

Science. Set free.

DMPs: Key features and trends in ARGOS

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ALWAYS REMEMBER TO PLAN AHEAD

DMPs and RDM

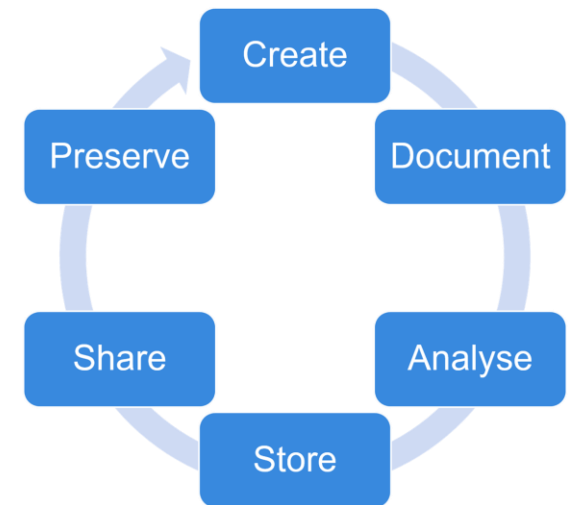
RDM (Research Data Management) is the process of *organising, storing, preserving, and sharing* data in a research project. Data might be collected, generated or re-used (secondary) throughout research.

DMPs in RDM - First stage of RDM

DMPs are drafted at the beginning of the project and implemented throughout its lifetime.

DMPs for RDM - Describe RDM activities

DMPs outline and contain information about all RDM activities to be followed in the project.



