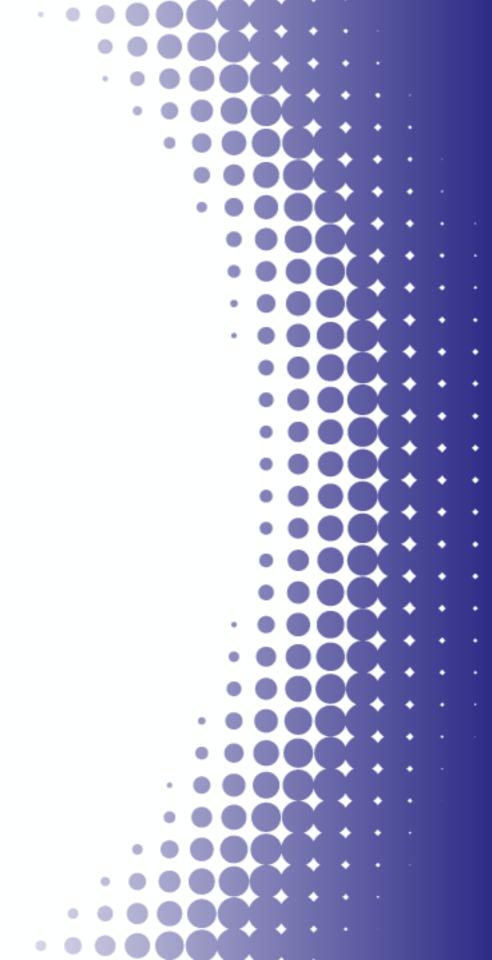




## www.openaire.eu



# Practicing Open Science

# workflows, tools and tips

# Elli Papadopoulou

Athena Research & Innovation Center / OpenAIRE Greek NOAD





Open Science & Research Data Management Introductory Training Turkey in H2020 | March 11, 2021



# Contents

**Open Access Research Data Management** Anonymization **Data Management Plans** 

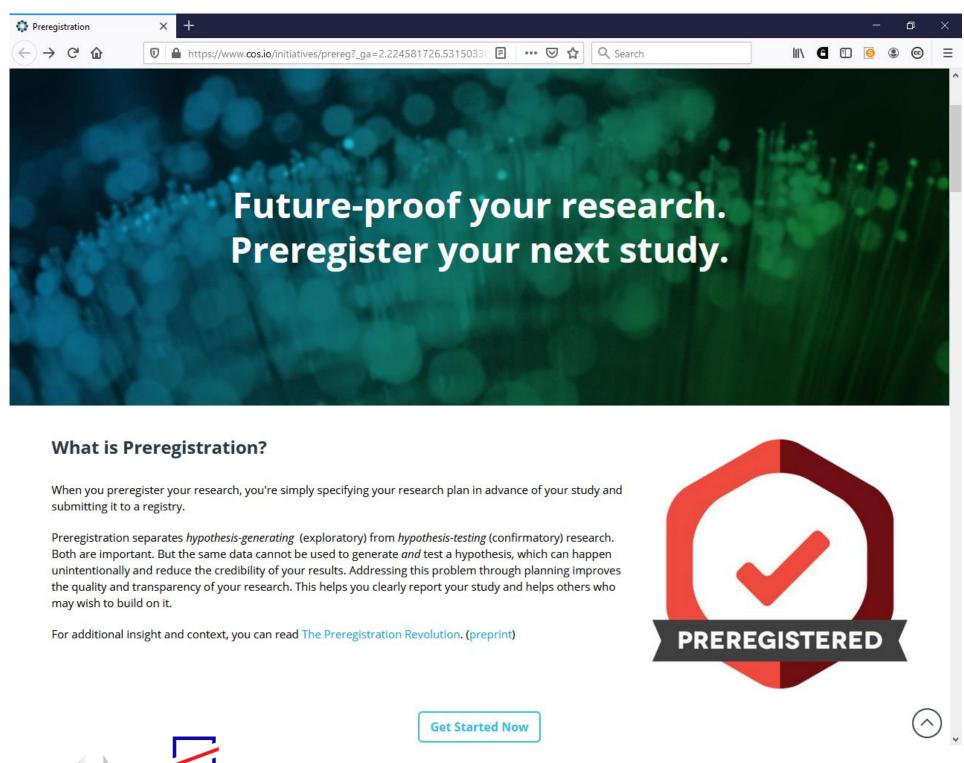
# **Open Access**





# If I share my research, I'll be scoped

# **Pre-register research**









https://osf.io/prereg

# **Open Access to publications and** research data

**Open access publication** 

- Deposit research outputs in an institutional repository
- **Provide Open Access Gold route** (DOAJ, subscriptionbased journal)
- **Green route** (self-archiving)



that has a paid open access option









https://www.openaire.eu/how-to-comply-to-h2020-mandates-for-publications

Pay Article Processing Charge

Immediate ope access (via publisher)

G <u>ି</u>ଦ୍ଧ

> WHAT IS REQUIRED?

> > HOW TO COMPLY?

WHICH

REPOSITORY TO USE?

> WHEN TO PROVIDE

ACCESS?

ARE PUBLICATION

COSTS

SUPPORTED?

START

PLANNING

EARLY ON!

HOW CAN

OPENAIRE

HELP?

VIEW OUR

WEBINARS

RECORDINGS

COVID-19

GUIDELINES

(i)

+

🛛 🔒 https://www.openaire.eu/how-to-comply-to-h2020-mandates-for-pul 🚥 😒 🏠

Q Search

### How to comply?

#### Ok, so how do I deposit my publication in a repository?

- 1. As soon as possible and at the latest on publication, deposit your published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications. Moreover, you must aim to deposit at the same time the research data needed to validate the results presented in the deposited scientific publication.
- 2. Ensure open access to the deposited publication via the repository - at the latest: on publication (for articles published in open access journals), or within six months of publication (twelve months for publications in the social sciences and humanities) in any other case.
- 3. When you deposit, you must also ensure open access to the descriptive metadata that identify the deposited publication. This metadata must be in a standard format and must include all of the following:
  - the words ["European Union (EU)" and "Horizon 2020"] ["Euratom" and Euratom research and training programme 2014-2018"];
  - the name of the project, acronym and grant number;
  - the publication date, and length of embargo period if applicable, and
  - a persistent identifier.

