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**University of Minho /**

# **OpenAIRE services to support Horizon Europe projects**

**Delivering DMP (Argos), depositing publications and data, linking  
research products, reporting research results and support materials**



OpenAIRE Services Support Open Science In Europe About

# Guiding you in Open Science

## Researchers

### Horizon Europe

How to comply with Horizon Europe mandate for publications **New!**

Open Science in Horizon Europe proposal **New!**

RDM in Horizon Europe Proposals **New!**

### Research Data Management

How to comply with H2020 mandates - research data

Research Data Management costs in H2020 projects

RDM service development checklist

How to make your data FAIR

How to find a trustworthy repository for your data

How to create a Data Management Plan for H2020 projects

Data formats for preservation

How to deal with non-digital data

How to deal with sensitive data

How to comply with H2020 mandates - publications

How can identifiers improve the dissemination of your research outputs?

argos Start new DMP FAQ EN

Editing DMP New HE project for testing (unsaved changes) Discard Save

Home My DMPs My Datasets Public DMPs Public Dataset Desc.

Guide steps

1. Main info (✓)
2. Funding (✓)
3. License
4. Dataset info (1)

### Template - Horizon Europe

This is the Argos instance of the Horizon Europe template.

- 1. SUMMARY
- 2. LINKS BETWEEN OUTPUTS
- 3. FAIR PRACTICES
- 4. ALLOCATION OF RESOURCES
- 5. SECURITY
- 6. ETHICAL ASPECTS
- 7. OTHER ISSUES

Select

Previous Save & Add Dataset

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OpenAIRE EXPLORE EXPLORE PROVIDE CONNECT MONITOR

SEARCH DEPOSIT LINK CONTENT PROVIDERS

ADD LINKING SOURCES

Start searching Research Outcomes and add them to the Basket to Link

openaire SEARCH

OPENAIRE (5,163) CROSSREF (35) DATACITE (1,279) ORCID (27)

Year range e.g. 1800 - e.g. 2032

5,163 RESEARCH OUTCOMES, PAGE 1 OF 1,033

publication **OpenAIRE Next Steps: OpenAIRE AKME LE** Authors Kuchma, Iryna Publisher Zenodo Published in 2020

publication **Results from the OpenAIRE Call for Innovation: Enrich local data via the OpenAIRE Graph** Authors Bollini, Andrea; Mornati, Susanna; Digillo, Giuseppe; Piščanc, Jordan; Artini, Michele; Atzori, Claudio Publisher Zenodo Published in 2021

LINKS BASKET

SOURCES (0) Research results to link

Upload a DOI's CSV file

No Sources added yet. Start adding sources from the left panel. Or upload a DOI's CSV file.

CONTINUE TO - LINK TO Entities to link with the sources

zenodo Search Upload Communities pedroprincipe@s dum.uminho.pt

Delete Save Publish

## New upload

Instructions: (i) Upload minimum one file or fill-in required fields (marked with a red star). (ii) Press "Save" to save your upload for editing later. (iii) When ready, press "Publish" to finalize and make your upload public.

Files Choose files Start upload

Drag and drop files here

or

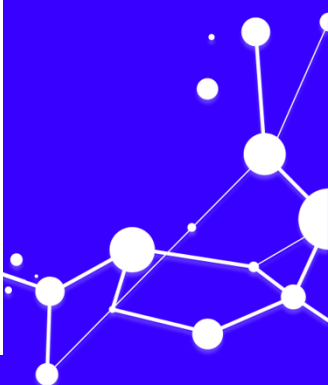
Choose files

(minimum 1 file required, max 50 GB per dataset - contact us for larger datasets)

If you're experiencing issues with uploading larger files, read our FAQ section on file upload issues.

Communities recommended

Specify communities which you wish your upload to appear in. The owner of the community will be notified, and can either accept or reject your request. Please make sure your record complies with the content policy of the communities you add; reported abuse will be followed by account inactivation.

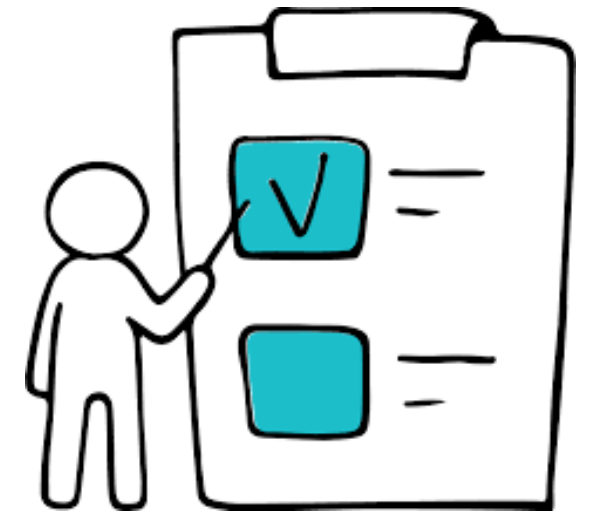


# Data Management Plan

# Data Management Plan

A formal document explaining how research data will be handled throughout the data lifecycle.

