# Open Science e Citizen Science in Horizon Europe



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UniTo, 7 giugno 2023



# Perché siamo qui

The State of Open Data 2021

The longest-running longitudinal survey and analysis on open data

Open data saves lives. The global pandemic has highlighted beyond anything that came before it the importance of data sharing in solving the big challenges of our time. COVID-19 data may be the

GRAZIE PER L'ATTENZIONE, PER OGGI ABBIAMO FINITO...

...RICORDANDOCI CHE IN HORIZON EUROPE
OPEN SCIENCE, DATI FAIR E CO-CREATION RIENTRANO NELLA
VALUTAZIONE EX ANTE DELLA PROPOSTA

### **VEDREMO**

- OPEN SCIENCE, COS'È E PERCHÉ SERVE (OVVERO, LE LEZIONI DEL COVID)
- IL CONTESTO EUROPEO E INTERNAZIONALE: OPEN SCIENCE, DATI FAIR E EOSC
  - LA CITIZEN SCIENCE IN HORIZON EUROPE



"I chose to study science because I wanted to publish in Nature," said no undergraduate student ever.

Yet it only takes a few years of working in science before most researchers will be preoccupied with scholarly journal brands—some to the point of obsession. The quest for a coveted spot in a highly selective journal, still the hardest currency of career progress, forces researchers to make compromises with their ideals of scientific practice. How to reclaim ownership of

scholarly publishing









# **SERVONO I DATI**

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

# The Value of RDA for COVID-19

RDA

Home » Get involved » The Value of RDA for... » The Value of RDA for COVID-

13 July 2020

16426 reads

Facebook

■ Twitter

Under public health emergencies, and particularly the COVID19 pandemic, it is fundamental that data is shared in both a timely and an accurate manner. This coupled with the harmonisation of the



2020

Maniee Baksh, PhD @S Baksh · 21h

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

Mostra questa discussione

Open Science è una necessità, non una noia burocratica

> IL COVID HA DIMOSTRATO CHE OPEN SCIENCE È UNA **NECESSITÀ**



tps://doi.org/10.1038/s41586-02

ceived 25 June 2019

cepted: 4 June 2021

ıblished online: 20 April 2022

...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)

### #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

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

# ... ma come funziona oggi la comunicazione scientifica?

FOCUS SOLO SUL PRODOTTO FINALE (ARTICOLO SU RIVISTA «PRESTIGIOSA»)
PER RAGIONI DI VALUTAZIONE

PAGHIAMO OGNI ANNO 10 MILIARDI IN ABBONAMENTI A RIVISTE – PER CHIUDERE UN CONTENUTO PER IL QUALE NON VENITE PAGATI (AUTORI E REVISORI), CHE È STATO CREATO CON FONDI PUBBLICI

> ...ARRIVIAMO AD AVERE FINO AL 70% DI STUDI NON RIPRODUCIBILI...

PERCHÉ LA VALUTAZIONE È

DIVENTATA UN'OSSESSIONE E SI FADI TUTTO PUR DI PUBBLICARE... «

«GAME THE SYSTEM»



... QUINDI OGGI LEGGERE NON È GRATIS:

PAGHIAMO (IN REGIME DI
ABBONAMENTO – NON IN OPEN ACCESS
A PAGAMENTO) 3800/5000 \$ PER
ARTICOLO – ESCLUDENDO DALLA
LETTURA CHI NON HA ABBONAMENTO

... E 43% DI RITRATTAZIONI PER FRODE, CON UNA DIRETTA CORRELAZIONE #RITRATTAZIONI/JOURNAL IMPACT FACTOR

# NEJM Nature Lancet J Exp Med

#### Retraction Watch

Tracking retractions as a window into the scientific process

# [la valutazione sta cambiando]

Diversity, inclusiveness and collaboration

#### Agreement

- VALORIZZARE LA CONDIVISIONE
- CONSIDERARE TUTTI I RISULTATI (INCLUSO I DATI)

Recognise the diversity of research activities and practices, with a diversity of outputs, and reward early sharing and open collaboration. Consider tasks like peer review, training, mentoring and supervision of Ph.D candidates, leadership roles, and, as appropriate, science communication and interaction with society, entrepreneurship, knowledge valorisation, and industry-academia cooperation. Consider also the full range of research outputs, such as scientific publications, data, software, models, methods, theories, algorithms, protocols, workflows, exhibitions, strategies, policy contributions, etc., and reward research behaviour underpinning open science practices such as early knowledge and data sharing as well as open collaboration within science and collaboration with societal actors where appropriate. Recognise that researchers should not excel in all types of tasks and provide for a framework that allows researchers to contribute to the definition of their research goals and aspirations.

