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# argos

plan and follow your data

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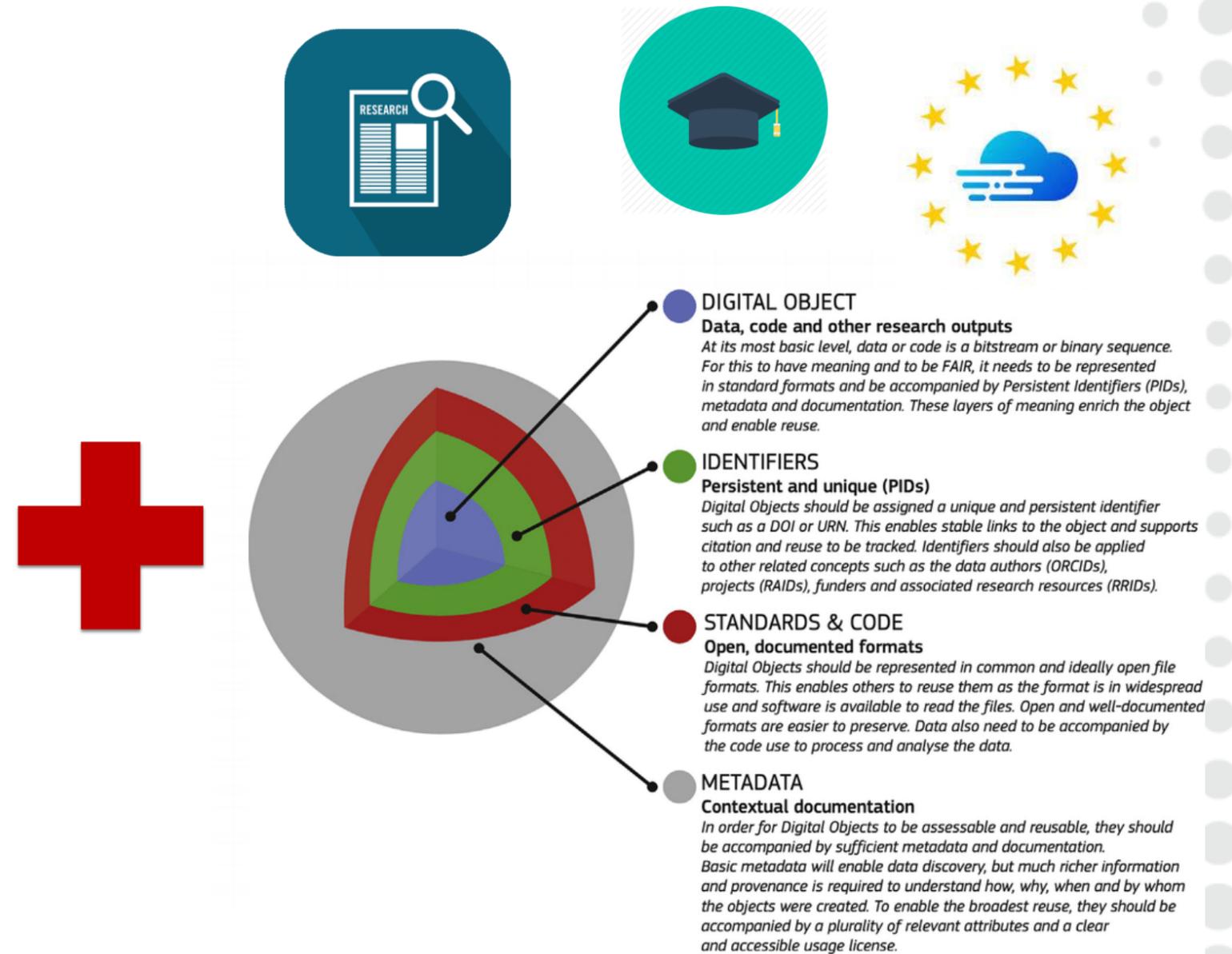


DMPs introduction  
Argos service & key features  
Enhancements  
Argos for stakeholders  
Next steps

# Data Management Plans

# The need

Aim	Who?	How?
Repeatability	same group	same evaluation
Replicability	different group	same evaluation
Reproducibility	different group	different evaluation



Ronald F. Boisvert. Incentivizing reproducibility. *Commun. ACM*, Vol. 59(10), pp. 5, 2016.

