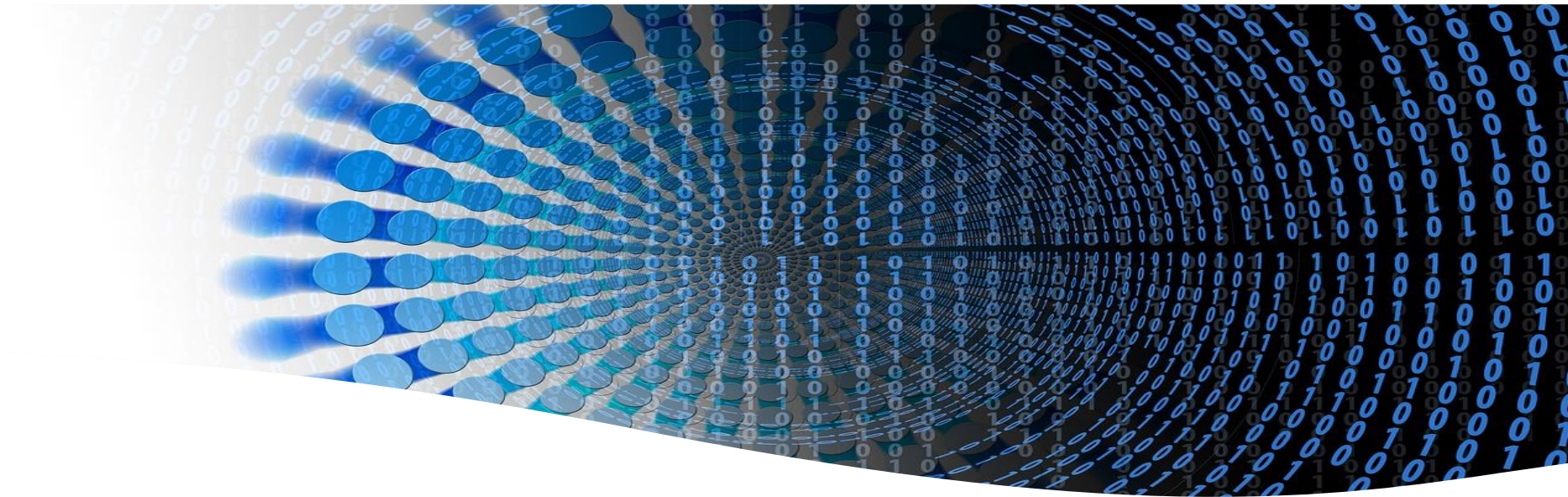




Publishing open research data

Trainer: Joana Ferrer
Moderator: Marta Jordán

(May 2022)

Rules and recommendations

- Mute your microphones to help everybody understand the session
- You are not allowed to record what you can see and hear, completely or partially, directly or indirectly during the webinar
- You may turn off your video when joining the session
- You can use the chat box to ask your questions and we will answer them during the webinar
- While visualizing the PowerPoint presentation you will hear the presenter's voice



