



**Elli Papadopoulou**  
ATHENA Research Center



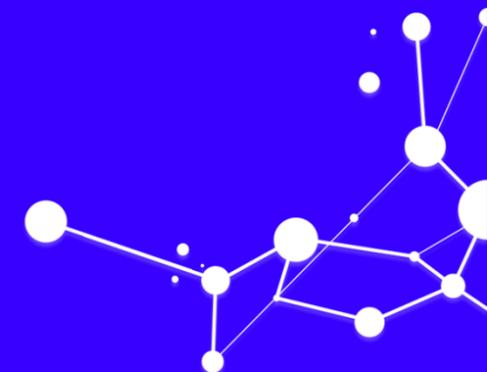
Plan and follow your data



Turkey in Horizon 2020 | FGT-11:  
Focus Group Training on Open Science | 20 April 2021



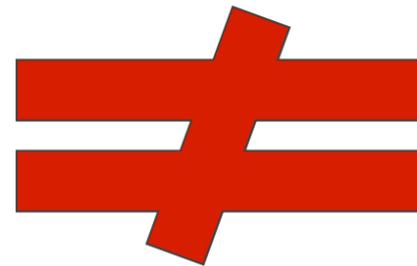
# DMPs



# What is a DMP?

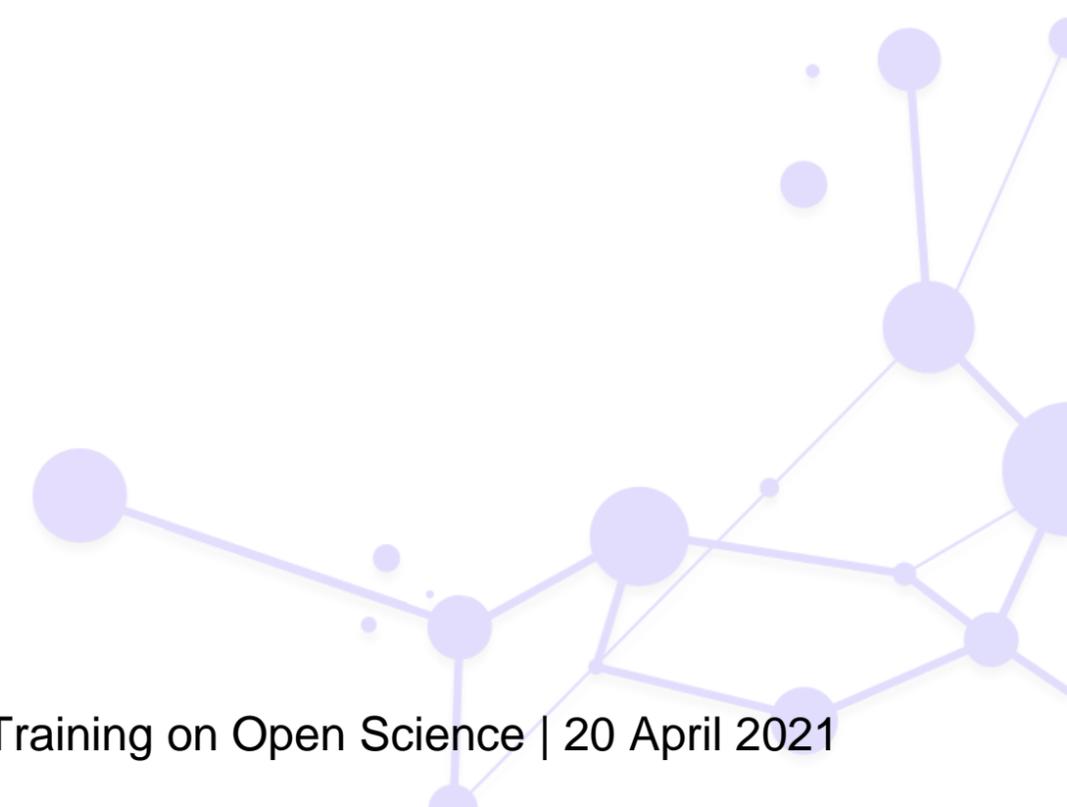
Deliverable and “living” document

- documents processes undertaken throughout data management lifecycle, including costs