29.2 Open access to scientific publications, Multi-Source: beneficiary General Model Grant Agreement (Version 5.0, 18 October 2017)

It is not enough to add the publications to Dropbox, project websites, or academic social networks such as Academia.edu or ResearchGate.

### Support

#### RESOURCES

Open Science Primers Factsheets Use cases

## HELPDESK Ask a Question

#### TRAINING

Community of Practice **Content Providers** Community Calls







**PRE-PRINT:** your final draft, as submitted to the journal

OR

# **POST-PRINT or ACCEPTED MANUSCRIPT:** the final version, with reviewers comments, identical to the published one except for the editorial layout

# OR

# EDITORIAL PDF or PUBLISHED VERSION: the exact version published in the journal, with layout and graphic





# What to deposit

# (does not have reviewers comments yet)

# **Gold route - DOAJ**



#### SHARE OR EMBED

## 16,026 indexed journals



SUBJECTS	~
Search 508 subjects	۹
□ Agriculture	
🗆 Fine Arts	
Education	
Technology	
Naval Science	
🗌 General Works	

### Sort by

Added to DOAJ (newest first)

« First

Page 1 of 321

Comunicación @ Revista Internacional de Comunicación Audiovisual, Publicidad y Estudios Culturales

Published by Universidad de Sevilla in Spain Accepts manuscripts in Spanish, Portuguese, English

< Prev

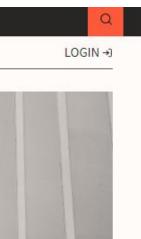
Language and Literature: Philology. Linguistics: Communication. Mass media

Last updated on 11 Mar 2021 Website 🗹 No charges CC BY-NC-SA





European Commission



#### Results per page

50 V

Next >

# **European Commission Open Research Publishing Platform**

## Launching in 2021

- Research publication platform for scientific papers – service dedicated to EC funding **beneficiaries**
- The platform will manage all the publication, postpublication, curation and preservation process
- **Open peer-review** ٠
- Pre-prints and final versions of papers will be open to the end users free of charge (also nonscientists), and licensed for re-use
- Full support of underlying data that meets the FAIR (Findable, Accessible, Interoperable and Reusable) principles to enable reanalysis, replication and reuse, and thus improving reproducibility and increasing impact.



An Open Access publishing platform offering fast publication and open peer review for research conducted by Horizon 2020 and Horizon Europe beneficiaries.

Stay Updated

#### What is it?

Open Research Europe will be a scholarly publishing platform providing a All Horizon 2020 and Horizon Europe beneficiaries will be eligible to full open access peer reviewed publishing service for Horizon 20

Horizon Europe beneficiaries at no cost to them, of their grants. The platform will enable rapid put publication outputs that support research integri transparency and enable open science practice



#### Why are we doing this?

Open Research Europe is a significant step towards ensuring that all

https://open-research-europe.ec.europa.eu











Search

Search

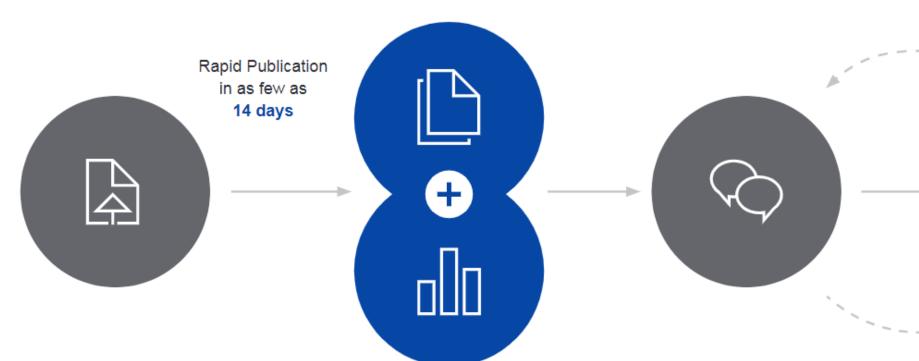
#### What is the scope?

## Now accepting submissions!

#### Who's involved?

The Commission have contracted F1000 Research to provide the open

# **ORE Publishing Model**



## Article Submission

Submitting an article is easy with our single-page submission system. The in-house editorial team carries out a basic check on each submission to ensure that all policies are adhered to.

## **Publication & Data Deposition**

Once the authors have finalised the manuscript, the article (with its associated source data) is published, enabling immediate viewing and citation.

## **Open Peer Review** & User Commenting

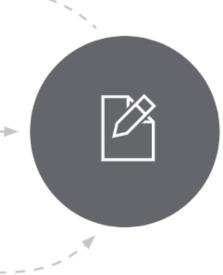
Expert reviewers are selected and invited, and their reports and names are published alongside the article, together with the authors' responses and comments from registered users.











## Article Revision

Authors are encouraged to publish revised versions of their article. All versions of an article are linked and independently citable. Articles that pass peer review are indexed in external databases such as PubMed, Scopus and Google Scholar.

# **Green route - repositories**

<b>Jisc</b> Digit	al Resources	> Open Access				<u> </u>		
Open[	DOAR							
Browse	Search	Statistics	Policy Tool	Our APIs			Suggest	Admin
Directo	ry of Op	ben Acce	ss Reposit	ories				
OpenDO	AR is a glo	obal directo	ory of Open A	Access repo	ositories a	nd their pol	licies.	
Search	for a repositor	у			Search			

OpenDOAR is the quality-assured global directory of academic open access repositories. It enables the identification, browsing and search for repositories, based on a range of features, such as location, software or type of material held. Read more...

## https://v2.sherpa.ac.uk/opendoar/

## OpenAIRE EXPLORE

Discover and share research



explore.openaire.eu









#### Log in to account

O Log in with GitHub

D Log in with ORCID

#### -OR-

2

Email Address

Password

## Deposit in Zenodo: https://zenodo.org/

+

Ū

G ŵ https://www.openaire.eu/how-to-comply-to-h2020-mand: 120% ... ⊠ ☆

#### Q Search

#### WHAT IS REQUIRED?

HOW TO COMPLY?

WHICH REPOSITORY TO USE?

> WHEN TO PROVIDE ACCESS?

ARE PUBLICATION COSTS SUPPORTED?

> START PLANNING EARLY ON!