Research data



Typology
Definition
and types of
research
data



Mandatory
data
management
and sharing



FAIR
Principles to
guide data
management



**The Data
Management Plan**



DDD
Publish your
data

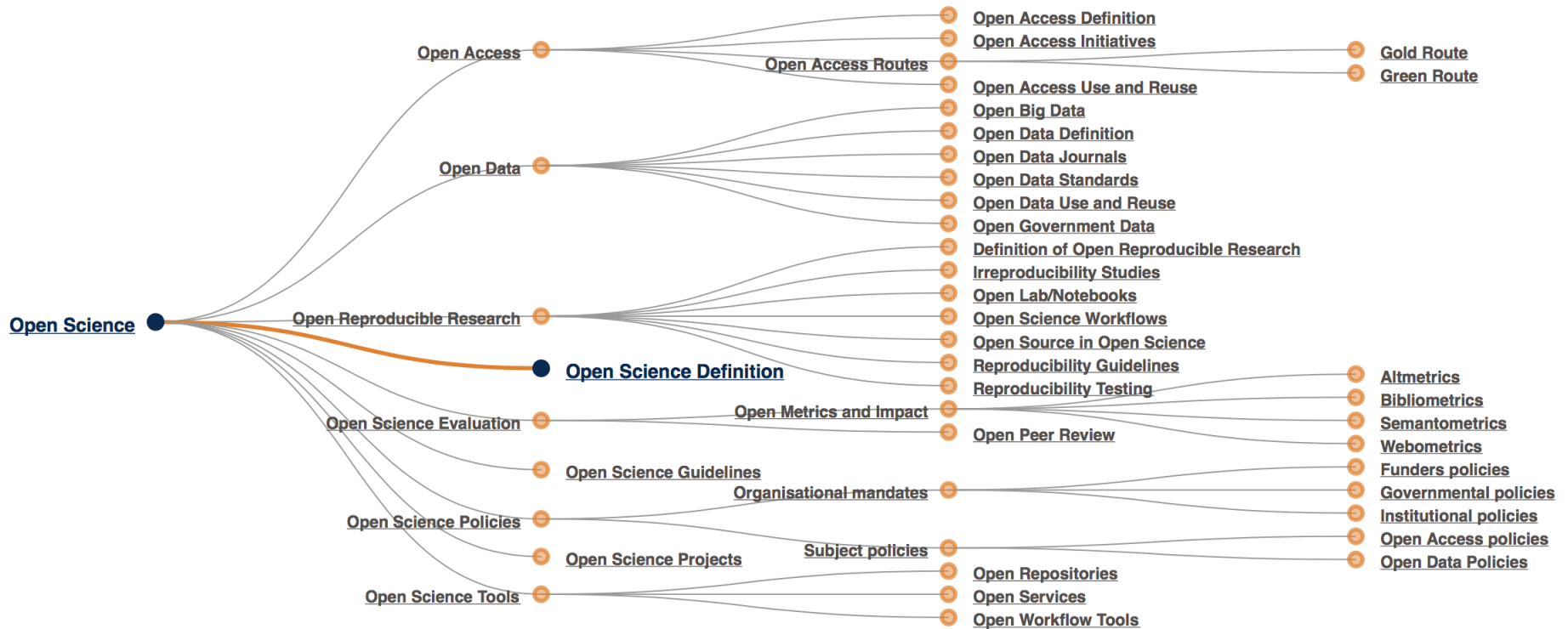


**More
repositories**



**Best
practices**

Open Science: research and research data open by default



Source: OpenAIRE (<https://www.openaire.eu/what-is-open-science>)

What is research data?

According to European Commission:

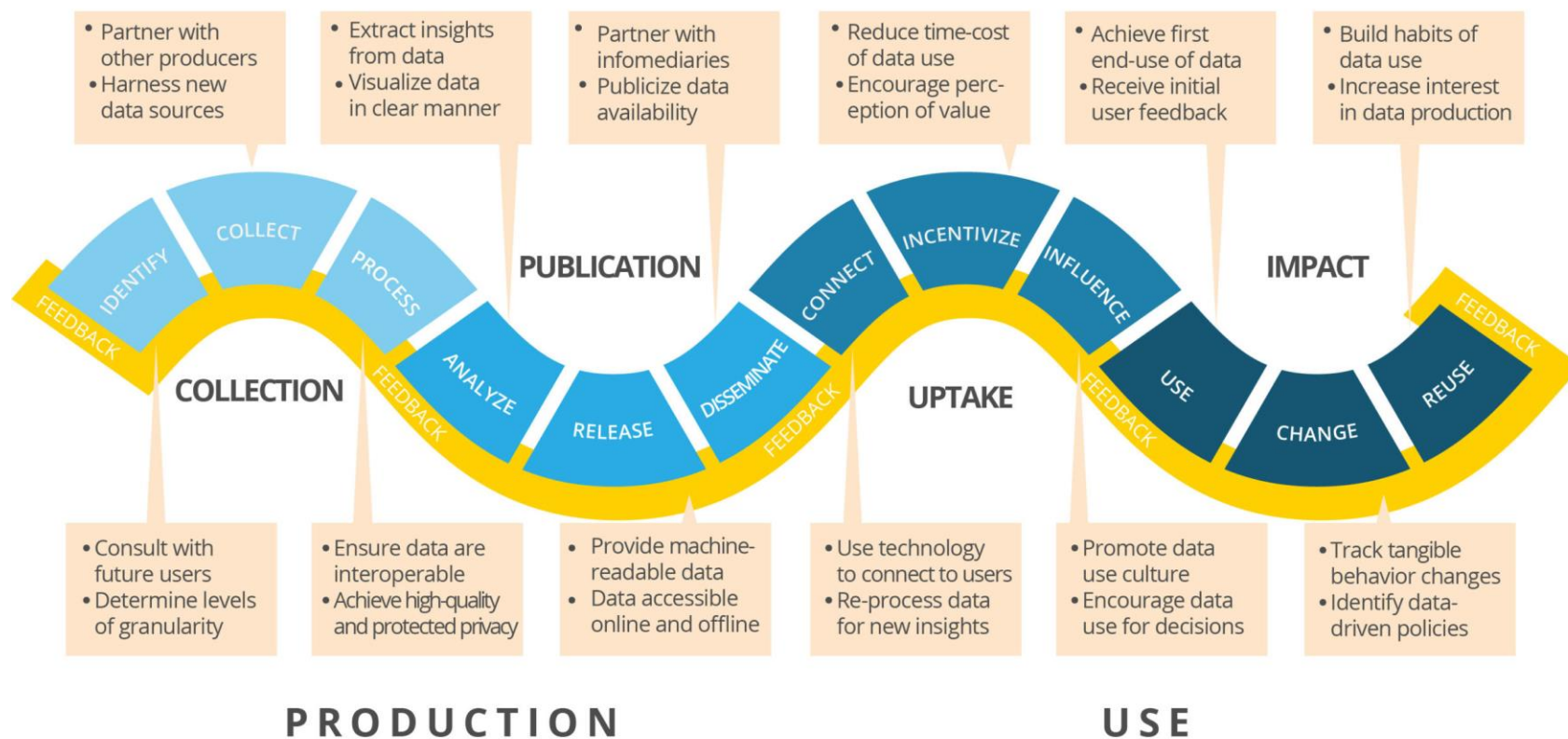
- It refers to information, **factual** or **numerical**
- Captured to be **examined** and **considered**
- Provides the basis for **reasoning**, **debate** or **calculation**

Examples: statistics, results of experiments, measurements, observations resulting from field study, surveys or interviews and images.

