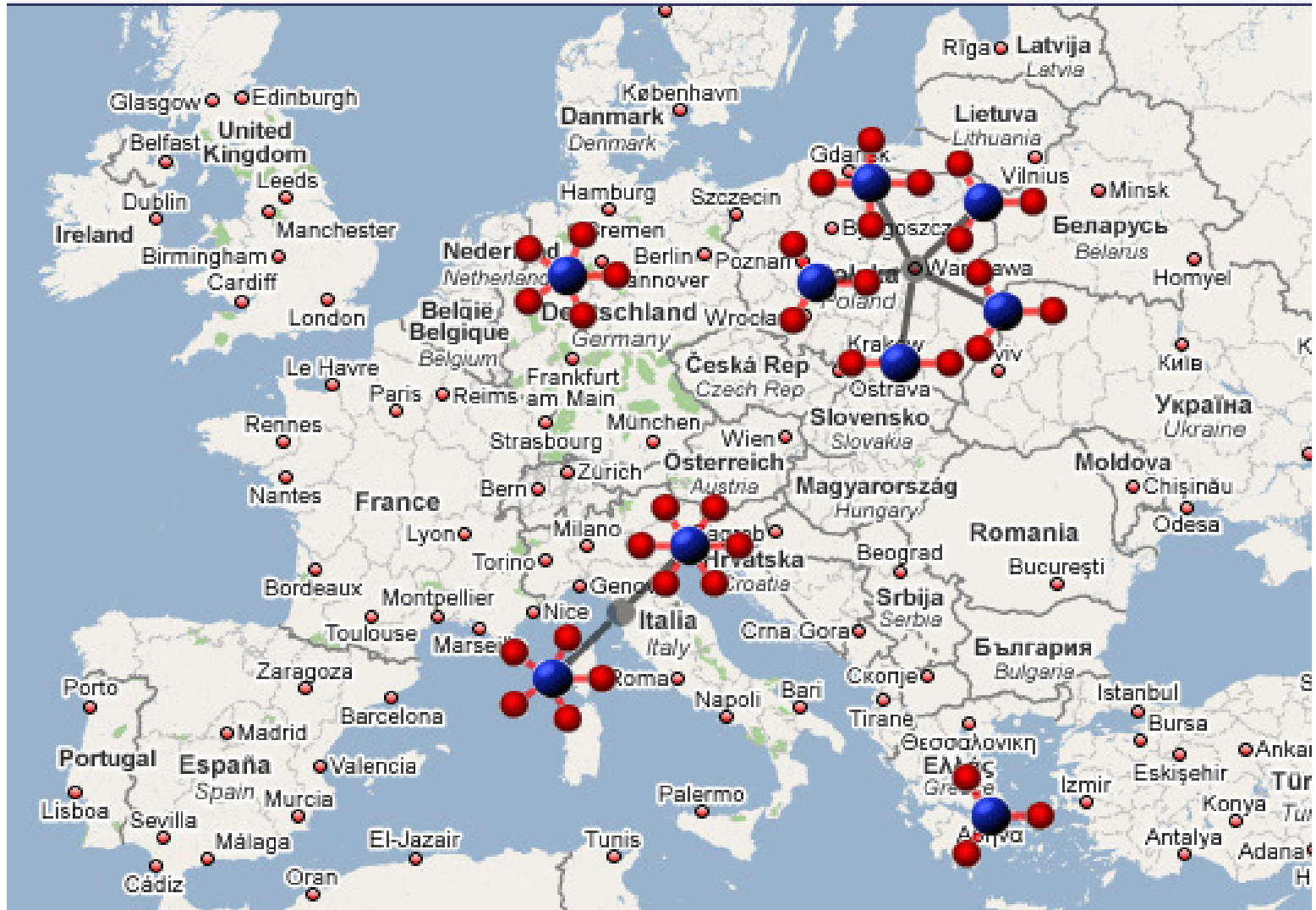


OpenAIRE Infrastructure





Hard/software Resources





Foundations

○ Technology

- D-NET system

(<http://www.d-net.research-infrastructures.eu/>)

- INVENIO

(<http://invenio-software.org/>)

○ Resources

- OpenDOAR (www.opendoar.org/)

- CORDA (<http://cordis.europa.eu/>)