...I CRITERI DI VALUTAZIONE STANNO CAMBIANDO [ANVUR HA FIRMATO]

I believe in a research culture that recognises a diversity of contributions to science and society; that celebrates high quality and impactful research; and that values sharing, collaboration, integrity and engagement with society, transmitting knowledge from generation to generation.

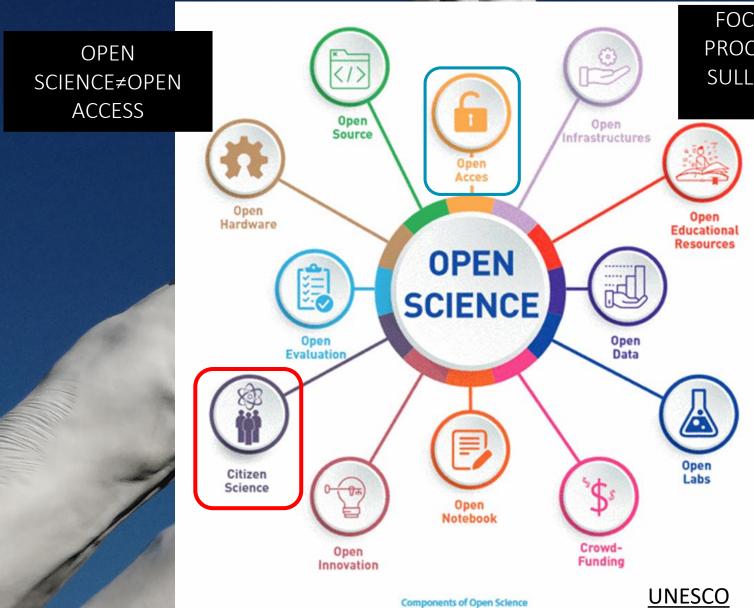


...DA FIRMARE!!!

# Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

# ... per questo serve Open Science



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

**UNESCO** 



Ten myths around open scholarly

Preprints will get your research 'scooped'

Copyright transfer is required to publish and protect authors

Preprints typically provide a time-stamp and a DOI, therefore establishing priority of discovery

Copyright transfer procedures do not protect authors nor contribute to the advancement of scientific progress

JIF and journal branding are measures of quality for researchers

The JIF is a flawed metrics that was never meant to be used for evaluation of research and researchers

Gold Open Access is synonymous with the APC business model

Most DOAJ-indexed journals do not have APCs and are funded from other sources, such as research institutes and grants

Approval by peer review proves that you can trust a research article

The current peer review system is prone to a number of flaws including corruption, human bias and ghostwriting

#### Embargo periods on 'green' OA are needed to sustain publishers

Traditional journals can peacefully coexist with zero-embargo self-archiving policies on author manuscripts

Without journal peer review, the quality of science suffers

Researchers are more than responsible and competent enough to ensure their own quality control as part of intrinsic scientific integrity

#### Myth 9

Web of Science and Scopus are global databases of knowledge

Neither represent the sum of current global research knowledge including Africa, Latin America and Southeast

Open Access has created predatory publishers

Predatory journals have been around for a long time before the recent push towards Open Access publishing

#### Myth 10

Publishers add no value to the scholarly communication process

Publishers are responsible for quite some key functions, from peer-review management to production and archiving of final version articles











5 dicembre



8 dicembre



9 dicembre









7 dicembre

genially

LA PERCEZIONE IN ITALIA:

-OPEN SCIENCE=OPEN ACCESS

- OPEN ACCESS=SOLO RIVISTE
- SI PAGA SEMPRE PER PUBBLICARE
  - EDITORI PREDATORI

# Open Science

Open Access Lic. Info Cite

Qeios

https://doi.org/10.32388/83896

## **Open Science**

'Open Science' stands for the transition to a new, more open and participatory way of conducting, publishing and evaluating scholarly research. Central to this concept is the goal of increasing cooperation and transparency in all research stages. This is achieved, among other ways, by sharing research data, publications, tools and results as early and open as possible.