# What is not a DMP?

Research assessment method



# What data does it cover?

- Scientific data and metadata
  - ✓ Useful for verifying / validating conclusions

- ✓ That does not infringe copyright
- ✓ Non-personal and / or sensitive content

- Other raw or structured data and metadata
  - ✓ Guidelines for data reproducibility
  - ✓ Including an analysis tool / software

**Access  
restrictions**

Restrictions in access are described in the Data Management Plan in advance

# When is it delivered?

## Proposal stage (not necessarily)

- What kind of data will the project create / collect?
- Which standards will be used?
- How will this data be shared / made available? If not, why not?
- How will this data be curated and preserved?

## Project stage

- first version of the DMP within the first semester
- revisions

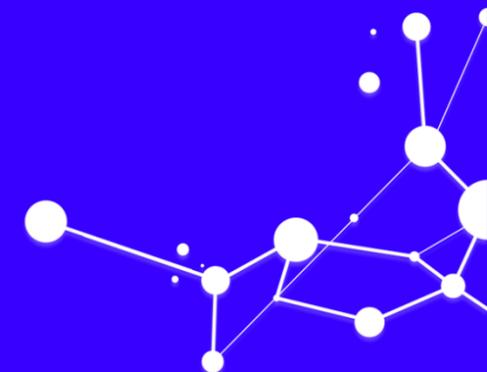
# Who is involved in DMPs

- **Funders (offices)**
  - Define rules for DMP
- **Organisations (policy offices)**
  - Define policies
- **Projects (managers)**
  - Apply project policy aligned to Organisational and Funding policies
- **Data Managers**
  - Manage the DMP
- **Researchers**
  - Describe datasets
  - Are attributed by datasets

# DMPs value

- **To increase quality of research and therefore own prestige**
- **To ensure that research outputs, including data in particular, are findable by everyone, available to people, etc.**
- **To avoid duplications of same research concepts**
- **To understand strengths and weaknesses (e.g. what discipline/ unit produces more results? Are data described based on the DMP requirements? etc)**
- **To ensure research integrity and excellence of researchers**

