



Open Research data

UAB Library Service

2024

UAB
Universitat Autònoma
de Barcelona





Research data



Typology
Definition
and types of
research
data



Mandatory
data
management
and sharing



FAIR
Principles to
guide data
management



CORA .RDR
Publish your
data



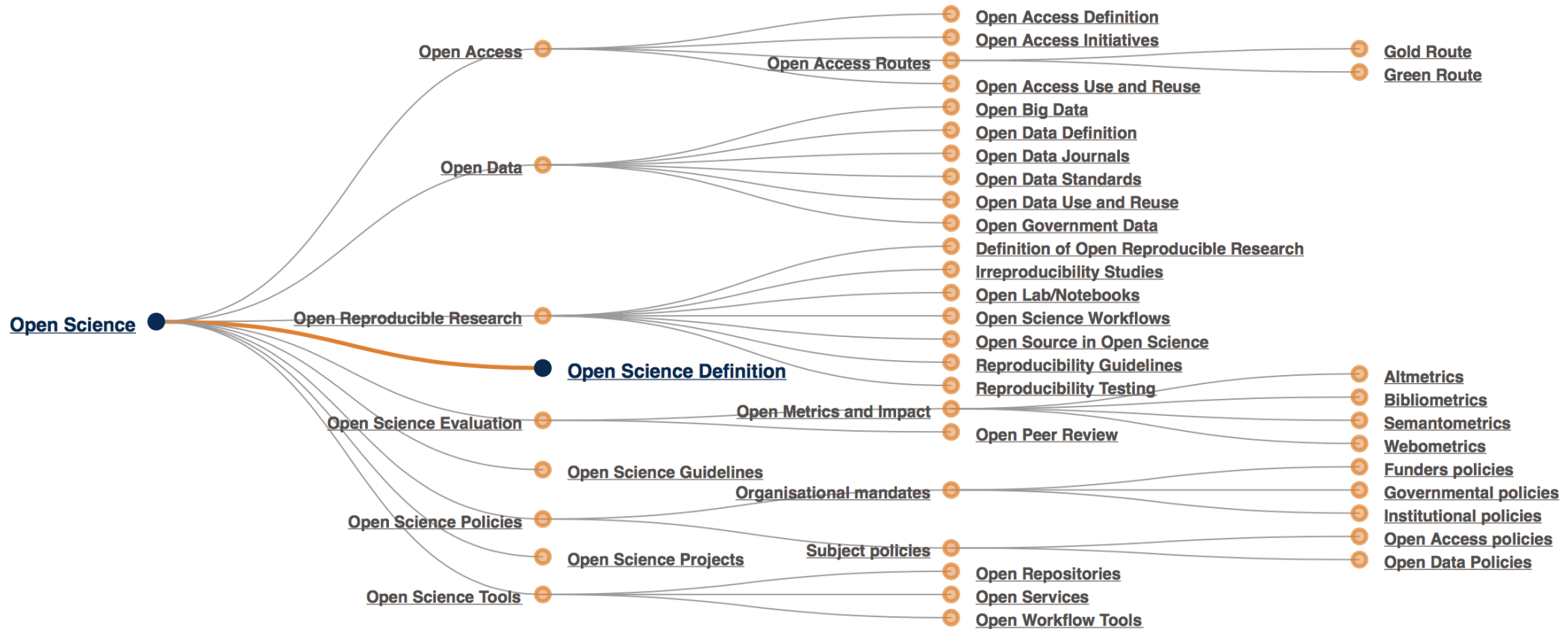
More
repositories



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:

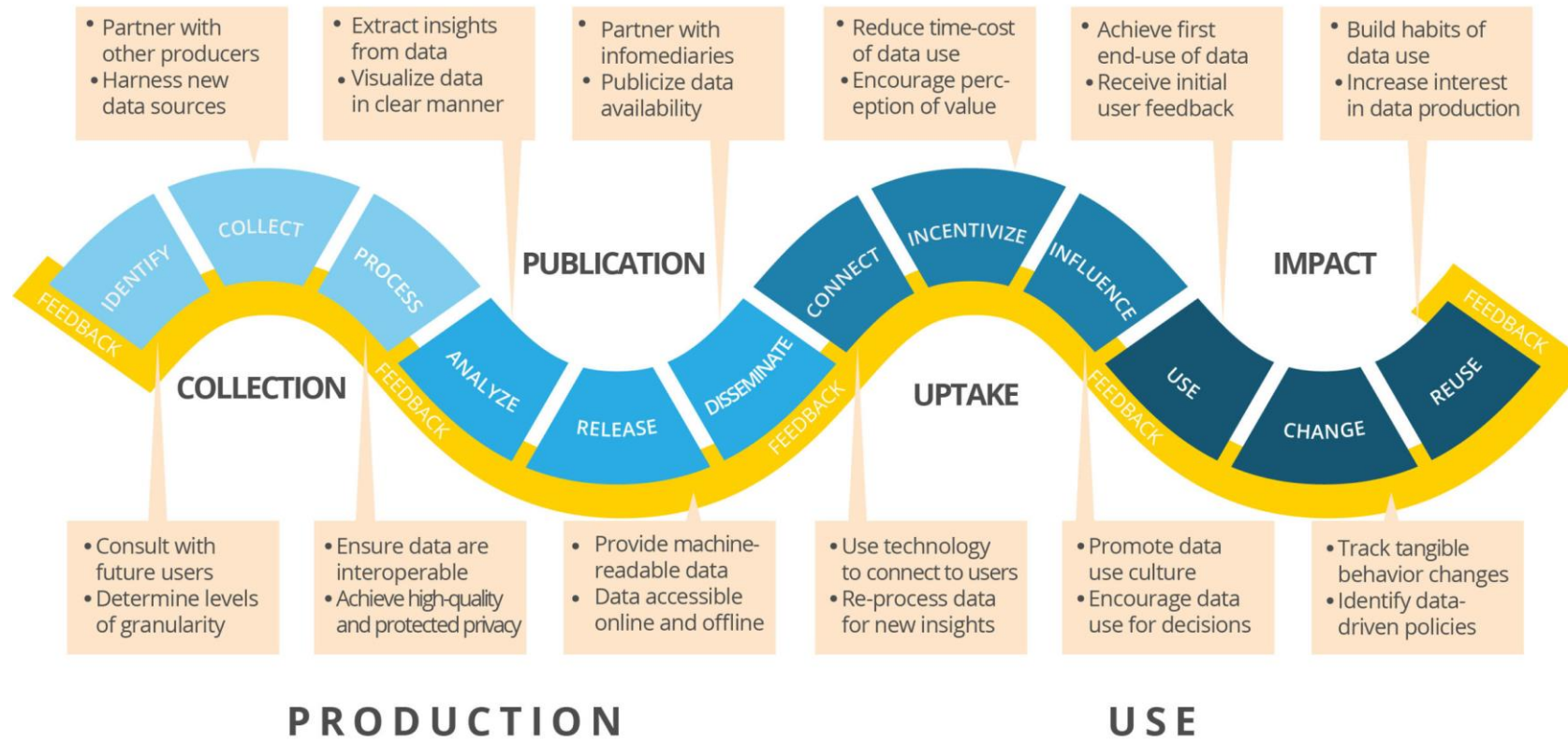
- It refers to information, **factual** or **numerical**
- Captured to be **examined** and **considered**
- Provides the basis for **reasoning**, **debate** or **calculation**

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



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.

