

# Open Access – European Policy

- Directive 2003/98/EC: on the re-use of public sector information
  - Revised in June 2013
- Europe 2020 Strategy
  - Digital Agenda for Europe
    - Sets out the role that information and communication technologies (ICT) must play in order to assist in meeting the goals for 2020
  - Linked with Horizon 2020 Framework programme
    - Europe and Member States should provide open access to scientific data generated by publicly funded research, particularly European Commissionfunded research.
- The expected benefits of big data are predicated on the ability to access and re-use that data

# Benefits & challenges



# BENEFITS

- Further research
- Solves global challenges
- Improves transparency & trust
- Reduces cost
- Facilitates inter-disciplinary enquiry
- Can help validate results
- Inform decision making
- Development of new products
   & services



# CHALLENGES

- Poorly defined roles & responsibilities
- Lack of infrastructure
- Lack of career incentives
- Lack of skills/education
- Ethical considerations
- Intellectual property issues
- Disciplinary differences
- Policy fragmentation
- Funding
- Data-gap



# The RECODE project

- Policy RECommendations for Open access to research Data in Europe (RECODE)
- 24 Month project
  - 1 February 2013 31 January 2015
- Total Budget: €1,147,484.70
- Total EC contribution: €949,488.50
- Eight partners across five countries





Grant agreement no: 321463

# **Partners**



















# Objectives

Reduce stakeholder fragmentation

Identify stakeholder values & inter-relationships

Evaluate grand challenges using 5 case studies

Identify gaps, tensions & good practice solutions

Identify and promote overarching good practice policy solutions

**Produce policy guidelines** 



# Grand challenges

Stakeholder values & inter-relationships

Infrastructure & technology

Legal and ethical issues

Institutional and policy issues



#### Case studies











#### **Physics**

Particle
Physics and
Particle
Astrophysics
(PPPA) Group

#### Health

FP7 Project EVA (Markers for emphysema versus airway disease in COPD)

#### **Bioengineering**

Bioengineering Institute, Auckland NZ, and Virtual Physiological Human (VPH) Community

# Earth Sciences

Global Earth Observation System of Systems (GEOSS)

#### **Archaeology**

**Open Context** 



# Outcomes & Impacts

#### Key Deliverables

- Stakeholder values and ecosystems – Sept'13
- Infrastructure and technology challenges – Feb'14
- Legal and ethical issues in OA and data dissemination – April'14
- Institutional barriers and good practice solutions - June'14
- Policy guidelines for OA and data dissemination – Jan'15
- Feasibility of OA networks to support harmonization – Jan'15

#### Milestone Events

- Stakeholder engagement workshops
  - Infrastructural and technological challenges – Jan'14
  - Legal and ethical barriers and solutions – March'14
  - Institutional barriers and solutions – May'14
  - Policy recommendations July'14
- Final conference Jan'15

#### **Expected Impacts**

- Support the Commission's policies on open access to scientific data
- Contribute to network-building among concerned stakeholders at the European and international levels
- Support the development of joint or common policy agendas and activities in the area of scientific data





## **Overview**

- Objectives and methodology
- Document review key findings
- Stakeholder values as identified in the document review
- Values and motivations as expressed in the case studies
- Operationalizing Open data challenges
- Policy Recommendations based on WP1 findings



# Objectives and Methodology

#### Objectives

- To identify and map the diverse range of stakeholder values in open access and data dissemination and preservation
- To map stakeholder values on to scientific ecosystems using case studies from different disciplinary perspectives

#### Methodology

- Two stage document review
  - 1st Stage Broad Scoping of material and synthesis from stakeholder literature
  - 2<sup>nd</sup> Stage Thematic analysis of a smaller sample of documents
- Case study research within five scientific fields
  - Archaeology
  - Bioengineering
  - Environmental research
  - Health and clinical research
  - Particle Physics and Particle Astrophysics
- Stakeholder validation workshop



# Document Review – Key Findings

- Overall drive for Open Data access within the policy documents, which is part of a wider driver for open science in general.
- The values underpinning this move are the view of science as an open enterprise, where knowledge is sought and where discovery rests on scientists working together to solve specific challenges, which increasingly are becoming interdisciplinary in nature.
- The argument for publicly funded science to be open to the public is also strong, although it is not entirely clear how often this openness should be operationalized.
- When discussing Open Data there is a clear tendency to refer to science as a whole sector, thus there is a danger that differences between disciplines are ignored in further policy making.