argos



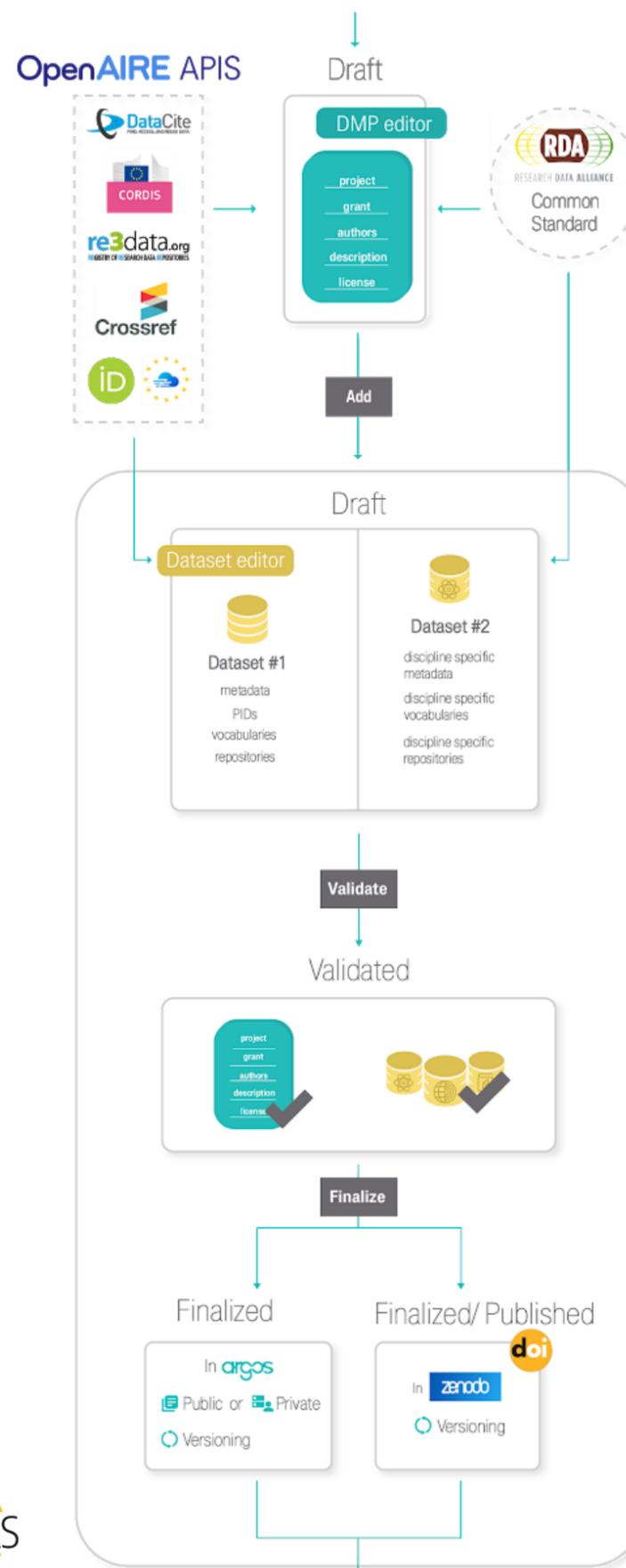
# Overview of ARGOS

- 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/>  
**~1000 users (growing)**

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

# Argos Lifecycle

- Full DMP publication
- Two editors to create DMPs
  - Full editor
  - Dataset wizard
- First validation
- Finalization
- ma-DMP outputs



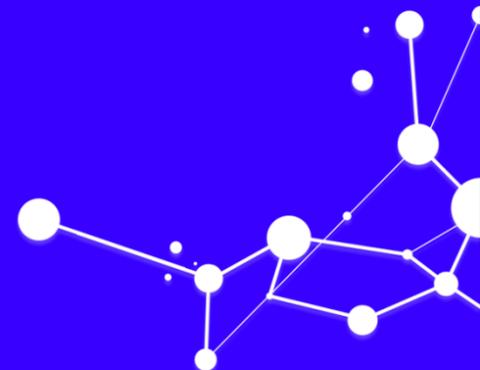
- Rich documents
- Discoverable through OpenAIRE
- Versioned (provenance)
- Accessible: PIDs (ORCID IDs & DOIs)
- Reusable: Licenses
- Preserved in Zenodo

# Why to use ARGOS

- 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 for...



# Funders

## Online

- Enrich the templates collection
- Translate the tool in native language
- Customize Open and FAIR guides
- Link with [Funder Monitoring Dashboard](#)

## Add-hoc

- Integrate own services (e.g. researchers' registry)
- Configure own APIs
- Link with national Open Science graphs



# CHIST-ERA example

The screenshot shows the 'Editing DMP' interface. On the left, a 'Guide steps' sidebar lists: 1. Main info (1), 2. Funding info (2), 3. License info, and 4. Dataset info (1). The main content area is titled '4.1 Dataset info\*' and contains the instruction 'Select a template to describe your datasets.' Below this is a search input field with a dropdown menu showing several template options: 'Academy Of Finland', 'ARIADNEPlus Horizon2020', 'CHIST-ERA', 'Clarín-D', 'Dataset Name - Aristotelis temp', 'Dataset Name - Aristotelis temp - dacr', and 'External Sources Test'. A modal window titled 'Template - CHIST-ERA' is open, displaying the following sections:

- 2.1.2 Indicate which metadata standards will be used**  
Use Community Metadata Standards Where These Are In Place.  
List of values provided by external source(s)  
Couldn't find it? Insert it manually
- 2.1.3 Indicate how the data will be organised during the project**  
Naming Conventions Should Be Clearly Described In Order To Make Data Understandable By Other Researchers That May Reuse Them After The Project Ends. Mentioning For Example Conventions, Version Control, And Folder Structures. Consistent, Well-Ordered Research Data Will Be Easier To Find, Understand, And Re-Use.  
Check Out Some Examples Of File Naming Best Practices: <http://Tiny.cc/Op8lcz>
- 2.1.4 Consider what other documentation is needed to enable re-use**  
This May Include Information On The Methodology Used To Collect The Data, Analytical And Procedural Information, Definitions Of Variables, Units Of

At the bottom of the modal is a 'Select' button. The main interface also has 'Previous' and 'Save & Add Dataset' buttons at the bottom left.