- Mandatory in the Horizon Europe and ERC projects (funded by the EC)
- National and institutional mandates
- Increasingly often required as part of PhD requirements



Data  
description

Documentation  
and metadata

Storage and  
backup

Legal and  
ethical issues

Data sharing  
and long-term  
preservation

Responsibilities  
and resources

# Horizon Europe Data Management Plan Template

- Guidance: issues to be covered
- Structured approach
- Living document



[https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management\\_en.htm](https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm)

<https://enspire.science/wp-content/uploads/2021/09/Horizon-Europe-Data-Management-Plan-Template.pdf>

The Horizon Europe Model Grant Agreement requires that a data management plan ("DMP") is established and regularly updated. The use of this template is recommended for Horizon Europe beneficiaries. In completing the sections of the template the requirements for research data management of Horizon Europe as described in article 17 and analysed in the Annotated Grant Agreement, article 17, must be addressed.

## 1. Data Summary

Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.

What types and formats of data will the project generate or re-use?

What is the purpose of the data generation or re-use and its relation to the objectives of the project?

What is the expected size of the data that you intend to generate or re-use?

What is the origin/provenance of the data, either generated or re-used?

To whom might your data be useful ('data utility'), outside your project?

## 2. FAIR data

### 2.1. Making data findable, including provisions for metadata

Will data be identified by a persistent identifier?

Will rich metadata be provided to allow discovery? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

Will search keywords be provided in the metadata to optimize the possibility for discovery and then potential re-use?

Will metadata be offered in such a way that it can be harvested and indexed?

### 2.2. Making data accessible

Repository:

Will the data be deposited in a trusted repository?

Have you explored appropriate arrangements with the identified repository where your data will be deposited?

Does the repository ensure that the data is assigned an identifier? Will the repository resolve the identifier to a digital object?

Data:

Will all data be made openly available? If certain datasets cannot be shared (or need to be shared under restricted access conditions), explain why, clearly separating legal and contractual reasons from intentional restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if opening their data goes against their legitimate interests or other constraints as per the Grant Agreement.

If an embargo is applied to give time to publish or seek protection of the intellectual property (e.g. patents), specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

Will the data be accessible through a free and standardized access protocol?

If there are restrictions on use, how will access be provided to the data, both during and after the end of the project?

How will the identity of the person accessing the data be ascertained?

Is there a need for a data access committee (e.g. to evaluate/approve access requests to personal/sensitive data)?

Metadata:

Will metadata be made openly available and licenced under a public domain dedication CC0, as per the Grant Agreement? If not, please clarify why. Will metadata contain information to enable the user to access the data?

# DMP tools (assistance tools)

## WIZARDS

- Usually free for individual researchers
- Inbuilt templates
- Customizable (for institutions)
- Machine readable DMPs
- Integration with repositories