<https://www.openaire.eu/rdm-in-horizon-europe-proposals>

DMPs content

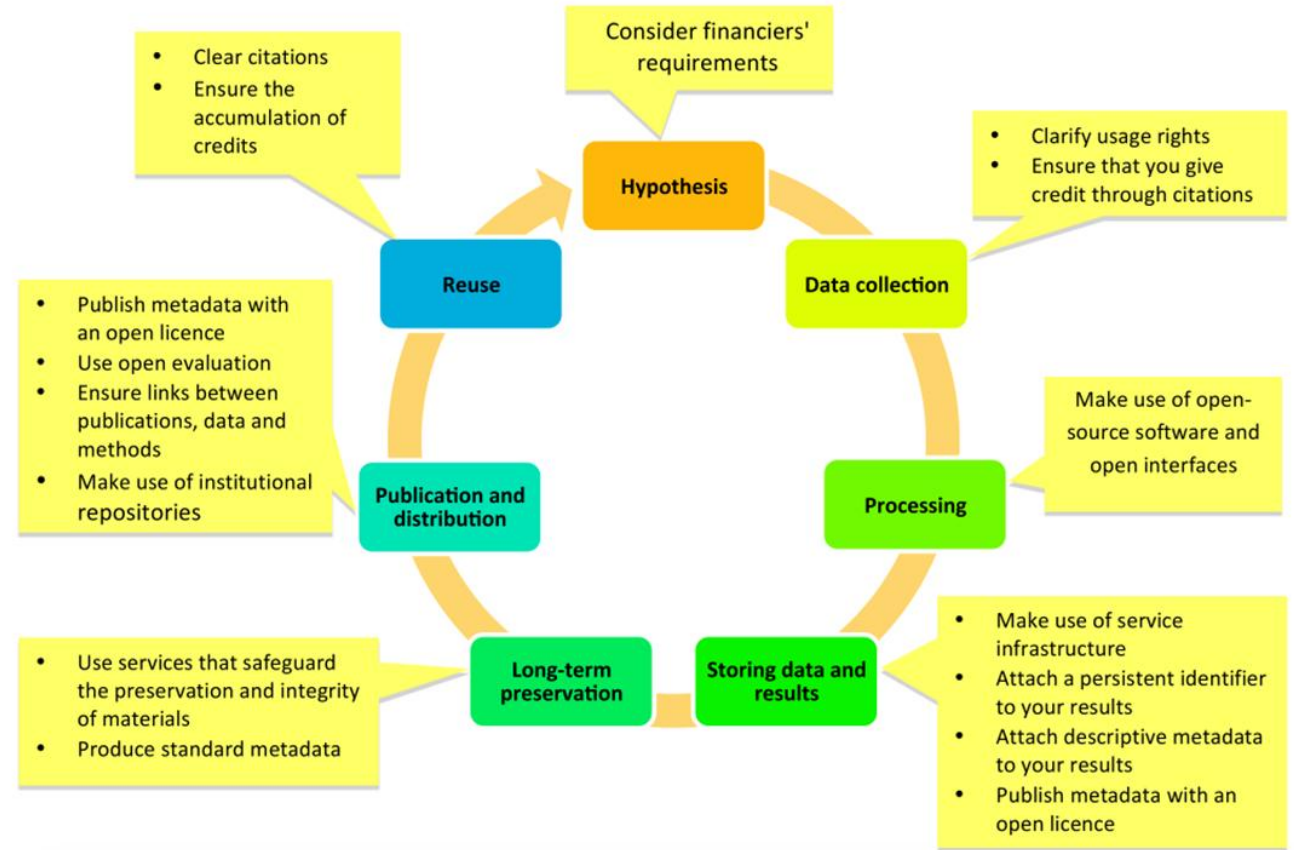
USE – MAKE – SHARE Framework

[Use] What tools and resources will I use?

[Make] What outputs will I produce?

[Share] How am I going to share them?

[Ref: NASA TOPS Open Science Curriculum, 2023]

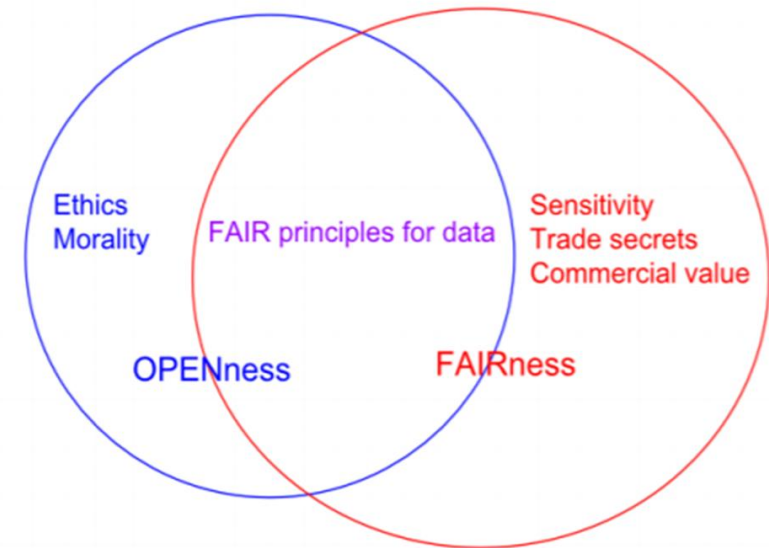


[Ref: Open Science and Research Initiative, 2014]

FAIR Principles vs Open Access



[Ref: Wilkinson, M. et.al., 2016]



[Ref: <https://eoscpilot.eu/content/d32-eosc-open-science-monitor-specifications>]

Getting started with a DMP Template

A DMP Template is a prototype file with questions and guidance to support researchers with filling in the DMP with content.

-> Templates offer researchers a more structured way to provide input in their DMPs.

DMP Templates may be provided by funders and institutions that have RDM policies in place; Librarians, data stewards and support staff might also create DMP Templates to help researchers.

What are the key topics and questions?

1. Data description and collection or re-use of existing

- a. How will new data be collected or produced and/or will existing data be re-used?
- b. What data (for example the kinds, formats, and volume) will be collected or produced?

2. Documentation and data quality

- a. What metadata and documentation (for example methodology of data collection and way of organizing data) will accompany data?
- b. What data quality control measures will be used?

3. Storage and backup during the research process

- a. How will data and metadata be stored and backed up during the research process?
- b. How will data security and protection of sensitive data be taken care of during the research?

4. Legal and ethical requirements, codes of conduct

- a. If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?
- b. How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?
- c. How will possible ethical issues be taken into account? What codes of conduct followed?