- Policy support
  - RDM: Argos for DMPs
- Training
- Funder Monitoring Dashboard
- Minimal configuration of Argos
  - Online: CHIST-ERA template
  - Pilot on monitoring DMPs - indicators

# Research institutions & communities

## Build tailored templates

- **Enrich** the templates collection (e.g. H2020, H2020 for archaeology, Science Europe, Academy of Finland, FWF - Austrian Science Fund, etc)
- **Customize** Open and FAIR guides for your discipline / RDM policy
- **Configure** own APIs
- **Integrate** own services
- **Link** with Research Community Dashboards

Example in archaeology:



<https://www.openaire.eu/blogs/dmps-for-research-communities-argos-for-ariadneplus>

# ARIADNE Plus - Areas of work

## Landscape

### a. DMP tools capabilities

### b. existing DMP templates for archaeology

- commonalities and differences (scope, target audience, organization)
  - technical information (software, model)
- FAIR principles and global standards

## Templates

### a. Guidance (navigation, literacy)

- OpenAIRE Task Forces outputs

### b. ARIADNEPlus H2020 template

- Template available from Argos (APIs, RDA)

## Global standards

### a. Compliance with RDA through Argos template

### b. Import mechanism of ARIADNEPlus

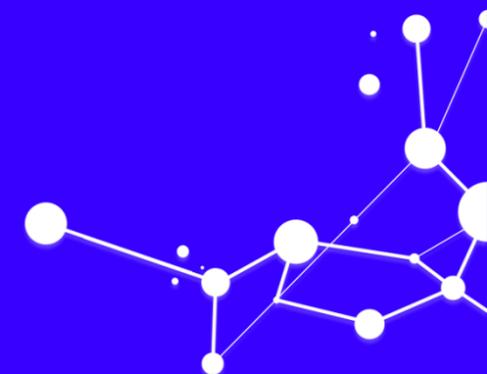
# Researchers



## Get started with planning RDM activities

- Guide through **Open and FAIR RDM** and familiarize with the DMP process
- **Choose templates** according to funders', institutions' or research community requirements and needs
- **Describe different types of datasets** produced and / or re-used
- **Share DMPs** with colleagues to manage workload
- **Create new DMP versions** to continue work on major advancements and keep track throughout time
- **Publish DMPs** directly in Zenodo

# How to use Argos



# How to use Argos

The screenshot shows the Argos web application interface. At the top, a yellow banner reads "Editing Dataset" and "Dataset a-4oct". The Argos logo is in the top left. A "Start new DMP" button is in the top right. A language dropdown menu is open, showing "EN" selected and a list of languages: English, Greek, Spanish, German, Turkish, Slovak, Serbian, and Portuguese. The left sidebar contains navigation items: Home, My DMPs, My Datasets, Public DMPs, Public Dataset Desc., DMP Templates, and Dataset Templates. The main content area features a modal box with the text: "A DMP in Argos consists of key information about research, such as purpose, objectives and researchers involved, but also about documentation of research datasets, namely **Datasets**, that highlight the steps followed and the means used across data management activities." Below the text is a yellow "Add Dataset" button and a cartoon character. The right-hand panel displays "Personal Usage" statistics: 50 DMPs, 38 Datasets, 35 Grants, and 0 Related Organisations. At the bottom, a "Latest Activity" section shows tabs for "All (5)", "Drafts (5)", "DMPs (5)", and "Datasets (5)". A progress bar indicates "27 of 29" items with "93%" completion. Below the progress bar is a question: "1.3 What formats of data will the project generate/collect?".

# Coming in March!

- **Admin interface**

- Manage users.
- Create model templates.
- Configure APIs.
- Control RDA compliance.