# Plan for RDM - DMPs

*Plan data management of research activities following research data lifecycle steps*

**Title:** H2020 NEANIAS WP4 Space Astrophysics Datasets

**Template:** Horizon 2020

**External References**

*Data Repositories*

GAIA Catalogues, VIALACTEA Knowledge Base, SKA Science Data Challenges

*External Datasets*

Galactic Legacy Infrared Mid-Plane Survey Extraordinaire, 24 and 70 Micron Survey of the Inner Galactic Disk with MIPS, MIPS GAL Catalog, Co-Ordinated Radio 'N' Infrared Survey for High-mass star formation, Wide-field Infrared Survey Explorer, SKA Science Data Challenge #1, Canadian Galactic Plane Survey, BGPS Catalog, Southern Galactic Plane Survey, WISE Catalog, H2O southern Galactic Plane Survey, Three-mm Ultimate Mopra Milky Way Survey, GAIA Archive, VLA Sky Survey, ATLASGAL Catalog, The VLA Galactic Plane Survey, The Galactic Census of High and Medium-mass Protostars, James Clerk Maxwell Telescope, Herschel infrared Galactic Plane Survey, The Multi-Array Galactic Plane Imaging Survey, Millimetre Astronomy Legacy Team 90GHz

*Registries*

VLKB Registries, GAIA Registries

*Services*

GAIA Services, VLKB Services

The H2020 NEANIAS Project aims to design, deliver, and integrate into the European Open Science Cloud innovative thematic services, derived from state-of-the-art research assets and practices in three major sectors: underwater research, atmospheric research and space research. In particular the Work Package 4 is focused on the thematic services related to the Space environment. The Space environment comprises astrophysicists and planetary scientists that will handle data within three services: S1 - FAIR Data Management and visualization for complex data and metadata service; S2- Map making and mosaicking for multidimensional images service; S3 - Structure detection on large map images with machine learning techniques service. This document describes datasets employed from astrophysics surveys mainly covering the Galactic Plane. Data holdings come partly from the Vialactea Knowledge Base (VLKB) hosted at the Italian center for Astronomical Archives (IA2, hosted at INAF - Astronomical Observatory of Trieste) and partly from new data resources such as the GAIA Archive and SKA Data Challenges.

**Dataset Description**

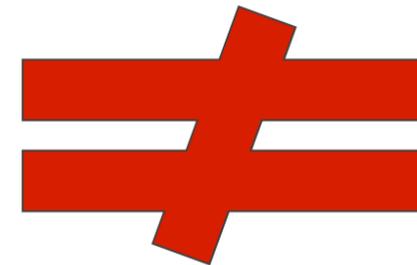
*1 Data Summary*

1.1 What is the purpose of the data collection/generation and its relation to the objectives of the project?

The H2020 NEANIAS Project aims to design, deliver, and integrate into the European Open Science Cloud innovative thematic services, derived from state-of-the-art research assets and practices

## Deliverable and “living” document

- documents processes undertaken throughout data management lifecycle, including costs



## Research assessment method



# 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

About argos - what



## Plan and follow your data

- Create** machine actionable DMPs.
- Configure** to best fit your discipline.
- Link** to EOSC components out of the box.
- Share** easily in your repository.

Bring your Data Management Plans closer to where data are generated, analysed and stored.

Start your DMP

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

A collaborative online tool that helps researchers plan their Research Data Management (RDM) activities according to funders' or institutions' Open Access & FAIR data requirements.

- > *Plan & Implement interdisciplinary and multi-disciplinary RDM activities*
- > *Free to use for researchers*
- > *Available in EOSC*



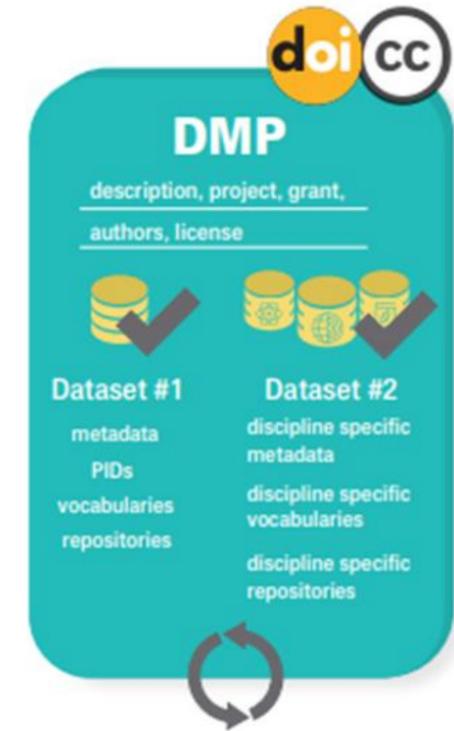
OpenAIRE National Workshop in Malta| February 24, 2021