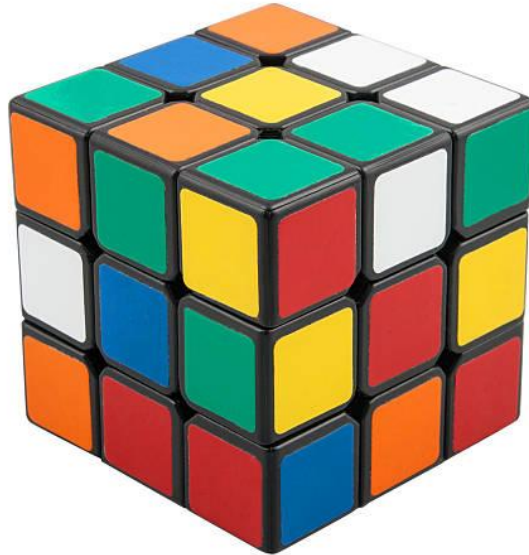
5. Data sharing and long-term preservation

- a. How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?
- b. How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?
- c. What methods or software tools will be needed to access and use the data?
- d. How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

6. Data management responsibilities and resources

- a. Who (for example role, position, and institution) will be responsible for data management (i.e. the data steward)?
- b. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

What is a good DMP?



DMP PLATFORMS - TODAY

TOPIC	DMPonline
Brief Description	DMPonline helps users to create, review,
Coverage	UK; Europe
Domain	Generic
Login options	Sign in required to use the service. Login
Machine-	Limited
Persistent, Unique	No
Licensing Options	No
Version support	N/A (edits can be made, but no visible
Formats Supported	Human readable; Machine readable (csv,
Publishing options	Internal publication of DMPs, on the
Linking of derived	No
Co-editing of DMPs	Yes
Costs to the	Free
Networking	Monthly Drop-In Sessions with the

TOPIC	ARGOS
Brief Description	ARGOS is an open extensible service that simplifies the
Coverage	Europe; Worldwide
Domain	Generic
Login options	No sign up, but login required to use the service. Login via
Machine-	Yes
Persistent, Unique	DOIs are assigned when publishing DMPs to Zenodo,
Licensing Options	Yes, licenses are assigned to all DMPs
Version support	Yes. Two types of versioning are supported, both for non
Formats Supported	Human readable (docx, pdf); Machine readable (.xml);
Publishing options	Two publishing options: a. internal, under the Public DMP
Linking of derived	Yes via the OpenAIRE Graph
Co-editing of DMPs	Yes
Costs to the	Free
Networking	Community Calls run every last Wednesday of the month