HOW CAN **OPENAIRE** HELP?

VIEW OUR WEBINARS RECORDINGS

COVID-19 GUIDELINES

## Start planning early on!

### **During proposal writing:**

- Outline your dissemination and exploitation strategy, including open access >> impact section of the proposal (how will results be shared, data be managed and shared?)
- Include resources for publication costs (what journals, how many publications, what does it cost on average?) Publishing all articles in APC based open access journals is probably not the right solution, as this can take a substantial amount of the overall project budget.
- Combine publishing in open access journals with depositing in repositories strategies to achieve maximum of open access.

#### During the project:

- Include additional provisions in the Consortium Agreement where to deposit, who is responsible.
- Implement your dissemination strategy, report at reviews.
- Keep track of the issues, ask for advice (publisher embargos, repositories for specific material, etc.). We are here to help!

#### After the project ends:

• Who takes care of depositing in repositories after the project ends?

## Support

#### RESOURCES

**Open Science Primers** Factsheets

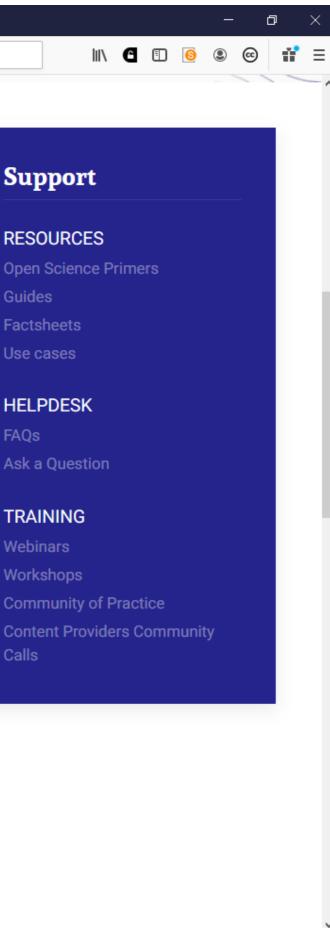
Use cases

## HELPDESK

FAQs Ask a Question

#### TRAINING

Webinars Community of Practice Calls



. . . . . . . . . .

# Things to consider 1/2

Find information on APCs per journal on the **Open APC** project

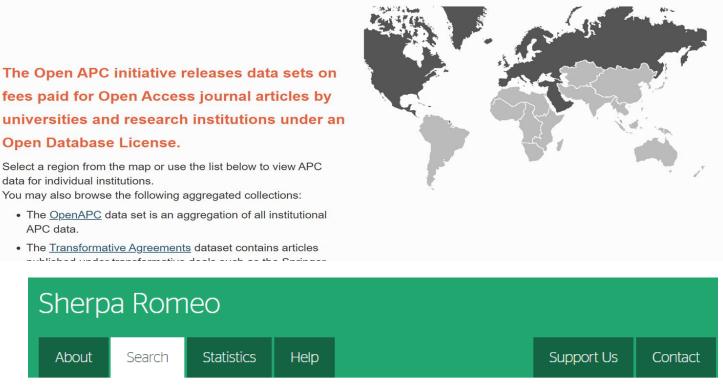
Check the publisher's OA policy for conflicts and for embargoes in depositing



The Open APC initiative releases data sets on fees paid for Open Access journal articles by

Select a region from the map or use the list below to view APC data for individual institutions.

- You may also browse the following aggregated collections:
- The OpenAPC data set is an aggregation of all institutional APC data.
- The <u>Transformative Agreements</u> dataset contains articles



## Welcome to Sherpa Romeo

Sherpa Romeo is an online resource that aggregates and analyses publisher open access policies from around the world and provides summaries of publisher copyright and open access archiving policies on a journal-by-journal basis.

Enter a journal title or issn, or a publisher name below:

Journal Title or ISSN

Publisher Name

Browse by Country



#### ABOUT OLAP SERVER GITHUB INTACT



# Things to consider 2/2

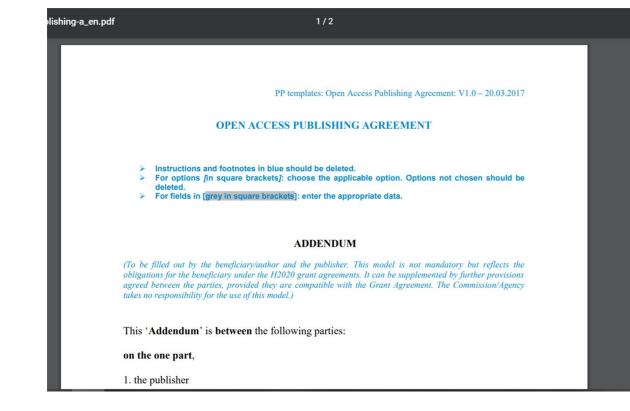
- What to do in case of journal policies conflicts
  - Contact the publisher requesting an addendum

https://ec.europa.eu/research/participants/ data/ref/h2020/other/hi/oa-pilot/h2020-oaguide-model-for-publishing-a en.pdf

- Assign open licenses through https://creativecommons.org/ or EUDAT's license selector https://www.eudat.eu/services/us erdoc/license-selector
- Acknowledge funders







