

# H2020 Open Data: From Pilot to Daily Work





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DI TRENTO

# **Open Access and research support activities: the experience of the University of Trento**

**Vanessa Ravagni  
University of Trento, Italy  
Luleå, 22.06.2016  
EARMA Annual Conference**

Open Access in Italian University

The experience of the University of Trento

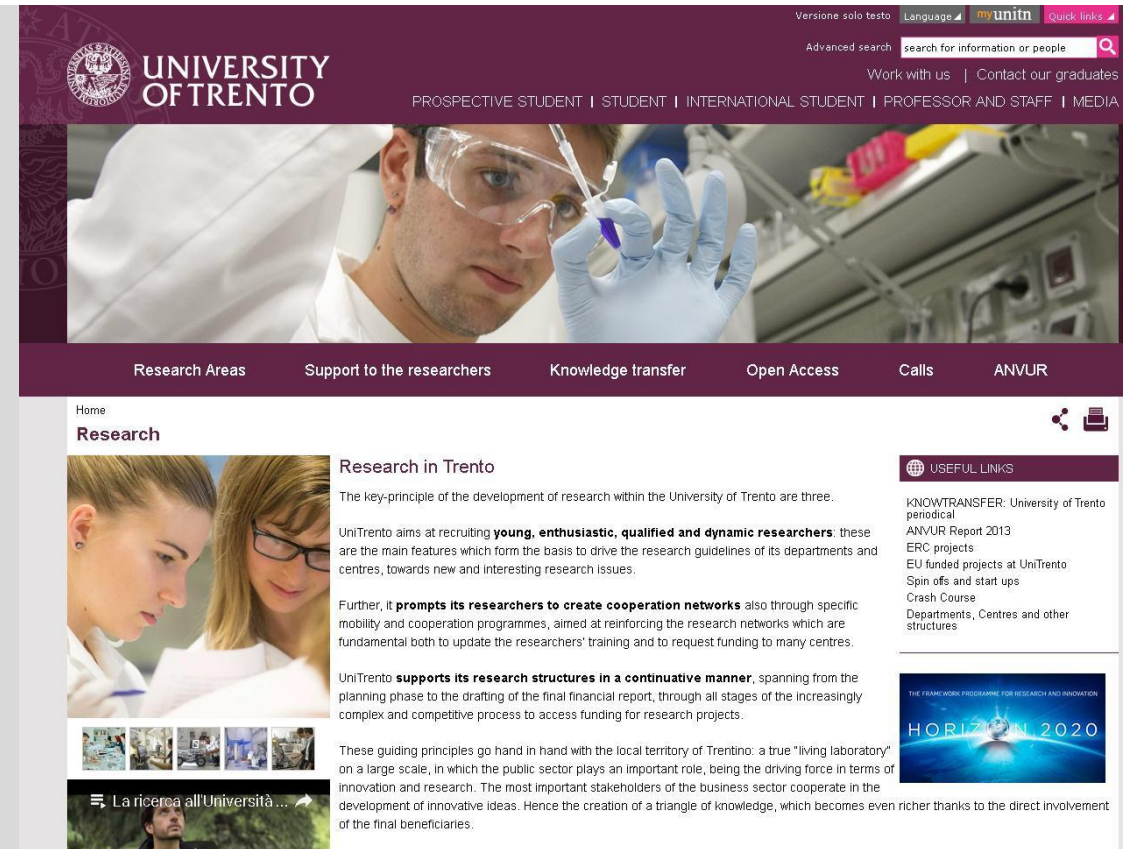
Open Access and the role of Research Managers /Administrators

# Who we are

**Vanessa Ravagni**  
Chair of EARMA  
ERA – WG

Head of Research Support and Knowledge Transfer Division  
Member of the Open Access WG

University of Trento, Italy



The screenshot displays the official website of the University of Trento. The header features the university's name in English and Italian, along with navigation links for prospective students, current students, international students, faculty, and media. A search bar is also present. The main banner image shows a male researcher in a lab coat and safety goggles. Below the banner, a horizontal menu lists key areas: Research Areas, Support to the researchers, Knowledge transfer, Open Access, Calls, and ANVUR. The 'Research' section is highlighted, featuring a sub-header 'Research in Trento' and a detailed description of the university's research principles. A sidebar on the right provides 'USEFUL LINKS' such as KNOWTRANSFER, ANVUR Report, and ERC projects. At the bottom, there is a section for 'La ricerca all'Università...' and a 'HORIZON 2020' banner.