Simple forms ->

DMP repositories ->

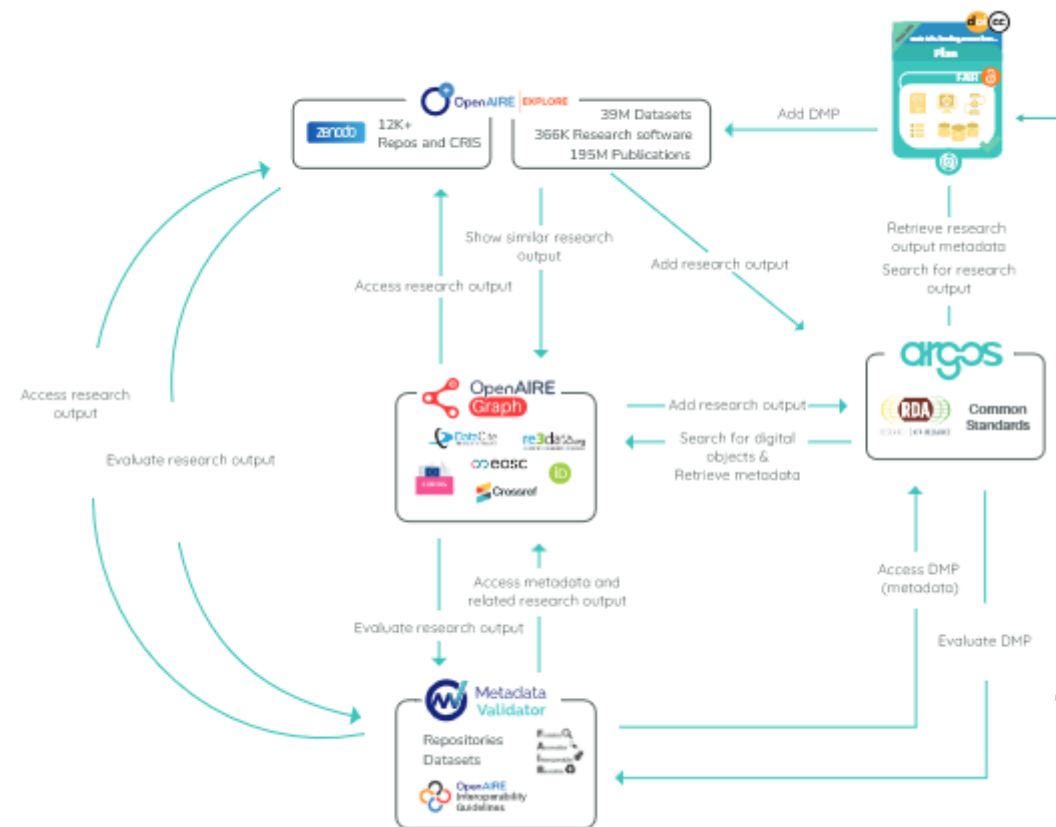
Integrated systems

Creating your DMP in ARGOS

An OpenAIRE service

Free and open source

- ARGOS is an **open source, configurable and extensible tool** for **Research Management** activities connected to outputs (data, software, etc) and administrative workflows.



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

+ Key concepts to know

- A **Template** is effectively a guide that contains specific questions about different entities or activities within a Research Management Plan, e.g. for data, software, policies, or evaluation results. It also provides instructions on who should answer these questions and how to respond. The questions and rules in a template are shaped by its purpose. For example, some templates are designed to help meet FAIR data principles or to ensure compliance with the rules set by a supervising or funding organization.
- A **Blueprint** outlines the structure of a **(Research Management) Plan**. It organizes the plan into sections and specifies which **Templates** should be used to describe different areas. For example, a software section would use a software-oriented template, and the evaluation section would use an evaluation template. Each Plan is always linked to one specific **Blueprint**.
- A **Plan** is created following a **Blueprint**, which organizes the Plan into sections. Each section is described using **Templates**, and every **description** in the Plan is based on one specific Template. The Blueprint decides which Templates are used for different parts of the Plan.

