

Open Access and Open Science in the European mandates: ORE as an implementation mechanism.

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SUMMARY



- ✓ **Open Access** does not equal **Open Science**.
- ✓ **Horizon 2020:** Open Access mandate in operation for all beneficiaries. It includes both scientific literature and research data.
- ✓ **Horizon Europe:** The Open Access mandate will be reinforced. Open Science elements will be included in the WPs and in the AMGA.
- ✓ **Open Research Europe (ORE)** is one of the implementation mechanisms of H2020 and HE OA and OS policies.



CONTENT



1. What is Open Access?
2. Open Access to Scientific Literature.
3. Open Access to Research Data.
4. What is Open Science?
5. The Open Research Europe



What is Open Access?



OA = online access at no charge to the user (this includes further distribution and proper archiving)

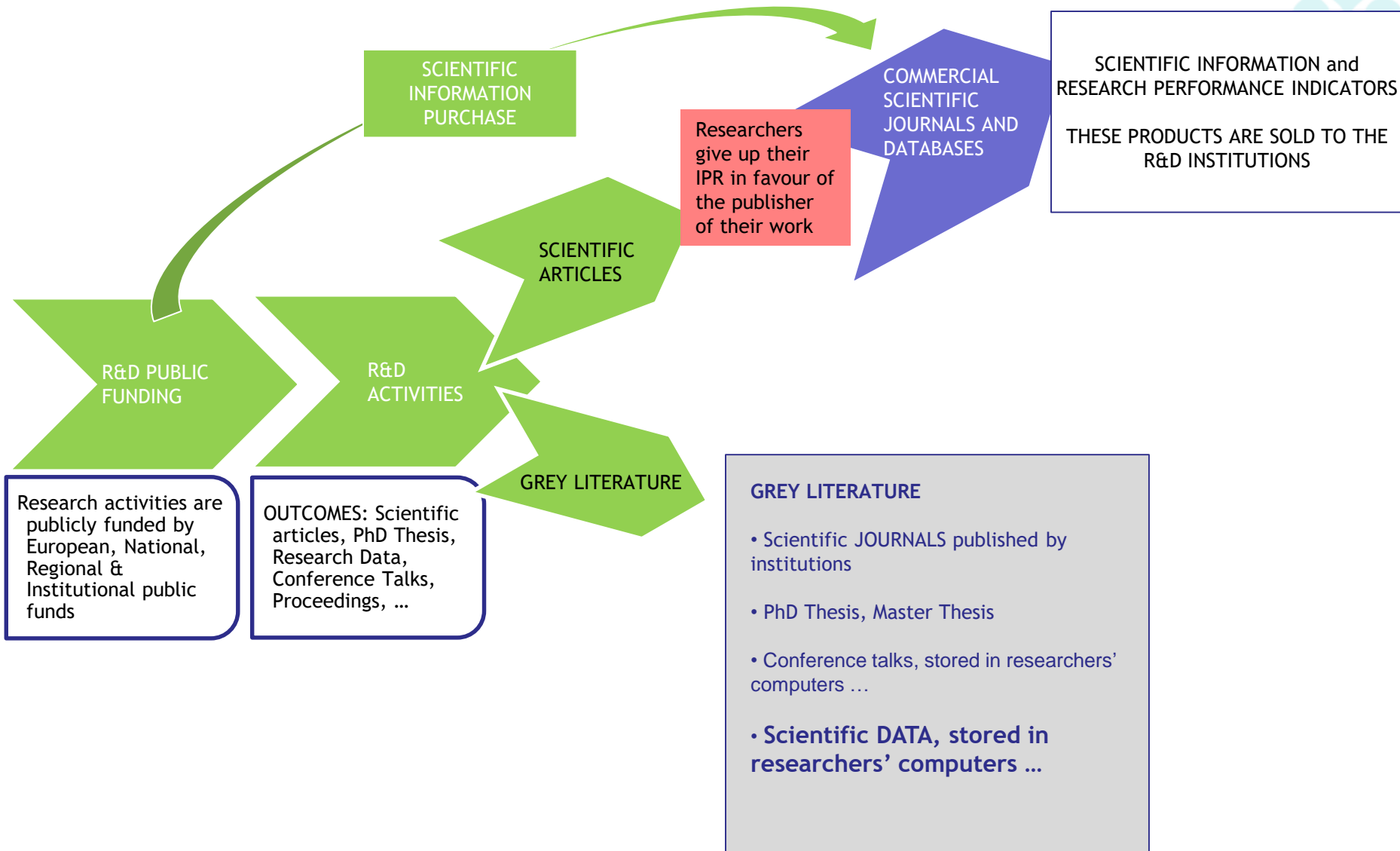
- to peer-reviewed scientific publications
- to research data

Source: http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm

However, open access:

- is not a requirement to publish: researchers are free to publish or not
- does not interfere with the decision to exploit research results commercially e.g. patenting: discussion on open access comes after the decision to publish
- publications are not of a lower quality: they go through the same peer review process as other publications

Scientific production and Science communication track



Open access helps against R&D communication system's malfunctions



TRIPLE PUBLIC EXPENDITURE

- Production of scientific contents
- Access to scientific contents
- Revision of scientific contents.

LOTS OF LOST SCIENTIFIC CONTENTS

- Research outcomes not published by commercial publishers are lost: Research data, code, PhD thesis, methods, presentations, reports, non comercial journal papers, etc.