DMPonline

<https://dmponline.dcc.ac.uk/>

ARGOS

<https://argos.openaire.eu/>

OpenDMP

<https://gitlab.eudat.eu/dmp/OpenAI-RE-EUDAT-DMP-service-pilot>

Data Stewardship Wizard

<https://ds-wizard.org>

DataWiz

<https://datawiz.leibniz-psychology.org/>

RDMO - RDM Organiser

<https://rdmorganiser.github.io/en/>

DMPTool

<https://dmptool.org>

ezDMP

<https://ezdmp.org>

easyDMP

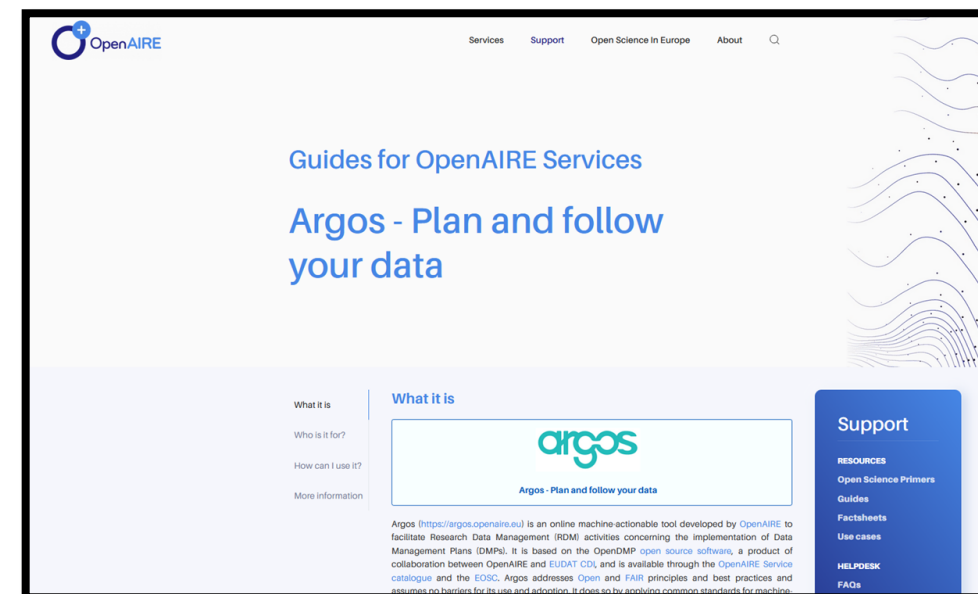
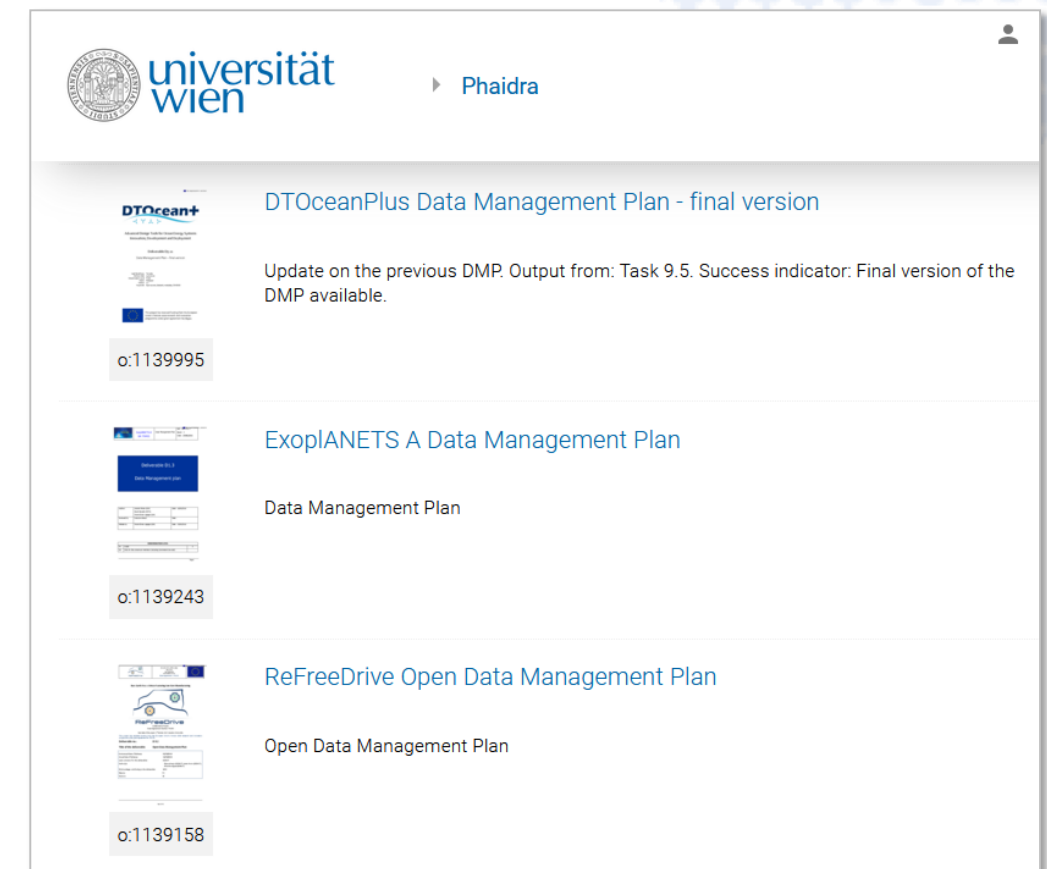
<https://easydmp.eudat.eu>

DMP ARIADNEplus

<https://vast-lab.org/dmp/ariadneplus/form/>

# Best practice: DMP examples and use cases

- [DMP Use Case Project](https://hdl.handle.net/11353/10.1140797) (OpenAIRE Austria): a collection of public DMPs of EC-funded projects: <https://hdl.handle.net/11353/10.1140797>
- [Public DMPs](#) in Argos
- Search in Zenodo





# argos

**Unlock new potentials in writing DMPs.  
Meet your Research Data Management policy needs.**





# Overview of ARGOS



- ARGOS is an **open source, configurable and extensible** tool for **planning Research Data Management (RDM)** activities according to Open Access & FAIR data policies.

- **Website:** <https://argos.openaire.eu/>  
~2500 users (growing)

- ✓ Online or ad-hoc installation
- ✓ Free to use for researchers
- ✓ Available in EOSC

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



**CITE**



**ATHENA**

Research & Innovation  
Information Technologies





Create, Link, Share Data Management Plans



argos.openaire.eu

**Collaborative** workspace to create **Data Management Plans**

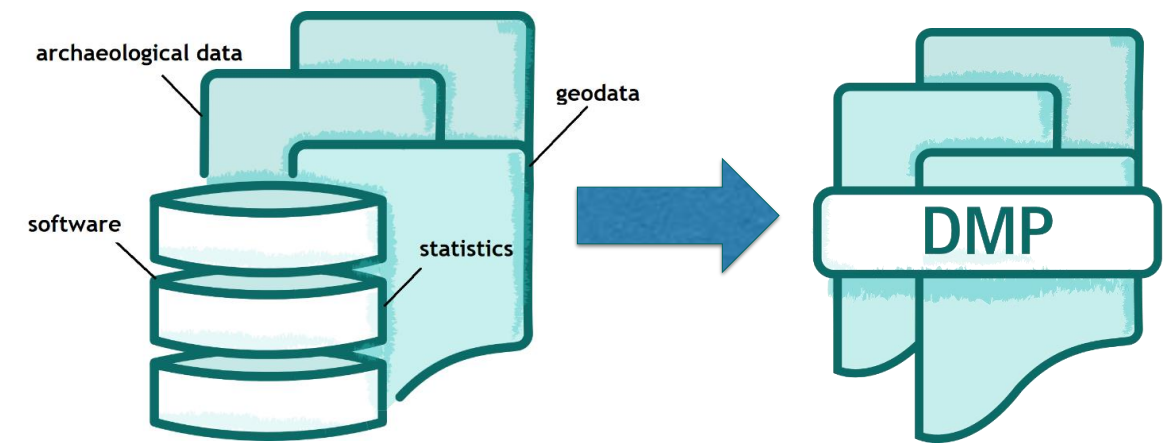
## Functionalities:

- **Collaborative creation** of DMPs
- **Specific or adaptative DMP templates** for funders or institutions (EC)
- **Dataset-based description**
- **DMP export** to several formats (pdf, doc, XML, JSON)
- **REST web services** to allow integration with research infrastructures
- **Public roadmap** for implementation tracking → <https://trello.com/b/x49lylnK/argos>



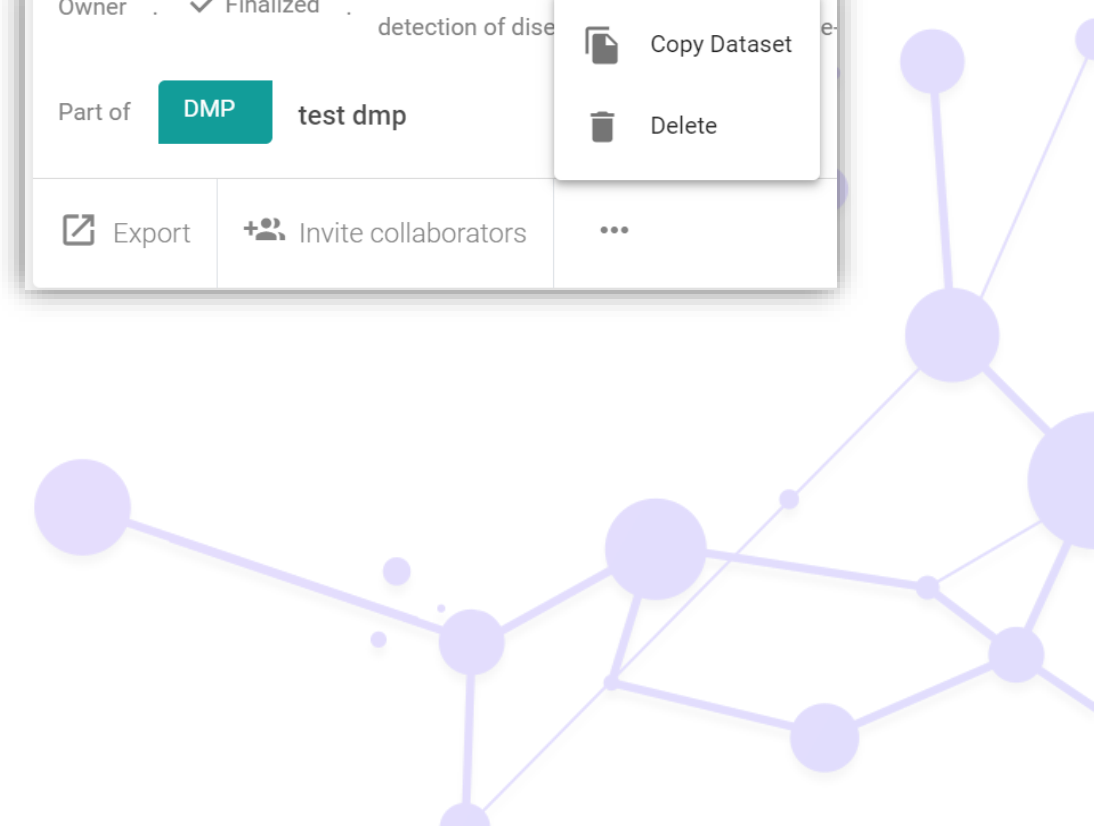
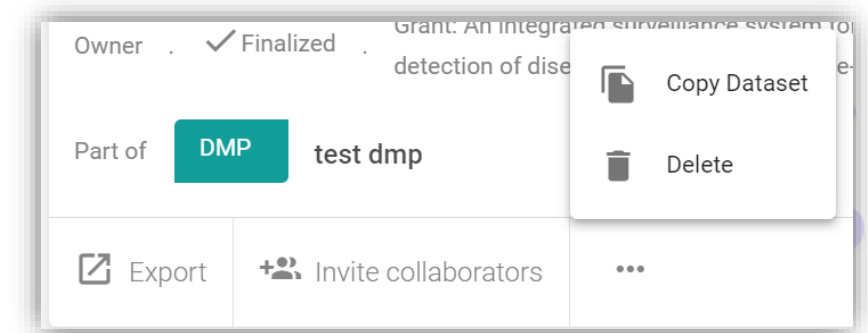
# Key features 1/2

Differentiates DMPs from Datasets -> DMPs can have more than one descriptions of Dataset