Types of research data

- Data generated in the research process or **primary data**: it needs to be sorted and documented, and assessment is required when data contains personal or sensitive information.
- Data related to published results or **final data**: it needs to be identified in order to assure its access and reuse.

DATA VALUE CHAIN



increasing value of data



Roadblocks for **production** include lack of financial, human, and technological resources; low data literacy; lack of trust between users and data collectors; blind-spots in data gaps; lack of country ownership; and lack of government desire for transparency.



Roadblocks for **use** include low political support; lack of data relevance to decisions; poor quality; lack of trust in government data use; no rewards or results of data use; financial constraints; corruption; data silos; and lack of partnerships between infomediaries.

MARKERS

Potential achievements within each process of the value chain mark progress towards data impacts.

Benefits of publishing research data

- Reinforces **open science**: data available to reuse for free
- Enhances the visibility and **impact** of one's research
- The identification with a **DOI** allows citation and metrics
- Provides **transparency to research** strengthening replicability, reproducibility and data verification
- Promotes innovation thanks to data **sharing** and **reuse**
- Avoids redundancy and duplicity in data collection: **optimizes** researcher's time and efforts
- Offers more opportunities to **collaborate** and create scientific debates



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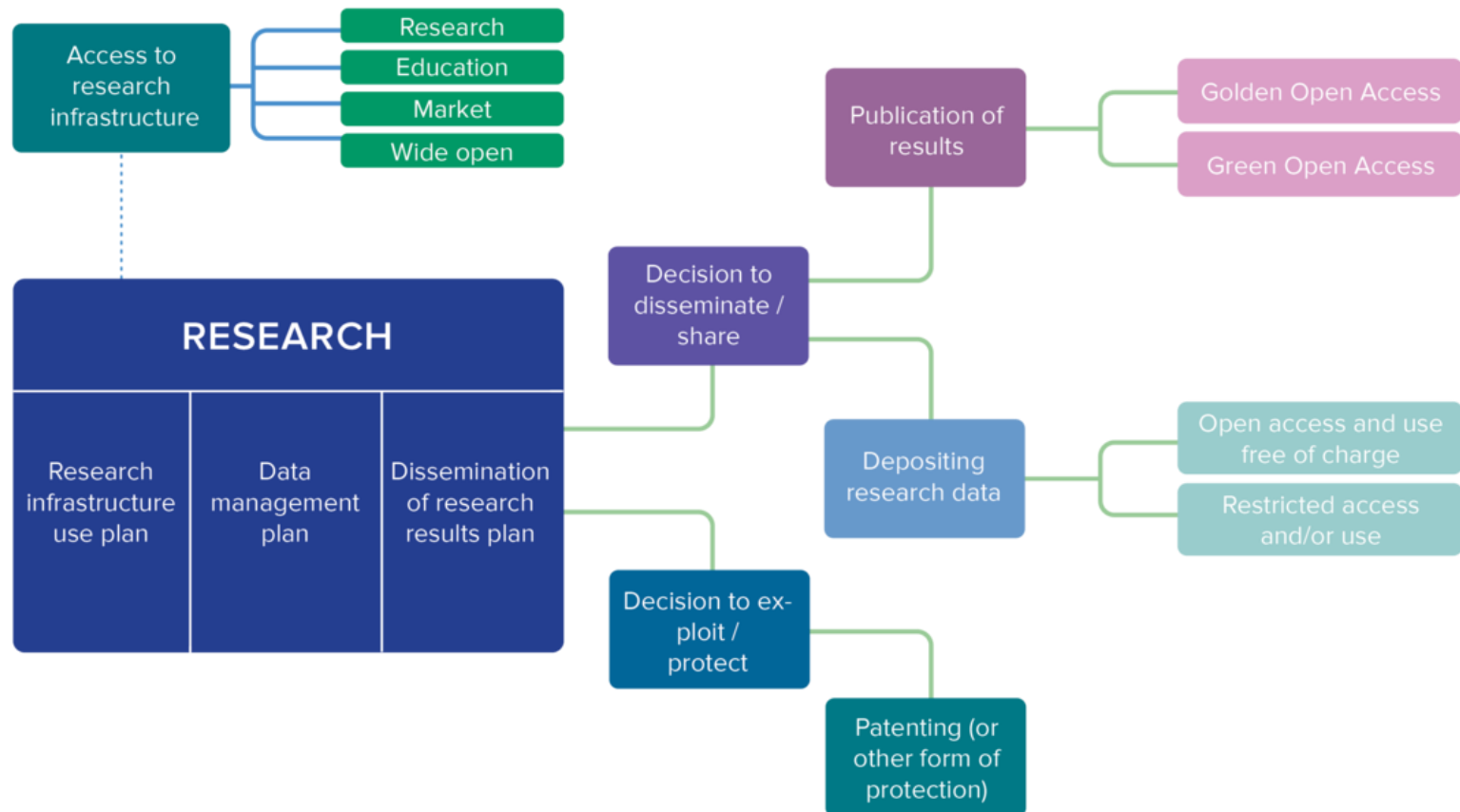