Versione solo testo Language myunit Quick links  
Advanced search search for information or people  
Work with us | Contact our graduates  
PROSPECTIVE STUDENT | STUDENT | INTERNATIONAL STUDENT | PROFESSOR AND STAFF | MEDIA

Research Areas Support to the researchers Knowledge transfer Open Access Calls ANVUR

Home  
Research

**Research in Trento**  
The key-principle of the development of research within the University of Trento are three.  
UniTrento aims at recruiting **young, enthusiastic, qualified and dynamic researchers**: these are the main features which form the basis to drive the research guidelines of its departments and centres, towards new and interesting research issues.  
Further, it **prompts its researchers to create cooperation networks** also through specific mobility and cooperation programmes, aimed at reinforcing the research networks which are fundamental both to update the researchers' training and to request funding to many centres.  
UniTrento **supports its research structures in a continuative manner**, spanning from the planning phase to the drafting of the final financial report, through all stages of the increasingly complex and competitive process to access funding for research projects.  
These guiding principles go hand in hand with the local territory of Trentino: a true "living laboratory" on a large scale, in which the public sector plays an important role, being the driving force in terms of innovation and research. The most important stakeholders of the business sector cooperate in the development of innovative ideas. Hence the creation of a triangle of knowledge, which becomes even richer thanks to the direct involvement of the final beneficiaries.

**USEFUL LINKS**  
KNOWTRANSFER: University of Trento periodical  
ANVUR Report 2013  
ERC projects  
EU funded projects at UniTrento  
Spin offs and start ups  
Crash Course  
Departments, Centres and other structures

THE FRANKFURT PROGRAMME FOR RESEARCH AND INNOVATION  
**HORIZON 2020**

La ricerca all'Università ...