EUROPEAN OPEN SCIENCE CLOUD

# Argos Lifecycle

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

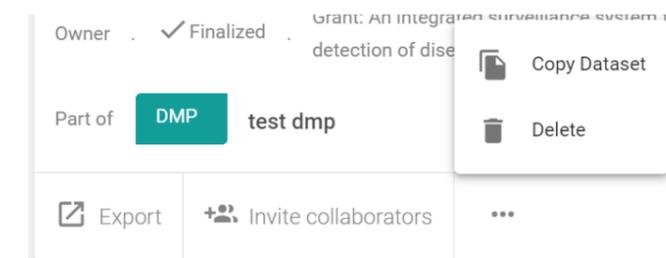
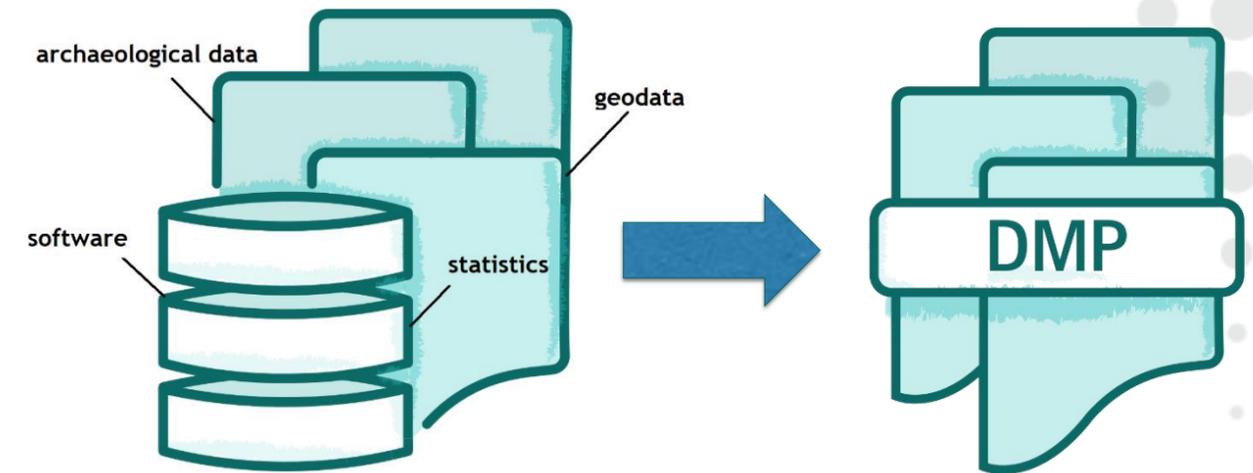


- Rich documents
- Discoverable through OpenAIRE
- Versioned (provenance)
- Interoperable: PIDs (ORCID IDs & DOIs)
- Reusable: Licenses
- Preserved in Zenodo