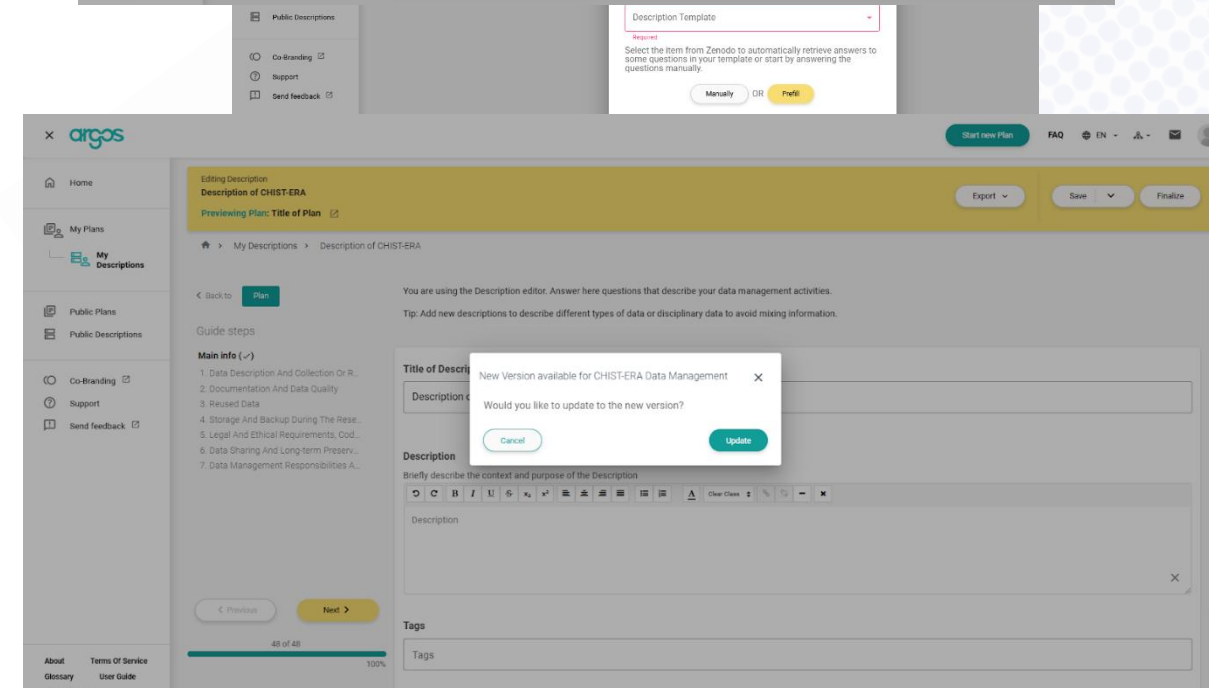
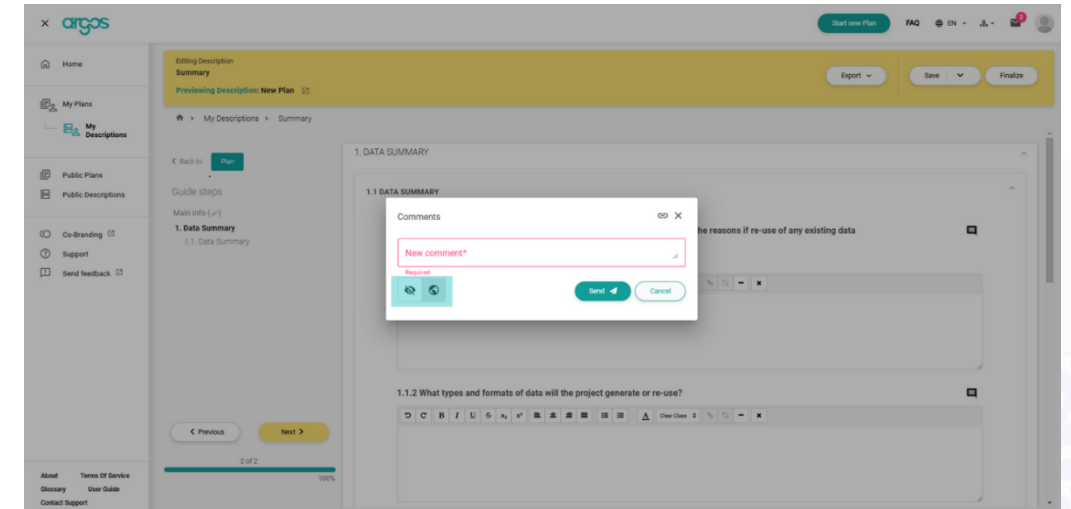
Key features 1/3

- Dashboard & Profile Management
 - View all created DMPs in one place.
 - Customise profile according to needs.
- Blueprint & Template Selection
 - Choose from available blueprints (Horizon Europe, institutional, funder-specific).
 - Customize sections if needed with more templates.
- Form-Based DMP Editing
 - Fill in structured sections with guided questions.
 - Auto-suggestions for metadata and best practices.

The screenshot displays the Argos web application interface. At the top, there's a navigation bar with the Argos logo, a 'Start new Plan' button, and links for FAQ, EN, and a user profile icon. A sidebar on the left contains navigation links: Home, My Plans, My Descriptions, Public Plans, Public Descriptions, Co-branding, Support, and Send feedback. The main content area is divided into two sections. The top section, titled 'Accounts', shows a list of email accounts: '@gmail.com' and '@athenarc.gr', each with a corresponding logo (Google and OpenAIRE). Below this list is a '+ Link new' button. The bottom section, titled 'Description templates *', prompts the user to 'Select a template to describe your descriptions'. A dropdown menu shows 'Author, Contribution and Reviewer Lists' as the selected template. Below the dropdown is a search bar. The bottom part of the screenshot shows a form for creating a new plan, with a sidebar on the left listing sections: 1. Main Info, 2. Data Summary, 3. FAIR Data, 4. Allocation of resources, 5. Data Security, 6. Ethics, 7. Dataset Descriptions, 8. Other FAIR Research Outputs, 9. Software Descriptions, and 10. Other Issues. The main form area displays the '1. Main Info' section, which includes fields for 'Title of Plan', 'Description', 'Funding Organisations', 'Grants', and 'Researchers'. The 'Title of Plan' field is currently empty. The 'Description' field has a text area with a rich text editor toolbar. The 'Funding Organisations' field has a dropdown menu with 'Funder: OpenAIRE' selected. The 'Grants' field has a red border and a placeholder text 'Please fill out this field.'. The 'Researchers' field has a text area with a placeholder text 'Add here the names of people that have produced, processed, analysed the data described in the DMP'.