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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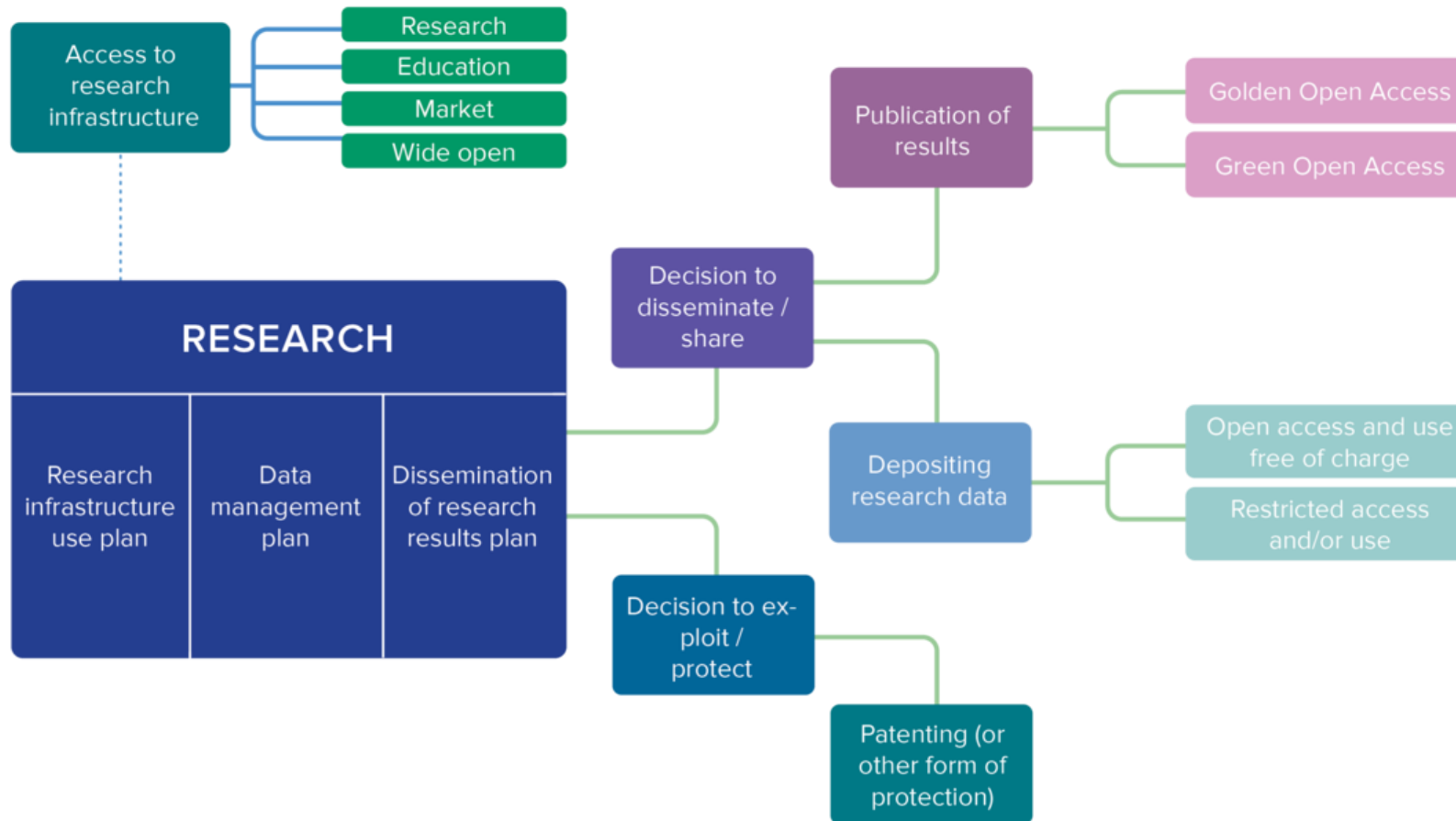
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Calls – Horizon 2020 (2014-2020)



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**.

