

# Il riuso nel contesto di EOSC e di Horizon Europe

Elena Giglia  
elena.giglia@unito.it  
 @egiglia





# Cosa vedremo oggi

Come si dice «riuso» oggi in Europa? FAIR!

FAIR, EOSC e Open Science come «new normal»

Le nuove regole in Horizon Europe

...PERCHÉ IN HORIZON  
EUROPE OPEN SCIENCE  
(E DATI FAIR) RIENTRANO  
NELLA VALUTAZIONE  
DELLA PROPOSTA



A FAIRy tale



COME IN TUTTE LE  
STORIE, PARTIAMO  
DA LONTANO...

# [...cosa ci ha insegnato il COVID-19]

I DATI APERTI  
SALVANO VITE

## Digital Science Report The State of Open Data 2021

The longest-running longitudinal survey and analysis on open data

Foreword by Natasha Simons, Australian Research Data Commons (ARDC)

Nov. 29 2021

November 2021

Open data saves lives. The globe  
beyond anything that came before it  
in solving the big challenges of our time

**SERVONO I DATI**  
**[FAIR BY DESIGN]**  
(E NON SOLO LA  
SINTESI FINALE  
SOTTO FORMA DI  
ARTICOLO)



tech economy 2030  
Digital transformation for sustainability

2020

Home » #SDG3 » Open Science è una necessità, non una noia burocratica

#SDG3 In Evidenza Sostenibilità Culturale

Open Science è una necessità, non  
una noia burocratica

IL COVID HA DIMOSTRATO CHE  
OPEN SCIENCE È UNA  
NECESSITÀ

Sanjee Baksh, PhD @S\_Baksh · 21h

Congratulations to the authors but I am not strong enough for this

[Mostra questa discussione](#)

<https://doi.org/10.1038/s41586-022-04627-1>

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...GLI ARTICOLI SERVONO  
SUBITO: PREPRINT!  
CON IL SISTEMA TRADIZIONALE  
AVREMMO VISTO I PRIMI  
ARTICOLI (**SENZA DATI**) SE VA  
BENE A DICEMBRE 2020  
(9-18 MESI TEMPI MEDI DI PUBBLICAZIONE)



Raphaël Lévy  
@raphavisses

#OSEC2022 @BoukacemZeg

(applauded by @stephen\_curry) concludes her talk  
with a quote from a young research who left science  
saying "GAME OVER: The pandemic is a life-size  
experiment that reminded us that the ultimate goal is  
to advance knowledge, not egos, not numbers"

[Traduci il Tweet](#)

Feb. 4 2022

5:10 PM · 4 feb 2022 · Twitter Web App

LA PANDEMIA CI RICORDA CHE LO **SCOPO**  
**DELLA RICERCA È FARE AVANZARE LA**  
**CONOSCENZA**, NON SONO I NUMERI O IL  
NOSTRO EGO



# I dati?

DATI = TUTTO CIÒ CHE VIENE RACCOLTO, GENERATO E USATO NEL PROCESSO DI RICERCA



*We could then define data in the humanities broadly as all materials and assets scholars collect, generate and use during all stages of the research cycle. In this report we focus on digital assets.*

PENSATE A TUTTI GLI ELEMENTI DELLA VOSTRA RICERCA COME «DATI» CHE POSSONO ESSERE RIUSATI DA ALTRI. E CONSIDERATE QUANTO SAREBBE UTILE PER VOI POTER RIUSARE DATI DI ALTRI



## RECOMMENDATIONS

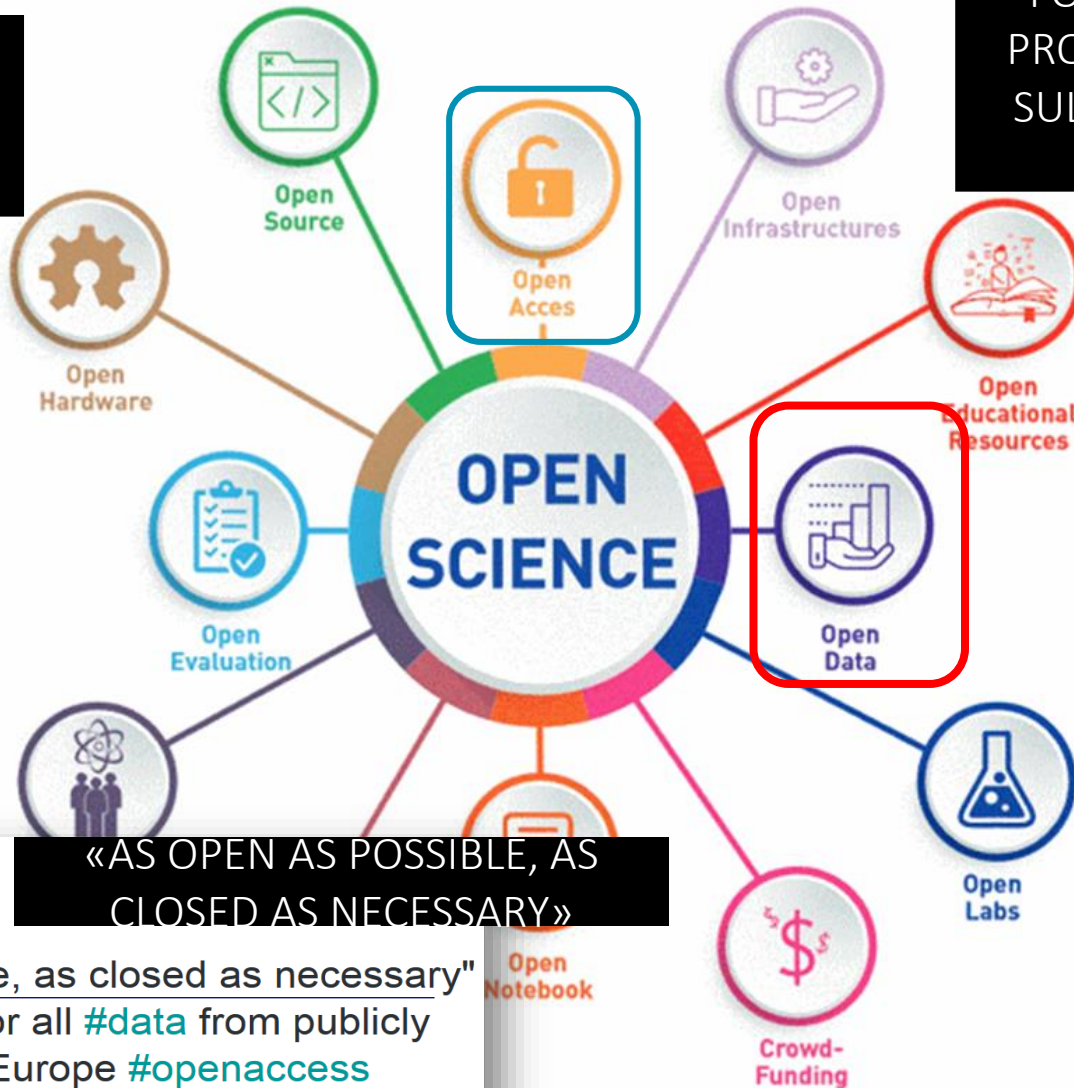
» Think of all your research assets as research data that could be potentially reused by other scholars. Consider how useful it would be for your own work if others shared their data.