New Dataset Template

✓ General Info    2 Dataset Template Pages & Content    3 Preview & Finalize

Guide steps

1. Main info   Page ID: e364feff-dj

+ Create new subpage

+ Create new page

1.1 Untitled field Field ID: c034f

Input ID: c034ff8f-6e9a-9647-a3f7-902ae2a75d2b

Boolean Decision  RDA Common Standards

Preview

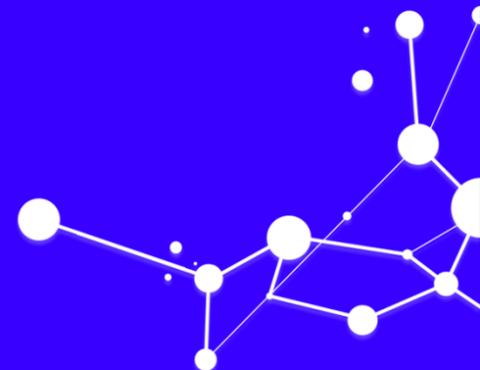
Yes  No

- Text Area
- Free Text
- Boolean Decision
- Radio Box
- Select
- Checkbox
- Date Picker
- Currency
- APIs
  - Registries
  - Services
  - Researchers
  - Organizations
  - External Datasets
  - Data Repositories
  - Other
- Argos Entities
  - Internal DMPs
  - Tags
  - Dataset Identifier
  - Validator