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## University of Trento

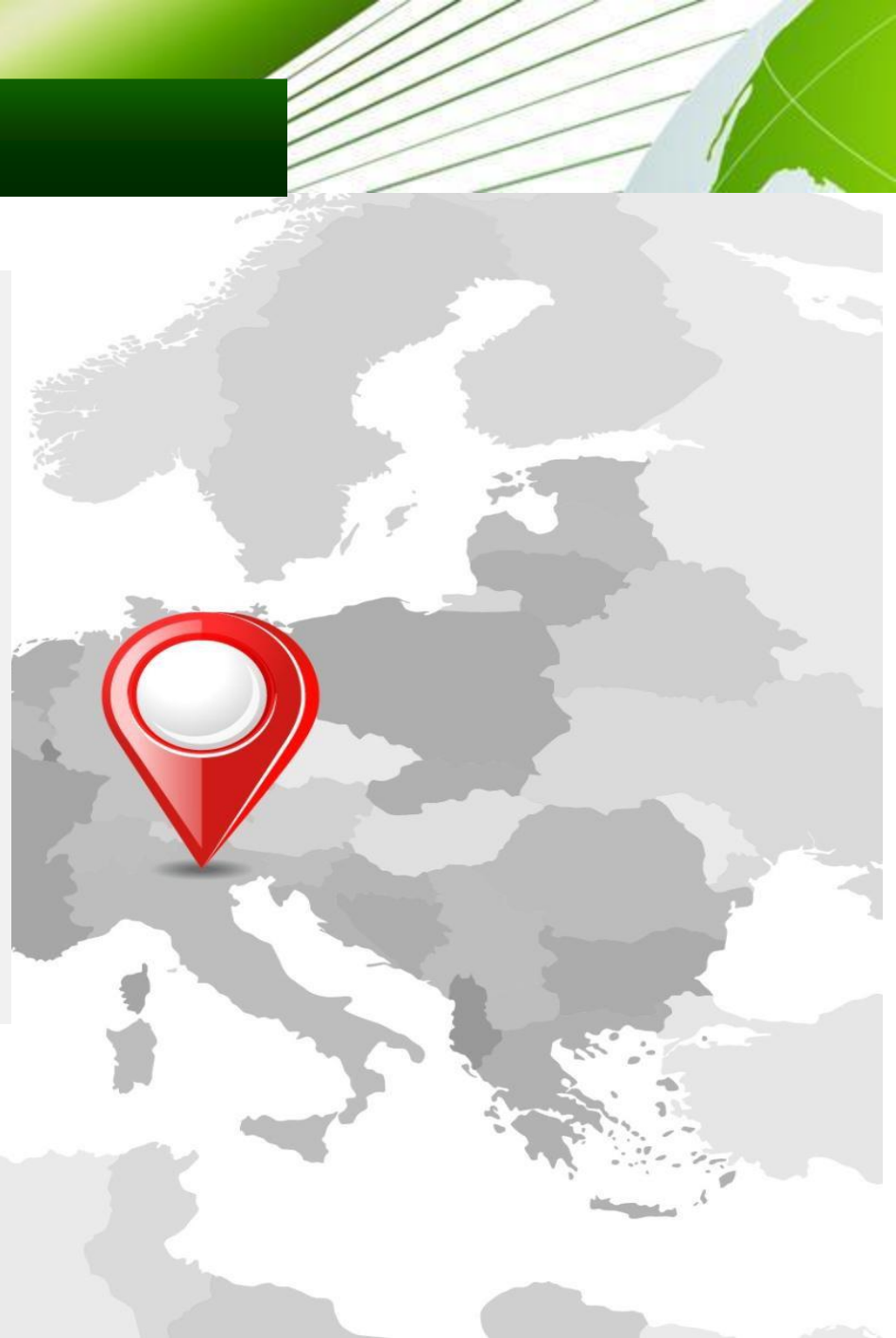
**Researchers: 587**

**Students: 16.383**

**Admin. Staff: 698**

**FPVII Projects: 116 (17ERC)**

**H2020 Projects: 34 (4 ERC)**



# Open Access in Italy

**EU Recommendation:** Commission Recommendation on “Access to and preservation of scientific information” (2012/417/EU) of 17 July 2012.

**Italian Law of October 7, 2013, n. 112** requires Open Access with regard to **works that are publicly financed (at least 50%) and published in periodical collections**. Requires the research institutions to **adopt policies that promote OA** by following both the **gold road** and the **green road** (republishing articles for non commercial purposes in institutional or disciplinary repositories no later than 18 months from the first publication for scientific, technical, and medical disciplines and no later than 24 months for SSH)



# Open Access Policies in Italy



[Home](#) [About](#) [Browse](#) [Help](#) [Data Visualisations](#)

[Login](#) | [Create Account](#)

## Browse by Country

[Up a level](#)

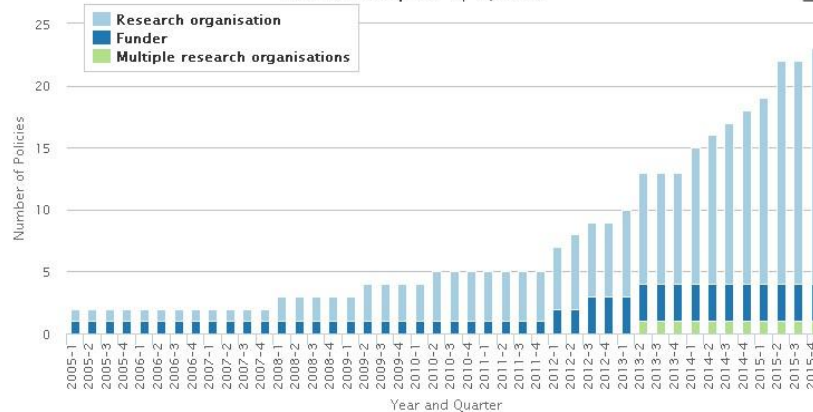
Export as

Atom

- [Countries \(UN Geoscheme\) \(23\)](#)
  - [Europe \(23\)](#)
    - [Southern Europe \(23\)](#)
      - **Italy (23)**

Number of items at this level: 23.

## Policies Adopted by Quarter



Highcharts.com



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# Open Access at the University of Trento

**2003:** Unitn eprints: institutional archive

**2004:** Italian Declaration supporting the Berlin Declaration on OA to Knowledge in Science and Humanities

**2012:** University Statute: article on OA

**2014:** Ethical Code: promotion of OA

**2014:** University Policy on Open Access

**2015:** IRIS - Institutional Research Information System –new CRIS (Current Research

Information System) OA compatible, which contains Unitn professors”, researchers” and PhD students” scientific and academic publications

## GOVERNANCE

Delegate for OA

OA Board

OA WG





# University of Trento: institutional archive

**After May 2015 all the publication shall be full text**

**Nr of publication                      year 2015-2016:  
2.105 (100%)  
of which Open Access: 8,26 %**

**IMPACT of the OA  
University policy  
Open Access for  
articles : 35%**

The screenshot shows the homepage of the CINECA IRIS Institutional Research Information System. The header includes the IRIS logo, navigation links (Browse, Help), a search bar, and a login button. The main banner features the University of Trento logo and a description of IRIS as the Research Registry of the University of Trento. Below the banner, there is a 'Welcome in IRIS' section with a brief overview of the system and a 'Recent publications' section featuring a thumbnail of a medieval manuscript. On the right, there is a 'Search' section with a 'Collection' table listing various document types and their counts.