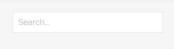
USE CASES DATA MANAGEMENT ~ SYNERGIES & POLICY ~ EVENTS ~ NEWS & PUBLICATIONS ~

Home » Services & Support » User documentation » License Selecto

License Selector

EUDAT

About Synopsis Introduction Locating the tool

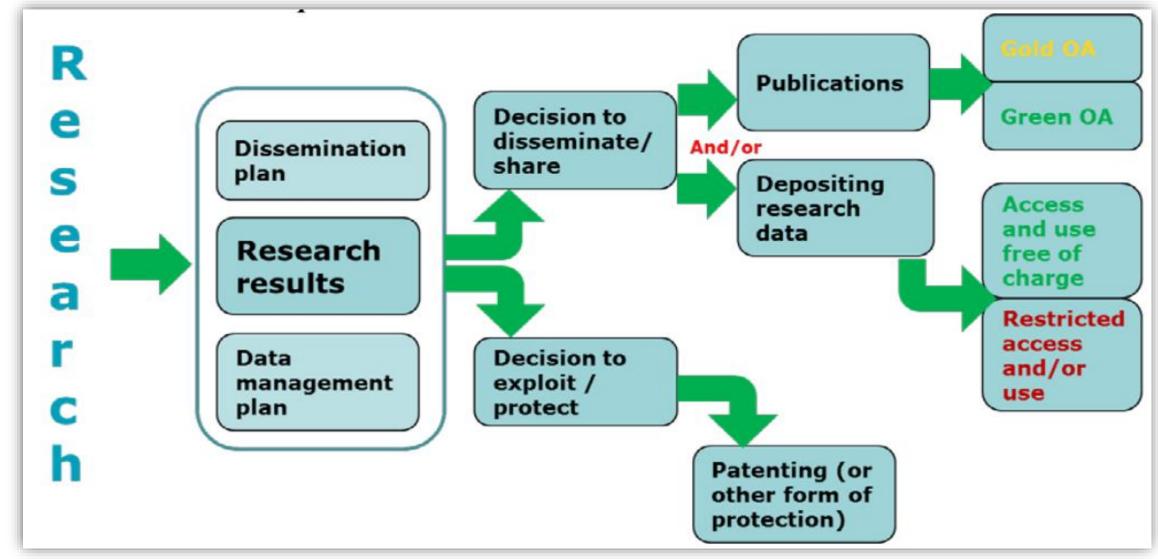


## To guarantee the reuse, authors should choose open licenses (ie. Creative Commons, which have 4 criteria: BY, SA, NC, ND)

# **Beneficiaries**

# Must decide whether to patent or publish

Ερευνα & Καινοτομία





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

# Be aware of possible **Sanctions**!

Grant reduction or payment suspension [Art. 43 of the Grant Agreement]





# Research Data Management



# 55 Publishing research without data is simply advertising, not science



# **Research data**



i.e. data used as key sources in the research process, such as:

√ numeric data

√text files Q1: what data are necessary to √ images validate findings? Q2: what files are necessary to constitute a model?

# Why manage data

NON PECUNIAE INVESTIGATIONIS CURATORE **US PROGRAMMAS DATORUM PROCURA** 

(Not for the research funder, but for life we make data management plans)

- Make your research easier
- Stop yourself drowning in irrelevant stuff
- Save data for later
- Avoid accusations of fraud or bad science
- Write a data paper
- Share your data for re-use
- Get credit for it







# **FAIR data principles**



- - machines
- Accessible through repositories
  - and access conditions
- Interoperable with other systems
  - and technologies
- Re-usable by others

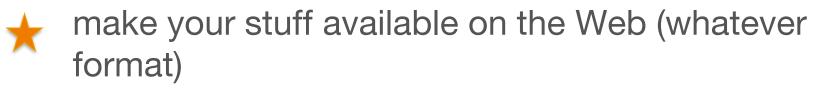
https://www.ands.org.au/working-with-data/fairdata/training





# Findable by both human and

# **Open data**





under an open license



make it available as structure instead of image scan of a ta

 $\star \star \star \star$ 

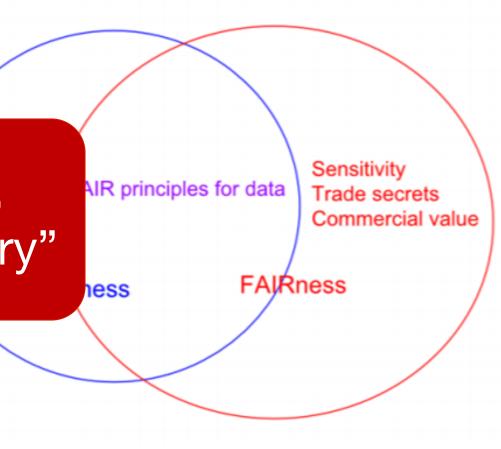
(e.g., CSV instead of Excel)

"As open as possible, make it available in a non-prease closed as necessary"

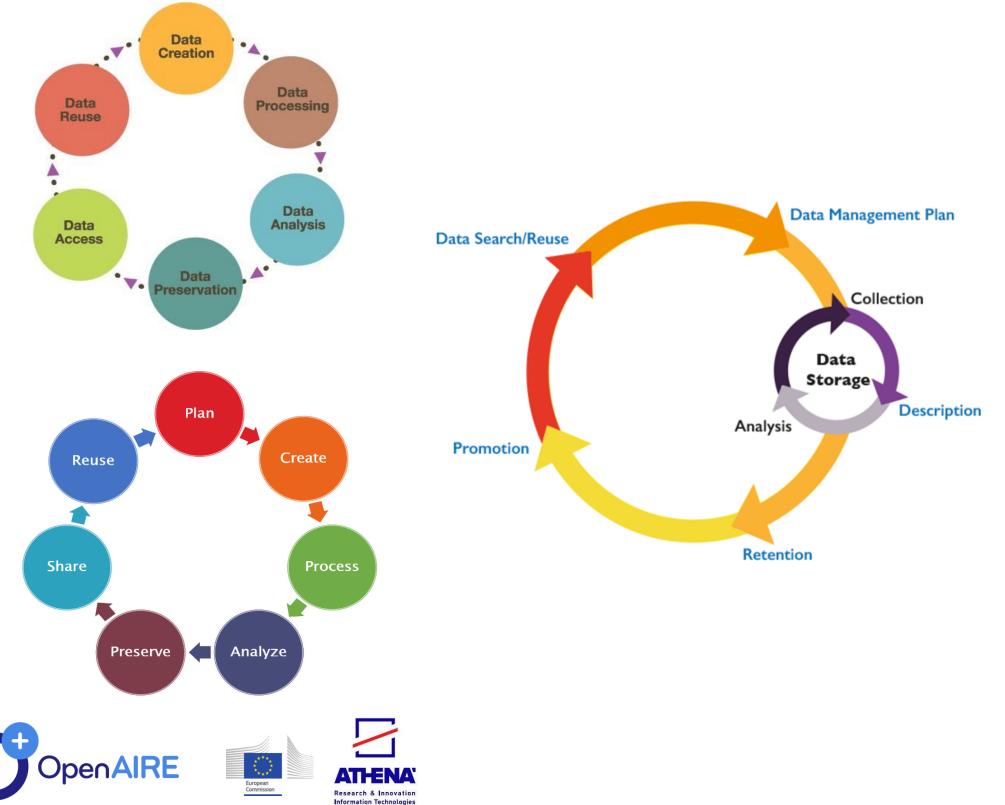


use URIs to denote things, so that people can point at your stuff link your data to other data to provide context