Using argos – how

# 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**



Select one or more templates for your DMP

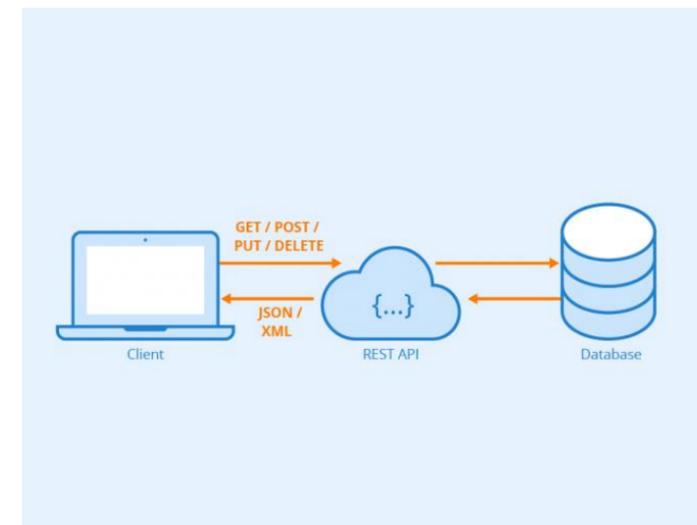
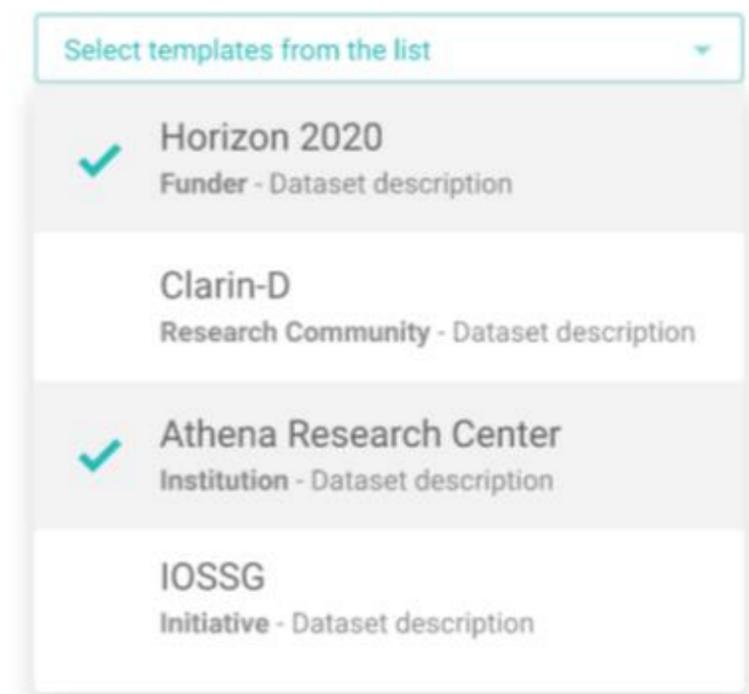
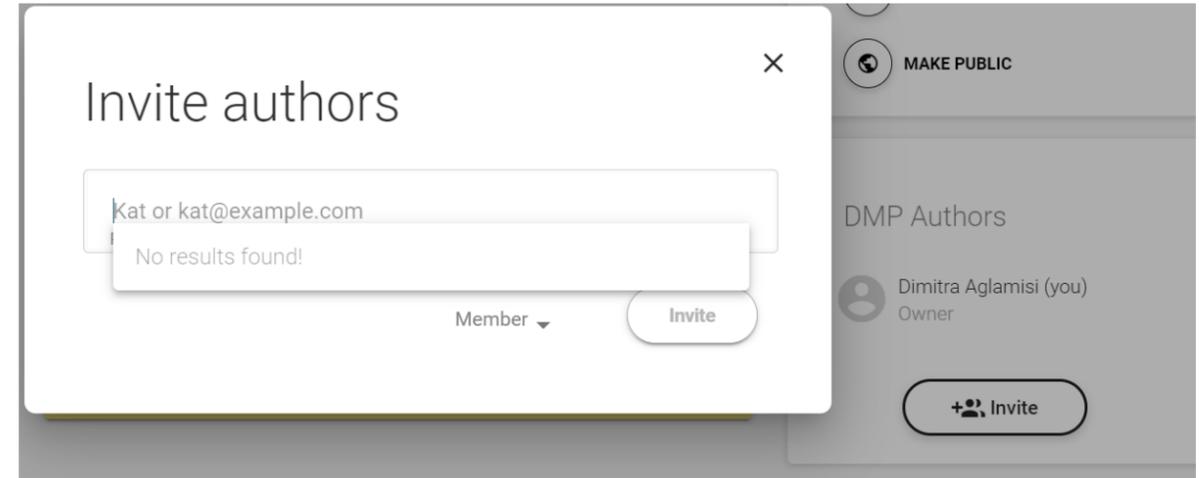