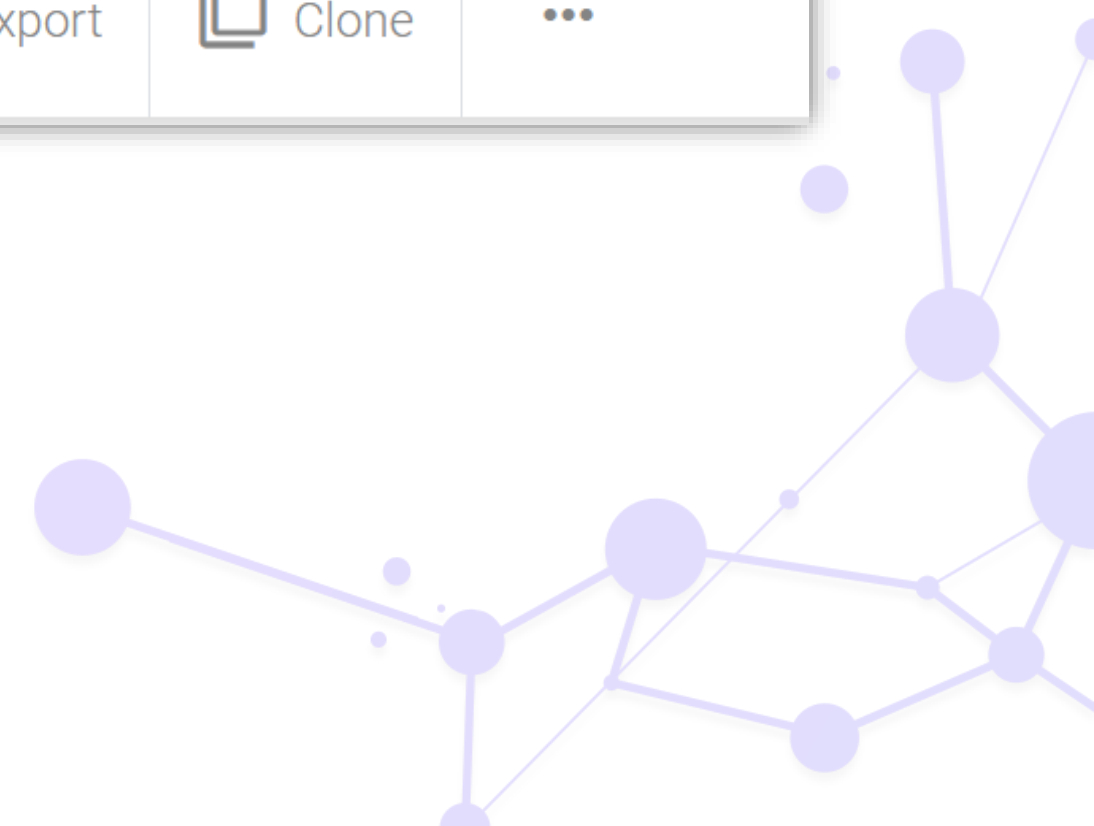
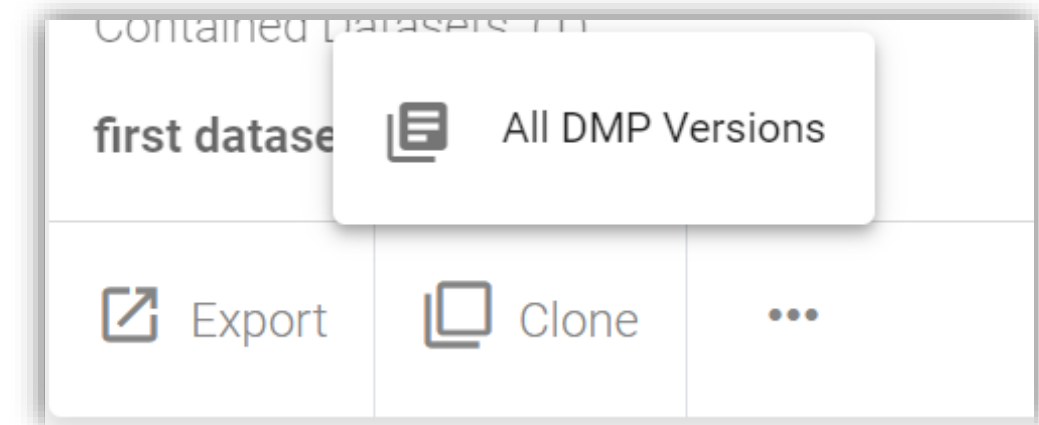
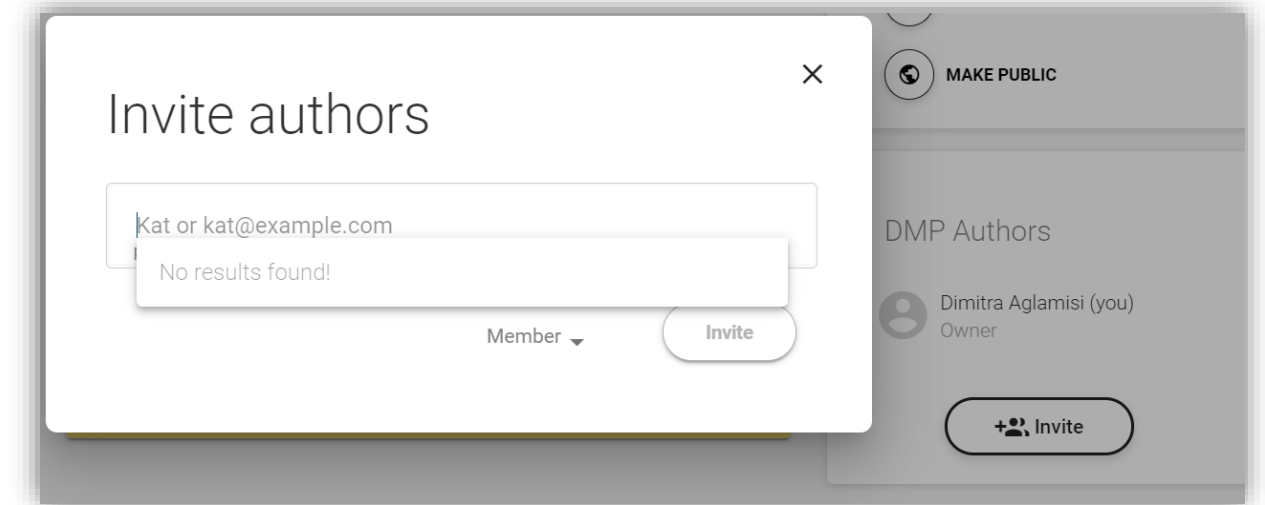
A DMP can contain more than one RDM templates