# ...parlando di dati, parliamo di Open Science

OPEN  
SCIENCE ≠ OPEN  
ACCESS

FOCUS SULL'INTERO  
PROCESSO, NON SOLO  
SULLA SINTESI FINALE  
(ARTICOLO)



«AS OPEN AS POSSIBLE, AS  
CLOSED AS NECESSARY»



Carlos Moedas  
@Moedas

2/4 "Open as possible, as closed as necessary"  
is the new principle for all [#data](#) from publicly  
funded [#research](#) in Europe [#openaccess](#)

RETWEET  
76

MI PIACE  
32



Principles of Open Science

UNESCO



# [...Houston, abbiamo un problem

## 10 Myths around Open Scholarly Publishing March 11, 2019

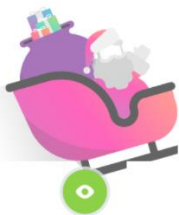
<b>Myth 1</b> <b>Preprints will get your research 'scooped'</b> Preprints typically provide a time-stamp and a DOI, therefore establishing priority of discovery	<b>Myth 6</b> <b>Copyright transfer is required to publish and protect authors</b> Copyright transfer procedures do not protect authors nor contribute to the advancement of scientific progress
<b>Myth 2</b> <b>JIF and journal branding are measures of quality for researchers</b> The JIF is a flawed metrics that was never meant to be used for evaluation of research and researchers	<b>Myth 7</b> <b>Gold Open Access is synonymous with the APC business model</b> Most DOAJ-indexed journals do not have APCs and are funded from other sources, such as research institutes and grants
<b>Myth 3</b> <b>Approval by peer review proves that you can trust a research article</b> The current peer review system is prone to a number of flaws including corruption, human bias and ghostwriting	<b>Myth 8</b> <b>Embargo periods on 'green' OA are needed to sustain publishers</b> Traditional journals can peacefully coexist with zero-embargo self-archiving policies on author manuscripts
<b>Myth 4</b> <b>Without journal peer review, the quality of science suffers</b> Researchers are more than responsible and competent enough to ensure their own quality control as part of intrinsic scientific integrity	<b>Myth 9</b> <b>Web of Science and Scopus are global databases of knowledge</b> Neither represent the sum of current global research knowledge including Africa, Latin America and Southeast Asia
<b>Myth 5</b> <b>Open Access has created predatory publishers</b> Predatory journals have been around for a long time before the recent push towards Open Access publishing	<b>Myth 10</b> <b>Publishers add no value to the scholarly communication process</b> Publishers are responsible for quite some key functions, from peer-review management to production and archiving of final version articles

## CALENDARIO DELL'AVVENTO OPEN SCIENCE

1 dicembre



2 dicembre



3 dicembre



4 dicembre



5 dicembre



7 dicembre



8 dicembre



9 dicembre



10 dicembre



11 dicembre



genially 2021

LA PERCEZIONE IN ITALIA:  
- OPEN SCIENCE=OPEN ACCESS  
- OPEN ACCESS=SOLO RIVISTE  
- SI PAGA SEMPRE PER PUBBLICARE  
- EDITORI PREDATORI

## POLITICHE NAZIONALI SU TESTI E DATI (RACCOMANDAZIONI 790/2018)

Gli Stati membri dovrebbero garantire che in esito a queste politiche o piani d'azione:

- la pianificazione della gestione di dati diventi una pratica scientifica standard sin dalle prime fasi del processo di ricerca quando i dati sono generati o raccolti, anche richiedendo piani di gestione dei dati,
- i dati di ricerca prodotti nell'ambito di attività di ricerca finanziate con fondi pubblici diventino e rimangano reperibili, accessibili, interoperabili e riutilizzabili («principi FAIR») in un ambiente sicuro e affidabile, per mezzo di infrastrutture digitali (comprese quelle aggregate nell'ambito del cloud europeo per la scienza aperta).



DATI DELLA RICERCA COME  
DATI DEL SETTORE PUBBLICO  
(DIRECTIVE 1024/2019) +  
D.Lgs 200/2021

generale può favorire la crescita economica e l'innovazione. Oltre all'accesso aperto, si stanno compiendo lodevoli sforzi per garantire che la pianificazione della gestione dei dati diventi una pratica scientifica standard e per favorire la diffusione di dati della ricerca reperibili, accessibili, interoperabili e riutilizzabili (principio «FAIR»).

(28) Per i motivi sopra esposti, è opportuno fissare per gli Stati membri l'obbligo di adottare politiche di accesso aperto in relazione ai dati della ricerca finanziata con fondi pubblici e di garantire che tali politiche siano attuate da tutte le organizzazioni che svolgono attività di ricerca e da tutte le organizzazioni che finanziano la ricerca. Le organizzazioni

## STRATEGIA EUROPEA PER I DATI (COMMUNICATION 66/2020)



### 3. La visione

La visione della Commissione scaturisce dai valori e dai diritti fondamentali europei e dalla convinzione che l'essere umano sia e debba rimanere l'elemento centrale. La Commissione è convinta che le imprese e il settore pubblico dell'UE possano, tramite l'uso dei dati, disporre degli strumenti per adottare decisioni migliori. È particolarmente importante cogliere l'opportunità offerta dai dati per il bene sociale ed economico, poiché i dati, a differenza della maggior parte delle risorse economiche, possono essere copiati pressoché a costo zero e il loro utilizzo da parte di una persona o di un'organizzazione non ne impedisce l'utilizzo simultaneo da parte di un'altra persona o organizzazione. È opportuno mettere a frutto tali potenzialità per rispondere alle esigenze delle persone e creare di conseguenza valore per l'economia e la società. Per farlo, è necessario garantire un migliore accesso ai dati e un loro utilizzo responsabile.



# Principi FAIR

## To be Findable:

- F1. (meta)data are assigned a globally unique and eternal
- F2. data are described with rich metadata.
- F3. (meta)data are registered or indexed in a searchable
- F4. metadata specify the data identifier.

## TO BE ACCESSIBLE:

- A1 (meta)data are retrievable by their identifier using a st
- A1.1 the protocol is open, free, and universally implementa
- A1.2 the protocol allows for an authentication and authorization procedure, where necessary.
- A2 metadata are accessible, even when the data are no longer available.

## TO BE INTEROPERABLE:

- I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- I2. (meta)data use vocabularies that follow FAIR principles.
- I3. (meta)data include qualified references to other (meta)data.

## TO BE RE-USABLE:

- R1. meta(data) have a plurality of accurate and relevant attributes.
- R1.1. (meta)data are released with a clear and accessible data usage license.
- R1.2. (meta)data are associated with their provenance.
- R1.3. (meta)data meet domain-relevant community standards.

## FAIR Principles

## Compliance



### Findability

Resource and its metadata are easy to find by both, humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services.

- ✓ F1. Resource is uploaded to a public repository.
- ✓ F2. Metadata are assigned a globally unique and persistent identifier.



### Accessibility

Resource and metadata are stored for the long term such that they can be easily accessed and downloaded or locally used by humans and ideally also machines using standard communication protocols.

- ✓ A1. Resource is accessible for download or manipulation by humans and is ideally also machine readable.
- ✓ A2. Publications and data repositories have contingency plans to assure that metadata remain accessible, even when the resource or the repository are no longer available.



### Interoperability

Metadata should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.

- ✓ I1. Resource is uploaded to a repository that is interoperable with other platforms.
- ✓ I2. Repository meta- data schema maps to or implements the CG Core metadata schema.
- ✓ I3. Metadata use standard vocabularies and/or ontologies.



### Reusability

Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines and humans.

- ✓ R1. Metadata are released with a clear and accessible usage license.
- ✓ R2. Metadata about data and datasets are richly described with a plurality of accurate and relevant attributes.