**More
repositories**



**Best
practices**

Calls – Horizon 2020 (2014-2020)



Research process and the process of dissemination of research results

Calls – Horizon Europe (2021-2027)



Open Science across the programme

Open
Science

Mainstreaming of open science practices for improved quality and efficiency of R&I, and active engagement of society

Mandatory immediate Open Access to publications: beneficiaries must retain sufficient IPRs to comply with open access requirements;

Data sharing as ‘open as possible, as closed as necessary’: mandatory Data Management Plan for FAIR (Findable, Accessible, Interoperable, Reusable) research data

- Work Programmes may incentivize or oblige to adhere to **open science practices** such as involvement of citizens, or to use the **European Open Science Cloud**
- Assessment of open science practices through the **award criteria** for proposal evaluation
- Dedicated support to **open science policy actions**
- **Open Research Europe** publishing platform

Calls – Plan Estatal (2021-2023)

CIENCIA E INNOVACIÓN EN LA SOCIEDAD

Eje 14. **Social.** Promover el compromiso de la **sociedad española con la I+D+I**, fomentando la **divulgación y la cultura científica**, la reflexión sobre el papel de la ciencia y la tecnología en la sociedad actual, y promoviendo una ciencia e innovación **abiertas e inclusivas**.

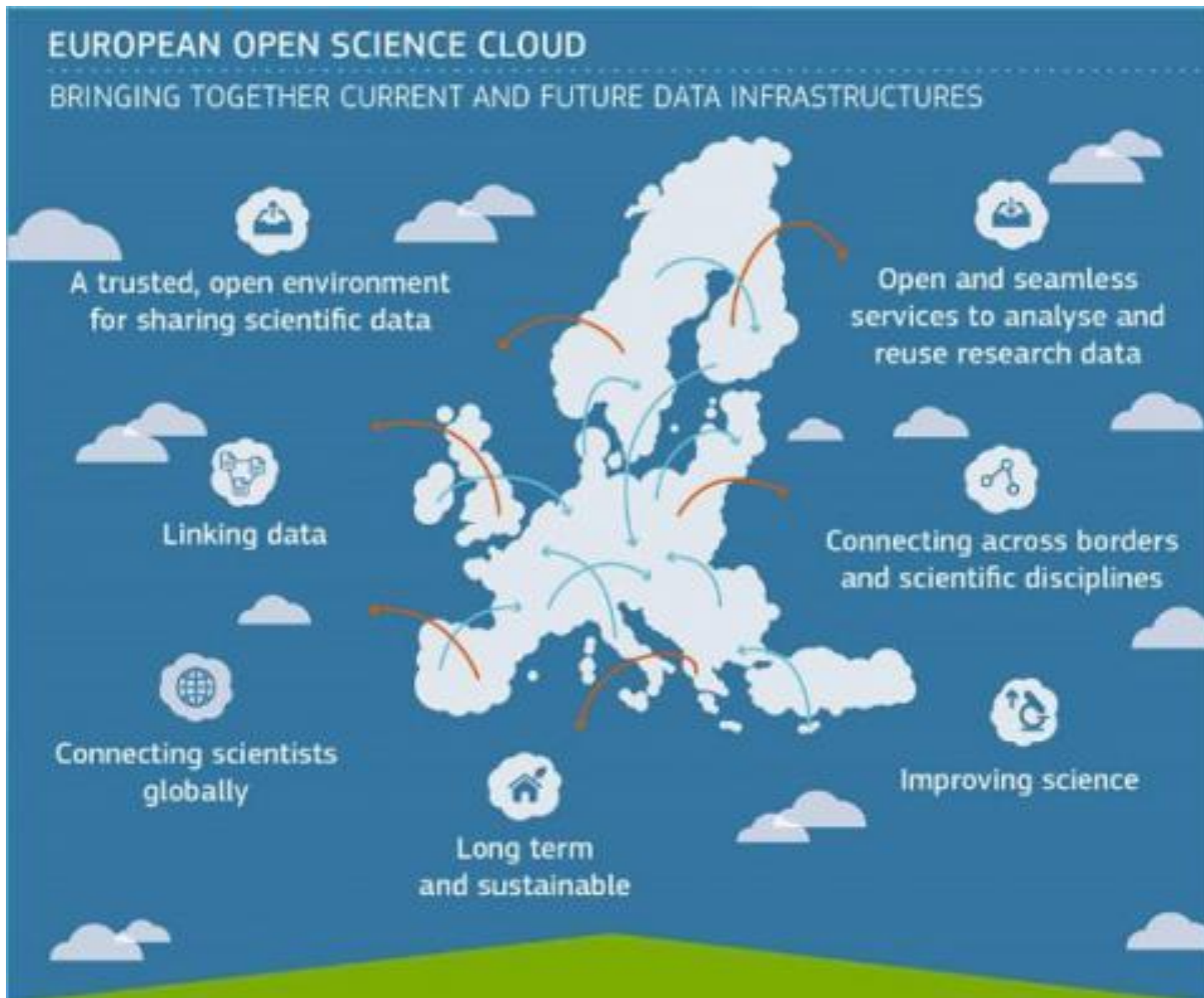
Source: EECTI 2021-2027



Acceso abierto a resultados, entendidos como publicaciones científicas y datos de investigación, de las actividades subvencionadas con recursos públicos. En cumplimiento de lo establecido en el artículo 37 de la LCTI y de las recomendaciones vinculadas a la agenda europea en materia de Acceso Abierto y Ciencia Abierta¹⁰, **los trabajos financiados a través del PEICTI y publicados en revistas científicas se depositarán en formato digital en un repositorio institucional o temático de acceso abierto. Además, los datos de investigación deberán seguir los principios FAIR¹¹ y, siempre que sea posible, difundirse en abierto.**