Easy selection of OpenAIRE and EOSC resources



# Key features 2/2

- Supports collaborative writing
- Supports exports in JSON format  
-> interoperability
- Provides DOIs and versioning of DMPs





Editing DMP

New HE project for testing (unsaved changes)

Discard

Save

Guide steps

- 1. Main info (✓)
- 2. Funding (✓)
- 3. License
- 4. Dataset info (✓)**

Datasets are documented following pre-defined templates which set the content of dataset descriptions. In Argos, a DMP can contain as many dataset descriptions as the datasets it documents.

4.1 Dataset info\*

Select a template to describe your datasets. You may select more than one template.

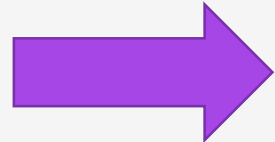
*i* Type more letters of the name so its more possible to find the correct one.

Select a template to describe your dataset \*

Horizon Europe



If you can't find a template or if you want to create a personalized template for your institution, research community or training needs, please contact us.



< Previous

Save & Add Dataset

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100%



Editing DMP

New HE project for testing (unsaved changes)

Discard

Save

Guide steps

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**Template - Horizon Europe** [Close]

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Select

< Previous

Save & Add Dataset

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86%

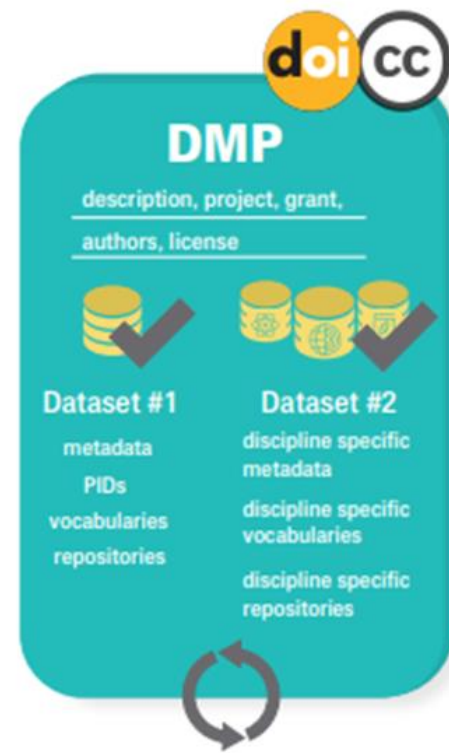
# Unlocks new potentials – not just a tool!



- **For all outputs**
  - Data, Software, Workflows, etc.
- **For all disciplines**
- **Connects data services and workflows**
  - Validation, Automation, Easy DMP publication with a click



# Create and Publish FAIR DMPs



- Discoverable through OpenAIRE EXPLORE
- Accessible: PIDs (ORCID IDs & DOIs)
- Interoperable: RDA DMP Common Standard
- Reusable: Licenses
- Versioned (history/provenance)
- Published and preserved in Zenodo



# Design machine-actionable templates

- Many inputs to create a question
- Long list of input types
  - Boolean, Multiple choice, Free text, Upload, custom APIs
- Collection of static APIs
- Conditional questions
- Multiplicity
  - x the question can be answered with different input
- RDA compatibility
- Semantics

4.1.4 What is the origin / provenance of the dataset?

Description

Required

Select  RDA Common Standards

Default Value

[Make Conditional Question](#)

**Conditional Questions**

1 If Value is  then show Question

Other  If other, please specify 8695addc-014f-9a92-c90\_

**Word List Data**

Multiple Selection

Input Placeholder Text

Select

Label	Value
Primary data <input type="text"/>	Primary data <input type="text"/>
Secondary data <input type="text"/>	Secondary data <input type="text"/>
Other <input type="text"/>	Other <input type="text"/>

+

Required

Free Text  RDA Common Standards

Default Value

[Make Conditional Question](#)

**Free Text Data**

Input Placeholder Text

If other, please specify

\_\_\_\_\_

\_\_\_\_\_

**Preview**

What is the origin / provenance of the dataset?