## FAIR principles

«ACCESSIBLE»

≠ «OPEN»

= DOVE E A QUALI  
CONDIZIONI  
I DATI SONO  
ACCESSIBILI

# FAIR, ovvero

## FINDABLE

- IDENTIFICATIVI
- METADATI

## INTEROPERABLE

- STANDARD
- ONTOLOGIE

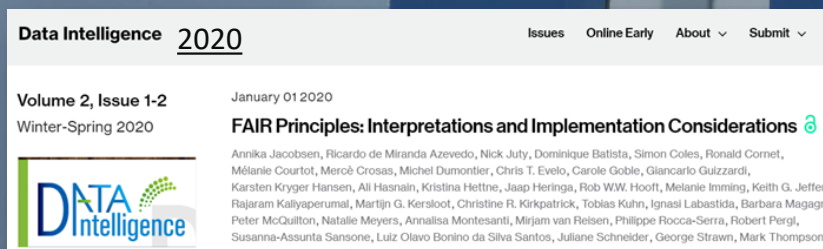
## ACCESSIBLE

- DOVE SONO CONSERVATI I DATI E A QUALI CONDIZIONI DI ACCESSO
  - NON «OPEN»
  - FORMATI APERTI

## REUSABLE

- LICENZE
- DOCUMENTAZIONE

IL TUTTO, MACHINE READABLE





## RECOMMENDATIONS

- Clarify all legal issues at the beginning of your research project and include the findings of this process in the data management plan.
- Use checklists adequate to your research topic/discipline.
- Check the resources indicated by DARIAH-CLARIN (see further reading).
- In the case of personal data ensure that only relevant people can access the data and that these are clearly identified (see GDPR).
- Ask for consent to share anonymised data and establish transparent and well-documented anonymisation routines that consider not just direct identifiers, but also how a combination of indirect identifiers could reveal identities. (See for example the guide on informed consent in the CESSDA data management expert guide).
- Avoid collection of (sensitive and non-sensitive) personal data when possible.
- Get legal support (IPR, copyright, patents, trademarks etc.) from your home institution. If there is no dedicated office for this purpose, try to get information from your university library, as its staff are often confronted with such issues.
- If you need permission from the copyright holder in order to use sources like images for your publication, try to get one that covers both printed and digital copies.
- Finally, check the recommendations in the section on [Licences](#), that are closely related to this section.

## RECOMMENDATIONS

- Data models go FAIR: the FAIR Guiding Principles, correctly applied, ensure data are findable, accessible, interoperable and reusable. Data modelling should take this into account by using formal, easily accessible languages for knowledge representation, providing persistent identifiers, open standards, well documented Application Programming Interfaces (API), generic user interfaces and rich metadata. The [FAIRification process](#) developed by the GO FAIR initiative offers a system on how to shape the data modelling.
- Use open standards, and whenever possible, standardised technologies and procedures should be used. The World Wide Web Consortium W3C maintains several standards relevant for data models like XML and RDF. Within XML, the Text or Music Encoding Initiative (TEI/MEI) or specific expressions of them have become standards for text or music editions. The query language SPARQL and the representation tool for linked data JSON-LD are common standards for RDF (refers to FAIR principle (1)).
- Prefer human and machine-readable systems: coding of data models and of the actual data that is both human and machine-readable in a unified way provides better sustainability and long-term accessibility than machine-readable only code (binary codes), that may use different formats for data model description and the actual data. For both, hierarchical data models and graph-based data, various serialisations (file formats) are available that fulfil this condition (XML, TEI/XML, Turtle, N3, RDF/XML), whereas SQL based technologies need bigger efforts.
- Normalise as much as possible: to avoid redundant information, the content of databases should be normalised as far as possible, using for example authority files like VIAF and identifiers like DOI, ARK, ISN, and the like. To foster the exchange of data, standardised vocabularies and ontologies are needed as well, but an overall ontology for the humanities has not yet been established. The ontology CIDOC-CRM and especially some extensions are well on their way to become a reference model for cultural heritage information.
- Data models follow the data management plan (DMP): when establishing a data model, researchers should keep the whole lifecycle of their data in mind, as it should be outlined in a DMP. Therefore, an extensive documentation of the data model, its software and tools are highly relevant and facilitates the transfer of data in a secure and trusted repository in order to keep them accessible. The same is true here: the more you use open standards for your data model, the easier this task becomes.

# R



## RECOMMENDATIONS

- To ensure the best possible stewardship of your data, choose to deposit it in a digital repository that is certified by a recognised standard such as the CoreTrustSeal. The [Registry of Research Data Repositories](#) (re3data) provides a good starting point, noting disciplines, standards, content types, certification status and more. [FAIRsharing](#) (manually curated information on standards, databases, policies and collections) allows you to search databases by subject, and includes entries tagged 'Humanities and Social Sciences'.
- Use disciplinary repositories where they exist, as they are more likely to be developed around domain expertise, disciplinary practices and community-based standards, which will promote the findability, accessibility, interoperability and ultimately the reuse and value of your data. The level of curation available in a repository is key to data quality and reusability.
- Datasets should be assigned persistent identifiers (PID). Most repositories that are designed for long-term preservation will automatically assign or 'mint' persistent identifiers for your datasets, so choosing a quality repository will automate this step. Consider as well signing up for ORCID, a free service that assigns persistent identifiers to individuals/authors.
- To facilitate findability of all research outputs, bidirectional links should be created between publications related outputs, such as data (using PIDs).
- Include the richest metadata possible with your deposited data so that others can find it, understand the parameters under which it was created, and understand the conditions under which they can access and/or reuse it. See recommendations in this report in the sections on [Licences](#) and [Metadata](#) for more information.

# anit

**DISSEMINATION**  
What it means to disseminate data in the Humanities

**IDENTIFY**  
Research Data in the Humanities

**FAIR DATA and the HUMANITIES**

**DEPOSIT for PRESERVATION, CITE & SHARE**  
License and Legal aspects  
TDRs and PIDs for the Humanities

**PLAN**  
Data Management Plans

**COLLECT/PRODUCE & STRUCTURE & STORE**  
Types and Formats, Metadata and Data Models for the Humanities



# Sustainable and FAIR Data Sharing in the Humanities

ALLEA Report | February 2020  
February 2020



## RECOMMENDATIONS

- If applicable, determine if the body funding your research has particular requirements for a DMP or offers a template for framing your plan. If there is no required template, choose an existing appropriate one (e.g. via DMPOnline).
- Devise a DMP prior to collecting data. Define and plan for your data: all research projects deal with data. If your project includes the analysis of text corpora, for example, then the corpora themselves are data, and you should make sure they are clearly described, documented, and managed according to the FAIR principles so your research is reusable by others.
- Plan documentation of metadata: in order for your data to be comprehensible in the future and/or reusable by others, they will need descriptive metadata created according to a common schema to understand the content/purpose of the research. The richer the metadata, the more intelligible and useful the dataset (see section on [Metadata](#)).
- Use standardised terminology to increase interoperability. Consider employing vocabularies or ontologies that follow FAIR principles to increase interoperability and findability (e.g. see [FAIRsharing](#)).
- Consider the right questions to be answered in your DMP that can account for discipline-specific requirements. The DMP templates suggested by funders are quite high level and provide generic guidance for file naming or versioning conventions, database structuring and can be a good start. Tools like the [dispositionfor.ac.uk](#) provide discipline specific examples that can be of further reference.
- DMP as living documents: Update your data management plan regularly in order to take into account any potential relevant changes such as using new data types and/or models, technology, new institutional data management policies, reassessing legal aspects or licences for legal compliance etc.
- Depending on the size of the organisation: think of providing institutional support for research data management (RDM): organise information sessions to raise awareness about good research data management, and the risks of not managing it early.
- If possible, consider involving library and/or repository support staff from the initial stages of research data management planning to discuss the best solutions, specifications, standards and protocols along which the repository operates. Repository staff can also assist scholars with understanding any specific data management requirements and associated costs.
- Factor the cost of research data management (time or human resources) into budgetary requirements at the point of application.