LACK OF A SCIENTIFIC INFORMATION INFRASTRUCTURE

- Scientific information is not fully offered to the scientific community as a whole.
- Scientific information is **DISPERSED** and not **SISTEMATIZED**.

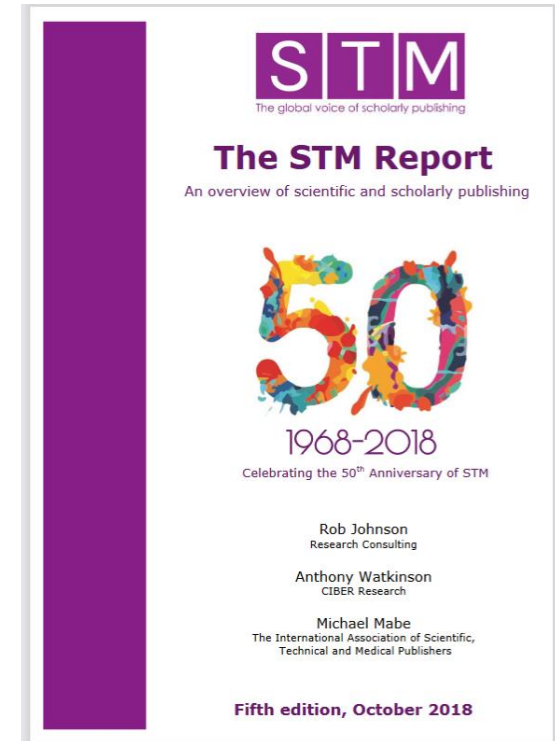
HIGH DEPENDENCE OF EXTERNAL SUPPLIERS

- R&D institutions and R&D managers are highly dependent on commercial publishers for access to scientific contents and metrics.
- Scientific performance evaluation is biased.

OPEN ACCESS TO SCIENTIFIC LITERATURE

The Scientific communication private business – Key figures of the STM Association

- ✓ Annual revenues: 23 K Million €
- ✓ Annual revenues in Spain: 88,8 M €
- ✓ 10.000 publishers
- ✓ 42.500 journals
 - ✓ Scopus: 20.000 indexed journals (47%)
 - ✓ WoS: 12.000 indexed journals (28%)
- ✓ 3 M articles per year
- ✓ Two business models:
 - Subscription access: 72,2%
 - Open access: 27,8%



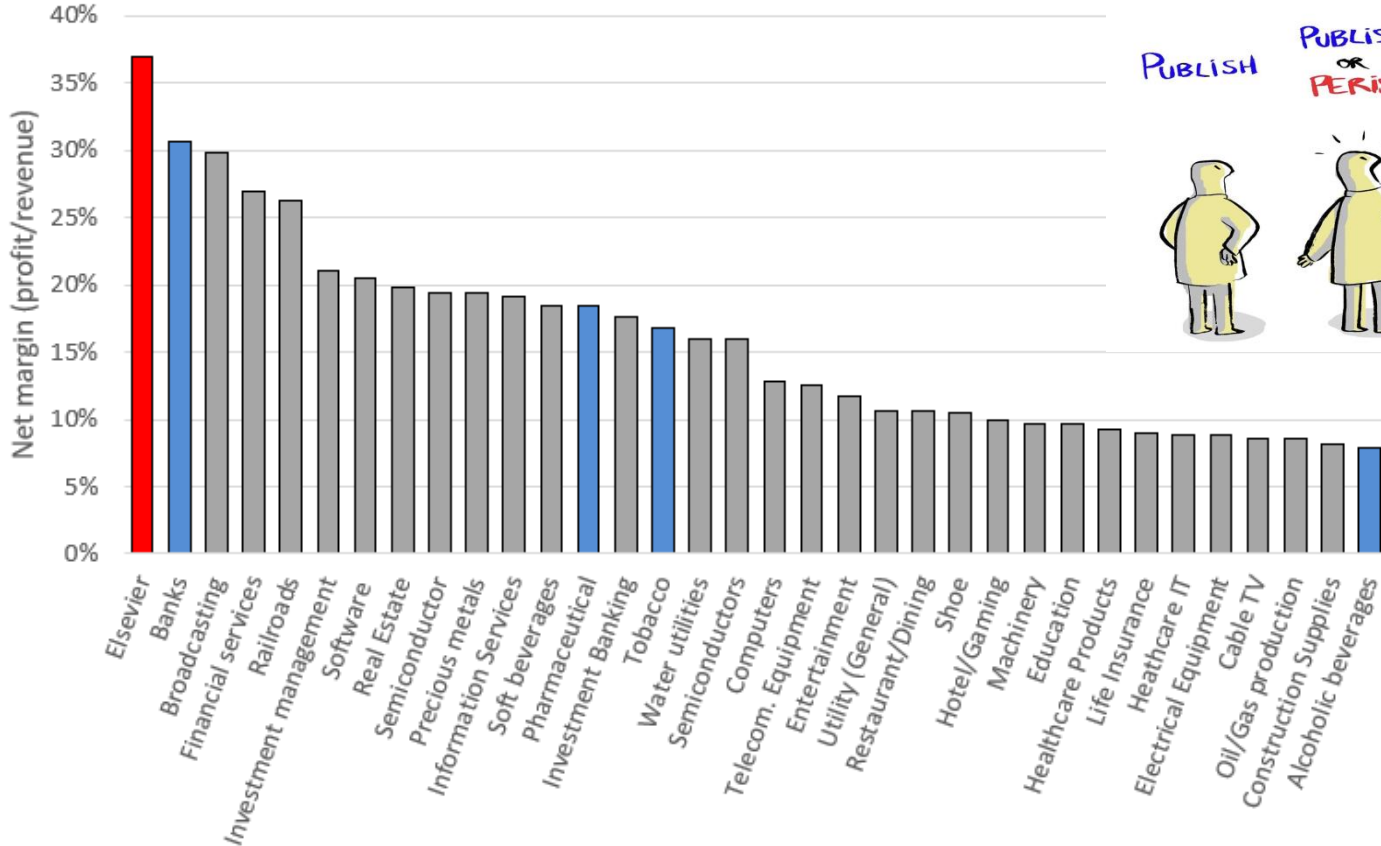
Fuente: STM Report 2018

The scientific communication private business



Elsevier is more profitable than any industry
Top industries ranked by profitability