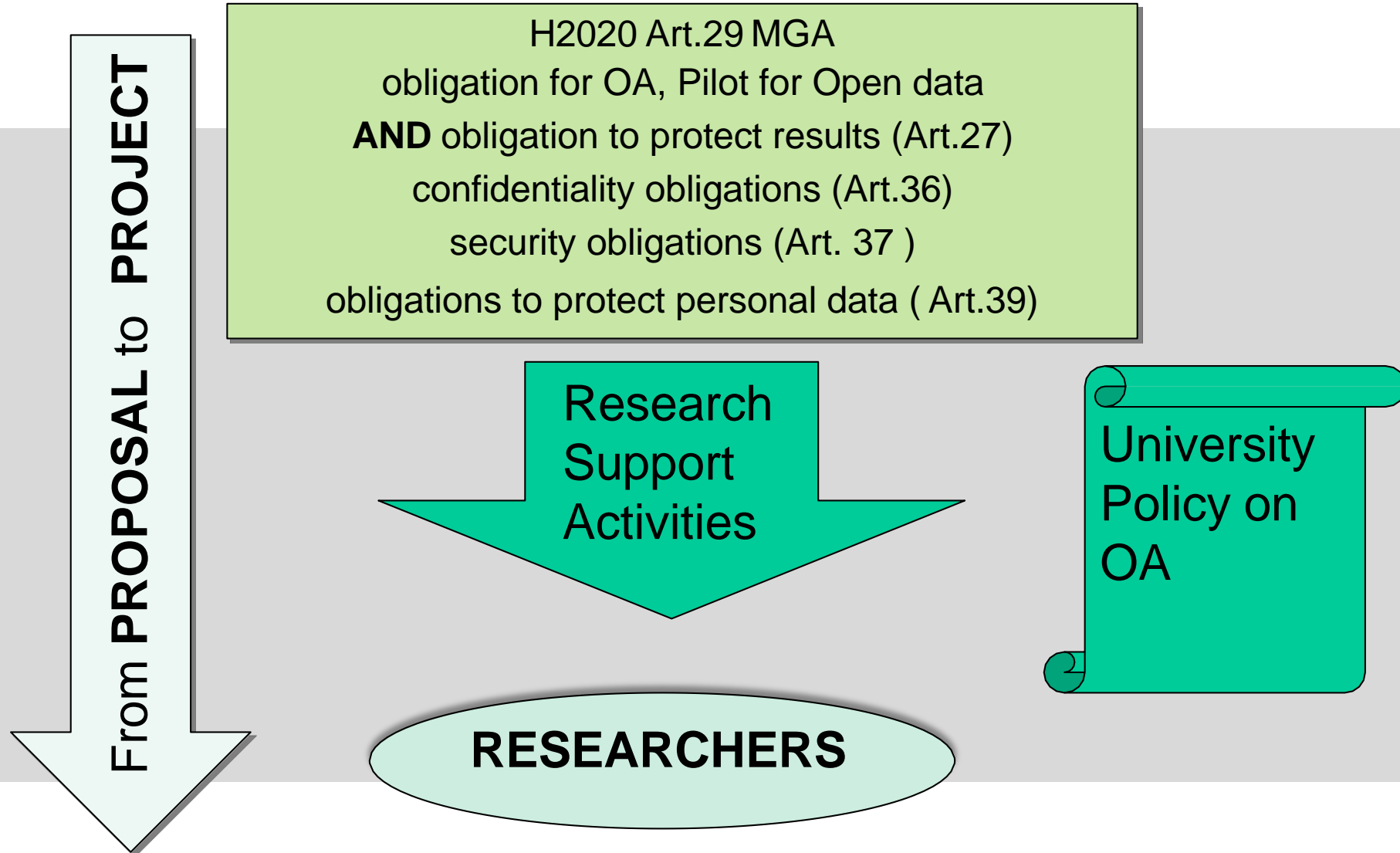
Collection	Count
03 Contributo in periodico (Part of a journal)	3022
02 Contributo in volume (Part of a book)	15114
04 Convegno (Proceedings)	13787
01 Libro (Book)	5336
07 Altro (Others)	2141
05 Brevetto (Patent)	165
06 Prodotto architettonico (Architectural composition)	32