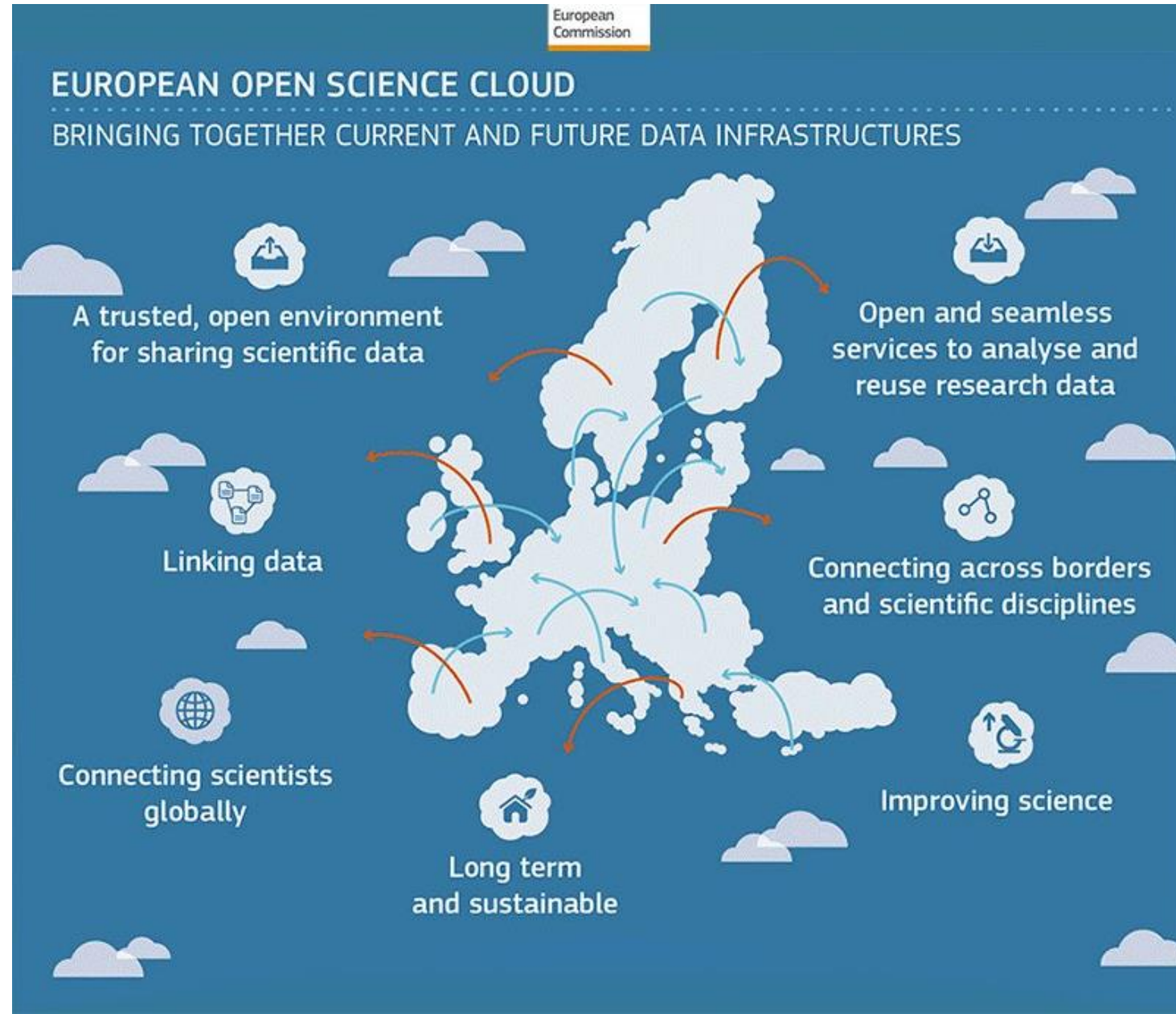
Font: EECTI 2021-2027



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.**

Font: PEICTI 2021-2023

European Open Science Cloud



open-science-cloud.ec.europa.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 (updated in December 2022)

Publishing policies

BMJ Journals

WILEY



SPRINGER NATURE



ELSEVIER

OXFORD
ACADEMIC



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Mandatory data management and sharing



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More repositories



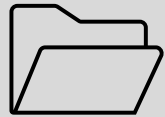
Best practices





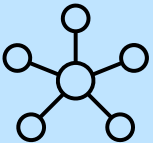
Findable

Data and metadata easy to find and to read by humans and machines



Accessible

Data and metadata retrievable and harvestable



Interoperable

Data and metadata able to interoperate with other systems



Reusable

Replicability of data and metadata

- ✓ Persistent identifier: DOI (preferably) and/or URI
- ✓ Publication in institutional or subject repositories. Data must be described according to international standards.
- ✓ Data described in detail: origin, date of collection, environmental circumstances, observations...
- ✓ Every dataset with a Creative Commons license, or a Public Domain license



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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

CORA.RDR



Datasets

- dataverse.csuc.cat/dataverse/UAB

CORA.RDR 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	✓

CORA.RDR – Publish your data

- ✓ ORCID identifier
- ✓ abstract of the content (it can be in different languages)
- ✓ keywords (in different languages)
- ✓ assign Creative Commons license - [UAB recommendations](#)
- ✓ note the project's code (if your research is supported by a grant)
- ✓ A Readme.txt file describing the dataset - [readme template](#)
- ✓ files in open formats (txt, csv, pdf, jpg, MP3...) - [recommended formats](#)
- ✓ identify any related work (article, thesis, book...)
- ✓ 100 Gb for each dataset (10Gb for each file, you can contact your library if you need more space for your data)



CORA.RDR - User guides

Checklist to publish in CORA.RDR *(in Catalan)*

<https://ddd.uab.cat/record/290416>

Data management guide – CSUC
(in Catalan and English)

<https://confluence.csuc.cat/display/RDM/Inici>



CORA.RDR - Support resources

Infographic - CSUC

<https://ddd.uab.cat/record/282904>

Videotutorial - UPF *(in Catalan)*

<https://youtu.be/lkzDH4VhQD0?feature=shared>

What is CORA.RDR and what does it offer?