THE EVOLUTION OF ACADEMIA



Fuente: <https://twitter.com/MatteoCarandini/status/1272141942957182978>
<https://www.relx.com/investors/annual-reports/2019>
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html



Publish ≠ Archive

ARTICLE 29 — DISSEMINATION OF RESULTS — OPEN ACCESS — VISIBILITY OF EU FUNDING

29.1 Obligation to disseminate results

29.2 Open access to scientific publications

Each beneficiary must ensure open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to its results.

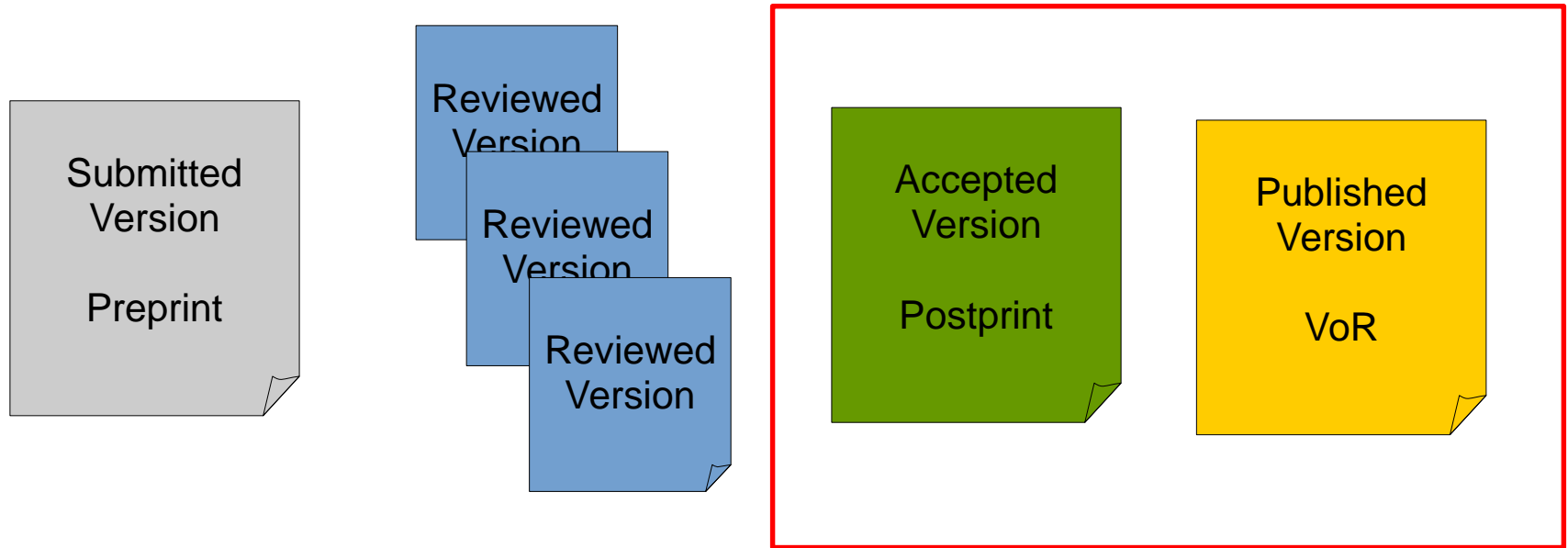
In particular, it must:

- a) as soon as possible and at the latest on publication, **deposit a machine-readable electronic copy** of the published version or final **peer-reviewed manuscript accepted for publication** in a **repository** for scientific publications; **Moreover**, the beneficiary must aim to deposit at the same time the **research data** needed to validate the results presented in the deposited scientific publications.
- b) **ensure open access to the deposited publication** — via the repository — at the latest:
 - (i) on publication, if an electronic version is available for free via the publisher, or
 - (ii) within six months of publication (twelve months for publications in the social sciences and humanities) in any other case.
- c) **ensure open access** — via the repository — **to the bibliographic metadata** that identify the deposited publication.....