Figure: REST API - Author: Seobility - License: CC BY-SA 4.0

# Key features 2/2

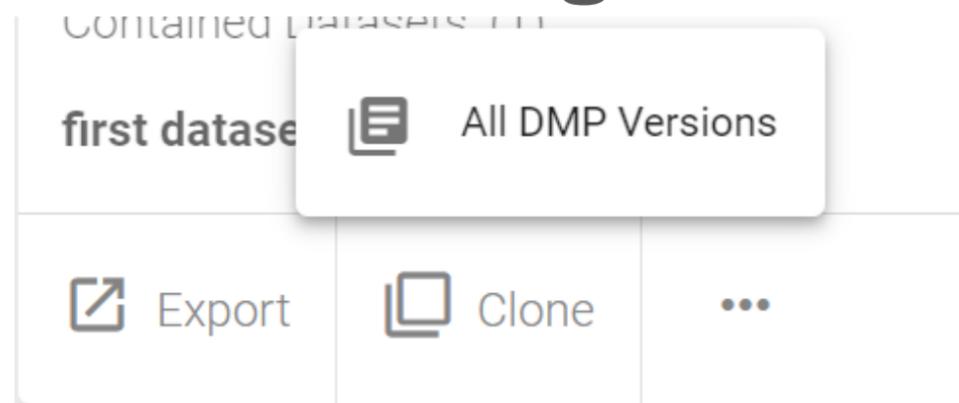
- Supports collaborative writing



- Supports exports in JSON format

-> interoperability

- Provides  and versioning of DMPs



```
"dmp": {
  "contact": {
    "mbox": "elli.libd@gmail.com",
    "name": "Elli Papadopoulou",
    "contact_id": {
      "identifier": "a7c440e8-4e29-4d84-812a-1b2d5cb605f5",
      "type": "other"
    }
  },
  "created": "18-09-2019",
  "dataset": [
    {
      "data_quality_assurance": [
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      "dataset_id": {
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        "type": "other"
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      "issued": "9/18/19",
      "keyword": [
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      "language": "en",
      "metadata": [
      ],
      "personal_data": "unknown",
      "security_and_privacy": [
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      "title": "Horizon 2020 Dataset Description"
    }
  ]
}
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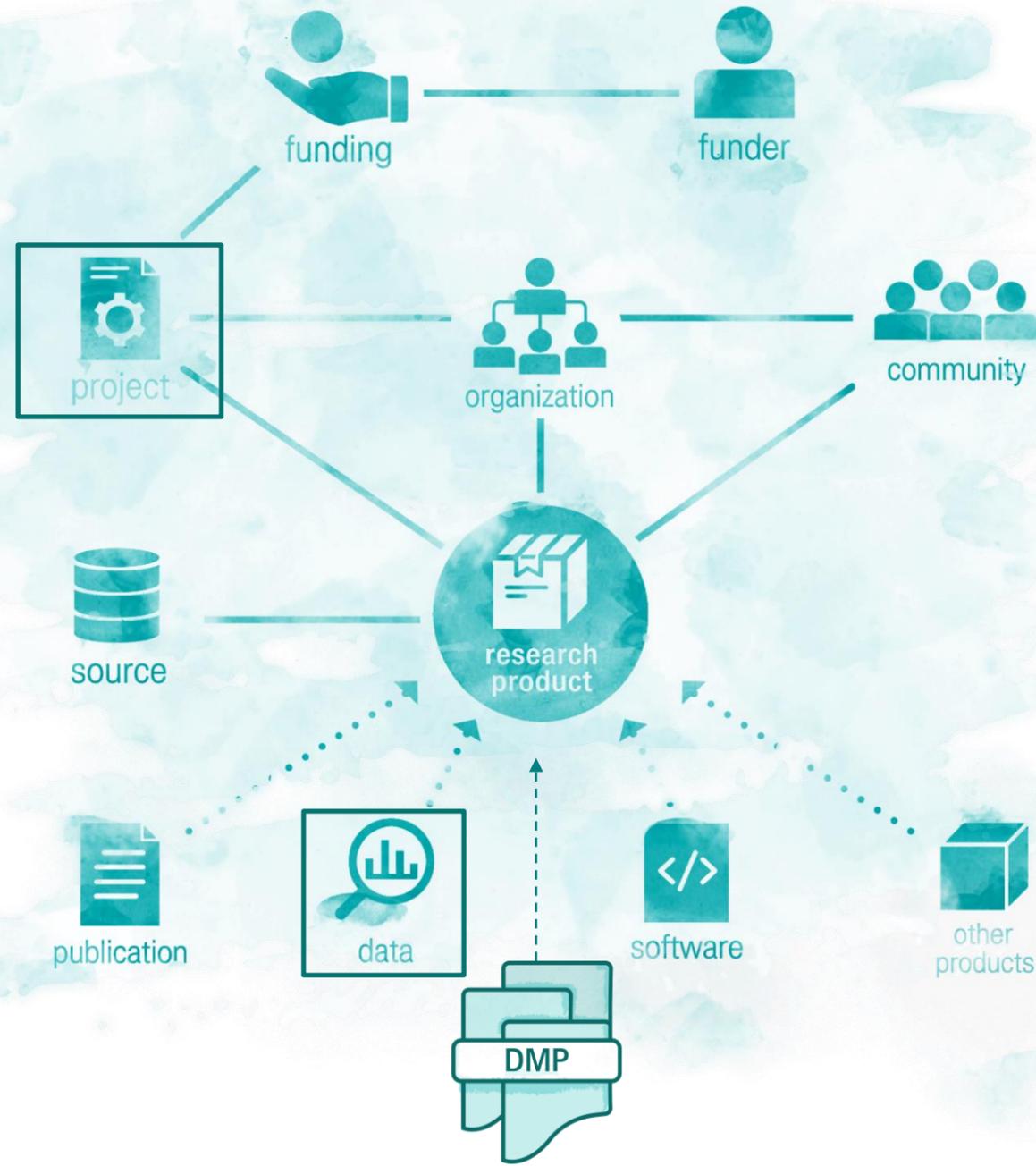