RICORDIAMOCI
CHE STIAMO
PARLANDO DI
RICERCA
FINANZIATA
CON FONDI
PUBBLICI

Open Science leads to more robust scientific results, to more efficient research and (faster) access to scientific results for everyone. This results in turn in greater societal and

https://www.accelerateopenscience.nl/what-is-open-science/

### NUOVO MODO DI

economic impact.

- CONDURRE
- PUBBLICARE
  - VALUTARE

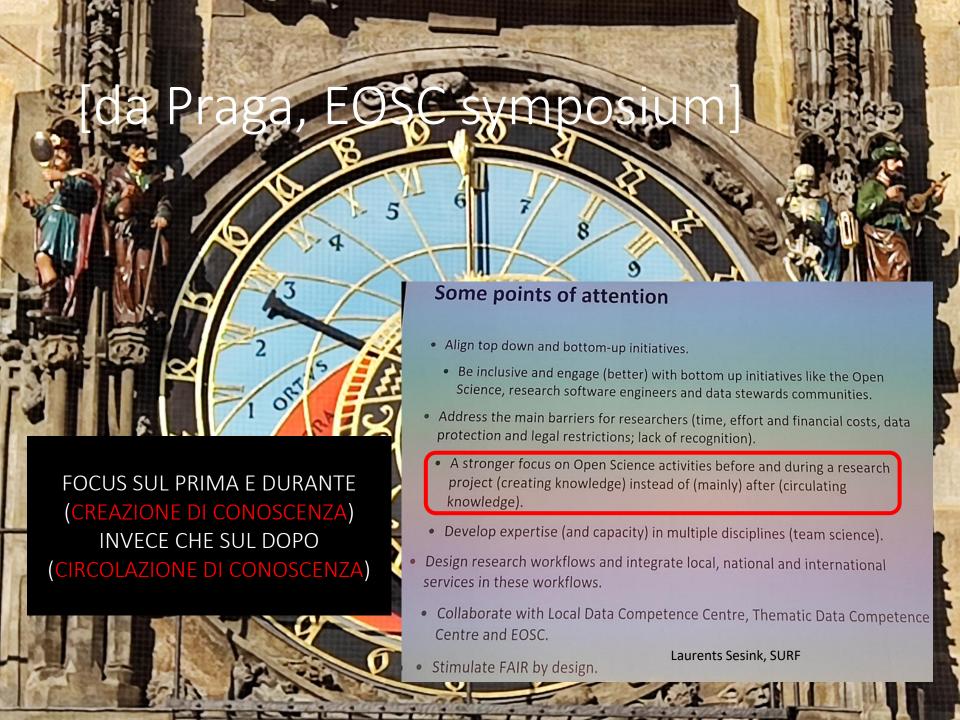
LA RICERCA

### CONDIVIDENDO

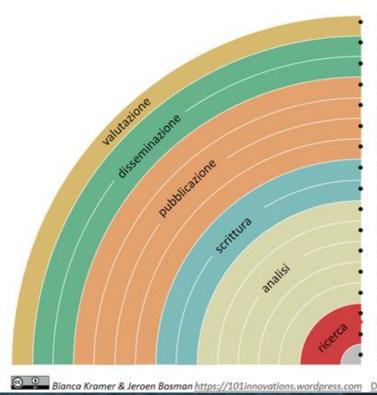
- DATI/TESTI
- STRUMENTI
- RISULTATI...

PRIMA E PIÙ APERTO POSSIBILE

QUESTO PORTA A
SCIENZA PIÙ SOLIDA, ACCESSO PIÙ RAPIDO
CHE SI TRADUCE IN IMPATTO SOCIALE/ECONOMICO



# Come rendere Open ogni passo della ricerca...



aggiungendo misure di impatto alternative, es. altmetrics comunicando sui social media, es. Twitter condividendo poster e presentazioni, es. su FigShare utilizzando licenze aperte, es. Creative Commons BY depositando in archivi o pubblicando su riviste Open provando la open peer review, es. PubPeer o F1000 arXiv.org bioRχiv condividendo preprints, su OSFpreprint, arXiv o biorXiv con formati leggibili dalle macchine, es. Jupyter o CoCalc con la scrittura collaborativa, es. Overleaf o Authorea condividendo protocolli e workflow, es. su Protocols.io (sci) condividendo note di laboratorio, es. OpenLabNotebook condividendo software, es. su GitHub con licenza GNU/MIT condividendo i dati, es. su Dryad, Zenodo o Dataverse pre-registrando esperimenti, es. OSFregistry o AsPredicte commentando pagine web, es. su Hypothes.is o Pund.it h. ~ usando bibliografie condivise, es. su Zotero condividendo progetti di ricerca, es. su RIO Journal

Traduzione: Elena Giglia DOI: 10.5281/zenodo.1195648

[FINO AL 2020] SI PUÒ FARE SEMPRE! NONOSTANTE I CRITERI ATTUALI DI VALUTAZIONE. NESSUNO VE LO VIETA!