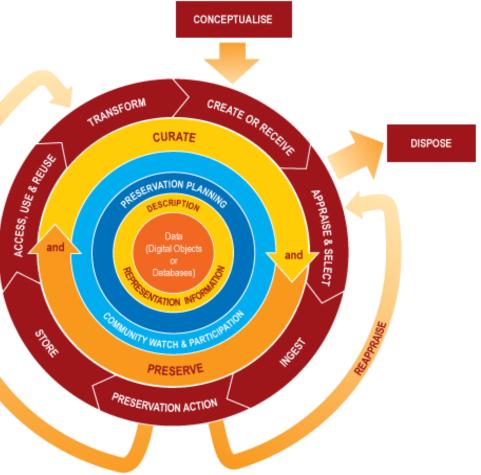




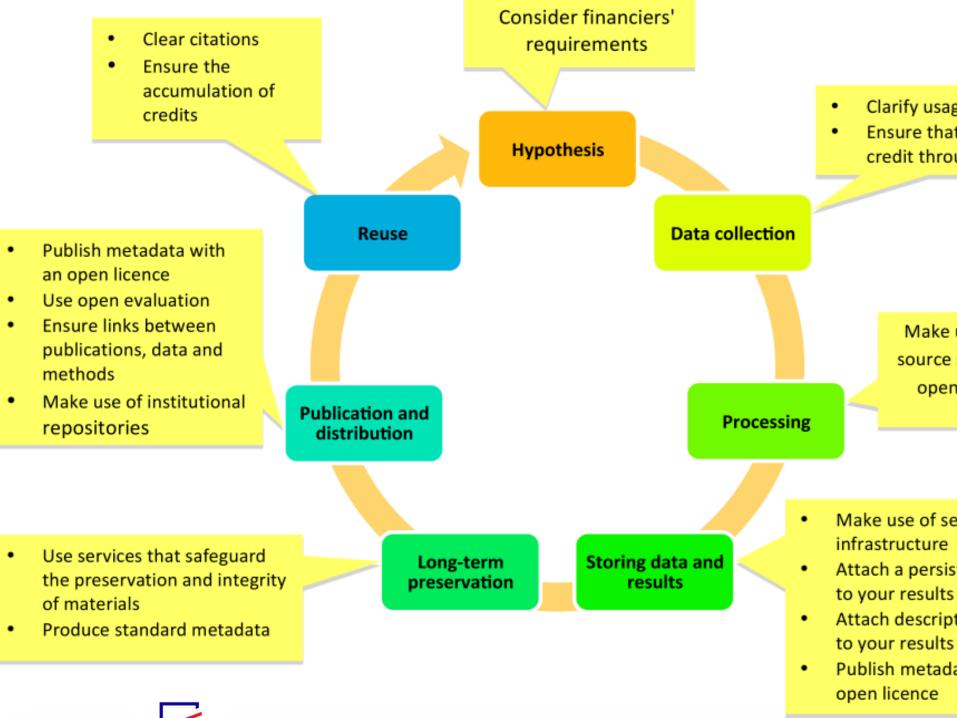
# **RDM Lifecycles**



RATE



# **Practices in RDM lifecycles**







(Open Science and Research Initiative, 2014)



Clarify usage rights Ensure that you give credit through citations

> Make use of opensource software and open interfaces

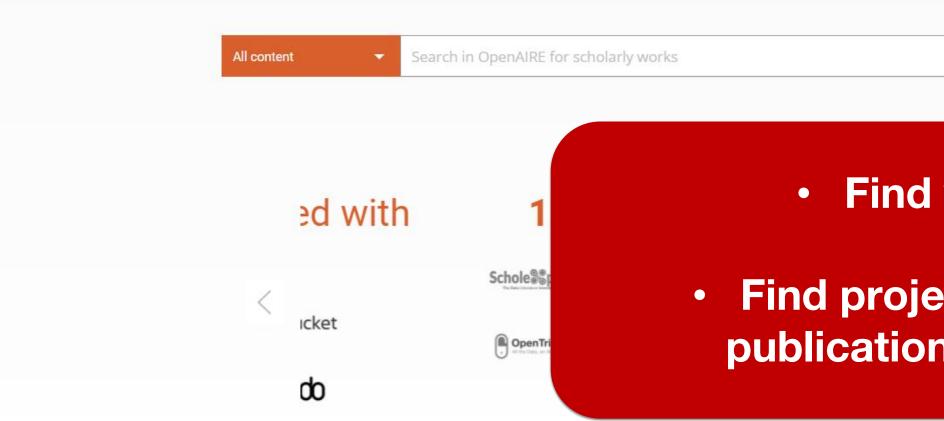
Make use of service

- Attach a persistent identifier
- Attach descriptive metadata
- Publish metadata with an