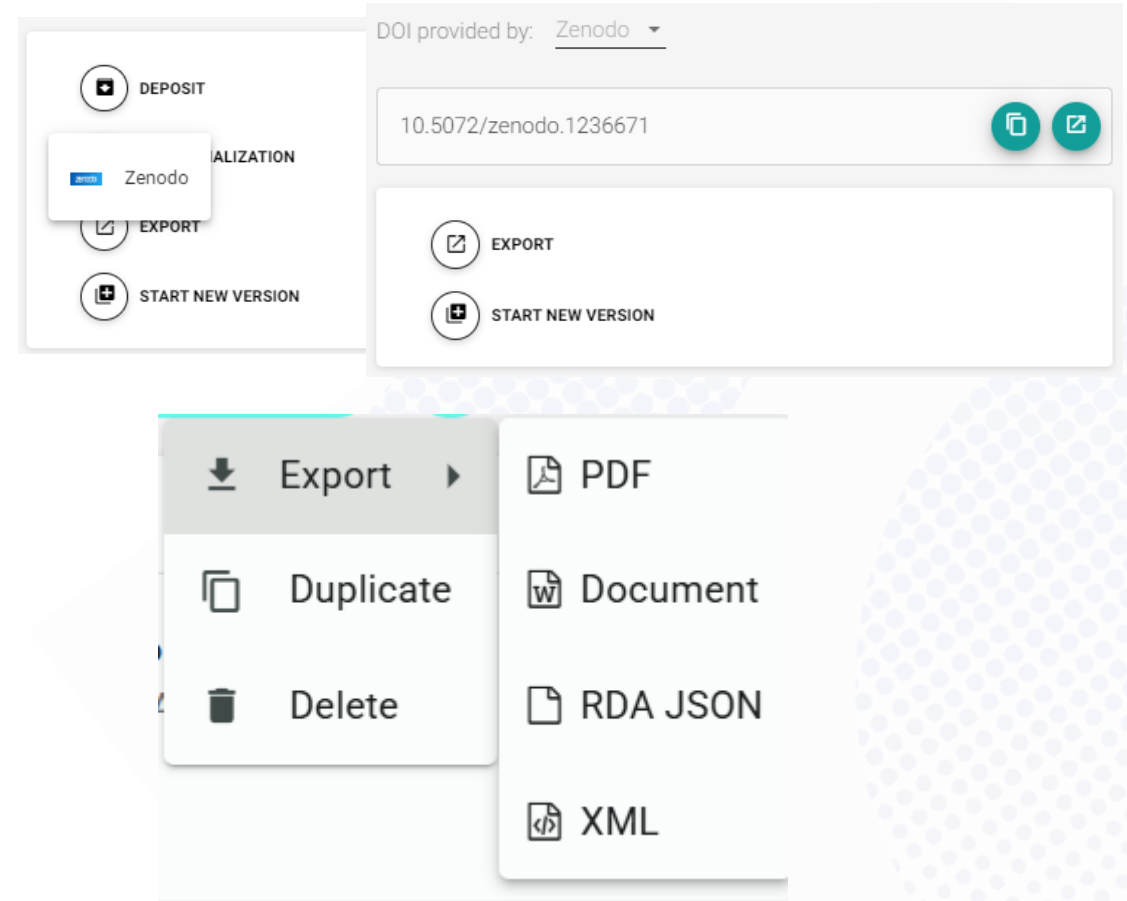
Key features 2/3

- Collaboration Tools
 - Add team members as co-authors or reviewers.
 - Set different permission levels (edit, view, comment).
- Automated Metadata & Linking
 - Auto-generates metadata for datasets, software, and repositories.
 - Links research outputs with DOIs, ORCID, and institutional repositories.
- Version Control & Tracking
 - Save multiple versions of a DMP.
 - Track changes over time.