...E LA VALUTAZIONE STA CAMBIANDO CON COARA...

OPEN SCIENCE NON RICHIEDE TANTO TEMPO (ANCHE PERCHÉ, QUANTI ARTICOLI/ANNO??? 10? PER 10 VOLTE SU 365 GIORNI...)

DAL 2021: SI DEVE FARE!!! SE NO NIENTE FONDI EU

# [con dati FAIR, ovvero...]

Open Access | Published FAIR guide, Nature, March 2016 The FAIR Guiding Principles for scientific data management and stewardship

tark D. Wilkinson, Michel Dumontier, [...] Barend Mons

# **F**INDABLE

- **IDENTIFICATIVI** 
  - **METADATI**

# NTEROPERABLE

**STANDARD** 

# **A**CCESSIBLE

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

**ONTOLOGIE** 

LICENZE

**DOCUMENTAZIONE** 

REUSABLE

CON UN DATA MANAGEMENT PLAN Open Science Café

Come scrivere un DMP

IL TUTTO, MACHINE READABLE

# Help

2022



"S-LÉGAMI!"

OPEN ACCESS - MANUALE D'USO PER RICERCATORI

Seconda edizione



Italian Computing and

OS café

# Open Science Café



e aspetti legali

Dati della ricerca



OLS openlifescience full course online



Leade

Sotto

0

horea

averse dicted

Pund.it

ocols.io

ookScience 
GNU/MIT

\*

Open LifeSci

@OpenLifeSci 332 iscritti



aggiungendo misure di impatto alternative, es. alti

condividendo poster e presentazioni, es. su FigShi utilizzando licenze aperte, es. Creative Commons BY

depositando in archivi o pubblicando su riviste Open

comunicando sui social media, es. Twitter

Perché è importante Editori e Politiche Open Access (EPOcA) Eventi



Welcome



Open Science passo dopo passo

Si può fare Open Science, in concreto, ogni giorno, un passo per volta. E non è incompatibile con VQR, ASN... Provate uno strumento dall'elenco di link raccolti in Opi Science in pratica (richiede login)

Open Science in pratica

Video Open Science

Open Science

A Practical Guide for Early-Career Researchers

May 2023

https://www.oa.unito.it/new/



The Turing Way

O 🖺 o CoCalc 😇 ( ide for Reproducible Research ide for Project Design h |

Q. Search this book.

Visit our GitHub Reposito This book is powered by Jupyter Book The Turing way

The Turing Way is an open source community-driven guide to reproducible, ethical, inclusive and collaborative data

Our goal is to provide all the information that data scientists in academia, industry, government and the third sector need at the start of their projects to ensure that they are easy to reproduce and reuse at the end.

The book started as a guide for reproducibility, covering version control, testing, and continuous integration. However, technical skills are just one aspect of making data science research "open for all".

In February 2020, The Turing Way expanded to a series of books covering reproducible research, project design, communication, collaboration, and ethical research



# ...Open S





Indigenous peoples





DIALOGO
APERTO CON
ALTRI SISTEMI
DI
CONOSCENZA

OPEN SCIENCE

NFRASTRUTURE



Physical



NON SOLO

CONOSCENZA

COINVOGIMEI

DEGLI ATTO

SOCIALI IN MO

APERTO

Crowdfunding

SCIENTIFICA:

- INCLUSIONE
- COINVOLGIMENTO

Crowdsourcing



Scientific volunteering



Citizen and participatory science



# ...iniziando con un po' di co-

creation

iducing co-creation in

ligning an entire country to develo s Open Science action plan

hinking differently through

Ising Art as a way to level the playing

**ORION INSPIRING STORIES INDEX** 



ORION open science

2021

# **ORION INSPIRING STORIES**

Ideas & examples

### What is Co-creation?

WILLIAM A COLOR COL

Co-creation has been defined as "purposeful action of associating with strategic customers, partners or employees to ideate, problem solve, improve performance, or create a new product, service or business". In essence, co-creation experiences are a way in which to connect multiple stakeholders, bringing them together to discover their interests and values and using these opportunities to discuss, develop and implement projects or ideas to achieve new, inclusive, forward-thinking research strategies. As a result, cocreation experiences allow high-quality interactions and unique experiences, with those involved becoming

### Co-creation menu

Co-creation experiences seek to engage multiple stakeholders at all points of the research lifecycle. from conception of a novel research project, through funding selection and resourcing, to dissemination of research findings and use of those findings within society, which in turn informs future funding calls. In this way, the hopes, concerns and aspirations of the end users of research, the public, are integrated from the very beginning of the process right through to the end. This concept maps well with the idea of making science truly open, transparent and responsive to societal needs, a new approach of the European Research Areaknown as Open Science.



Regional Development in Co

Citizens jury on Water M.

Biomass Dialogue, Instit Research Agenda Scenario I

Mi		
	To provide a about societal iss	
	To involve CSOs members in all stages to framing and doing the researc	Community-Based participatory Research (CBPR)
	To engage citizens in a practical and transfor of their living conditions and everyday pr	Participatory Action Research (PAR)
	To encourage	Crowd Wise
	To place research projects for t	Demand Driven Research in Curriculum
	To determine the preferences of	Focus Groups
	Policy formulation, Programme development, P	Open Space Technology
	To explore possible myth forward guidelines on a given	Perspective Workshop
	To gather social intelligence to inform policy,	Public Dialogue
	To develop prior	ublic Participation in Developing an Common Framework for he Assessment and Management of Sustainable Innovation
	To involve users formal monitoring and steeri	User committee / Valorisation panels
	To enrich and expand a c	Consensus Conference
	To encourage participants to th	Future Search Conference
	To provide some form	Online Forums

11.50

To get both a representative and a





### **CO-DESIGN AS A SERVICE IN CITIZEN SCIENCE**

#### **CO-DESIGN: WHAT IS IT?**



It is a process based on collaboration that provides innovative solutions to a challenge. a problem or a need

Co-design or collaborative design, is a practice of creating or improving ideas, products, services, policies and other outputs with not for- people.

Co-design is so versatile that it can be adapted to any context and field

From science to economy, politics, ecology, technology, citizen science, public participation and others.



The key to success is to give voice to all the people that need to be in the

#### A SUCCESS CASE: COS4CLOUD

#### **CHALLENGE**

In citizen science we need more data, more open and accessible technologies. However, there is still a low interoperability, low levels of data validation and low technological capacity.

#### **INNOVATIVE SOLUTION**

To tackle this challenge Cos4Cloud has co-designed and developed 13 services for citizen observatories to increase the quantity and quality of citizen science data. These services are available at the EOSC".

#### **PROCESS TO ACHIEVE IT**

#### Co-design

Cos4Cloud has organised several co-design activities to collect needs and expectations towards these new services directly from the services end-users, the citizen science community.

#### Agile methodology

Cos4Cloud is constantly reviewing and improving its services thanks to the collaborative relation with the services end-users.





pants

e way

design the ectives, the

It can involve a wide range of stakeholders' profiles

The COESO project (Collaborative Engagement on Societa participatory research project, funded by the European C and supported by the OPERAS research infrastructure. It communities: the social sciences and humanities commu scholarly communication community. It will thus contribu development of citizen science in the social sciences and research through a service-first approach. The project will

**OPERAS** Vera

A space for co-creation that provides a set of tools to discover potential partn define and co-design the activities, to co-create new knowledge and solutions deliver them to society.

VERA is an online collaboration platform where a diverse set of actors can build social science and humanities rese together. It's a virtual gathering place for professionals and practitioners of all kinds and researchers. It's a place where the same of be dreamed and built, where collaborations can take place, and where links to funding can be found.



#### **OUTPUTS TO SHARE**

daling for implementing co-design in the science technologies, based ned by Cos4Cloud project.

Open Science Cloud

ce



SPAZIO DI CO-CREAZIONE, SCOPERTA DI POTENZIALI PARTNERS...