argos in OpenAIRE - why

# Enhancements



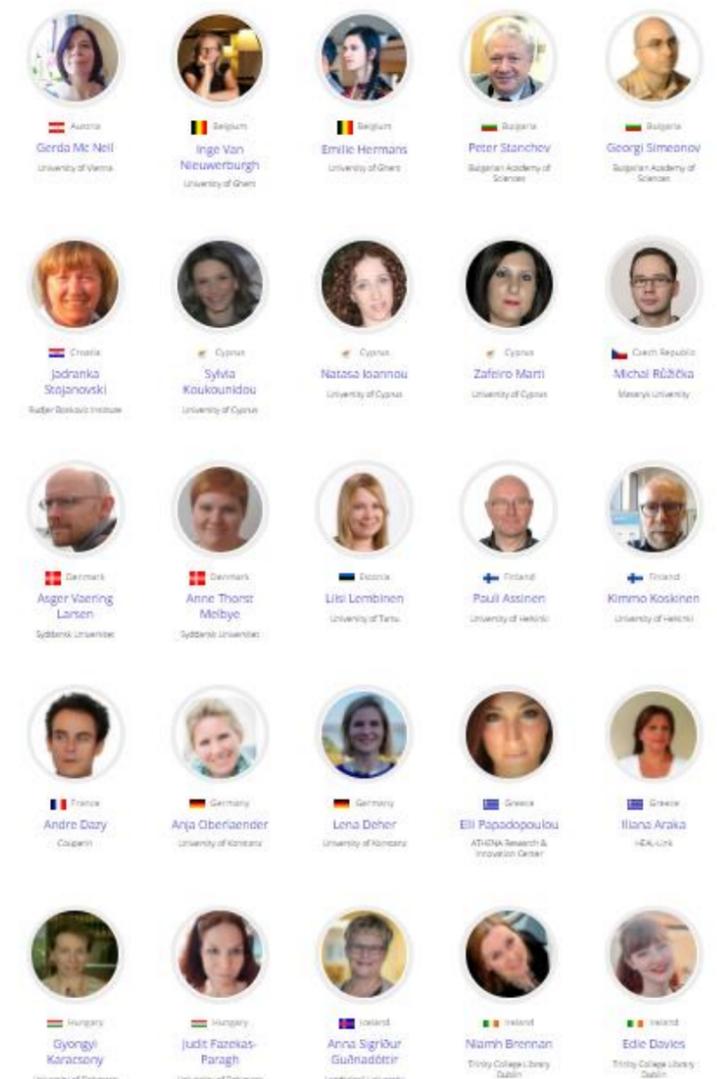
EXPLORE | MONITOR | DEVELOP



Open Science Primers: getting you started on good practices

- Open Access Basics**  
 An Open Access primer to get you started
- An RDM Handbook**  
 A primer on managing your research data

ALL | A | B | C | D | E | F | G | H | I | L | M | N | P | R | S | T | U



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argos for funders

# 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 prompts the user to 'Select a template to describe your datasets.' A dropdown menu is open, showing several options: 'Academy Of Finland', 'ARIADNEPlus Horizon2020', 'CHIST-ERA' (highlighted), 'Clarín-D', 'Dataset Name - Aristotelis temp', 'Dataset Name - Aristotelis temp - dacr', and 'External Sources Test'. A modal window titled 'Template - CHIST-ERA' is overlaid on the right. It contains three sections: '2.1.2 Indicate which metadata standards will be used' with a text input field and a 'Couldn't find it? Insert it manually' dropdown; '2.1.3 Indicate how the data will be