## RECOMMENDATIONS

- A good starting point is to consult the Metadata Standards Directory, a community-maintained directory hosted by the Research Data Alliance: <https://rd-alliance.github.io/metadata-directory/>.
- Metadata works best when terminology is consistent, e.g. naming conventions are followed, spelling is normalised, and so on. Depending on the complexity and size of your metadata, consider using a tool such as Open Refine to 'clean' your metadata.
- For greater searchability and interoperability, researchers should also consider using controlled vocabularies to identify common terminology when populating metadata fields. Library of Congress maintains a controlled vocabulary for subject headings: <https://www.loc.gov/standards/subject/>.
- Metadata should include a clear and explicit reference to the dataset with the inclusion of a PID in the metadata (see section on [Trustworthy Data](#) and [Persistent Identifiers](#)).
- Metadata should be as rich as possible in order to better contextualise your data and consider more detailed descriptions, and fuller provenance information, as well as a spectrum of available metadata fields.
- Metadata should be machine-readable.

# R = Reusable. Documentazione

DOCUMENTAZIONE (README FILE) PER  
- EVITARE USO SCORRETTO/CATTIVE  
INTERPRETAZIONI DEI VOSTRI DATI  
- MANTENERE INTEGRITÀ

## Project-level documentation [CESSDA expert guide](#)



Project-level documentation explains the aims of the study, what the research questions/hypotheses are, what methodologies were being used, what instruments and measures were being used, etc. In the accordion the questions which your project-level documentation should answer are stated in more detail:

detail:

- ⊕ 1. For what purpose was data created
- ⊕ 2. What does the dataset contain
- ⊕ 3. How was data collected
- ⊕ 4. Who collected the data and when
- ⊕ 5. How was the data processed
- ⊕ 6. What possible manipulations were done to the data
- ⊕ 7. What were the quality assurance procedures
- ⊕ 8. How can data be accessed

## Data-level documentation

Data-level or object-level documentation provides information at the level of individual objects such as pictures or interview transcripts or variables in a database. You can embed data-level information in data files. For example, in interviews, it is best to write down the contextual and descriptive information about each interview at the beginning of each file. And for quantitative data variable and value names can be embedded within the data file itself.



### ⊖ Quantitative data

Variable-level annotation should be embedded within a data file itself. If you need to compile an extensive variable level documentation that can be created by using a structured metadata format.

#### Data-level documentation for quantitative data

For quantitative data document the following:

- **Information about the data file**  
Data type, file type and format, size, data processing scripts.
- **Information about the variables in the file**  
The names, labels and descriptions of variables, their values, a description of derived variables, if available, frequencies, basic statistics etc. The most original





# R= Reusable. License

Copyright: protects the STRUCTURE, selection or arrangement of their contents" (Art. 3) NOT THE DATA

*Sui generis* database right: protects the «substantial effort» in OBTAINING data [NOT «CREATING»]... the right owner often is the institution

Database=a collection of independent works, data or other materials arranged in a systematic or methodical way (Art.1)

RICORDA: NESSUN  
COPYRIGHT SUI DATI  
(NON CREATIVI)

DIRECTIVE 96/9/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 11 March 1996

on the legal protection of databases

COUNCIL OF THE EUROPEAN UNION,  
in Community, and in particular Article 57 (2), 66 and 100a thereof,

Simone Aliprandi

2014

la QUALI DIRITTI SUI DATI?

semplici dati e  
informazioni

nessuna tutela

database  
non creativo

solo diritto  
sui generis

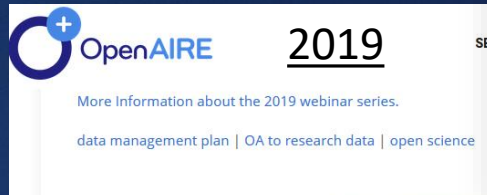
database  
creativo

diritto sui generis  
+ diritto d'autore

livello diritto  
d'autore

livello diritto  
sui generis

# R – Reusability



Aspetti legali nella gestione dei dati



Italian Computing and Data Infrastructure

16 SETTEMBRE

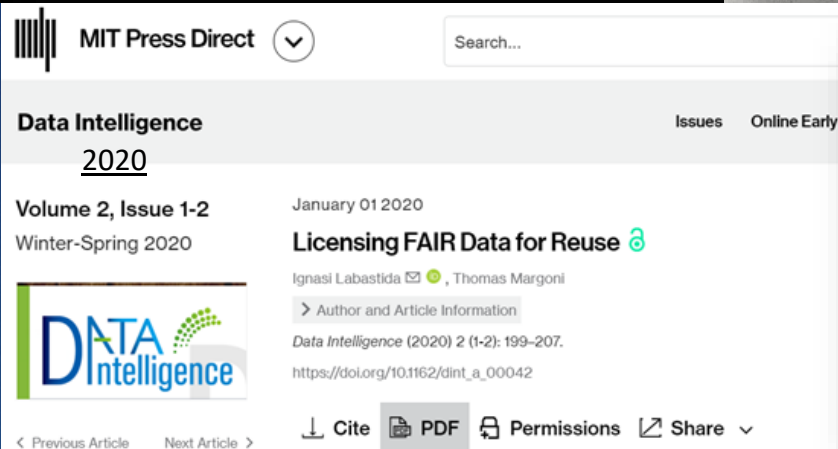
OS café

PROTEZIONE E RIUSO. RIFLESSIONI TRA DIRITTO D'AUTORE E DATI DELLA RICERCA

Thomas Margoni, Università KU Leuven

Open Science  
Café

- POSSONO ESSERCI ALTRE FORME DI PROTEZIONE DEI DATI (ES. CONTRATTI)
- PER DATI CHE RICADONO SOTTO GDPR VA SEMPRE ESPLICITATA LA BASE LEGALE SULLA QUALE SI CONDUCE LA RICERCA



## 1. THE PROTECTION OF DATA, DATA SETS AND DATABASES

European Union (EU) law defines “databases”, but not data sets or, at least for copyright purposes, data. Databases that meet the legal definition<sup>①</sup> can be protected by copyright if they are original. Data sets, if they correspond to the definition of database, are protected by copyright otherwise not. Data as such are normally excluded from copyright protection [2,3]. It is important to understand that copyright protects original expressions in the “literary and artistic” domain<sup>②</sup>, an expression that has historically included works such as books, musical works, choreographies, cinematographic works, drawings, etc [4]. Ideas, procedures, methods of operation or mathematical concepts as such, news of the day and miscellaneous facts are excluded from copyright protection [4,5,6].



# R = Reusable - Aspetti legali

 **OpenAIRE** How do I know SERVICES SUPPORT

Guides for Researchers

## How do I know if my research data is protected?

Learn more about what is research data and their protection by intellectual property rights

 **OpenAIRE** SERVICES SUPPORT

## How do I license

Guides for Researchers

## How do I license my research data?

Learn more about licenses for research data and how to apply it

### What is Research Data?

Research data are the evidence that underpins the answer to the research question, and can be used to validate findings regardless of its form (e.g. print, digital, or physical). These might be quantitative information or qualitative statements collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence. Data may be raw or primary (e.g. direct from measurement or collection) or derived from primary data for subsequent analysis or interpretation (e.g. cleaned up or as an extract from a larger data set), or derived from existing sources where the rights may be held by others. Data may be defined as 'relational' or 'functional' components of research, thus signalling that their identification and value lies in whether and how researchers use them as evidence for claims. They may include, for example, statistics, collections of digital images, sound recordings, transcripts of interviews, survey data and fieldwork observations with appropriate annotations, an interpretation, an artwork, archives, found objects, published texts or a manuscript.