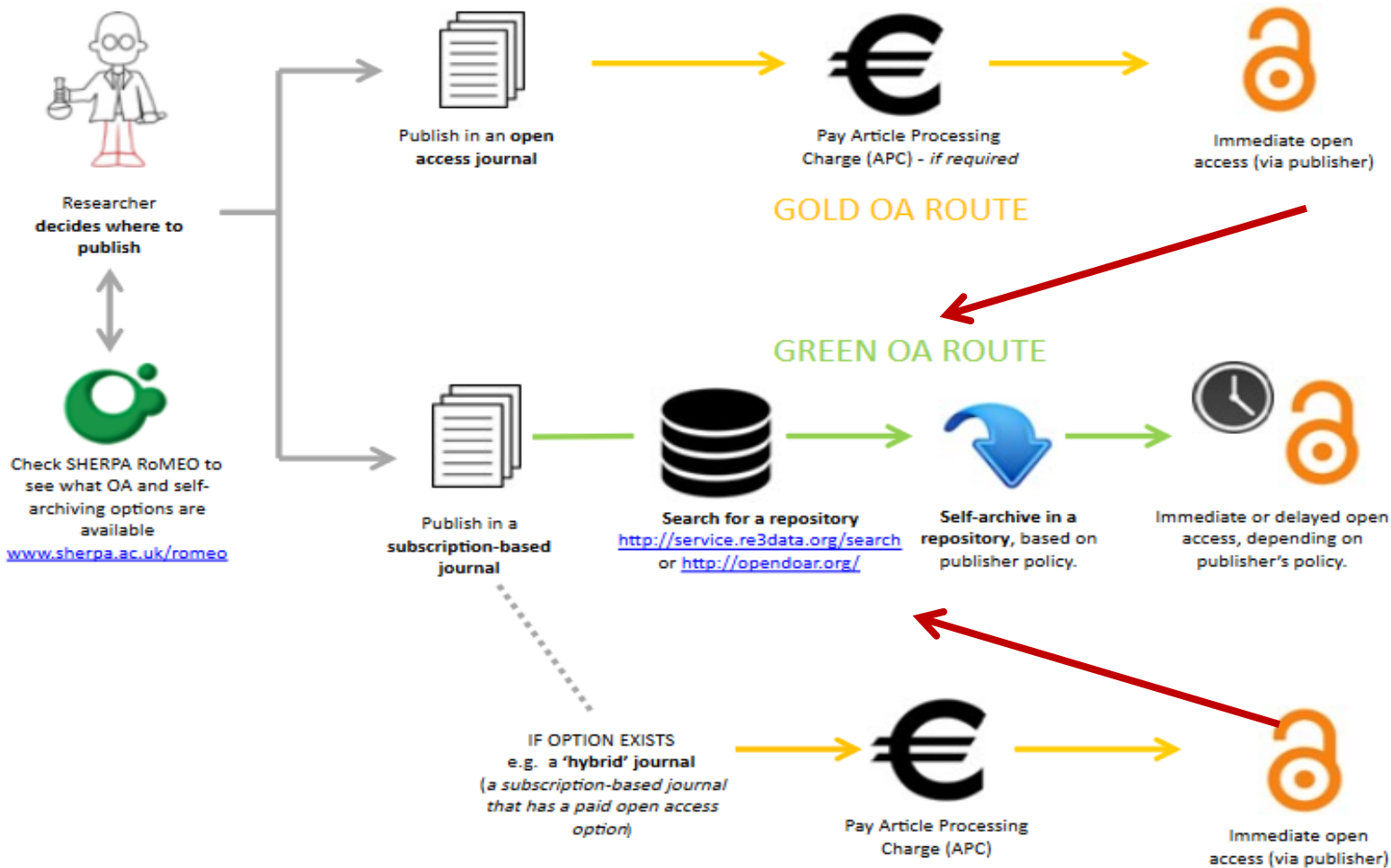
The bibliographic metadata must be in a standard format and must include all of the following:

 - the terms [‘European Union (EU)’ and ‘Horizon 2020’][‘Euratom’ and Euratom research and training programme 2014-2018’];
 - the name of the action, acronym and grant number;
 - the publication date, and length of embargo period if applicable, and
 - a persistent identifier.

Scientific article's versions



Source: Ignasi Labastida 2019



Adapted from Sarah Jones, see also: <http://www.dcc.ac.uk/blog/fostering-open-science>⁷



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SERVICES

Open access services from Jisc

Services to support open access

SERVICE

Sherpa Services

Helping authors and institutions make informed

GUIDE

Managing open access costs

A guide from Jisc



Social Studies of Science

^ Publication Information

Title	Social Studies of Science [English]
ISSNs	Print: 0306-3127 Electronic: 1460-3659
URL	http://www.uk.sagepub.com/journals/Journal200907
Publishers	SAGE Publications [Commercial Publisher]

^ Publisher Policy

Open Access pathways permitted by this journal's policy are listed below by article version. Click on a pathway for a more detailed view.

Published Version

[pathway a]











 None
  CC BY-NC
  PMC
 

 Institutional Repository, PMC, Institutional Website, +2
 +


Published Version

[pathway b]




 None
  CC BY
  PMC
 


 Institutional Repository, PMC, PMC, +3
 +


Accepted Version

 None
 

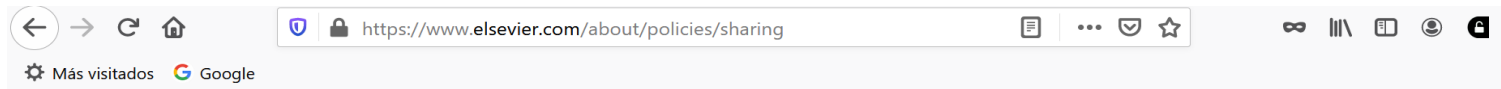
 Institutional Repository, Non-Commercial Subject Repository, +4
 +

Submitted Version

 None

 Any Website
 +





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Article Sharing

Authors who publish in Elsevier journals can share their research in several ways. Researchers who have subscribed access to articles published by Elsevier can share too. There are some simple guidelines to follow, which vary depending on the article version you wish to share. Elsevier is a signatory to the [STM Voluntary Principles](#) for article sharing on Scholarly Collaboration Networks and a member of the [Coalition for Responsible Sharing](#) .