<https://iris.unitn.it/?&rand=0.45481431441490483#.V02q2cCLSUK>



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# Open Access and Research Support



# Open Access to research data : New Challenge

Information for the Researchers

**CRASH COURSE**

**OPEN ACCESS COURSE ON LINE**

**OA WORKING Group**

- Research Support and KT Division
- Library- CRIS Office
- Legal Office
- Ethical Committee



**Policy  
on  
Open Data**  
*Work in progress*



# University of Trento: Archeological Information System

Università degli Studi di Trento - Dipartimento di Filosofia, Storia e Beni Culturali (DFSBC)  
Dipartimento Ingegneria Civile e Ambientale (DICA)  
Università degli Studi di Padova - Dipartimento di Archeologia  
Università IUAV di Venezia

Castello del Buonconsiglio monumenti e collezioni provinciali  
– Provincia Autonoma di Trento  
Museo degli Usi e Costumi della Gente Trentina  
Fondazione Bruno Kessler (FBK-irst)

[Home](#) [Alpinet](#) [APSAT](#) [Biblio](#) [Contacts](#)

## Home WebGIS Archeological Information System



### Goals

In order to ensure data insertion homogeneity and to allow a centralized data management for such a complex framework as prescribed by the project guidelines (cartographic data and databases referring to the sites of 5 different zones inside the Alpine region), a WebGIS-based solution was selected as the best possible. In particular, Open Source applications were chosen, due to their optimal trade-off between high customizability and costs.

The realized WebGIS system allows the visualization, the georeferencing and the insertion of archaeological sites regarding the Pre- and Proto-History (together with their related bibliographic entries); moreover, it further gives the user the possibility of performing complex alphanumeric or geographic queries, of automatically creating reports describing the visualized site and of managing multimedia files linked to the site.

The WebGIS system was entirely realized by OpenSource technologies like Mapserver/MapBuilder as the WebGIS engine and development suite, and PostgreSQL/PostGIS as the RDBMS for the spatial data management. The whole project was realized following the Open Geospatial Consortium (OGC) standards to guarantee the full cross-platform interoperability and to simplify the collaboration among all different partner institutions.

### AIS Guest (free and limited access)



### progetto Apsat (TN)



### progetto S. Vito (BL)



## Login Form

User name:

Password:

## Credits



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# Open Science : New challenge

**Making research results more accessible contributes to better and more efficient science, and to innovation in the public and private sectors.**

**EU Policy on Open Science: 4-5 April 2016:** Conference on Open Science during the Dutch Presidency: Discussion of the European Open Science Agenda

**May 2016:** Competitiveness Council: Adoption of Council Conclusions on Open Science





# Open Science: New challenge

**EU Policy on Open Science: 4-5 April 2016:** Call for Action is the main result of the Amsterdam conference on „Open Science – From Vision to Action“ hosted by the Netherlands“ EU presidency on 4 and 5 April 2016, endorsed by EUA on 14 April 2016

## **2 main Goals and 12 Actions**

- 1. Full open access** for all scientific publications by 2020
- 2. Open data** as the standard for all publicly funded research

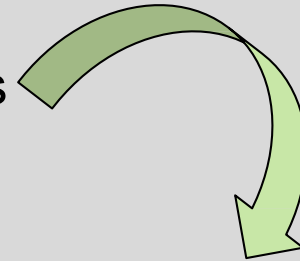


# Open Science: Call for Action

12 Actions - 5 crosscutting themes (structure of the European Open Science Agenda as proposed by the European Commission)

## ACTIONS FOR

Research managers and administrators



### Group 1- Removing barriers to open science

1. Change assessment, evaluation and reward systems in science
2. Facilitate text and data mining of content
3. Improve insight into IPR and issues such as privacy
4. Create transparency on the costs and conditions of academic communication

Encourage researchers **not to transfer the copyright on their research outputs before publication.**

Develop and set standards on privacy by design also in negotiations with other partners on reuse of data.



# Open Science: Call for Action

**Group 2** Developing research infrastructures

**Group 3** Fostering and creating incentives for open science

**Group 4.** Mainstreaming and further promoting open science policies

**Group 5.** Stimulating and embedding open science in science and society

**Train and support students and researchers in open science principles,** their societal responsibility and role, and in extending the impact of their work to society at large. **Develop new types of services to researchers in support of open science and train support staff** (for instance in ICT services and libraries) to deliver these services.

Develop Principles & Guidelines for DMP and data stewardship. Create optimal conditions for sharing research output by introducing a quality hallmark for the **FAIR** principles: research output should be **F**indable, **A**ccessible, **I**nteroperable and **R**eusable.