# Open Science in Horizo

# Open science

### Open science in Horizon Europe

Open science is an approach based on open cooperative work and systematic sharing a knowledge and tools as early and widely as possible in the process. It has the potentia to increase the quality and efficiency of research and accelerate the advancement a knowledge and innovation by sharing results, making them more reusable an improving their reproducibility. It entails the involvement of all relevant knowledge actors.

Horizon Europe moves beyond open access to open science for which it feature a comprehensive policy implemented from the proposal stage to project reporting. The Horizon Europe Regulation sets the legal basis for the open science obligations and incentives that apply to Horizon Europe beneficiaries. The Annotated Grant Agreement provides guidance on how to comply with the open science obligations required in the Model Grant Agreement. The present guide complements the information

PRATICHE OPEN SCIENCE

VALUTATE SOTTO

«EXCELLENCE»

a) OBBLIGATORIE b) RACCOMANDATE DOVETE INTEGRARE ENTRAMBE NELLA PROPOSTA

V.1 June 17 2021





Horizon Europe

Programme Guide

pro the

In Horizon Europe, open science practices are considered in the evaluation of proposals, under 'excellence' and under the 'quality and efficiency of implementation'. There are mandatory open science practices, which are required for all projects through the Model Grant Agreement and/or through the work programme or call conditions, and recommended practices (all open science practices that are not mandatory). Recommended open science practices are incentivised through their the evaluation at the proposal stage. Proposers should be aware of both mandatory and recommended practices and integrate them into their proposals.

# Horizo

# PRATICHE OBBLIGATORIE E RACCOMADATE - IN SEDE DI PROPOSTA VIENE VALUTATO COME VENGONO ADOTTATE/ADATTATE

#### **NELLA METODOLOGIA** VANNO DESCRITTE ENTRAMBE:

- 1) COME SI SARÀ CONFORMI ALLE **PRATICHE OBBLIGATORIE** 
  - 2) COME SI ADOTTERANNO

# Open Science in Horizon Europe



#### PRATICHE RACCOMANDATE

## RICERCATORE: **5 RISULTATI RILEVANTI** (pubblicazioni, dati)

NEL PROFILO

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) = OPEN RESEARCH
- **EUROPE** 2. RIVISTA OPEN **RIVISTA TRADIZIONALE**

MANTENENDO DIRITTI

- DATI E OGNI ALTRO **ELEMENTO «AS OPEN AS** POSSIBLE, AS CLOSED AS **NECESSARY»** RESPNSABILMENTE SECONDO PRINCIPI FAIR DATA MANAGMENT

PLAN ENTRO MESE 6

### RESEARCHERS **PROFILE**

Template PartA

### **SCIENTIFIC EXCELLENCE**

Template PartB

# **IMPACT**

Template PartB

### IMPLEMENTATION

Template PartB

### DISSEMINATION **Publications**

DISSEMINATION FAIR data

### PROPOSTA DI PROGETTO [SU QUESTO SI VIENE VALUTATI]

OBBLIGHI A PROGETTO APPROVATO



Giglia 2021

# Elementi obbligatori e non

**NELLA PROPOSTA DOVETE DECLINARE ENTRAMBE:** 

- 1. COME SARETE CONFORMI ALLE PRATICHE OBBLIGATORIE
  - 2. COME ADATTERETE QUELLE RACCOMANDATE



- GESTIONE DEI RISULTATI IN MODO FAIR (DATA MANAGEMENT PLAN)
- OPEN ACCESS ALLE PUBBLICAZIONI
  - OPEN ACCESS AI DATI
  - FORNIRE INFORMAZIONI UTILI A VALIDARE/RIUSARE

ALCUNE CALL POTRANNO AVERE ULTERIORI OBBLIGHI (SARÀ SPECIFICATO)



LE PRATICHE OPEN SCIENCE SUGGERITE NEL PROPOSAL TEMPLATE SONO RACCOMANDATE:

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

MA SU QUESTE PRATICHE SI VALUTA ECCELLENZA E SOLIDITÀ DEL CONSORZIO

# [Guida – pratiche raccomandate]



GUIDA, p.41-42
DOVETE DIMOSTRARE
SE E COME
ADOTTERETE
- CONDIVISIONE

- CONDIVISIONE RAPIDA
- GESTIONE DEI DATI
- RIPRODUCIBILITÀ
  - OPEN ACCESS
    - OPEN PEER REVIEW
- CITIZIEN SCIENCE

**Early and open sharing:** Provide specific information on whether and how you will implement early and open sharing and for which part of your expected output. For example, you may mention what type of early and open sharing is appropriate for your discipline and project, such as preprints or preregistration/registration reports, and which platforms you plan to use.