Preprint

Accepted manuscript

Published journal article

Help and support

<https://pandelisperakakis.wordpress.com/2015/09/09/how-to-negotiate-with-publishers-an-example-of-immediate-self-archiving-despite-publishers-embargo-policy/>



Accepted Manuscript

Authors can share their accepted manuscript:

Immediately

- via their non-commercial personal homepage or blog
- by updating a preprint in arXiv or RePEc with the accepted manuscript
- via their research institute or institutional repository for internal institutional uses or as part of an invitation-only research collaboration work-group
- directly by providing copies to their students or to research collaborators for their personal use
- for private scholarly sharing as part of an invitation-only work group on commercial sites with which Elsevier has an agreement

After the embargo period

- via non-commercial hosting platforms such as their institutional repository
- via commercial sites with which Elsevier has an agreement

In all cases accepted manuscripts should:

- link to the formal publication via its DOI
- bear a CC-BY-NC-ND license – this is easy to do, [click here](#) to find out how
- if aggregated with other manuscripts, for example in a repository or other site, be shared in alignment with our [hosting policy](#)
- not be added to or enhanced in any way to appear more like, or to substitute for, the published journal article

Immediate publication allowed



Embargo periods are above 12/24 months in most Elsevier journals



Choices:

1. Negotiate with the editor self-archiving conditions before publication. May the publisher's policy be inconsistent with GA mandate, researchers can sign an annex to the contract.
2. Negotiate with the project officer a waiver to the GA mandate.
3. Pay for APCs . Eligible costs if they are included in the project budget. In Gold OA, around 1500-2000 €.

<https://pandelisperakakis.wordpress.com/2015/09/09/how-to-negotiate-with-publishers-an-example-of-immediate-self-archiving-despite-publishers-embargo-policy/>



OPEN ACCESS PUBLISHING AGREEMENT

- > Instructions and footnotes in blue should be deleted.
- > For options [in square brackets]: choose the applicable option. Options not chosen should be deleted.
- > For fields in [grey in square brackets]: enter the appropriate data.

ADDENDUM

(To be filled out by the beneficiary/author and the publisher. This model is not mandatory but reflects the obligations for the beneficiary under the H2020 grant agreements. It can be supplemented by further provisions agreed between the parties, provided they are compatible with the Grant Agreement. The Commission/Agency takes no responsibility for the use of this model.)

This 'Addendum' is between the following parties:

on the one part,

1. the publisher

[full official name (short name)], established in [official address in full], represented by [....].

and

on the other part,

1. 'the corresponding author':

[full name], [official address in full], represented by [....]

and the following other authors

2. [full name], [official address in full], represented by [....]

3. [full name], [official address in full], represented by [....]

[same for each author].

With this Addendum, the parties agree to complement and amend the attached Publication Agreement concerning the publication [insert name of publication] in the Journal [insert name of journal] with the following open access clause:

Open access

The author(s) retain(s) the right to:

OpenAIRE H2020 OA Guide Model for Publishing

Open Access
Publishing Agreement
<https://www.openaire.eu/h2020-oa-guide-model-for-publishing>





Agregators:

- Recolecta: <https://www.recolecta.fecyt.es/>
- OpenAIRE: <https://www.openaire.eu/participate/deposit-publications-data>
- OpenDOAR: <http://www.opendoar.org/>

Thematic:

- ArXiv (<http://arxiv.org>) : Physics, Mathematics, Computer Sciences, Biology.
- Europe PubMed Central (<http://europepmc.org/>) Life Sciences.
- Cogprints (<http://cogprints.ecs.soton.ac.uk/>): Psychology, Neurosciences, Linguistics, Computer Sciences, Biology.
- RePec (<http://ideas.repec.org>): Economics.
- ...

Institucional: Universities and Research Performing Organizations.

Zenodo: <https://zenodo.org/>

OAPEN Library: <http://oapen.org> (Monographs)