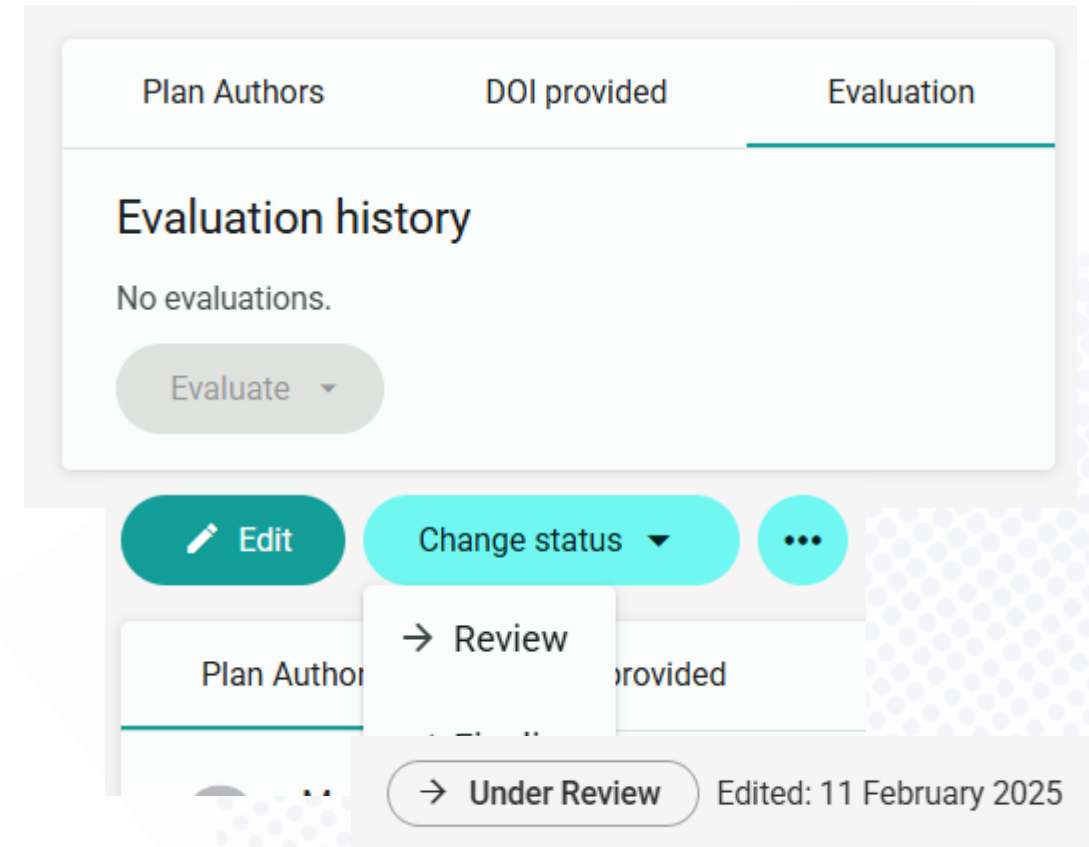
Key features 3/3

- Sharing & Publishing
 - Set visibility options (private, shared, public).
 - Generate a DOI for published DMPs.
- Exporting
 - Download DMPs in PDF, JSON, or other formats.