Select \*

If other, please specify

Please Specify

Provide additional information or justification about your selection

Add input  Comment field  Multiplicity

- Home
- My DMPs
- My Datasets
- Public DMPs
- Public Dataset Desc.

Editing Dataset  
**Data from X of the new HE project (unsaved changes)**

[To DMP: New HE project for testing](#)

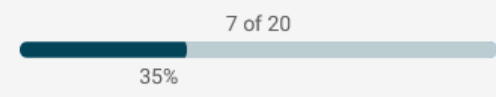
[Discard](#) [Save](#) [Finalize](#)

[Back to](#) [DMP](#)

### Guide steps

- 3. FAIR Practices
  - 3.1. Making data and other outputs...**
  - 3.2. Making data and other outputs o...
    - 3.2.1. Repository
      - 3.2.1.1. In which repository will the ...
      - 3.2.1.2. Is the selected repository a...
      - 3.2.1.4. Add appropriate arrangem...
      - 3.2.1.5. Does the repository(ies) as...
      - 3.2.1.7. Does the repository suppor...
    - 3.2.2. Data
    - 3.2.3. Metadata
  - 3.3. Making data and other outputs i...
  - 3.4. Increasing data and other output...
- 4. Allocation of Resources
  - 4.1. Allocation of resources
    - 4.1.1. What will be the cost of making ...
    - 4.1.2. How will this cost be covered?
    - 4.1.3. Identify the people who will be r...

[Previous](#) [Save & Add New](#)



- [About](#) [Terms Of Service](#)
- [Glossary](#) [User Guide](#)
- [Contact Support](#)

## 3.2. MAKING DATA AND OTHER OUTPUTS OPENLY ACCESSIBLE

Not all data can be made publicly open, hence data can be FAIR but not open, or open but not FAIR or both FAIR and open. Data are accessible when uploaded in a data repository and retrieved by their PIDs. When data can not be shared openly, metadata should be provided (even when the data are no longer available). In the case of sensitive or personal data, anonymization or pseudonymization and specific access rights can be applied. Where accessing data requires the use of complementary methods or tools, such procedures should be documented.

### 3.2.1. REPOSITORY

#### 3.2.1.1 In which repository will the dataset / output be deposited?

A data repository, otherwise known as a data archive, is an online collection of datasets that are described and classified in a standard way that makes data discovery and retrieval easier to be performed by both humans and machines.

For more information on the processes for datasets, you can have a look at <https://www.openaire.eu/rdm-handbook>

DataRepositoriUM

List of values provided by external source(s)

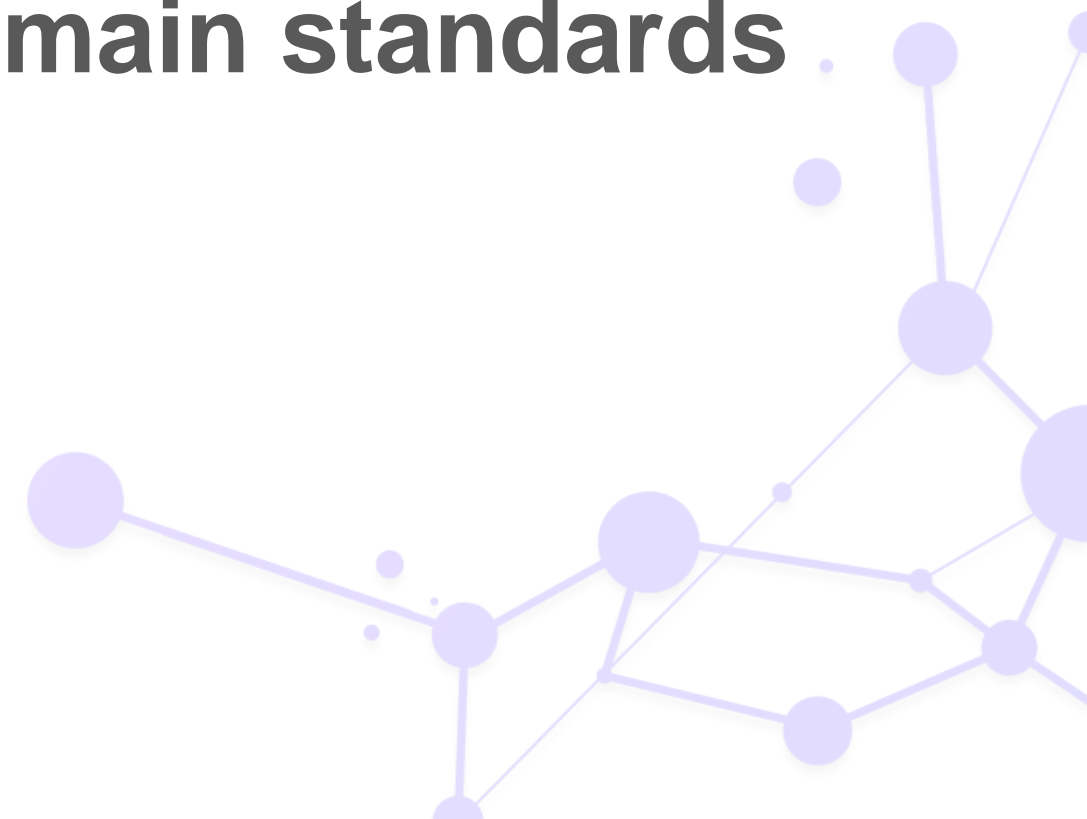
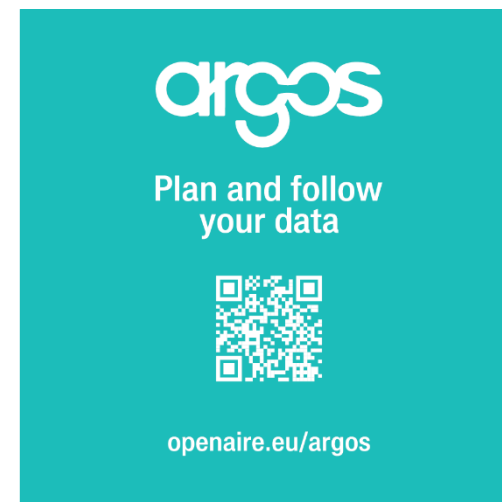
Couldn't find it? Insert the data repository