**OPEN ACCESS TO
RESEARCH DATA**



29.3 Open access to research data

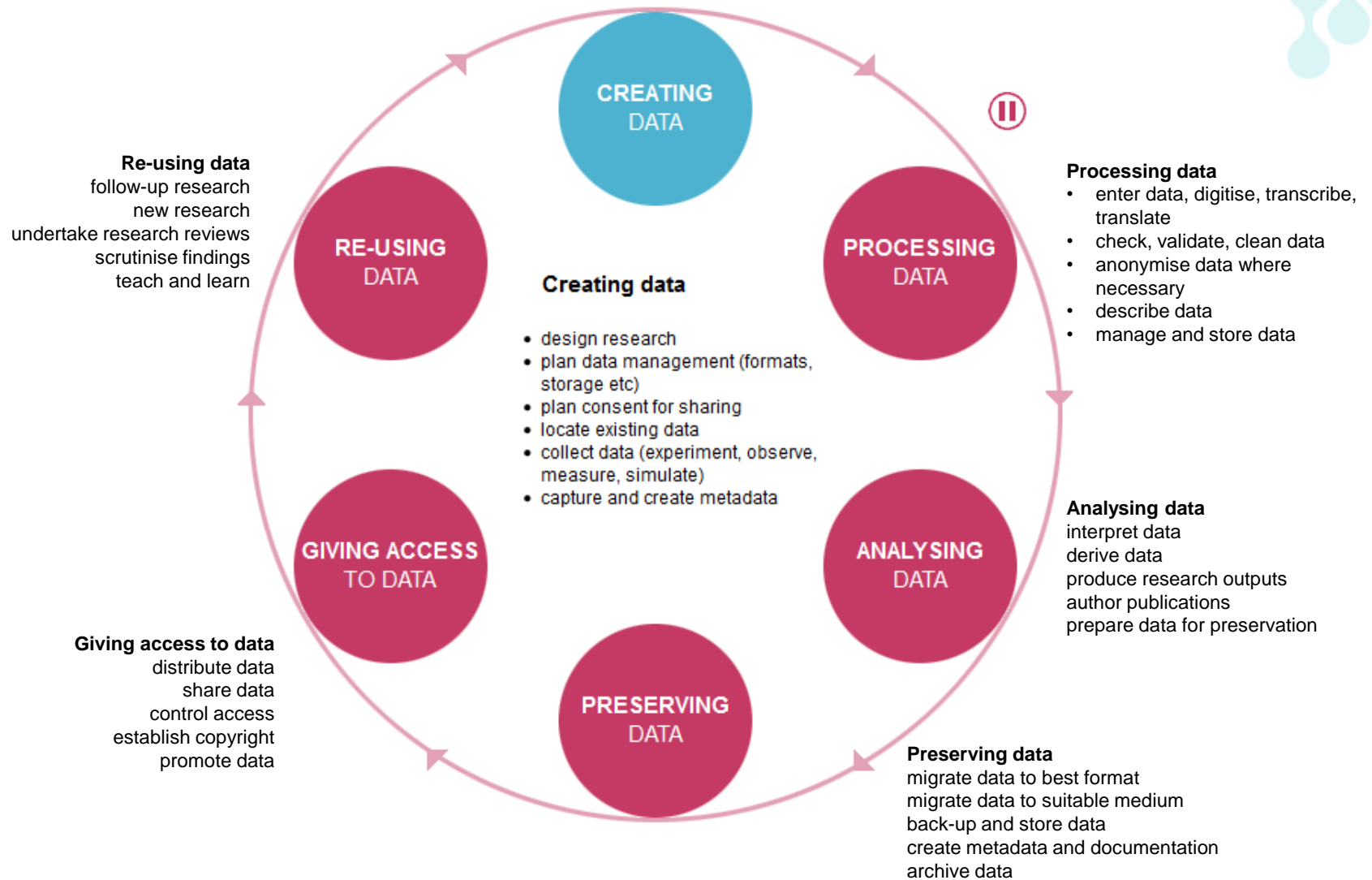
[OPTION for actions participating in the open Research Data Pilot: Regarding the **digital research data** generated in the action ('**data**'), the beneficiaries **must**:

- a) **deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate** — free of charge for any user — the following:
- (i) **the data, including associated metadata, needed to validate the results presented in scientific publications as soon as possible;**
 - (ii) **other data, including associated metadata, as specified and within the deadlines laid down in the 'data management plan' (see Annex 1);**
- b) **provide information** — via the repository — **about tools and instruments at the disposal of the beneficiaries and necessary for validating the results** (and — where possible — provide the tools and instruments themselves).

This does **not change** the **obligation to protect results** in Article 27, the **confidentiality** obligations in Article 36, the **security** obligations in Article 37 or the **obligations to protect personal data** in Article 39, all of which still apply.

As an exception, the beneficiaries do **not have to ensure open access to specific parts of their research data if the achievement of the action's main objective**, as described in Annex 1, **would be jeopardised** by making those specific parts of the research data openly accessible. In this case, the data management plan must contain the reasons for not giving access.]

Research data life-cycle



RESEARCH DATA - OPEN BY DEFAULT



FAIR DATA PRINCIPLES

AH!



FINDABLE



ACCESIBLE

HOW DO YOU OPEN A .XZQ FILE?



INTEROPERABLE



REUSABLE

http://ec.europa.eu/research/press/2016/pdf/opendata-infographic_072016.pdf
<https://open-science-training-handbook.gitbooks.io/book/content/>



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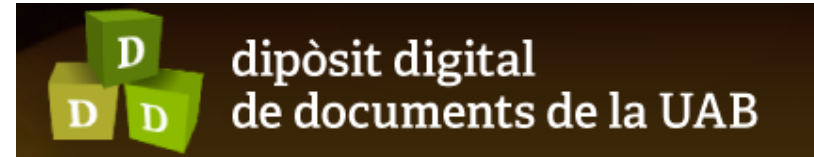


- **Persistent Identifiers** : DOI, ORCID. They allow us to cite our research data.
- **Standards and metadata:** ¿What are my data about? ¿Who collected them, and why? ¿In what formats are my data available? Metadata answer these questions, so our research data can be found and interpreted.
- **Keywords**, harmonized files' naming, well identified versions.



- Archiving and long-term preserving our research data, benefitting from a repository :

- Re3data www.re3data.org
- Zenodo www.zenodo.org
- DDD <https://ddd.uab.cat>



- **Data sharing:** use information exchange protocols
 - Criteria for selecting a repository:
<https://ddd.uab.cat/record/163562>

Interoperable, Reusable



- Allow access, **downloading, exploitation and reproducibility** of research data.
- **License** your data clearly.
- **Anonymize** and encrypt your data.
- Specify **restrictions**, embargos, and access rules to your research data.