**Institutional data policy** which clarifies institutional roles and responsibilities for research data management and data stewardship



# Useful Links

## Open Science

**Research & Innovation-Open Science web page**

<http://ec.europa.eu/research/openscience/index.cfm?pg=home> **Call for Action on**

**Open Science:**

<http://english.eu2016.nl/documents/reports/2016/04/04/amsterdam-call-for-action-on-open-science>

**EUA endorsement:**

<http://www.eua.be/Libraries/publications-homepage-list/eua-endorses-the-amsterdam-call-for-action-on-open-science>





**Thank you !**

**Vanessa Ravagni**

Head of Research Support and  
Knowledge Transfer Division

University of Trento, Italy

[vanessa.ravagni@unitn.it](mailto:vanessa.ravagni@unitn.it)



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## Introduction to the Horizon 2020 Open Research Data Pilot

Sarah Jones

DCC, University of Glasgow

[sarah.jones@glasgow.ac.uk](mailto:sarah.jones@glasgow.ac.uk)

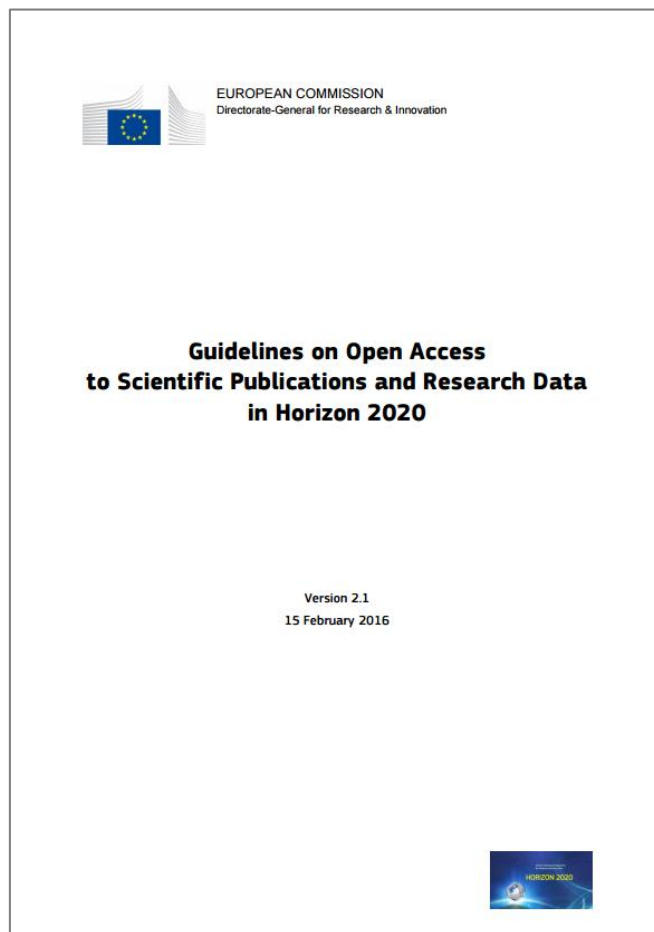
Twitter: @sjDCC

#fosteropenscience

*EARMA conference, 22nd June 2016, Lulea, Sweden*



# Why open access and open data?



“In the European Commission's view, there should be no need to pay for information funded from the public purse each time it is accessed or used. Moreover, it should benefit European businesses and the public to the full.”

[http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf)

# H2020 open science guidelines

- Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020

[http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf)

- Guidelines on Data Management in Horizon 2020

[http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)

- Also read the specific grant agreement clauses

# Open Research Data (ORD) Pilot

## Pilot focuses on research data specifically

'Research data' refers to information, in particular facts or numbers, collected to be examined and considered and as a basis for reasoning, discussion, or calculation.

In a research context, examples of data include statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings and images. The focus is on research data that is available in digital form.

Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020  
v.2.1, 15 February 2016, p3

# The scope of participation is growing...

- In the 2014-15 work programme, 7 areas participated in the pilot
- In the 2016 work programme, new topics joined in 3 areas (research infrastructures, nanotechnologies and food security)
- All calls covered by the 2017 work programme will be part of the pilot. Effectively it's moving from a pilot to a mandate.