Publish, manage and provide access to your datasets following FAIR principles and in accordance with the EOSC guidelines with CORA Research Data Repository





Research data



Typology

Definition and types of research data



Mandatory

data management and sharing



FAIR

Principles to guide data management



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More repositories



Best practices



More repositories

Check if there is any consolidated repository in your area where you can publish your research data.

There are tools to find existing research data repositories:



Here you can read more information about thematic repositories:

confluence.csuc.cat/display/RDM/Repositoris+disciplinaris

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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Important



- ✓ 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, 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 the article and data (relation DDD-CORA.RDR)

doi.org/10.34810/data29

Related Publication ⓘ

Rodríguez-Soler, Joan; Verd, Joan Miquel (2020). Guía de orientación sobre inserción y trayectorias juveniles. url: <https://ddd.uab.cat/record/235419>

Verd, Joan Miquel; Rodríguez-Soler, Joan; González-Heras, Alejandro (2020). El papel de las políticas activas de empleo en las trayectorias laborales inestables de la población joven. Anuario IET de Trabajo y Relaciones Laborales, Institut d'Estudis del Treball, volumen 7.

Verd, Joan Miquel; Rodríguez-Soler, Joan (2020). Las políticas de mentoring y de generación de capital social en la lucha contra la exclusión laboral juvenil. QUIT Working paper series, n. 26. url: <https://ddd.uab.cat/record/235418>

- ✓ Data availability in the published document

doi.org/10.1016/j.molp.2022.04.010

DATA AVAILABILITY

RNA-seq raw and processed data generated in this study can be found in GEO (GSE198022). All code used for analysis can be found at <https://doi.org/10.34810/data174>.

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>

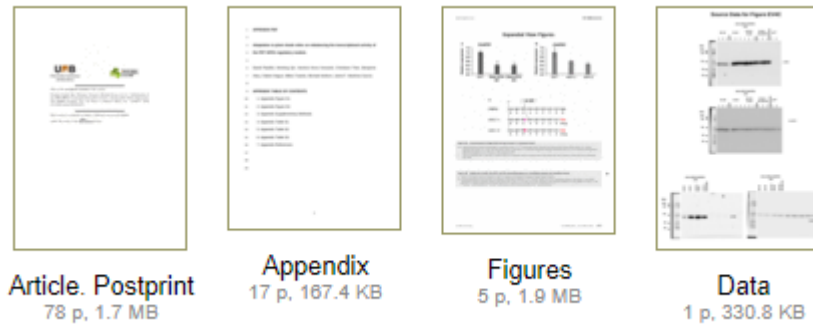
Start typing a citation style...

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

Datasets vs additional material

- ✓ The additional material complements the article

ddd.uab.cat/record/236284



- ✓ Datasets are independent documents with their own DOI identifier

doi.org/10.34810/data602



Questions about...

Research ethics

[Research Ethics Committee \(CERec\)](#)










Personal data management

[Data Protection Officer](#)

Open Science UAB

[🏠](#) [Pillars](#) [Initiatives](#) [About us](#) [Agenda](#)

Pillars

-  **Open Access**
-  **Citizen science**
-  **FAIR data**
-  **Science communication**
-  **Open education**
-  **Scientific integrity**
-  **Metrics**
-  **Responsible Research and Innovation**
-  **The Open Science's Hubs**

Open research data at UAB

<https://www.uab.cat/en/open-science>

Intellectual Property and Open Access

(In Catalan)

Propietat Intel·lectual i Accés Obert

Resoleu els vostres dubtes



Aquest web conté un recull de preguntes més freqüents (PMF) que aporten informació en matèria de propietat intel·lectual i accés obert, de caràcter orientatiu i sense que es puguin considerar, en cap cas, assessorament jurídic per part de la Universitat Autònoma de Barcelona. Hi podeu accedir fent una cerca a la casella o bé navegant per les carpetes temàtiques.

Cerqueu les paraules que defineixen la vostra consulta, en català. Si escriviu una paraula o una frase entre cometes, als resultats només s'inclouen pàgines amb les mateixes paraules en ordre idèntic al contingut de les cometes.