Rich text editor toolbar with icons for undo, redo, bold, italic, underline, strikethrough, subscript, superscript, bulleted list, numbered list, indent, outdent, link, unlink, clear class, and close.

Add URL of the system hosting a distribution of a dataset.

# Take away

- ARGOS **prepares** all stakeholders for the next Horizon Europe DMPs requirements.
- ARGOS **simplifies** administrative processes and **connects** with University / Institutional workflows.
- ARGOS **enables** research communities to create templates (dataset profiles) tailored to domain standards and practices.



**Deposit your research outcomes**

**Report your publication and data to the EC**

**Claim a publication or data to your funding**

<https://zenodo.org/>

<https://explore.openaire.eu/>

[Home](#) > [Deposit](#)

# Deposit or publish your research in Open Access



## Find the appropriate repository or journal

Find the appropriate repository to deposit your research products of any type (publication, data, software, other) or to include in your data management plan. Search and browse for OpenAIRE compliant repositories registered in OpenDOAR and re3data.

Looking for Open Access journals? Find those that suit your needs among the journals registered in the Directory of Open Access Journals (DOAJ). To know more, read the OpenAIRE Open Access primer (<https://www.openaire.eu/oa-basics>)



## Deposit

Find the repository to deposit your research or use the Zenodo repository.



## Publish

Find the Open Access journals that suit your needs among those registered in the Directory of Open Access Journals (DOAJ).

SEARCH

[Browse all](#)

OR

DEPOSIT IN ZENODO →

# OpenAIRE guides for Researchers

## Horizon Europe

Guides for Researchers

### How to comply with Horizon Europe mandate for publications

What is required?  
How to comply?  
Which repository to use?  
How to retain your copyright?  
Are publication costs supported?  
How can OpenAIRE help?

#### What is required?

All peer-reviewed scientific publications arising from Horizon Europe funding have to be made available in open access. This implies that publications are to be made freely available online, immediately upon publication and with no restrictions on use, by depositing them on a repository. You should be aware that you are required to retain sufficient intellectual property rights (IPR) to comply with these open access obligations.

**There are two ways to ensure immediate open access:**

1. Deposit your publication in a repository for scientific publications and ensure open access.
2. Publish your research in an open access journal.

Guides for Researchers

### Open Science in Horizon Europe proposal

Introduction    What to include in your proposal?    How to address OS in HE proposals?  
How can OpenAIRE help?

#### How to address OS in HE proposals?

Open science in Part A - Application Form    Open science in Part B - 'Excellence'    Open science in Part B - 'Impact'  
Open science in Part B - 'Quality and efficiency of the implementation'

#### Open science in Part A - Application Form

In the proposal [Standard Application Form](#), there is a section where you should list "up to 5 publications, widely-used datasets, software, goods, services or any other achievements relevant to the call content."

#### Publications

Any publications listed in this part of the proposal, and in particular journal articles, are expected to be **open access**. The significance of publications will not be evaluated on the basis of the Journal Impact Factor or the venue they are published in, but on the basis of a qualitative assessment provided by you for each publication.

Guides for Researchers

### RDM in Horizon Europe Proposals

Introduction    What to include in your proposal?    How can OpenAIRE help?

#### What to include in your proposal?

The following tables provides a visual guide showing **mandatory** and **recommended** actions to be taken when writing your proposal.

Mandatory    Recommended and acceptable

#### Mandatory

What	How
------	-----

[www.openaire.eu/how-to-comply-with-horizon-europe-mandate-for-publications](http://www.openaire.eu/how-to-comply-with-horizon-europe-mandate-for-publications)

[www.openaire.eu/open-science-in-horizon-europe-proposal](http://www.openaire.eu/open-science-in-horizon-europe-proposal)

[www.openaire.eu/rdm-in-horizon-europe-proposals](http://www.openaire.eu/rdm-in-horizon-europe-proposals)



@openaire\_eu  
#OpenAIRE-Nexus

THANK YOU

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Thanks to slides from Elli Papadopoulou and Milica Sevkusic