organised during the project' with a text input field and a link to file naming best practices; and '2.1.4 Consider what other documentation is needed to enable re-use' with a text input field. A 'Select' button is at the bottom right of the modal.

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

argos for  
research communities

# 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
- **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**

argos for researchers

# 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

# Research & Academia

Editing Dataset  
Dataset a-4oct



Start new DMP

FAQ

EN

Home

My DMPs

My Datasets

Public DMPs

Public Dataset Desc.

DMP Templates

Dataset Templates

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.

Add Dataset



Personal Usage

50  
DMPs

38  
Datasets

35  
Grants

0  
Related Organisations

Latest Activity

All (5)

Drafts (5)

DMPs (5)

Datasets (5)

27 of 29

93%

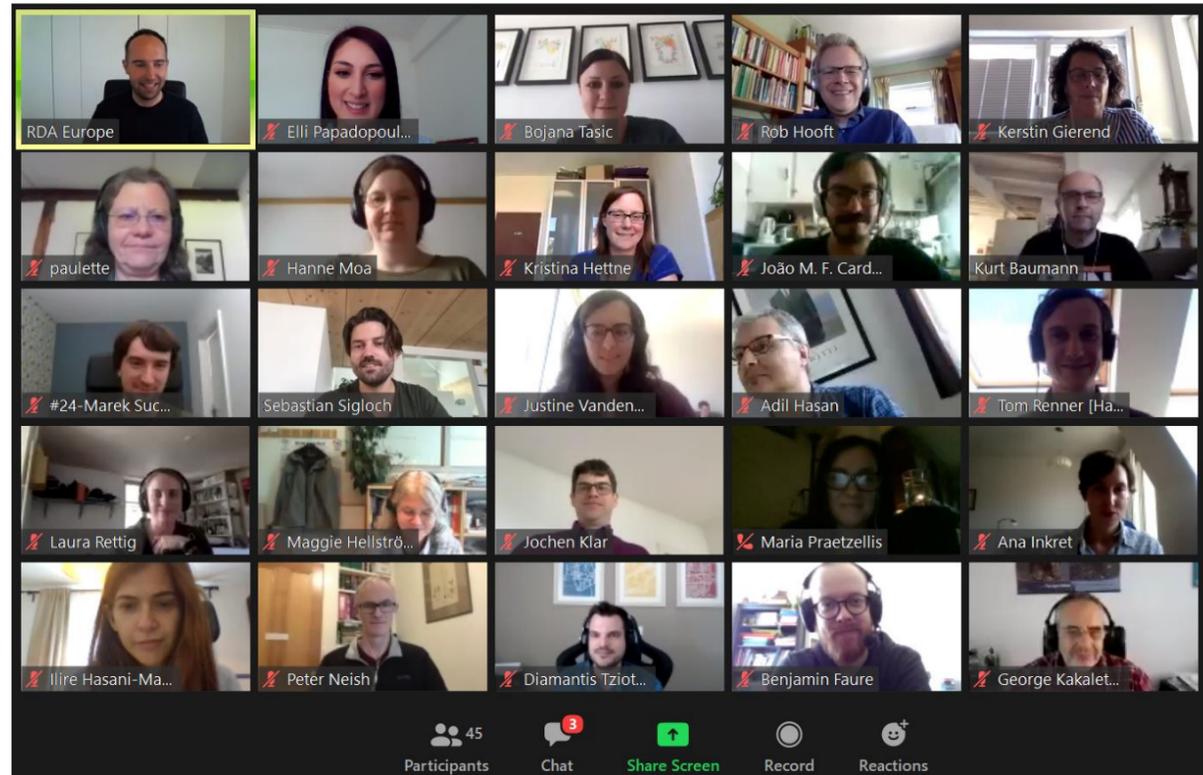
1.3 What formats of data will the project generate/collect?



Next steps

# Latest achievements

## RDA Hackathon

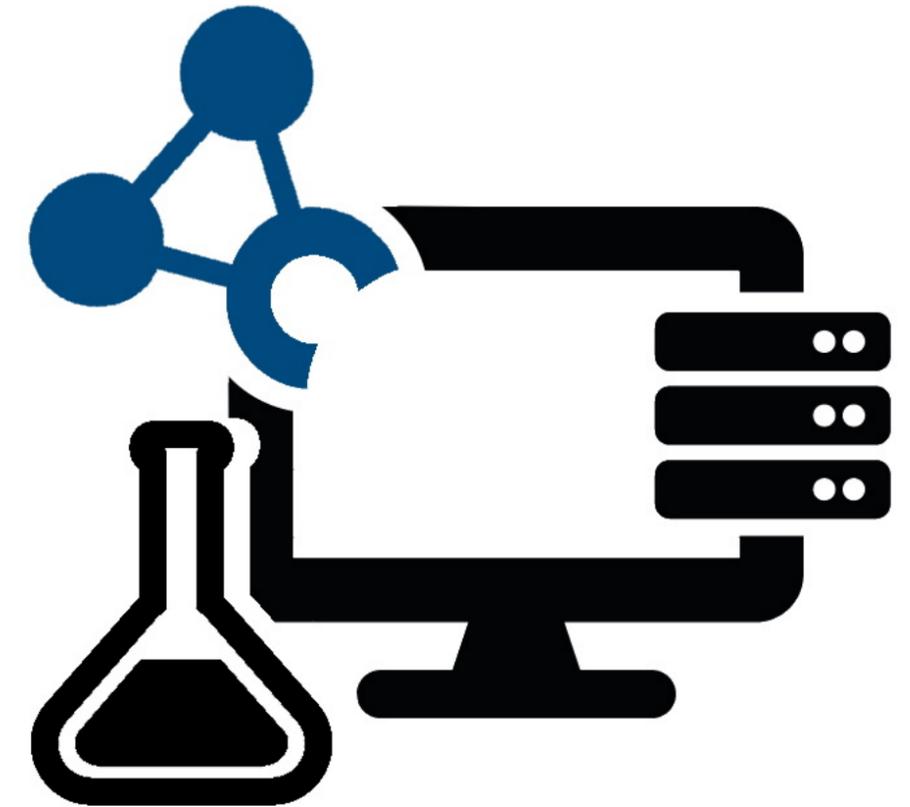