**Research data management (RDM):** RDM is mandatory in Horizon Europe for projects generating or reusing data. If you expect to generate or reuse data and/or other research outputs (except for publications), you are required to outline in a maximum of one page how these will be managed. Further details on this are provided in the proposed to the relevant to the rel

**Reproducibility of research outputs:** you should outline the measures planned in the project that tend to increase reproducibility. Such measures may already be interweaved in other parts of the methodology of a proposal (such as transparent research design, the robustness of statistical analyses, addressing negative results, etc) or in mandatory/non-mandatory open science practices (e.g. the DMP, early sharing through preregistration and preprints, open access to software, workflows, tools, etc) to be implemented. More detailed suggestions on good practices for enhancing

**Open access:** Offer specific information on how you will meet the open access requirements, that is deposition and immediate open access to publications and open access to data (the latter with some exceptions and within the deadlines set in the DMP) through a trusted repository, and under open licenses. You may elaborate on the (subscription-based or open access) publishing venues that you will use. You may also

**Open peer review:** Anytime it is possible, you are invited to prefer open peer review for your publications over traditional ('blind' or 'closed') peer review. When the case, you should provide specific information regarding the publishing venues you envisage to make use of, and highlight the venues that would qualify as providing open peer review.

**Citizen, civil society and end-user engagement:** Provide clear and succinct information on how citizen, civil society and end-user engagement will be implemented in your project, where/if appropriate. The kinds of engagement activities will depend on the type of R&I activity envisaged and on the disciplines and sectors implicated.

# [Guida -



CITIZEN SCIENCE [P.42 and 52-53]

### Citizen, civil society and end-user engagement

Citizen and civil society engagement is a programme principle and operational objective that refers to the opening up of R&I processes to society to develop better, more innovative and more relevant outcomes, and to increase societal trust in the processes and outcomes of R&I.

Opening up the R&I system towards society and supporting citizens, civil society and end-users to participate in R&I – as sources of ideas, knowledge and/or data, as data collectors and/or analysers, and/or as testers and/or end users – enlarges the collective intelligence, capabilities and scope of the R&I and is likely to lead to greater creativity and robustness of the outcomes and reduced time-to-market of the innovative products and services. It also increases the relevance and responsiveness of R&I, ensuring that its outcomes align with the needs, expectations and values of society. Moreover, it is a key element for improving the transparency, co-ownership and trust of society in the process and outcomes of R&I. Conducting R&I openly, responsibly, transparently, and in adherence to the highest standards of research integrity and ethics is also important for responding to increased science denial.

<u>Co-design</u> activities could involve workshops, focus groups or other means to develop R&I agendas, roadmaps or policies. These could be one-off activities in one or several different localities or repeated consultations with the same or varying groups. They could involve citizens and/or one or many organisation types at the same time. Co-

<u>Co-creation activities</u>, such as citizen science or user-led innovation, involve citizens or end-users directly in the development of new knowledge or innovations, through a range of different levels of participation. These could include identifying R&I questions to be tackled by the project, developing a methodology, observing, gathering and processing data, right up to the publication and presentation of results. The co-creation activities could be the focus of a proposal, or could be one of the methodological approaches taken alongside others.

<u>Co-assessment</u> acti<mark>vities</mark>, such as assisting in the monitoring and evaluation of the progress of the project, portfolio of projects, policies or programmes, help ensure an



# Ragioni per NON fare Open Science?

Valid reasons not to participate in open science practices

Casper J. Albers\*

#### Abstract

The past years have seen a sharp increase in the attention for open science practices. Such practices include pre-registration and registered reports, sharing of materials, open access publishing and attention to reproducibility of research. Despite the over-whelming amount of evidence highlighting the benefits of open science, some researchers remain reluctant. In this paper, I will outline valid reasons for researchers not to participate in open science practices.

### Discussion

There are no valid reasons.

**GRAZIE!** 

2018 \*Heymans Institute for Psychological Research, Grote Kruisstraat 2/1, 9712 TS Groningen, The Netherlands. c.j.albers@rug.nl