### LICENSES FOR RESEARCH DATA

#### HOW TO APPLY LICENSES FOR RESEARCH DATA

#### SPECIFICATIONS OF LICENSING RESEARCH DATA

#### TRAINING MATERIALS

### Licenses for Research Data

#### What licence should be applied to the research data?

It depends on what rights protect your research data, if at all. In the light of what is explained in the guide "[How do I know if my research data is protected?](#)":

- If your research data qualifies as a work (literary work such as a journal article or a software), then CC BY 4.0 is usually the best choice. The use of the Share Alike (SA) is also compatible with the Open Access definition and reinforced in Plan S licensing guidance for publications. Non-commercial should be avoided as it is not Open Access compliant. Non-derivative is a tricky issue and should be avoided, especially if you do not know what you are doing. That said, it may not be incompatible with the Open Access definition.
- If your research data is a database or a dataset (unstructured data that do not meet the database definition) usually the best option is a CC0, which waives all your rights in the database.

Keep in mind that CC licences only deal with copyright and copyright related matter. Personal data are not included in CC and are analysed separately.

#### What is a Creative Commons licence?

How can a protected dataset be used?	+
Where are licences found?	+
Interoperability and stacking	+
What happens if I use 'Share Alike' (SA) licensed material in my work? Does that mean I have to make my work available under the same SA licence?	+
Can a dataset be used if there is no licence?	+
What are the risks of using a dataset without a licence?	+
Training materials	+

 **OpenAIRE** Can I use SERVICES SUPPORT

Guides for Researchers

## Can I reuse someone else's research data?

Learn more on how to reuse research data

**But I would like attribution when others use my dataset. In that case, shouldn't I use a CC BY licence?**

We recommend that you avoid using a CC BY licence. Here's why:

While attribution is a genuine, recognisable concern, not only might using a CC BY licence be legally unenforceable when no underlying copyright or SGDR protects the work, but it may also communicate the wrong message to the world. A better solution is to use CC0 and [simply ask for credit](#) (rather than require attribution), and provide a citation for the dataset that others can copy and paste with ease. Such requests are consistent with scholarly norms for citing source materials.

Legally speaking, datasets that are **not** subject

## USARE UNA CC0

- NON SIGNIFICA DIVENTARE ACCADEMICAMENTE MALEDUCATI
- **LA FONTE VA CITATA SEMPRE**
- USATE LA CC0 + UNA FORMULAZIONE DELLA CITAZIONE CHE RICHIEDETE (DA COPIARE/INCOLLARE)

## What is Open Science?

[Open Science](#) is the movement to make scientific research and data accessible to all for knowledge dissemination and public reuse.

## How should I licence my data for the purposes of Open Science?

We recommend you use the [CC0 Public Domain Dedication](#), which is first and foremost a waiver, but [can act as a licence](#) when a waiver is not possible.

### CC ZERO LICENCE, 'NO RIGHTS RESERVED' LOGO



By applying CC0 to your data you enable everyone to freely reuse your data as they see fit by waiving (giving up) your copyright and related rights in that data.

You should keep in mind that there are many situations in which data is **not** protected as a matter of law. Such data can include facts, names, numbers – things that are considered 'non-original' and part of the public domain thus not subject to copyright protections. Similarly, your database (which is a structured collection of data) might be considered 'non-original' and thus ineligible for copyright, and it might additionally be excluded

from other forms of protection (like the [EU sui](#)

CC Factsheet  creative commons UK

### FACT SHEET ON CREATIVE COMMONS & OPEN SCIENCE V0.1

This information guide contains questions and responses to common concerns surrounding open science and the implications of licensing data under Creative Commons licences. It is intended to aid researchers, teachers, librarians, administrators and many others using and encountering Creative Commons licences in their work.

Finally, if your data is in the public domain worldwide, you might state simply and obviously on the material that no restrictions attach to the reuse of your data and apply a [Public Domain Mark](#).

LICENZA CC0:  
LEGALMENTE LA PIÙ  
CORRETTA

When in doubt, consider which use may be appropriate according to the chart below:

### CC0 & PUBLIC DOMAIN LICENCES WHICH LICENSE TO USE AND WHEN



'Creative arrangement' of data is original, but any copyright has been waived and content is made available copyright-free



'Creative arrangement' of data is not original; the author acknowledges this and communicates the data is in the public domain



# Sfumature di FAIR

[FAIRassist.org](https://fairassist.org)

<https://fairassist.org/#/>

Help you discover resources to measure and improve FAIRness.

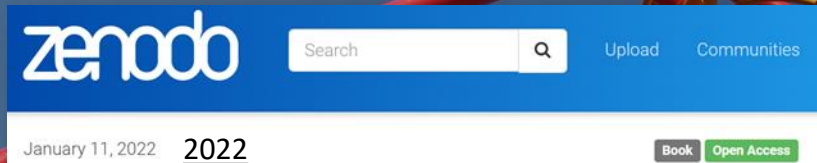
FAIRassist is the new, under development, educational component of the well established resource.

PER SAPERE QUANTO  
SIETE FAIR

- SISTEMI AUTOMATIZZATI  
- CHECK LIST MANUALI  
(UTILI PER FARSI LE  
DOMANDE «GIUSTE»)

Resource	Execution Type	Key Features	Organisation
5 Star Data Rating Tool	Manual - questionnaire	Based on rating systems and maturity models	CSIRO OzName
AutoFAIR	Semi-automated	A portal for automating FAIR assessments for bioinformatics	Department of Computer Information Systems
Data Stewardship Wizard	Predictive; based on a manually filled questionnaire	Helps researchers to design a data stewardship process for the highest reasonable FAIR data.	FAIR enough
F-UJI	Automated	The REST API support a programmatic assessment of objects based on a set of core metrics developed by the FAIR metrics specification is available at <a href="https://doi.org/10.26434/chemrxiv-2019-08-01">https://doi.org/10.26434/chemrxiv-2019-08-01</a>	FAIR-Aware
FAIR Data Self-Assessment Tool	Manual - questionnaire	Educational and Informational purposes	FAIR-Checker
FAIR Evaluator	Automated	1. Core universal maturity indicators 2. Compliance tests 3. Evaluation tool	FAIRdat
			FAIRness self-assessment grids
			FAIRshake

# Supporto – per diventare FAIR



## D7.4 How to be FAIR with your data. A teaching and training handbook for higher education institutions

Engelhardt, Claudia; Biernacka, Katarzyna; Coffey, Aoife; Cornet, Ronald; Danciu, Alina; Demchenko, Yuri; Downes, Stephen; Erdmann, Christopher; Garbuglia, Federica; Germer, Kerstin; Helbig, Kerstin; Hellström, Margareta; Hettne, Kristina; Hibbert, Dawn; Jetten, Mijke; Karimova, Yulia; Kryger Hansen, Karsten; Kuusniemi, Mari Elisa; Letizia, Viviana; McCutcheon, Valerie; McGillivray, Barbara; Ostrop, Jenny; Petersen, Britta; Petrus, Ana; Reichmann, Stefan; Rettberg, Najla; Reverté, Carmen; Rochlin, Nick; Saenen, Bregt; Schmidt, Birgit; Scholten, Jolien; Shanahan, Hugh; Straube, Armin; Van den Eynden, Veerle; Vandendorpe, Justine; Venkataram, Shanmugasundaram; Wiljes, Cord; Wuttke, Ulrike; Yeomans, Joanne; Zhou, Biru