# **Tool for finding data**

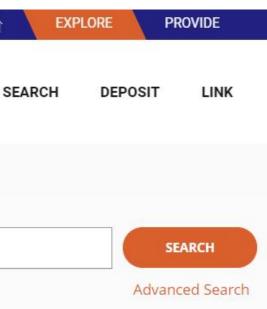






https://explore.openaire.eu/

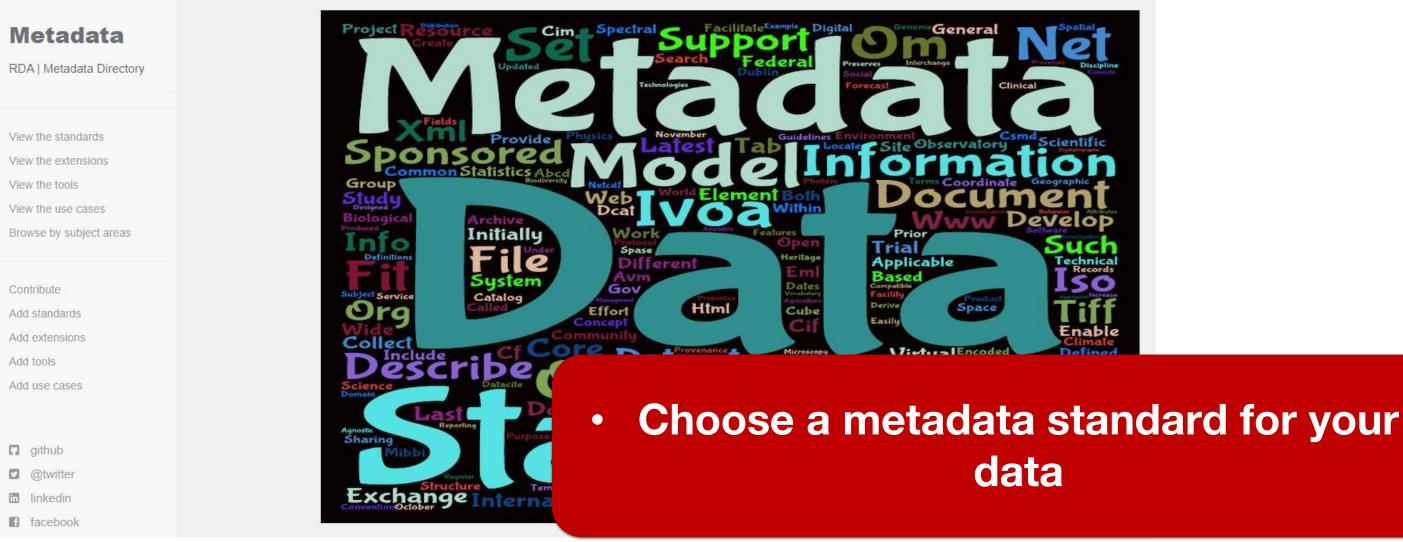




## Find your project

# Find project's datasets and publications & link to project

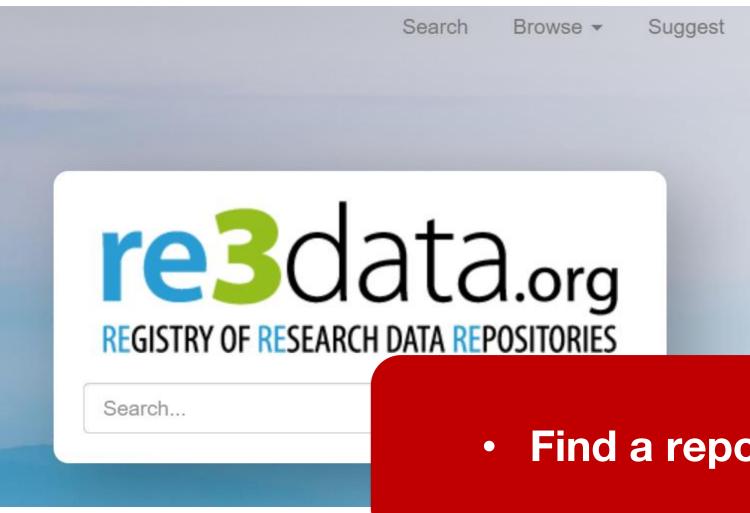
# **Tool for finding metadata standards**



## http://rd-alliance.github.io/metadata-directory/



# **Tool for finding data repositories**



https://www.re3data.org/





# Find a repository for your data

# **Tool for archiving data & software**



## Featured communities



#### National COVID Cohort Collaborative (N3C)

The National COVID Cohort Collaborative (N3C) is a complementary and synergistic partnership among the Clinical and Translational Science Awards (CTSA) Program hubs, the National Center for Data to Health (CD2H), distributed clinical data networks (PCORnet, OHDSI, ACT/i2b2, TriNetX), and other...

Curated by: mcmurryj

## Recent uploads

December 10, 2020 (v3) Dataset Open Access

#### Characteristics of human and viral RNA binding sites and site SRSF1 and RNPS1

Rogan, PK; Mucaki, EJ; Shirley, BC

This dataset was developed for the following article: Rogan PK, Mucaki EJ and Shirley BC. A proposed molecular mechanism for pathogenesis of severe RNA-viral pulmonary infections [version 1; peer review: awaiting peer review]. F1000Research 2020, 9:943..

Uploaded on December 10, 2020 2 more version(s) exist for this record





## https://zenodo.org/

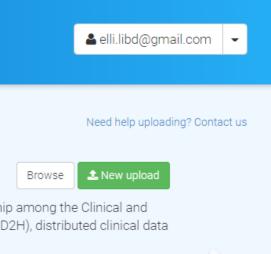
# Create / Find a community

# **Deposit in Zenodo**

#### ve can neip with

- Uploading your research data, software, preprints, etc.
- datasets.





- One-on-one with Zenodo supporters.
- Quota increases beyond our default policy.
- Scripts for automated uploading of larger



# **Researchers & Digital Objects Organisations d**• ORCID 🗲 Funder Registry ≽ Handle.Net® Registry\_ ARK



## **Other activities**





# Means of sharing

- Commercial cioud, e.g. doogle Drive
- Cloud infrastructure for research, e.g. B2SHARE
- Ftp server
- USB Drives

# Create links

Link research outputs





Immediate; metadata only		Open data	Safeguarded data	Controlled data
<ul> <li>Check embargoes</li> <li>Restrictions (Copyright, IPR etc)</li> </ul>	Security requirement	Suitable for fully anonymised data or data with agreement to publish personal details	Partially anonymised data or data with agreement to publish personal details, and where owner wishes to track usage	Too detailed, confidential or sensitive to be downloaded
Access controls	Level of access	Accessible without user registration	Accessible to authenticated users	Accessible to authenticated users, using secure remote access or secure onsite room
	Legal conditions	Under open licence, either Open Government Licence (OGL) for Crown Copyright data or Creative Commons for other data	Requiring an End User Licence and, where appropriate, special conditions agreed to, or data owner approval	Requires user accreditation and registration through training and approval by a data access committee



## S.// ukualasei vice.ac.uk/ uepositdata/how-to/regular-depositors/negotiate

# Reuse

# Licenses Conditions Types

# Citations

Specify required data citation
 Open citations

## **License Conditions**

When using a Creative Commons license, creators choose a set of conditions they wish to apply to their work.

Attribution (by)

All CC licenses require that others who use your work in any way must give you credit the way you request, but not in a way that suggests you endorse them or their use. If they want to use your work without giving you credit or for endorsement purposes, they must get your permission first.