# Stakeholder values as identified in document review

- Open Access is that it is addressed differently by stakeholders in the research ecosystem.
  - High level policy makers focus at the very general level and argue for Open Access in terms of very broad social and economic benefits as well as seeing it as a development that will improve science.
  - Funders are increasingly motivated to ensure that the allocation of publically funded research yields good value for money.
  - Stakeholders from within the infrastructural, libraries, repositories, see value in Open Access to Data as a way of improving the means by which data is made more accessible, and they are motivated to meet the needs of Open Access within their business cases and service provision.
  - Publishers are adapting to the open publishing environment and are developing new types of business models to facilitate that. Here the question of where the cost for Open Access publishing will rest is still undecided.



### Values and motivations from Case Studies

- There is some mapping of values and motivations from stakeholder review to case studies
  - Data has a definite value for scientists (knowledge production, hypothesis and model testing etc.)
  - Access to more data = opportunities for testing, linking, integrating →
    faster advancement within their disciplines
  - Helps to avoid duplication of effort (clear benefits to health researchers and patient groups)
  - Open data is seen to fosters multidisciplinary research and allows for the tackling of new research challenges



# Operationalising open data

- Although values and motivations mapped on to those identified in the stakeholder review, scientists have reservations when it comes to operationalizing open data
  - Data must be 'meaningful' before it is made open, this may include a lot of work from scientists with unclear benefit
  - Currently no reward for 'data work' peer reviewed publications
  - Data comes in different forms,
  - Lack of standardisation within many disciplines, idiosyncratic and individual ways of managing and annotating data
  - Ethical and legal issues of opening up patient and location data
  - No 'one size fits all' data is embedded within different research cultures, traditions and practices
  - Sustainable infrastructure is needed to host data, current short term funding models are unable to ensure this
  - Data Licencing standards need to be considered
  - Peer review mechanism for data to ensure accuracy, validity and reliability



# Further information



#### Events

RECODE partners are involved in the following events:

#### Upcoming events

- 4 September 2013: RECODE will hold its first workshop, "Perspectives in understanding open access to research data: stakeholder values and motivations in research ecosystems" and will be hosted by the University of Sheffield. This workshop will contribute towards the work being completed for work package 1 "Stakeholder values and ecosystems". Stakeholders are invited to attend the workshop, where registration is currently open. Further information relating to the agenda and redistration for the workshop can be found here.
- 4-6 September 2013: Representatives from TRI will attend and present a paper, "RECODE: Policy RECommendations
  for Open Access to Research Data in Europe a new research frontier" at the 4th International Symposium on Information
  Management in a Changing World in Limerick, Ireland.
- 13 15 October 2013: Sally Wyatt, e-Humanities group (eHg), will chair the programme committee for the upcoming
  WSSF conference "social transformations and the digital age" in Montreal, Canada. During this event, Bridgette Wessels,
  University of Sheffield (USFD), will present a paper titled "An Exploration of the Issues in Developing Open Access to
  Research Data".

#### Past events

10 July 2013: Representatives from the University of Sheffield attended a debate held by the <u>Foundation for Science and Technology</u> titled, "Maximising the use of public data – should research and publically acquired data be made more accessible?". The event was held at The Royal Society. London.



24 July, 2013

Policy RECommendations for Open Access to Research Data in Europe

#### RECODE KICKED OFF IN LONDON 11 FEBRUARY 2013

RECODE (Polity RECommendations for Open Access to Research Data in Europe) held its kick off meeting in London on the 11th February 2013. This newly funded project by the European Commission under the 7th Framework Programme alms to leverage existing networks, communities and projects to address challenges within the open access and data dissemination and preservation sector and produce policy recommendations for open access to research data based on existing good practice.

#### 5 case studies

A central component of the RECODE project is the use of five case studies to assist with its analysis and subsequent recommendations

Further information regarding the case studies can be found on our website.



#### Workshop: 4 September 2013

Join i

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