# TUBITAK template in Argos

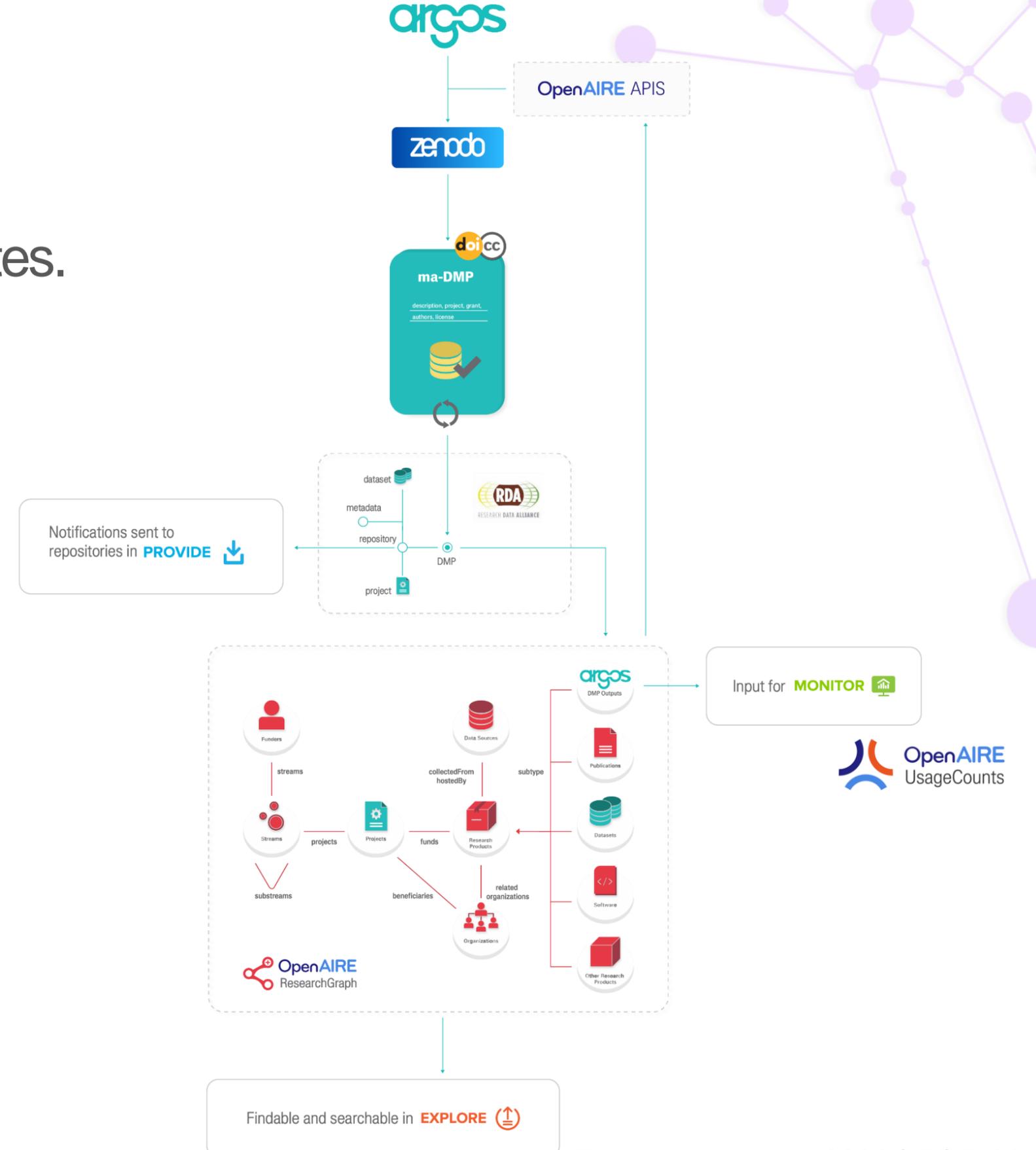
The screenshot displays the Argos web application interface. On the left, a sidebar menu includes options like 'Ev', 'VYP'larım', 'My Datasets', 'Yayınlanmış VYP'ları', 'Yayınlanmış Veri Seti Tanımları', 'VYP Şablonları', 'Veri Seti Tanımlama Şablonları', 'Kullanıcılar', 'Dil Editörü', and 'Kullanıcı Rehberi'. The main content area shows a 'VYP'yi düzenleme (Kaydedilmemiş Değişiklikler)' form with a progress bar indicating 0% completion. A modal window titled 'Şablon - TÜBİTAK DMP template' is open, displaying a form for '1.1.2 Proje kapsamında elde edilecek veya üretilen veri, paylaşım ve tekrar kullanım için uygun olacaktır mı?' (Will the data obtained or produced within the scope of the project be suitable for sharing and reuse?). The form includes a text area for 'Lütfen Belirtiniz' (Please specify) and radio buttons for 'Evet' (Yes) and 'Hayır' (No). Below the form, a list of contributors is shown, including 'CONSORCIO MADROÑO' (Spain), 'TURKISH HIGHER EDUCATION COUNCIL RESEARCH DATA AND OPEN DATA WORKING GROUP' (Turkey), and 'UNIVERSITY OF VIENNA' (Austria). The Argos logo is visible in the top right corner of the application.

# Positioning in EOSC & OpenAIRE Ecosystem

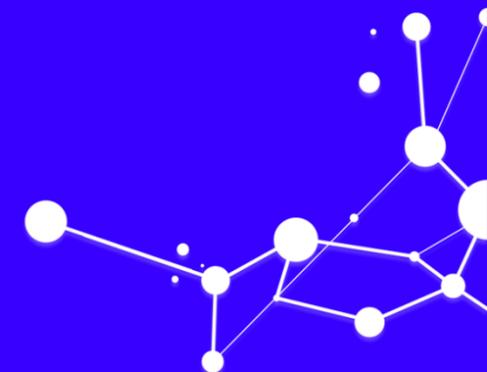


# ARGOS interlinked

- 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.



Take away



# 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 tailored to domain standards and practices.



## Useful Resources

What's New: <https://www.openaire.eu/openaire-welcomes-argos-new-version>

User Guide: <https://argos.openaire.eu/user-guide>

Factsheet:

<https://argos.openaire.eu/splash/assets/media-kit/Factsheet.pdf>

FAQs: <https://argos.openaire.eu/splash/about/faqs.html>

Contact us: [argos@openaire.eu](mailto:argos@openaire.eu)



@openaire\_eu  
#OpenAIRE-Nexus

THANK YOU

**Elli Papadopoulou | Georgios Kakaletris**  
elli.p@athenarc.gr | gkakas@athenarc.gr