Source: PEICTI 2021-2023

European Open Science Cloud



eosc-portal.eu

Institutional policy on Open Access to Research Data



- **Preamble:** the University acknowledges the importance of research data
- **Scope:** This policy applies to all research staff in active employment
- Aspects related to **data storage:** repository, preservation, FAIR commitment, time limits of data publication...
- Data must be made available under a less restrictive license for **reuse**, such as CC0 or CC BY Creative Commons Licenses
- **Responsibilities** of stakeholders: research staff and the University
- **Validity:** it came into effect in March 2020 and will be revised every 5 years

ddd.uab.cat/record/222172

Publishing policies

BMJ Journals

WILEY



SPRINGER NATURE



ELSEVIER

OXFORD
ACADEMIC



Research data



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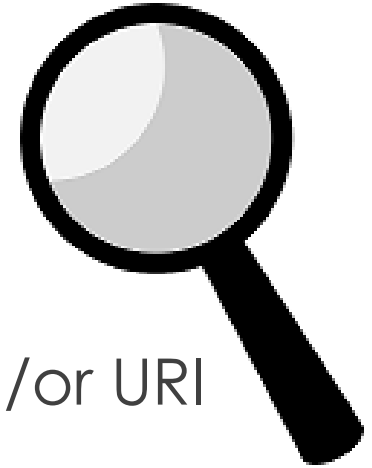


**More
repositories**



**Best
practices**

Findable



- ✓ Persistent identifier: DOI (preferably) and/or URI
- ✓ Publication in institutional or subject repositories.
Data must be described according to international standards.
- ✓ All data registered in repositories must be indexed and searchable

Accessible



- ✓ Data and metadata retrievable and harvestable: repositories must work with open and standard communication protocols.

Interoperable



- ✓ International standards for metadata description (Dublin Core, DataCite...) must be fulfilled



Reusable



- ✓ Data described in detail: origin, date of collection, environmental circumstances, observations...
- ✓ Subject area standards for description must be employed. If this is not possible, the use of a recognized general standard is necessary
- ✓ Every dataset with a Creative Commons license, or a Public Domain license



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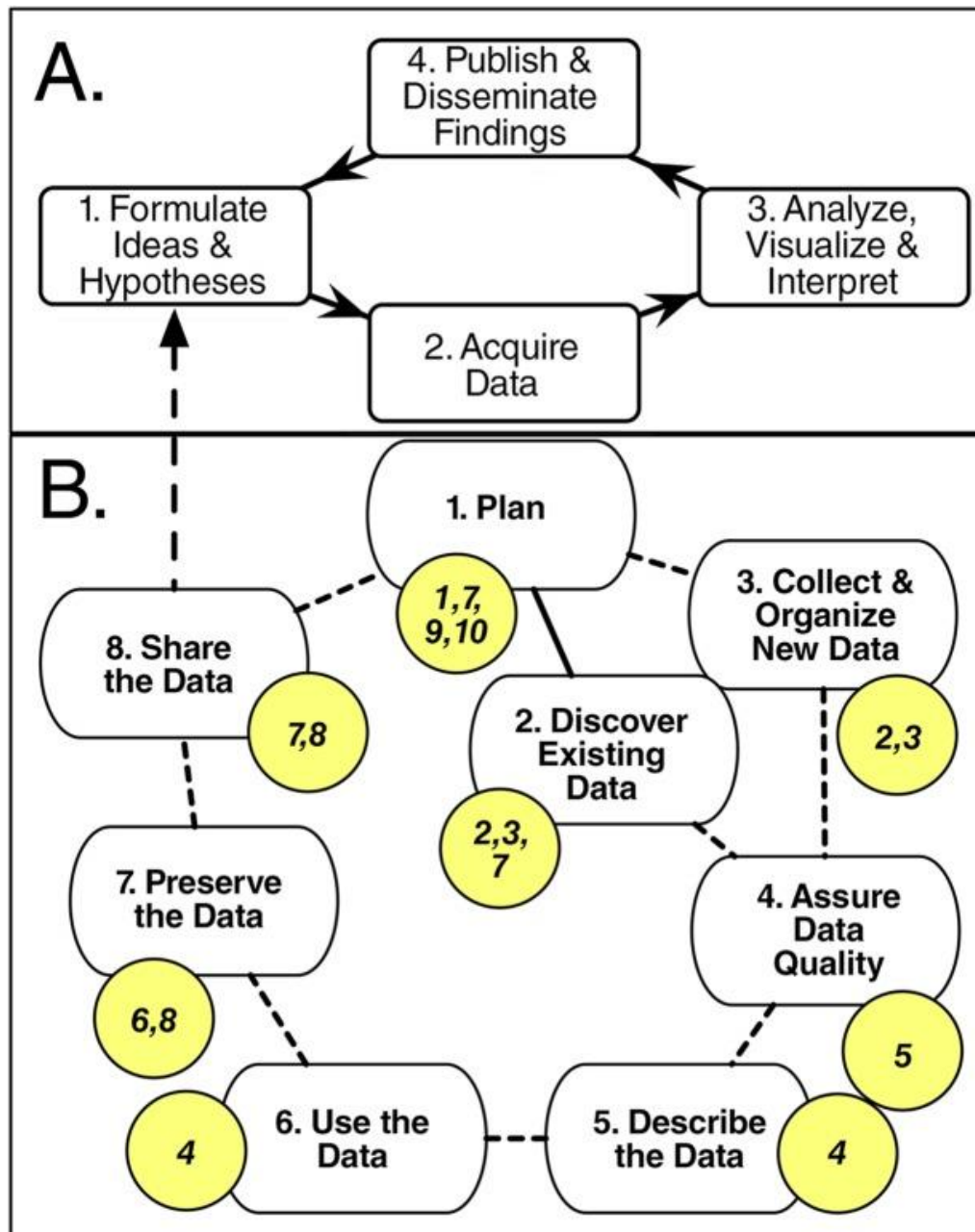
**Best
practices**