### 5 – FAIR lesson plans

### 6 – Implementing FAIR

#### 6.1 Introduction

#### 6.2 Getting to FAIR institutional policies

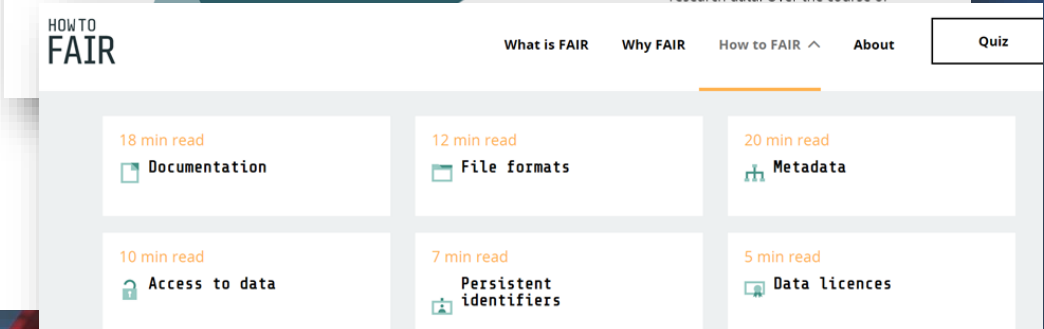
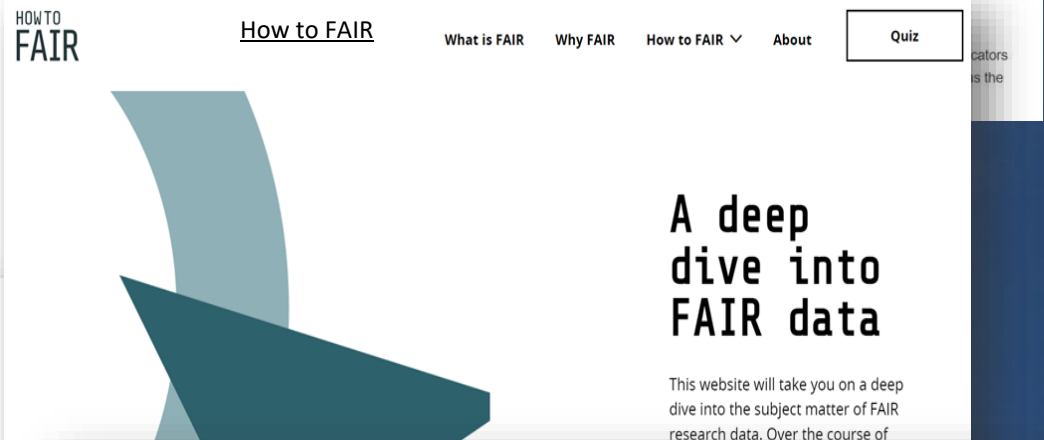
#### 6.3 Data management planning

#### 6.4 Data processing and documentation

#### 6.5 Support infrastructure

#### 6.6 Data publication

#### 6.7 Data reuse





NON DATEMI  
CONSIGLI  
SO SBAGLIARE  
DA SOLO

PERCHÉ DOVREBBERO INTERESSARCI I DATI  
FAIR???



# 1) ...perché dal 2018 c'è EOSC

4 GENERAL  
ASSEMBLY MAY  
23-24

CURRENT AND FUTURE DATA INFRASTRUCTURES



Vienna, Nov.23, 2018

**2. Reaffirm** the position of the European Union, the vision of the European Union, sustainable

**3. Recognise** that the iterative and based on consensus among

**4. Highlight** that the services for Science reaching out over

**5. Recall** that the

Connecting scientists globally

Long term and sustainable

Improving science

ACCESSO TRASPARENTE A DATI FAIR  
«AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»

**9. Call** for the European Open Science Cloud to provide all researchers in Europe with seamless access to an open-by-default, efficient and cross-disciplinary environment for storing, accessing, reusing and processing research data supported by FAIR data principles.

**10. Note** that the 2018 EOSC Summit (held on 17 June 2018) called for acceleration towards making the European Open Science Cloud a reality, hinting at the need to further strengthen the ongoing dialogue across institutions and with stakeholders, for a new governance framework to be launched in Vienna, on 23 November 2018.



# EOSC, dati e riuso



EUROPEAN OPEN  
SCIENCE CLOUD

EC President Ursula von der  
Leyen talks EOSC in Davos

[Check out the video clip here!](#)

sustainable and a data economy. Data is a renewable resource as much as sun and wind. Every 18 months we double the amount of data we produce. **Industrial and commercial data, 85% of which is never used.**

**This is not sustainable. Within those data, there are hidden treasures and untapped opportunities for business and society. Europe is going to**

co-create a framework to allow the use of these data. It should consist of a trusted pool of non-personal data that governments, businesses and other stakeholders can contribute to. This pool will be a resource for open innovation, and bring new solutions to the market. And our scientists are already beginning to do this.

We are creating a European Open Science Cloud now. It is a trusted space for researchers to store their data and to access data from researchers from all other disciplines. We will create a pool of interlinked information, a 'web of research data'. Every researcher will be able to better use not only their own data, but also those of others. They will thus come to new insights, new findings and new solutions.

85% DEI DATI PRODOTTI NON  
VIENE USATO. INSOSTENIBILE

This is what we call the European Open Science Cloud and we are the first in the world to do that. It is being developed in Europe for Europe and for European researchers. The idea is that once we have the rules of the game ready, then we will open this up to the broader public sector and to business as well. So that companies can come in, store the data and use the data. And the idea is that it will also open up to international players.

A QUESTO SERVE EOSC.  
LA STIAMO CREANDO ADESSO

2016



Realising  
the European  
Open Science Cloud

# [EOSC NON È UNA BIG BOX]

## THE EUROPEAN OPEN SCIENCE CLOUD? SOME NUANCES AND DEFINITIONS

Imagine a federated, globally accessible environment where researchers, innovators, companies and citizens can publish, find and re-use each other's data and tools for research, innovation and educational purposes. Imagine that this all operates under well-defined and trusted conditions, supported by a sustainable and just value for money model. This is the environment that must be fostered in Europe and beyond to ensure that European research leads to knowledge creation, meet global challenges and fuel economic growth.

EOSC NON È UN  
REPOSITORY O UN  
SERVIZIO «CLOUD»

SI RENDONO I DATI  
FAIR IN MODO CHE I  
\*SERVIZI\* IN EOSC  
POSSANO TROVARLI  
(«FINDABLE»)

EOSC = AMBIENTE CHE FAVORISCE  
LA OPEN SCIENCE E NON UN «OPEN  
CLOUD» PER LA SCIENZA

E FORNIRE UN ACCESSO  
«SEAMLESS» A 20  
MILIONI DI RICERCATORI

NON SI FA  
«UPLOAD» DEI DATI  
DENTRO EOSC

OBJECTIVES

EOSC SRIA 1.0

Open Science practices and skills  
are rewarded and taught, becoming  
the 'new normal'

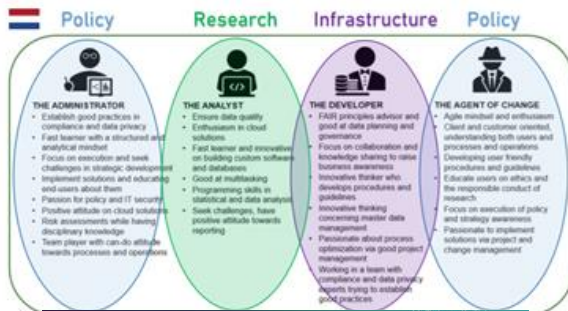
OBIETTIVO È RENDERE LA SCIENZA APERTA  
«THE NEW NORMAL»