## ISWC - DaMaLOS



First virtual workshop on Research data\* management for Linked Open Science - DaMaLOS 2020

\* and associated research objects (e.g., software, workflows, knowledge graphs)



# 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

Description for that page lorem Ipsum lorem Ipsum lorem Ipsum lorem Ipsum lorem Ipsum

+ 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



# Useful Resources

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

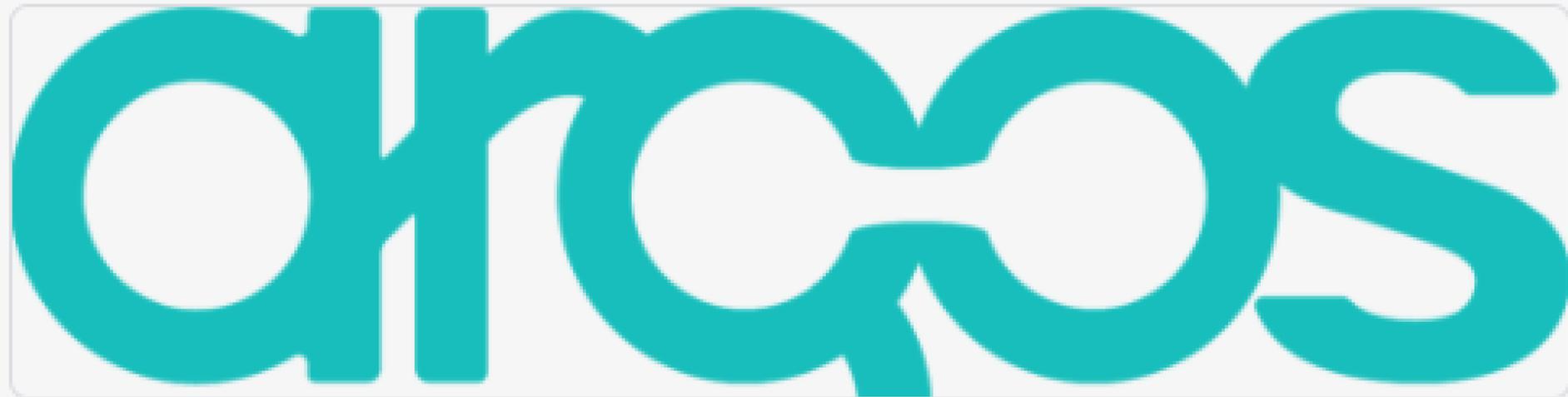
User Guide: <https://argos.openaire.eu/user-guide>

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)

# Your opinion matters



## Argos usability questionnaire

Hello,

We have just launched a newer version of Argos (<https://argos.openaire.eu/>) and we are looking to gather some feedback from you!

Argos provides a dynamic environment for collaborative writing of Data Management Plans (DMPs) that:

<https://docs.google.com/forms/d/12RSCrUjdSDp2LZLpjDKOi44cN1fLDD2q1-F66SqZlis/edit>

Help us become better;  
Send us your feedback!

# Thank you!

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