Data Management Plan (DMP)

A Data Management Plan (DMP) describes the data management life cycle for the data generated in a research process.

A DMP should include information on:

- the handling of research data during & after the end of the project
- what data will be collected, processed and/or generated
- which methodology & standards will be applied
- whether data will be shared/made open access
- how data will be curated & preserved (including after the end of the project).



DMP for your thesis

Guide for PhD students (in Catalan) to create a DMP - Consorci de Serveis Universitaris de Catalunya (CSUC)

ddd.uab.cat/record/218680

Eina DMP – Online tool that allows you to prepare the DMP in a simple and collaborative way. It includes a specific template to help PhD students to follow the specifications to create the DMP.

dmp.csuc.cat



Data Management Plan – Advantages

It's a good **methodological resource** that:

- Enables you to manage the research data in an **organized** and **efficient** way (it prevents data loss)
- Helps to **systematize** the data collection
- Promotes data **sharing** and **access**
- Ensures **transparency** and **integrity** in your research

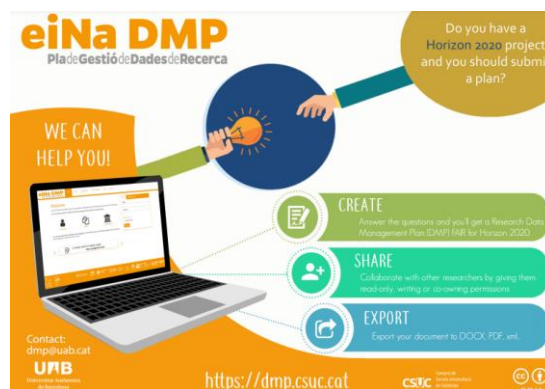
DMP – Support resources



- Videotutorial CSUC: youtu.be/8gKSePSVkpl
- Videotutorial UPF: youtu.be/s5JF7LPCMjw



- Infographic: ddd.uab.cat/record/181194





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Best
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Repositories

A trusted digital repository is one whose mission is to provide reliable, long-term access to managed digital resources to its designated community, now and in the future

UAB Digital Repository of Documents



Datasets

- ddd.uab.cat/collection/datasets

Data Management Plans

- ddd.uab.cat/collection/plagesdad

The DDD is...

F	It assigns persistent identifiers (DOI/URI)	✓
	It uses International standards	✓
	Its content is searchable and retrievable	✓
A	Data and metadata accessible with open and standard communication protocols	✓
I	It uses international standards for metadata description	✓
R	Data described in detail	✓
	Every dataset with a Creative Commons license, or a Public Domain license	✓
	Subject area standards / recognized general standards for description are employed	✓

DDD – Publish your data

- ✓ ORCID identifier
- ✓ Abstract of the content (it can be in different languages)
- ✓ Keywords (in different languages)
- ✓ Assign an open Creative Commons license ([UAB recommendations](#))
- ✓ Note the project's code (if your research is supported by a grant)
- ✓ Identify any related work (article, thesis, book...)
- ✓ 25 Gb for each dataset (you can contact your library if you need more space for your data)





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**More
repositories**



**Best
practices**

You can find more repositories to deposit your research data online:



Here you can read the main features of these repositories:
ddd.uab.cat/record/150829

More repositories – selection criteria

1. Is there any representative repository in your research area?
2. Does the repository allow you to deposit the data in the format used?
3. Does it match your file size needs?
4. Does it allow you to restrict access to data (*closed data, restricted data or data with an embargo*)?
5. Do the licenses offered in the repository satisfy your needs?
6. Does it assign a persistent identifier to data?
7. Do the depositing and recovery conditions match your needs?
8. Is it a cost-free data repository or does it charge for its services?
9. Is it possible to link data to related publications?
10. Does it have a preservation policy?
11. Is it possible to deposit different file versions?
12. Does it accomplish the requirements of European funding?