**Open Access EC**  
@OpenAccessEC

Official! From 2017 no more pilot: [#open](#) [#research](#) [#data](#) will become the rule (with opt out) [ec.europa.eu/digital-single...](https://ec.europa.eu/digital-single)

The Commission will make open research data the default option, while ensuring opt-outs, for all new projects of the Horizon 2020 programme.	As of 2017
--	------------

19/04/16 12:17



# Exemptions - reasons for opting out

- If results are expected to be commercially or industrially exploited
- If participation is incompatible with the need for confidentiality in connection with security issues
- Incompatible with existing rules on the protection of personal data
- Would jeopardise the achievement of the main aim of the action
- If the project will not generate / collect any research data
- If there are other legitimate reasons to not take part in the Pilot

Can opt out at proposal stage OR during lifetime of project  
Should describe issues in the project Data Management Plan



Approach:  
as open as  
possible, as closed  
as necessary

# Which data does the pilot apply to?

- Data, including associated metadata, needed to validate the results in scientific publications
- Other curated and/or raw data, including associated metadata, as specified in the DMP

Doesn't apply to all data (researchers to define as appropriate)

Don't have to share data if inappropriate - exemptions apply

# Key requirements of the open data pilot

Beneficiaries participating in the Pilot will:

- Deposit data in a research data repository of their choice
- Take measures to make it possible for others to access, mine, exploit, reproduce and disseminate the data free of charge
- Provide information about tools and instruments necessary for validating the results (where possible, provide the tools and instruments themselves)

# Data Management Plans

Projects participating in the pilot will be required to develop a Data Management plan (DMP), in which they will specify what data will be open.

Note that the Commission does NOT require applicants to submit a DMP at the proposal stage.

A DMP is therefore NOT part of the evaluation.

DMPs are a deliverable for those participating in the pilot.

# Info on RDM: what and when

## PROPOSAL STAGE

Where relevant\*, H2020 proposals can include a section on data management which is evaluated under the criterion ‘Impact’

- What types of data will the project generate/collect?
- What standards will be used?
- How will this data be shared/made available? If not, why?
- How will this data be curated and preserved?

\* For “Research and Innovation actions” and “Innovation Actions”

## IN PROJECT

- DMPs are a project deliverable for those participating in the open data pilot.
- Not a fixed document - should evolve and gain precision
  - Deliver first version within initial 6 months of project
  - More elaborate versions whenever important changes to the project occur. At least at the mid-term and final review.



# Initial DMP (at 6 months)

The DMP should address the points below on a dataset by dataset basis:

- Dataset reference and name
- Data set description
- Standards and metadata
- Data sharing
- Archiving and preservation (including storage and backup)

# More elaborate DMP

Scientific research data should be easily:

## 1. Discoverable

Are the data discoverable and identifiable by a standard mechanism e.g. DOIs?

## 2. Accessible

Are the data accessible and under what conditions e.g. licenses, embargoes?

## 3. Assessable and intelligible

Are the data and software assessable and intelligible to third parties for peer-review? E.g. can judgements be made about their reliability and the competence of those who created them?

## 4. Useable beyond the original purpose for which it was collected

Are the data properly curated and stored together with the minimum software and documentation to be useful by third parties in the long-term?

## 5. Interoperable to specific quality standards

Are the data and software interoperable, allowing data exchange? E.g. were common formats and standards for metadata used?



# DMPonline

A web-based tool to help researchers write DMPs  
Includes a template for Horizon 2020

My plan (Horizon 2020 DMP) No questions have been answered

Plan details **Initial DMP** Mid-term Review DMP Final review DMP Share Export

For each data set specify the following: (5 questions, 0 answered)

Data set reference and name

**Save**

**Not answered yet**

Data set description

**B** *I*

**EC Guidance**

Identifier for the data set to be produced.

**EC Guidance**

Description of the data that will be generated or collected, its origin (in case it is collected), nature and scale and to whom it could be useful, and whether it underpins a scientific publication. Information on the existence (or not) of similar data and the possibilities for integration and reuse.

<https://dmponline.dcc.ac.uk>

# Lessons the EC has drawn (1)

- Explantation is paramount!
  - Misperception that 'open' bias will be evaluated positively
  - Confusion: DMP versus data management section at submission stage
  - Need to state that not everything must be open. In theory, it is possible to be in the ORD Pilot and not open any data.
  - Emphasise flexibility (many opt-out / opt-in mechanisms)
- Emphasise the importance of feedback for policy in the next Framework Programme: being in the Pilot means co-shaping European policy on opening up research data

Content taken from slides shared by Daniel Spichtinger, Celina Ramjoue, Jarkko Siren and Jean-Francois Dechamp