# [per i dati FAIR servono data steward]

## Chi è il «data steward» (2)

### Profili professionali del data steward



### I «data steward»...

... hanno (preferibilmente) un PhD e possiedono nozioni su come i dati vengono gestiti in un dominio di ricerca specifico

... possibilmente hanno esperienza pregressa in programmazione, sviluppo software, gestione di database e infrastrutture di ricerca, sicurezza dei dati

... hanno buone capacità comunicative, di insegnamento e organizzative

... possiedono nozioni su aspetti legali della gestione dei dati (privacy, proprietà intellettuale) ed etici

... comprendono la psicologia dei ricercatori e parlano lo stesso linguaggio specifico

... desiderano intraprendere un percorso di carriera che non è né puramente scientifico né tecnico

### «Data Steward» per i dati FAIR

2021

Valentina Pasquale<sup>1</sup>, Emma Lazzeri<sup>2</sup>, Elena Giglia<sup>3</sup>

<sup>1</sup>Istituto Italiano di Tecnologia, <sup>2</sup>GARR, <sup>3</sup>Università di Torino

### Competence profile examples

- Domain-specific data understanding
- Ability to ensure that structured and unstructured data data is modelled, harvested, stored, and maintained in documented, and regulated fashion with focus and findability, accessibility, interoperability, and reusability.
- Competences to facilitate HPC (High Performance Computing) during development and research through handling of large-scale data in public and private enterprises.
- Understanding of and competences within legal, ethical and security aspects of data handling, data sharing, e.g., integrity and GDPR.

## COMPETENZE SUI DATI DI DOMINIO + COMPETENZE TECNICHE SU FAIR



2018



### D7.3: Skills and Capability Framework

Author(s) Angus Whyte, Jerry de Vries, Rahul Tharot, Eileen Kuehn, Gergely Sipos, Valentin Cavalli, Yassou Kabata, Kevin Ashley

...e serve una valut

NEWS | 18 January 2022 | Brussels, Belgium | Research and Innovation

## Process towards an agreement on reforming research assessment

### EC process

The Commission has called for organisations to express their interest in being part of a coalition on reforming research assessment.

The coalition will bring together research funding organisations, research performing organisations, national/regional assessment authorities or agencies, associations of research funders, of research performers, of researchers, as well as, learned societies and other relevant organisations, all willing and committed to implement reforms to the current research assessment system.

WORKSHOP: INITIATING THE PROCESS OF RESEARCH ASSESSMENT

Proposed  
commitments

INIZIATIVA DELLA COMMISSIONE EUROPEA  
TOWARDS A REFORM OF RESEARCH  
ASSESSMENT VA VELOCE (**E ANVUR HA  
FIRMATO ESPRESSIONE INTERESSE!**)

- SETT. 2022 FIRMA DELL'ACCORDO
- ENTRO 2023 PUBBLICARE ROADMAP
- ENTRO 5 ANNI MOSTRARE GLI EFFETTI

## Research organisations get closer to a consensus on assessment reform May 24, 2022

24 May 2022 | News

*Draft copy of the agreement seen by Science|Business sets out plan to move away from a narrow set of journal and publication metrics*

By Florin Zubaşcu

BOZZA  
13  
MAGGIO



Eloy Rodrigues

25 maggio alle ore 18:24 · 🌐

I've seen this May 13th draft and overall it looks a good document. I look forward to see the final version of the text, and especially to see its practical implementation by universities and research funders.

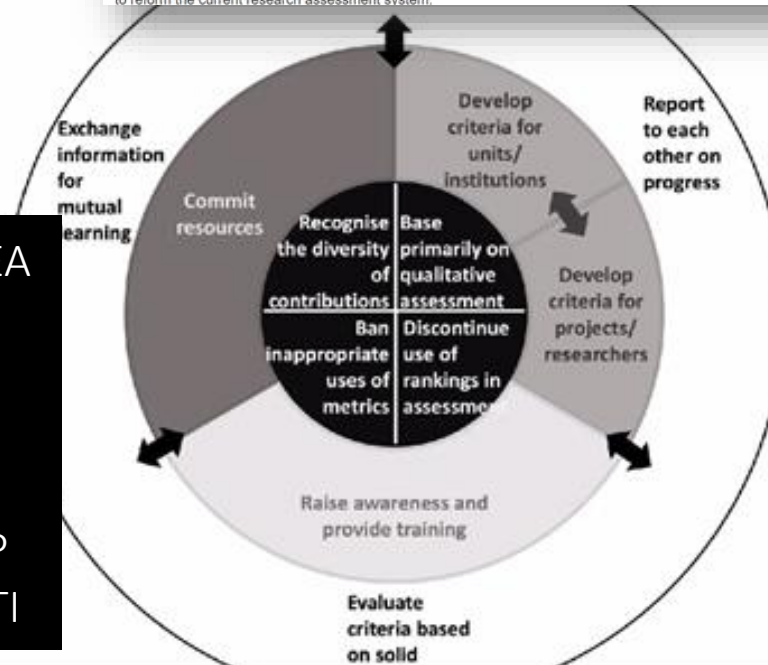
## Call for interest - Towards an agreement on reforming research assessment

Fields marked with \* are mandatory.

### Call for interest

#### Introduction

This call aims at gathering expressions of interest to become part of a coalition of organisations on reforming research assessment, and to be involved in the process of drafting an agreement. The coalition will bring together organisations funding research, research performing organisations, national/regional assessment authorities or agencies, as well as associations of the above organisations and learned societies, all willing and committed to reform the current research assessment system.





## 2) ...perché in Horizon Europe è obbligatorio!

IN HORIZON EUROPE OPEN SCIENCE  
RIENTRA FRA I CRITERI DI  
VALUTAZIONE DELLA PROPOSTA DI  
PROGETTO

IN SEDE DI PROPOSTA DOVRETE  
DICHARARE COME IL PROGETTO

- ADOTTA LE PRATICHE OBBLIGATORIE
- ADATTA LE PRATICHE RACCOMANDATE

NELLA SEZIONE «METHODOLOGY/EXCELLENCE»

- 1 PAGINA SULLE PRATICHE OPEN
- 1 PAGINA CON LO SCHEMA DI DMP

NELLA SEZIONE «IMPLEMENTATION»

- SPECIFICARE LE COMPETENZE IN OPEN SCIENCE  
PER LA SOLIDITÀ DEL CONSORZIO

[Data stewardship wizard](#)



[...storie di vita vissuta]



...SPERO SIA CHIARO  
CHE È ESATTAMENTE  
CIÒ CHE **NON** BISOGNA  
FARE...

«MA SÌ, NON CAMBIA NULLA DA HORIZON  
2020... HANNO AGGIUNTO OPEN SCIENCE?  
CI SCRIVI UNA PAGINETTA SU OPEN  
SCIENCE E LA COPIAMO TUTTI, CI SCRIVI LO  
SCHEMA DI DMP E LO COPIAMO TUTTI»





# Elementi obbligatori e non

LE PRATICHE OPEN SCIENCE DETTAGLIATE  
NEL GRANT AGREEMENT SONO

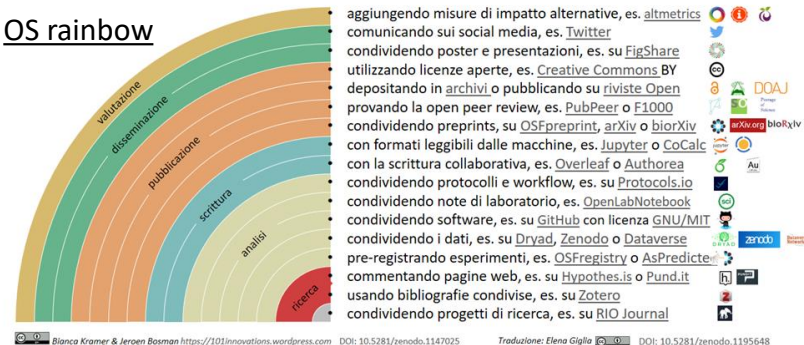
## **OBBLIGATORIE:**

1. GESTIONE DEI RISULTATI IN MODO FAIR (CON DATA MANAGEMENT PLAN)
2. OPEN ACCESS ALLE PUBBLICAZIONI
3. OPEN ACCESS AI DATI
4. FORNIRE INFORMAZIONI UTILI A VALIDARE/RIUSARE

ALCUNE CALL POTRANNO  
AVERE ULTERIORI OBBLIGHI  
(SARÀ SPECIFICATO)

Come rendere Open ogni passo della ricerca...