<https://www.uab.cat/propietat-intellectual>

Resources of interest

- ✓ Consorci de Serveis Universitaris de Catalunya. Gestió de dades de recerca [Internet]. [2022] [Retrieved March 15 2024]. Available at: <https://confluence.csuc.cat/display/RDM/Inici>
- ✓ Gestió de dades en centres d'R+D+I. [2022] [Retrieved March 15 2024]. Available at : <https://cerca.cat/wp-content/uploads/2022/08/Guia-de-Gestio-de-dades-a-centres-IDi.pdf>
- ✓ La Referencia: Red de repositorios de acceso abierto a la ciencia [Internet]. [2022] [Retrieved March 15 2024]. 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>

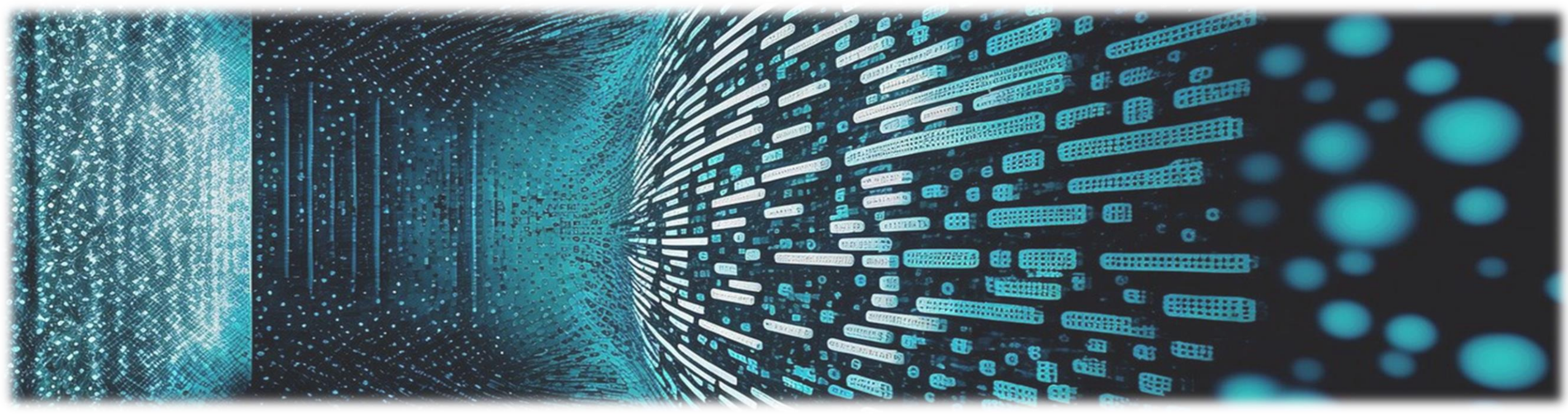
Bibliography

- Consorci de Serveis Universitaris de Catalunya. Recomanacions per seleccionar un repositori per al dipòsit de dades de recerca [Internet]. 2019 [Retrieved March 15 2024]. Available at : <https://ddd.uab.cat/record/163562>
- Eaker, C. Open Research Toolkit [Internet]. 2021 [Retrieved March 15 2024]. Available at: <https://doi.org/10.17605/OSF.IO/A4FTW>
- España, Ministerio de Ciencia e Innovación. EECTI: Estrategia Española de Ciencia, Tecnología e Innovación 2021-2027 [Internet]. [Madrid]: Secretaría General Técnica del Ministerio de Ciencia e Innovación, [2020] [Retrieved March 15 2024]. Available at : <https://www.ciencia.gob.es/Estrategias-y-Planes/Estrategias/Estrategia-Espanola-de-Ciencia-Tecnologia-e-Innovacion-2021-2027.html>
- 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 March 15 2024]. Available at : <https://www.ciencia.gob.es/Estrategias-y-Planes/Planes-y-programas/PEICTI.html>

- 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 March 15 2024]. 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: investing to shape our future [Internet]. [Brussels]: European Commission, 2021 [Retrieved March 15 2024]. Available at : https://research-and-innovation.ec.europa.eu/document/9224c3b4-f529-4b48-b21b-879c442002a2_en
- European Commission. European Open Science Cloud [Internet]. [Brussels]: European Commission, 2021b [Retrieved March 15 2024]. 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 March 15 2024]. Available at : <http://doi.org/10.14324/000.learn.00>
- Red de Bibliotecas Universitarias Españolas (REBIUN). Datos de investigación y acceso abierto [Internet]. [Retrieved March 15 2024]. Available at : <https://ddd.uab.cat/record/165475>
- Zenodo. FAIR principles [Internet]. Genève: CERN, [201?] [Retrieved March 15 2024]. Available at : <http://about.zenodo.org/principles/>

You can find this presentation at:

ddd.uab.cat/record/291711



Thank you!