ShareAlike (sa)

You let others copy, distribute, display, perform, and modify your work, as long as they distribute any modified work on the same terms. If they want to distribute modified works under other terms, they must get your permission first.

SNonCommercial (nc)

You let others copy, distribute, display, perform, and (unless you have chosen NoDerivatives) modify and use your work for any purpose other than commercially unless they get your permission first.



You let others copy, distribute, display and perform only original copies of your work. If they want to modify your work, they must get your permission first.







# **Existing data**

e.g. Data with DOIs, in

repositories

# How I will be reusing existing data

-> Check copyright, licenses etc



# New data e.g. Derived from current activities

# How others can reuse my data

# -> Add licenses, access conditions etc

# **Tools to decide which license to choose**





1	Do you know which license you need?							
	O Yes. I know which license I need.							
	○ No. I need help selecting a license.							
	NEXT STEP							

2	Δ	+	÷	e.	i	Ь	u	÷ŝ	~	
<b>_</b>	-		•			P	u	C.	v	

- 3 Commercial Use
- 4 Derivative Works
- 5 Sharing Requirements
- **Attribution Details**

## https://chooser-beta.creativecommons.org/



Do you own copyright and similar rights Yes No
Do you allow others to make com
Choose a
Check other know how
http://ufal.aithub.ia/n



in your dataset and all its constitutive parts?

mercial use of you data?

## license for your data

## researchers' license to to re-use their work

http://ufal.github.io/public-license-selector



TINDABLE

ABOUT US SERVICES

COLLABORATIONS

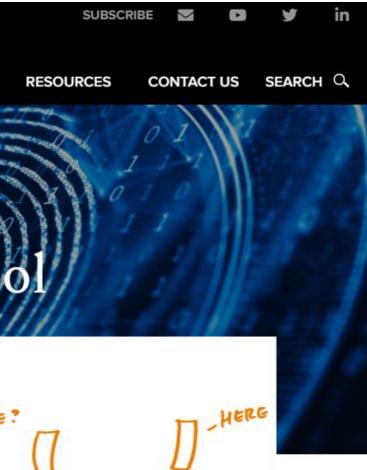
OPEN CALLS NEWS

### FAIR self assessment tool FAIR DATA PRINCIPLES HOW DO YOU REN A .X 29 FILE ? HERE 10101/8.7P7 AH! E. **Check how FAIR is your data**

https://ardc.edu.au/resources/working-with-data/fair-data/fair-self-assessmenttool/

Acces





CHIST-ERA OpenAIRE Training Session on Open Science December 11, 2020

# Anonymization



# **GDPR** and anonymization

- - According to law and contracts
  - Consent
  - Can be used for research
- Not easy-to-use personal data

  - Difficult to manage
  - internal processes

4.5.2016	EN	Official Journal of the European Union	L 119/1
		Ι	
		(Legislative acts)	

### REGULATIONS

REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 27 April 2016

on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

(Text with EEA relevance)





## **GDPR** limits the usage of personal data

Consent might not be given or withdrawn

Usage for research purposes requires strict

Cannot share with third parties

# **Data anonymization**



Data anonymization facilitates the publication of micro data (vs. aggregated macrodata), e.g., data used in scientific research



Micro data often reveal important private information, e.g., the medical condition of a person

Individuals are afraid to provide their data Companies are afraid to share data with experts

**GDPR** makes a strict protection scheme obligatory

The aim of anonymization methods is to allow sharing such data, without compromising the privacy of the users.





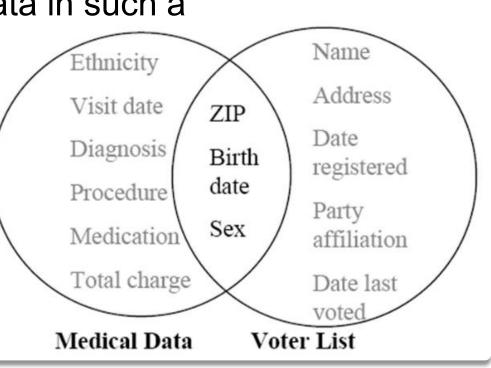




# **Pseudo-anonymization vs Anonymization**

### PseudoAnonymization

- ✓ Direct identifiers are replaced by arbitrary ones, which should be kept separately.
- $\checkmark$  "the processing of personal data in such a way that the data can no long attributed to a specific data s the use of additional informat
- $\checkmark$  (WG) Pseudonymisation is a to clarify some pitfalls and m pseudonymisation is not a m anonymisation







### Anonymization

- ✓ Irreversible
- ✓ No longer personal data

# When to anomymize

- When you are a practitioner, and you want to share data with researchers and third parties without compromising the privacy of the user
  - After the data is anonymized, you do not need consent
- When you want to give data to recipients you do not fully trust
  - Encryption will reduce the risks of data leaks to unauthorized third parties, it will do nothing for untrusted recipients
- When you want to openly publish data and you are not fully aware of the audience
- When reduction in information quality is acceptable



# **Amnesia tool**



ABOUT DOW

# High accuracy Data Anonymization.

Perform research and share your results that satisfy GDPR guidelines by using data anonymization algorithms.

GET STARTED





# CONTACT DOWNLOAD **ONLINE VERSION**

# Data Management Plans



# **Plan for RDM - DMPs**

Plan data management of research activities following research data lifecycle steps

### Title: H2020 NEANIAS WP4 Space Astrophysics Datasets Template: Horizon 2020 External References

Onto Rejubbilisment

GAM Catalogues, VMCACIDA Recordedge Base, 568 Science Data Challenges,

### External Datasets

Galactic Legacy link and Multime Survey Exhibiting the week, 26 and 70 Micros Survey of the treat Galactic Dila with MIPS. MIPSGA: Catolog, Co-Ordinated Radio 34 Intraved Sarwy for High-mass star femation, Wilde Relit Infrared Genery Gapterier, SVA Science Data Oscillenge FL. Canadian Solia Nr. Para haves (80P) Catalog, Southern Calactic Plane haves. WIN: Catalog 200 southern Calactic Plane Sames, Base our Offmats Mana Mike Was Screen, Gibb Anthin, VA So Sames, ATANGA Culture The VLA Gaberle Plane Sorrow, The Golactic Comunity light and Medium-room Protostam, damas Gank Hoaved Selencess. Herschel Infrand Galactic Rone Survey. The Hubble Array Galactic Plans Imaging Survey, Millimetrie Automatine Legacy Team \$5590