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- ✓ A README file with all the dataset details: contents of every file, units of measurement, how the data was obtained, etc.
(ddd.uab.cat/record/226740)
- ✓ Recognizable file names (ddd.uab.cat/record/233037)
- ✓ Files in open formats (txt, csv, pdf, LaTeX, jpg, MP3...)
- ✓ Cite all the data employed in your research: third-party data and your own data as well (ddd.uab.cat/record/233039)
- ✓ Have a DMP together with your data
- ✓ Every dataset has its own DOI identifier

And remember



Your data should be comprehensive enough to allow anyone to understand it and reuse it

Examples

- ✓ Relation between a document and data in DDD

ddd.uab.cat/record/232224

Obra relacionada: Mendoza Domínguez, Núria. La formación en audiodescripción en España
<http://hdl.handle.net/10803/671267>

DOI: [10.5565/ddd.uab.cat/232224](https://doi.org/10.5565/ddd.uab.cat/232224)



Audiodescriptor
Fichero xlsx
43.5 KB



Prácticas
Fichero xlsx
42.4 KB



Transcripciones



README
Fichero txt
1903x996, 48.5 KB

- ✓ Data availability in the published document

<https://doi.org/10.1007%2Fs10021-020-00500-z>

Data Availability

Data supporting the findings of this study (DBD, water content, grains size distribution, C and N contents, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$, ^{210}Pb and DOC) are available at <https://ddd.uab.cat/record/216456> with the identifier <https://doi.org/10.5565/ddd.uab.cat/216456>

Data citation



A typical data citation generally consists of these elements:

- Author(s)
- Title of dataset
- Publication year
- Digital Object Identifier
- Type of resource
- Version, when appropriate

If relevant, other elements can be included, such as: author ID, data repository, access date and time...

Be sure to follow the general citation format for the style you use in a text (APA, MLA...)

Share



Cite as

Jordi Alcaraz Rodriguez, Akash Dutta, Ali TehraniJamsaz, Anna Sikora, Ali Jannesari, Joan Sorribes Gomis, & Eduardo Cesar Galobardes. (2020). Learning-based OpenMP Performance Tuning Using Balanced Datasets (PDP) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.4724960>

Start typing a citation style...

Source <https://zenodo.org/record/4724960#.YjjBEurMI2w>

Datasets vs additional material

- ✓ The additional material complements the article

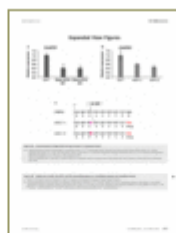
<https://ddd.uab.cat/record/236284>



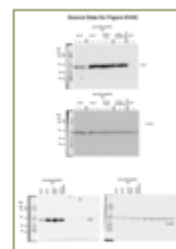
Article. Postprint
78 p, 1.7 MB



Appendix
17 p, 167.4 KB



Figures
5 p, 1.9 MB



Data
1 p, 330.8 KB

- ✓ Datasets are independent documents with their own DOI identifier <https://ddd.uab.cat/record/252026>



**Readme
txt file**
5.1 KB



xlsx file
31.0 KB

RESEARCH DATA AT UAB

Open Access



OPEN ACCES

Universitat Autònoma de Barcelona → Research → Open access UAB → Scientific output in Open Access

Open Access

About

Scientific output in Open Access

Open research thermometer in the UAB

Who do I contact?

Open Access Board

How to deposit

Open Access Data

Copyright issues

Horizon 2020

Horizon Europe

Spanish National Plan for Scientific and Technical Research and Innovation

Scientific output in Open Access

cualquier campo



Histórico Any 2022: Consultas: 1.809.563 | Descargas: 1.224.218

Servei de Biblioteques UAB

Submit



Intranet - PDI



www.uab.cat/open-access

Resources of interest

✓ Consorci de Serveis Universitaris de Catalunya. Gestió de dades de recerca [Internet]. [2022] [Retrieved March 7 2022]. Available at: <https://confluence.csuc.cat/display/RDM/Inici>

✓ Gestió de dades en centres d'R+D+I. [2022] [Retrieved March 22 2022]. Available at : <https://cerca.cat/wp-content/uploads/2022/03/Guia-de-Gestio-de-dades-a-centres-IDi.pdf>

✓ La Referencia: Red de repositorios de acceso abierto a la ciencia [Internet]. [2022] [Retrieved March 7 2022]. With several training videos about research data:

Gestión de Datos de Investigación Parte I: <https://bit.ly/DatosLA1>

Gestión de Datos de Investigación Parte II: <https://bit.ly/DatosLA2>

Datos FAIR: <https://bit.ly/DatosLA3>

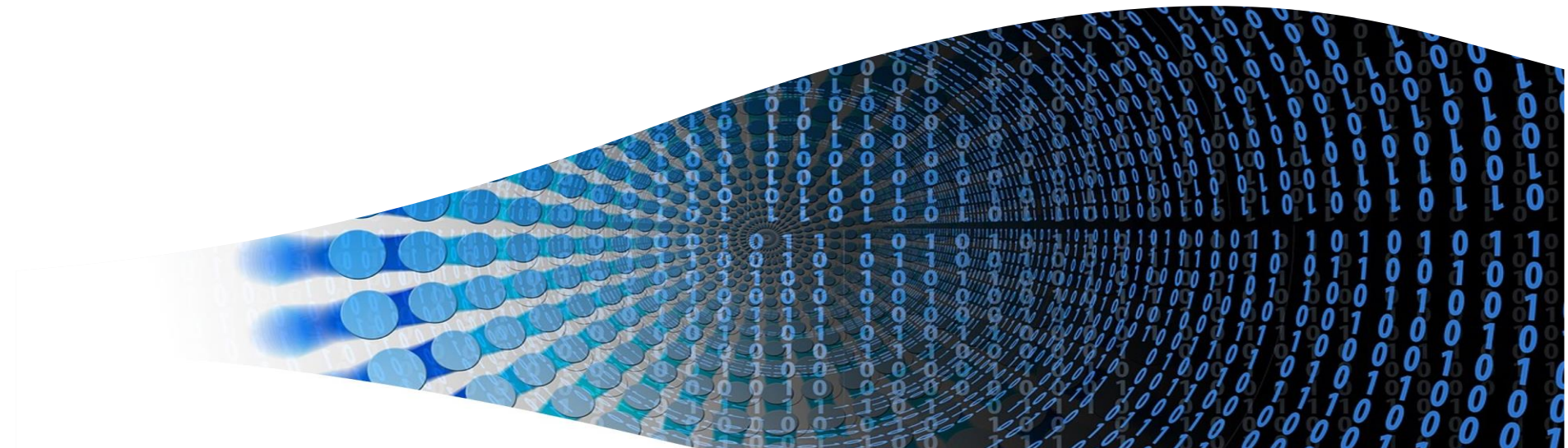
Planificación de Gestión de Datos de Investigación: <https://bit.ly/DatosLA4>

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- Eaker, C. Open Research Toolkit [Internet]. 2021 [Retrieved March 7, 2022]. Available at: <https://doi.org/10.17605/OSF.IO/A4FTW>
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- España, Ministerio de Ciencia e Innovación. PEICTI: Plan Estatal de Investigación Científica, Técnica y de Innovación 2021-2023 [Internet]. [Madrid]: Gobierno de España, [2021] [Retrieved February 15, 2022]. Available at : <https://www.ciencia.gob.es/Estrategias-y-Planes/Planes-y-programas/Plan-Estatal-de-Investigacion-Cientifica-y-Tecnica-y-de-Innovacion-PEICTI-2021-2023.html>
- European Commission. H2020 Programme: Guidelines on FAIR Data Management in Horizon 2020 [Internet]. [Brussels]: European Commission, 2016 [Retrieved February 15, 2022]. Available at : https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

- European Commission. H2020 Programme: Guidelines to the rules on Open Access to scientific publications and Open Access to research data in Horizon 2020 [Internet]. [Brussels]: European Commission, 2017 [Retrieved February 15, 2022]. Available at : https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
- European Commission. Horizon Europe: the EU Research & Innovation programme 2021-27 [Internet]. [Brussels]: European Commission, 2021 [Retrieved February 15, 2022]. Available at : https://ec.europa.eu/info/sites/info/files/research_and_innovation/funding/presentations/ec_rtd_he-investing-to-shape-our-future.pdf
- European Commission. European Open Science Cloud [Internet]. [Brussels]: European Commission, 2021b [Retrieved February 15, 2022]. Available at : <https://digital-strategy.ec.europa.eu/en/policies/open-science-cloud>
- LEARN project, ed. LEARN Toolkit of best practice for Research data Management [Internet]. [s.l.]: Leaders Activating Research Networks, 2017 [Retrieved February 15, 2022]. Available at : <http://dx.doi.org/10.14324/000.learn.00>
- Red de Bibliotecas Universitarias Españolas (REBIUN). Datos de investigación y acceso abierto [Internet]. [Retrieved February 15, 2022]. Available at : <https://ddd.uab.cat/record/165475>
- Universitat Pompeu Fabra. Pla de gestió de dades per a doctorands [Internet]. YouTube.com; [202-?][Retrieved March 7, 2022]. Available at : <https://www.youtube.com/watch?v=s5JF7LPCMjw>
- Zenodo. FAIR principles [Internet]. Genève: CERN, [201?] [Retrieved February 15, 2022]. Available at : <http://about.zenodo.org/principles/>

You can find this presentation at:
<https://ddd.uab.cat/record/257178>



To conclude

- You will receive an email with:
 - The link to the **presentation** to access and download it
 - The link to a **survey** to help us to improve
 - The **certificate** of attendance
 - The questions asked during the webinar and the answers

- Online support service:



<https://www.bib.uab.cat/pregunta/pregunta.php>



Thank you!

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