## OS rainbow



TUTTE LE ALTRE PRATICHE SONO

## **RACCOMANDATE:**

es. open peer review, pre registration,  
cittizen science...

MA SU QUESTE PRATICHE SI VALUTA  
ECCELLENZA E SOLIDITÀ DEL  
CONSORZIO

# In sintesi, Open Science in Horizon Europe

## Open Science in Horizon Europe RIA/IA/CSA



NELLA METODOLOGIA  
VANNO DESCRITTE ENTRAMBE:  
1) COME SI SARÀ CONFORMI ALLE  
**PRATICHE OBBLIGATORIE**  
2) COME SI ADOTTERANNO  
**PRATICHE RACCOMANDATE**

### PRATICHE RACCOMANDATE

**NEL LISTA DEI RISULTATI RILEVANTI:**  
5 RISULTATI RILEVANTI (pubblicazioni, dati) ACCESSIBILI IN MODO OPEN (es. in IRIS) E CON IDENTIFICATIVO UNIVOCO (se possibile)

**NELLA METODOLOGIA DEL PROGETTO**  
1) PRATICHE OPEN SCIENCE ADATTATE AL PROGETTO  
2) GESTIONE DEI DATI FAIR CON SCHEMA DEL FUTURO DMP

**MASSIMIZZAZIONE DELL'IMPATTO CON OPEN SCIENCE (OS È FRA I KEY PATHWAY INDICATORS) IN BOZZA DI DISSEMINATION PLAN (FUTURO DELIVERABLE M6)**

**PRATICHE OPEN PREGRESSE E CAPACITÀ DI FARE OPEN SCIENCE NELLA VALUTAZIONE DELLA QUALITÀ DI IMPLEMENTAZIONE E SOLIDITÀ DEL CONSORZIO**

### PRATICHE OBBLIGATORIE

**DEPOSITO+ ACCESSO IMMEDIATO (ZERO EMBARGO E CC BY) =**  
1. OPEN RESEARCH EUROPE  
2. RIVISTA OPEN  
3. RIVISTA TRADIZIONALE MANTENENDO DIRITTI

- DATI E OGNI ALTRO ELEMENTO «AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»  
- GESTITI RESPONSABILMENTE SECONDO **PRINCIPI FAIR**  
- DATA MANAGEMENT PLAN ENTRO MESE 6

**INFORMAZIONI SU E ACCESSO A STRUMENTI, METODI, DATI NECESSARI A VALIDARE I RISULTATI**

**LIST OF ACHIEVEMENTS**  
Template PartA

**EXCELLENCE**  
Template PartB

**IMPACT**  
Template PartB

**IMPLEMENTATION**  
Template PartB

**DISSEMINATION**  
Publications

**DISSEMINATION**  
FAIR data

**REPRODUCIBLE PRACTICES**

LA PROPOSTA DI PROGETTO VIENE VALUTATA  
SU COME **ADATTA LE PRATICHE RACCOMANDATE** E SU COME SARÀ CONFORME A QUELLE **OBBLIGATORIE**



UN MODO STRUTTURATO  
DI PENSARE AI DATI

REGOLE CHIARE=MENO  
ERRORI DA SUBITO

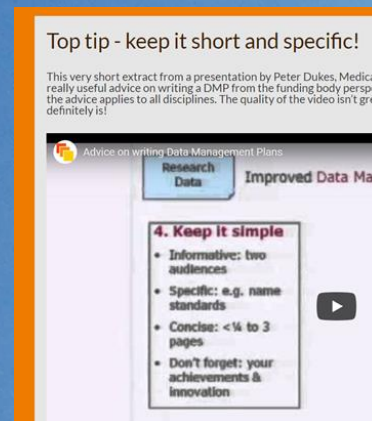
UN DOCUMENTO FORMALE  
SULLA GESTIONE DEI  
DATI...LO «SPECCHIO» DI  
COME LI TRATTERETE

È UN «LIVING DOCUMENT»,  
CRESCE COL PROGETTO

UN MODO NUOVO DI PENSARE  
ALLA VOSTRA RICERCA, DALLA  
PROSPETTIVA DEI DATI

È LA SEDE IN CUI  
GIUSTIFICATE LE SCELTE  
OPEN/CLOSED

...CHIARIAMO:  
IL PROBLEMA NON È  
«IMPARARE» A FARE UN DMP  
MA IMPARARE A GESTIRE I  
DATI IN MODO FAIR E  
RESPONSABILE



SINTETICO E SPECIFICO.  
ISTRUZIONI PER L'USO,  
NON TRATTAZIONE

...IL DATA MANAGEMENT PLAN

AGATHOCLES

## DMP online

Project Details Contributors Plan overview Initial DMP Detailed DMP Final review DMP Share Download

expand all | collapse all

8/9 answered

1. Data summary (1 / 1)

2. FAIR data (3 / 4)

3. Allocation of resources (1 / 1)

4. Data security (1 / 1)

5. Ethical aspects (1 / 1)

DS Wizard

Knowledge Models

Projects

Leiden Booksellers - Giglia IFDS homework week 5

Questionnaire Metrics Preview Documents Settings

View

Current Phase

Before Submitting the Proposal

Chapters

I. Administrative information

II. Re-using data

III. Creating and collecting data

IV. Processing data

V. Interpreting data

VI. Preserving data

### 1 What existing data formats/types will you be using?

Horizon 2020 DMP Science Europe DMP

Have you identified types of data that you will use that are used by others too? Some types of data (for example "images" or "tables") are used by many different projects. For such data, often common standards exist (in our example "JPG" and "CSV" [comma separated values]) that help to make these data reusable. Are you using such common data formats?

Please make sure you list all the data types that are important for your project. You should make sure also to list the formats used in any data sets that you are re-using.

☒ Desirable: Before Submitting the Proposal

in Science: n/a

ABOUT

RESOURCES

CONTACT

LOG IN



## Argos

### Plan and follow your data

**Create** machine actionable DMPs.

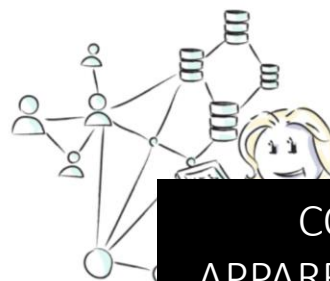
**Configure** to best fit your discipline.

**Link** to EOSC components out of the box.

**Share** easily in your repository.

Bring your Data Management Plans closer to where data are generated, analysed and stored.

Start your DMP



COMPILAZIONE GUIDATA.  
APPARENTEMENTE PIÙ COMPLESSO  
MA ALLA FINE GENERA IL DMP  
AUTOMATICAMENTE

TESTO LIBERO. DOVETE  
SAPERE COSA SCRIVERE PER  
NON DIMENTICARE NULLA



ONE DAY OR  
DAY ONE  
you decide.

GRAZIE!