### **Repotive**

VORS Regulation, GAIA Regulation

Services

GAM Services 10.68 Services

The HGERENEAN Respect aims to design, dollose, and lengthtle lets the Sumpeue Open labour. Could incovative themadic services, derived how state of the ort material assets and practices in these mater antions, and movies research, almospheric research and space research. In particular the Work Package 4 is forced on the thematic services related to the Space environment. The Space environment comprises antruphysicies and planetary scientific that will handle data within these seniors: 51-768. Data Management and visualization for complex state and metabolic service: 52-Map making and resulting for multidenensional images service 12. Structure detection on large map images with machine learning techniques service. This document describes datasets employed iron astrophysics surveys mainly covering the Gabetle Plans, Code holdings come partly from the Malanteo Robeledge Rate WAR housed at the Italian-partie for Astronomical Archive 142, housed at INAF - Astronomical (Sournatory of Trincle) and parify from new data resources such as the GALA Archive and SEA Data Outrien

### **Dataset Description**

I Date Summary

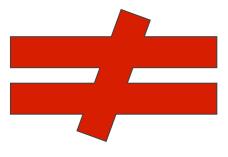
E.1 What is the purpose of the data collection/generation and its twistign to the objectives of the project?

The in2020 NEXNARE Project along to design, deliver, and integrate this the Gurageon Open Science Court executive thematic services, derived how state of the art revearch starts and practices





## **Deliverable and "living" document** - documents processes undertaken throughout data management lifecycle, including costs



### **Research assessment method**



# Plan – Costing RDM

### Costing RDM

- Preparing (DMP)
   Data collection, eg database, formatting, transcription, etc
- Data documentation, eg data description, metadata
- Data storage and back-up
- Data access and security, eg TTP, encryption
   Data sharing & reuse, eg anonymization, copyright, cleaning, digitization
   Overall, eg roles & responsibilities







https://intellectual-property-helpdesk.ec.europa.eu/regionalhelpdesks/european-ip-helpdesk en

### How much could management & deposit cost?

### Some factors that affect RDM costs...



https://www.openaire.eu/rdmresearcher-costs-infographic/viewdocument

# **Tool for writing DMPs**

### arcos **Plan and follow** your data openaire.eu/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 repositor

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

Start your DMP

ightarrow

### https://argos.openaire.eu/splash/





### Start a DMP and share it with a colleague

**Describe your dataset** 

# Why to use ARGOS by whom

- Full DMP generation & publication process according to Open and FAIR principles.
- Machine actionable DMP (ma-DMP) outputs that normalize descriptions of data:
  - Interdisciplinary & multi-disciplinary DMPs support
    - Wizard-based DMP authoring: multiple datasets may be contained in a single Plan
    - -> produced vs re-used vs sensitive vs discipline specific.
- Interlinked and connected with reference services and data sources (OpenAIRE, EOSC, etc).
- Standardization of practices and collaborations -> e.g. DMPs exposed in repositories with appropriate resource\_type

Main users: researchers / research projects, funders, research communities and institutions





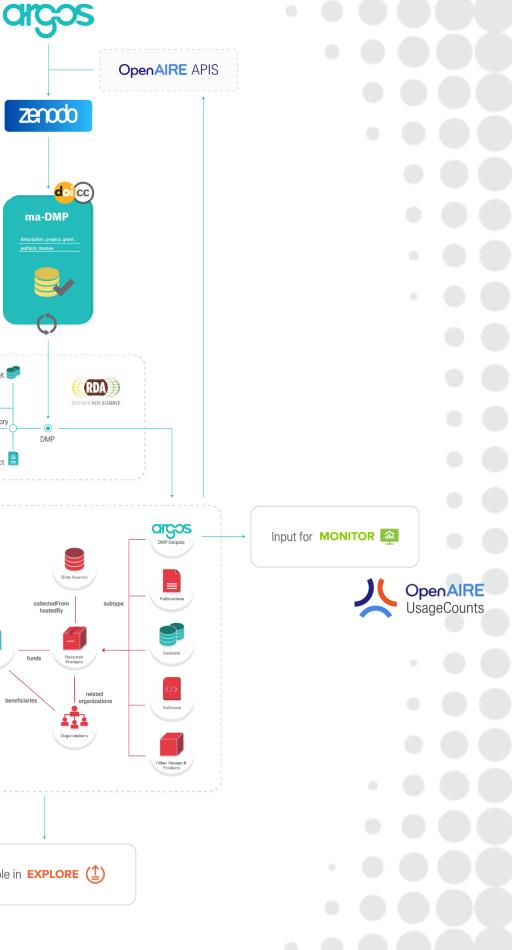
# **ARGOS interlinked**

- Exploit OpenAIRE and EOSC APIs in templates.
- Publish in Zenodo.
- Notify repository managers for new datasets.
- Provide statistics.
  - Define indicators.
  - Add to dashboards.
- Create links between outputs and entities.
  - Data and projects.
- Add DMPs under the project's page.
- Exploit DMP entities as datasets.



		dataset
Notifications sent to repositories in <b>PROVIDE</b>	<u>ب</u>	repository
		project
	Funders	
	Streams pr	rojects
	substreams	bene
		AIRE chGraph

Findable and searchable in **EXPLORE** 



# **Useful Links**

- **OpenAIRE Helpdesk:** <u>https://www.openaire.eu/support/helpdesk</u> •
- **OpenAIRE NOADs:** <u>https://www.openaire.eu/contact-noads</u>
- **OpenAIRE Factsheets:** <u>https://www.openaire.eu/openaire-h2020-</u> factsheets
- Argos: <u>https://argos.openaire.eu</u>
- OpenAIRE webinars: https://dl119.madgik.di.uoa.gr/index.php?option=com zoo&view=frontp age&layout=frontpage&ltemi

Don't miss out! Sign up to OpenAIRE and subscribe to the <u>Newsletter</u> to get informed about news and updates



With thanks to Iryna Kuchma, Emma Lazzeri, George Kakaletris, Manolis Terrovitis

# Thank you!

### Elli Papadopoulou

<mark>≥ elli.p@athenarc.gr</mark>

ORCID 0000-0002-0893-8509

🍠 @elli\_lib