- ✓ Recommended Open Licenses in H2020: CC-BY/CC-0
- ✓ Open Licenses Guide: <http://www.dcc.ac.uk/resources/how-guides/license-research-data>



As open as possible, as closed as necessary

Partial / total opting out

- ✓ Anytime during projects' lifetime
- ✓ Incompatible with the Horizon 2020 obligation to protect results if they can reasonably be expected to be **commercially or industrially exploited**;
- ✓ Incompatible with the need for **confidentiality** in connection with security issues;
- ✓ Incompatible with existing rules concerning the **protection of personal data**;
- ✓ If the project will **not generate / collect any research data**;
- ✓ If there are other legitimate reasons to not take part in the Pilot

DATA MANAGEMENT PLAN (DMP)



A **data management plan** or **DMP** is a formal document that outlines how [data](#) are to be handled both during a research project, and after the project is completed.^[1] The goal of a data management plan is to consider the many aspects of [data management](#), [metadata](#) generation, data preservation, and analysis before the project begins; this may lead to data being well-managed in the present, and prepared for preservation in the future.

- It's a project deliverable, it is not part of the proposal (with exceptions).
- It's a live instrument, first version in the first 6 months of the project: it is not a static document, it must evolve and gain in precision.
- New version every time there are important changes in the project (at least one intermediate and one final review).
- The DMP indicates which data will be open and which will not, and why.

eiNa DMP

Pla de Gestió de Dades de Recerca

Do you have a Horizon 2020 project and you should submit a plan?

WE CAN HELP YOU!



Contact:
dmp@uab.cat

UAB
Universitat Autònoma
de Barcelona



CREATE

Answer the questions and you'll get a Research Data Management Plan (DMP) FAIR for Horizon 2020



SHARE

Collaborate with other researchers by giving them read-only, writing or co-owning permissions



EXPORT

Export your document to DOCX, PDF, xml.

<https://dmp.csuc.cat>

CSUC
Consorci de
Serveis Universitaris
de Catalunya





Datasets

- ddd.uab.cat/collection/datasets

Data Management Plans

- ddd.uab.cat/collection/plagesdad



DDD is...

F	Identifiers (DOI / URI / ORCID)	✓
	It uses international standards	✓
	Searchable and retrievable contents	✓
A	Accessible through standard communication protocols	✓
	Long-term accessibility	✓
I	Standard metadata	✓
R	Exhaustive description of the data	✓
	Mention of rights (CC licenses or public domain)	✓
	Description according to widely recognized thematic or general standards	✓

OPEN SCIENCE

OPEN ACCESS ≠ OPEN SCIENCE

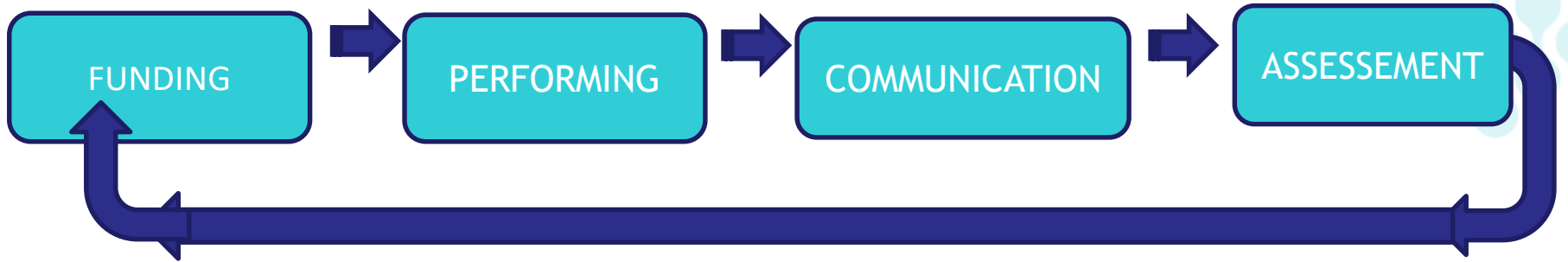


1. Free and unrestricted online availability to:

- Scientific publications
- Research data

1. Free and unrestricted online availability to:

- Scientific publications
 - Research data
2. Open *peer review*
 3. Next generation metrics
 4. Open Source Software
 5. Open Educational Resources
 6. Citizen Science



National

AEI, CDTI, ISCIII, FECYT
Plan Estatal R&D&I.

Regional

Regional entities
Regional R&D funding
programmes.

European

Comisión Europea
Framework Programme
(H2020 for 2014-2020;
Horizon Europe for 2021-
2027).

Public Sector

Public Universities, public
RPOs, hospitals.

Private Sector

Private Universities, enterprises.

Non-profit sector

Technology centres,
charities.

Scientific Journals

Indexed (WoS o Scopus).
Non indexed.

OA Repositories

Institucional.
Thematic.

Other platforms

Social media, mass media
profiles, scientific
communication, scientific
advisory.

National

ANECA.
AEI.

Regional

10 CCAA in Spain.

European

REA .
ERCEA.



Peer-reviewed scientific publications

- **Immediate open access** through **trusted repository** (at the latest at the time of publication);
- **publications** licensed under **CC BY** (or equivalent); **CC BY-NC/ND** (or equivalent) allowed for long-text formats;
- **Information** provided via the repository about any research output, tool, or instrument **needed to validate** the conclusions of a publication;
- Beneficiaries/authors **must retain sufficient IPR** to comply with their OA requirements;
- **Metadata licensed under CC0 or equivalent**, in line with FAIR principles (particularly machine-actionable); **PIDs** (publication, authors, if possible their organizations and the grant).
- **Only** publication fees (if any) in **full open access venues** for peer-reviewed scientific publications are **eligible for reimbursement**.