# Lessons the EC has drawn (2)

- It helps to re-frame ORD Pilot as "Data Management Pilot"
  - Stress the fact that researcher has freedom and responsibility via DMP. Excellent research must include excellent data management.
  - Underline overall aim: kick-starting a virtuous circle and change of culture
- Questions about eligibility of data management costs
- Tools and support needed for data management / DMPs

Content taken from slides shared by Daniel Spichtinger, Celina Ramjoue, Jarkko Siren and Jean-Francois Dechamp

# FOSTER support

Facilitate Open Science Training for European Research

- Network of open access trainers
- Programme of open science courses
- Portal to training materials
- E-learning courses on open access and open data

[www.fosteropenscience.eu](http://www.fosteropenscience.eu)





# OpenAIRE

# Open Access Infrastructure for research in Europe

- aggregates data on OA publications
- mines & enriches its content by linking things together
- provides services & APIs e.g. to generate publication lists

[www.openaire.eu](http://www.openaire.eu)

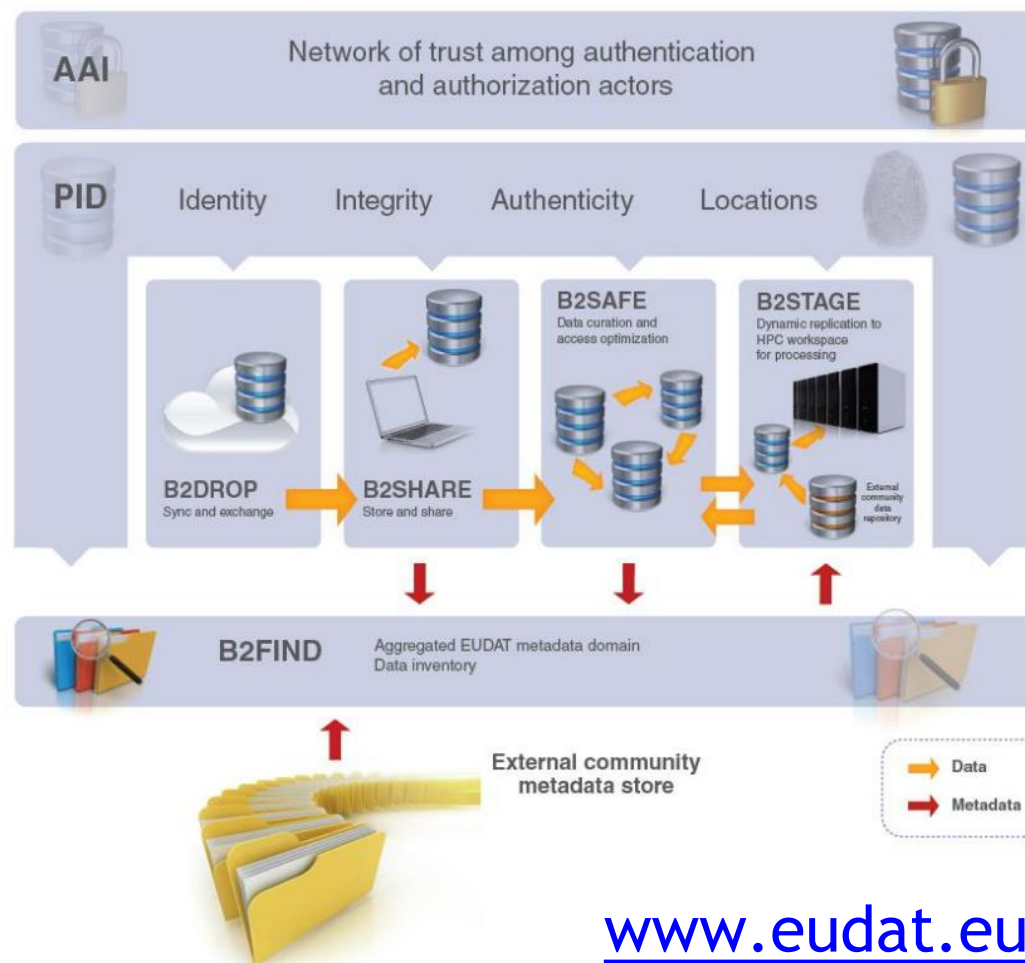


<http://vimeo.com/108790101>

# EUDAT services

EUDAT offers a pan-European solution, providing a generic set of services to ensure minimum level of interoperability

Building common data services in close collaboration with 25+ communities



# Thanks - any questions?

Follow us on Twitter:

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FOSTER training events and materials:

[www.fosteropenscience.eu/events](http://www.fosteropenscience.eu/events)