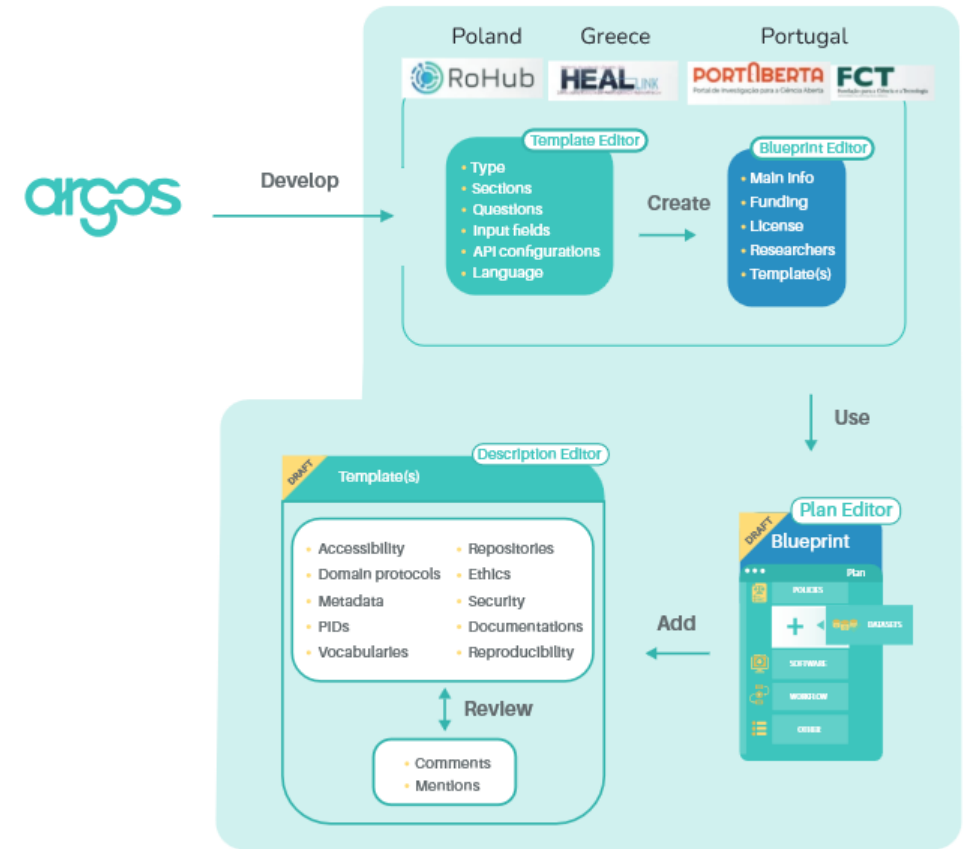
Coming soon!

- Evaluation mechanism
 - FAIR compliance
 - DMP requirements met
 - ...and more!
- Status changes
 - Change status according to needs eg under review, sent to funder etc



In Summary

- **Describe** your dataset(s), software, workflows
- **Use** automated templates to start your DMP
- **Collaborate** with colleagues to write the DMP
- **Get guided** to Research Data Management
- **Follow** FAIR principles for data and software (depending on the template)
- **Assign** license and DOI (Digital Object Identifier) to your DMP
- **Publish** your DMP



Get involved!

Argos

Community Calls

Are you a researcher or administrator of Argos? Got questions on how to write your Data Management Plan (DMP) or how to create your Template and connect DMPs with other data services and outputs? Join us and learn more!



OpenAIRE is running a series of **community calls for Argos** to support all researchers in meeting their **Horizon Europe requirements** by creating **FAIR (Findable, Accessible, Interoperable, Reusable) DMPs**. Similarly, it supports **all research performing and funding organisations** to orchestrate their data services around Argos and **connect data workflows** contributing to **interconnected Research Data Management ecosystems**.

These calls offer the opportunity to discover Argos novelties and learn how to benefit from them in your practice, share feedback and discuss the future of DMPs as FAIR and machine actionable outputs, i.e. as complete outputs that bring validated information, qualified references and automations to the table to assist the processes of collecting, documenting and publishing your data.

The **Argos Community Calls** will run **every last Wednesday of the month at 14.00 CEST**, starting from June 29th!

<https://www.openaire.eu/argos-community-calls>

WHAT THE FUTURE HOLDS

- Aims to advance processes and instruments for **Planning, Tracking, and Assessing scientific knowledge production** beyond state-of-the-art, working with various national and thematic contexts and stakeholders, improving existing infrastructure, and connecting key components to enable an operational, open and FAIR EOSC ecosystem.

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THANKS



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