OPEN SCIENCE IN HORIZON EUROPE

Research Data Management (RDM)...



- Emphasis shifts **from open research data to RDM**
- **No opting out** of RDM. Projects generating research data **MUST manage their data** responsibly and in line with FAIR principles
- Open access to research data ‘as open as possible as closed as necessary’, i.e. there can be **exceptions to open access to research data**.
- Establish and regularly update a **Data Management Plan**
- **Deposit data in a trusted repository** and provide **open access** through it
 - Deposit and open access **ASAP and per DMP**
 - For some actions, additional **obligation** to deposit in a repository that is **federated under EOSC**
- **CC BY** or **CC 0** (or equivalent) license required to open data
- **Exceptions to open access** (duly justified in the DMP; legitimate interests or constraints);
- **Information** via the repository about any other research output or any other tools and instruments needed to **re-use or validate the data**;
- **Metadata requirements** same as for publications (i.e. CC0 and PIDs)
- **Costs for RDM** (for example data storage, processing and preservation) are **eligible**



FUENTE: Comisión Europea 2020.



Open science: access for validation

- Obligatory **provision of physical or digital access** to data or other results needed for **validation** of conclusions scientific publications
- Legitimate interests/concerns must still be safeguarded

Open science in case of public emergencies

- If **imposed by the WP**, if **requested by the granting authority**
- Requirement for **immediate open access with a CC BY or CC0** or equivalent licence **to any research output**
- With **exceptions**: legitimate interests
 - Then must give non-exclusive license on fair and reasonable conditions to entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the results



OPEN

RESEARCH

EUROPE



Why a publishing platform?

- An **additional open access publishing option** for beneficiaries
 - Not mandatory, optional!
- **No cost to authors/beneficiaries**
 - i.e. a non-APC platform (APC= article processing charge)
- Helps them **fulfil their open access obligations**
 - Publications deposited in zenodo.org. H2020 open access requirement fulfilled
- Authors **can publish post-grant**
 - No funds post-grant currently





Our ambitions

- Aim for a **high quality, reliable and efficient publishing venue** for EU research
 - Scientific Advisory Board; scientifically rigorous policies and guidelines; rigorous and transparent peer-review
- **To lead by example** in operationalising open science principles within scientific publishing
 - E.g. open peer-review, early sharing of research through pre-prints, broad range of indicators
- Contribute to **transparency and cost-effectiveness**
 - Transparent procurement procedure and article costs. APCs for the Commission set in procurement (ca 800 euros)
- Explore sustainable **open access publishing business models**
 - Institutional publishing (EC), costs of publishing, collaborative publishing with other funders in the future?





The platform as a publishing service (1/2)

- **Original peer-reviewed articles & pre-prints**
 - Stemming from Horizon 2020-funded research (and later Horizon Europe)
- **Immediate open access**
 - With content licensed for re-use; all publications under CC BY license
- **Open peer-review**
 - Open reviewer names, open access review text, post-publication comments
- **Connected content**
 - PIDs, connection to repositories (data, software,...), interoperable technologies, preservation of content...





The platform as a publishing service (2/2)

- Diverse article and author-level **metrics**
- Explicit, accessible and **transparent business processes and publication policies**
 - Aligned with the EC policy and principles
- Following example of **other funders**
 - Such as the Wellcome Trust ([Wellcome Open Research](#)) and others





Open Access UAB



OPEN ACCESS

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

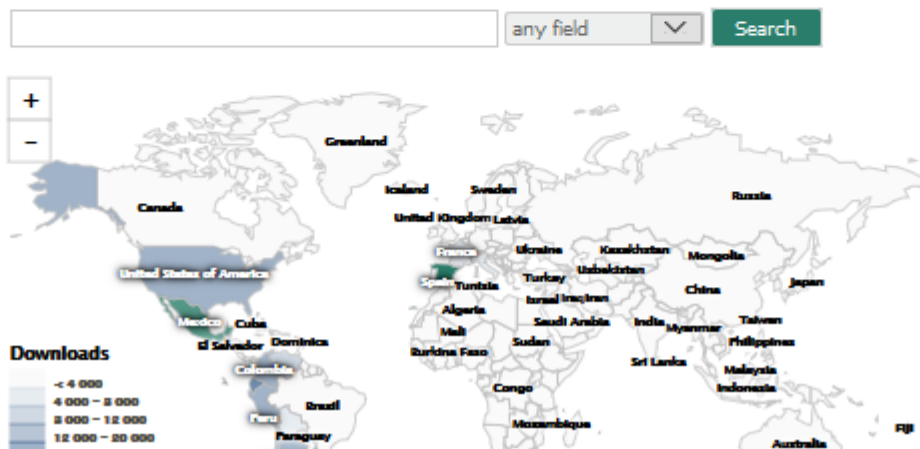
How to deposit

Open Access Data

Copyright issues

Scientific output in Open Access

Readership map



Submit



Intranet - PDI



www.uab.cat/open-access



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GRACIAS



@PilaRicoCastro

Responsable Unidad Acceso Abierto, Repositorios y Revistas
National Open Access Helpdesk (NOAD) OpenAIRE
Fundación Española para la Ciencia y la Tecnología (FECYT)

<https://www.fecyt.es/>
<http://www.openaire.eu/>
openairespain@fecyt.es