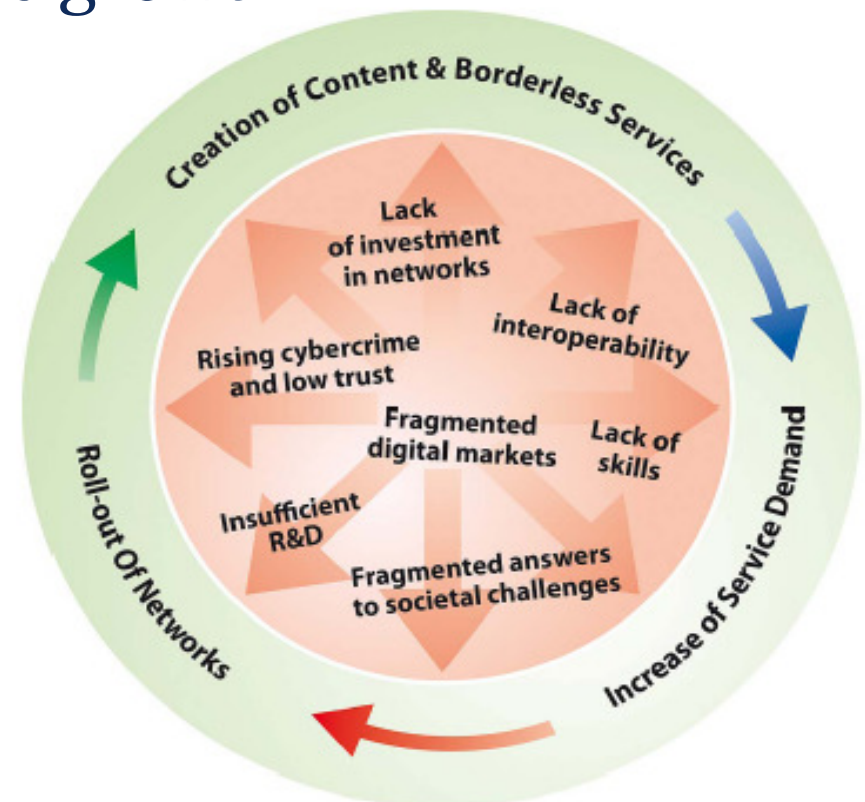
D-Net's Current Uptake

- DRIVER European Information Space
 - www.driver-community.eu
- OpenAIRE EC pilot
 - www.openaire.eu
- European Film Gateway and other EC projects
 - www.europeanfilmgateway.eu
- Experimentation of deployment of new infrastructure instances
 - China, India, Portugal, Belgium, Spain, Slovenia
 - Greece?



Digital Agenda for Europe

Flagship of
"Europe 2020: strategy for smart,
sustainable and inclusive growth"





Digital Agenda for Europe

“The Digital Agenda for Europe outlines **policies** and **actions** to maximise the benefit of the **digital revolution** for all. Supporting **research and innovation** is a key priority of the Agenda, essential if we want to establish a flourishing **digital economy**.”

Neelie Kroes,

Vice-President of the EC, responsible for the Digital Agenda





OpenAIRE & DA for Europe

OpenAIRE brings the **innovation cycle** to a new **open world**, contributing to the **Digital Agenda for Europe**

*“Scientific data has the power to transform **our lives** for the better – it is **too valuable** to be locked away.”*

Neelie Kroes,

Vice-President of the EC, responsible for the Digital Agenda





Riding the wave

How Europe can gain from the rising tide of scientific data

Final report of the High Level Expert Group on Scientific Data
A submission to the European Commission

October 2010



Raising Tide of Data

“A fundamental characteristic of our age is the **raising tide of data** – global, diverse, valuable and complex. In the realm of science, this is both an opportunity and a challenge.”

Report of the High-Level Group on Scientific Data, October 2010

“Riding the Wave: how Europe can gain from the raising tide of scientific data”



New Scientific Paradigm

nature

Vol 461 | Issue no. 7261 | 10 September 2009

www.nature.com/nature

More and more often these days, a research project's success is measured not just by the publications it produces, but also by the data it makes available to the wider community. Pioneering archives such as GenBank have demonstrated just how powerful such legacy data sets can be for generating new discoveries — espe-

cially when data are combined from many laboratories and analysed in ways that the original researchers could not have anticipated.

All but a handful of disciplines still lack the technical, institutional and cultural frameworks required to support such open data access (see pages 168 and 171) — leading to a scandalous shortfall in the sharing of data by researchers (see page 160). This deficiency urgently needs to be addressed by funders, universities and the researchers themselves.

Research funding agencies need to recognize that preservation of and access to digital data are central to their mission, and need to be supported accordingly. Organizations in the United Kingdom, for instance, have made a good start. The Joint Information Systems

been used to process them and so on — information that is essential if other scientists are to reuse the data effectively.

Also necessary, especially in an era when data can be mixed and combined in unanticipated ways, is software that can keep track of which pieces of data came from whom. Such systems are essential if tenure and promotion committees are ever to give credit — as they should — to candidates' track-record of data contribution.

Who should host these data? Agencies and the research community together need to create the digital equivalent of libraries: institutions that can take responsibility for preserving digital data and making them accessible

"Data management should be woven into every course in science."



Vision 2030

“Our vision is a scientific e-Infrastructure that supports **seamless access, use, re-use, and trust of data**. In a sense, the physical and technical infrastructure becomes invisible and the data themselves become the infrastructure – a valuable asset, on which **science, technology, the economy and society** can advance.”

High-Level Group on Scientific Data

“Riding the Wave: how Europe can gain from the raising tide of scientific data”



OpenAIRE & The World

- **OpenAIRE** is **fundamental** component of upcoming **open content** landscape
- **OpenAIRE** **relaxes and bridges** geographic, organisational, disciplinary **boundaries**
- **OpenAIRE** establishes **European leadership** in a domain with a global horizon

OpenAIRE

Open Access Infrastructure for Research
in Europe



OpenAIRE Launch: 2/12/10



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