

## 1960 - The rise of DMPs

- Computer Technology
- Rise of sectors producing and storing data: Biology, Chemistry, Physics
  - NASA and CERN
  - Clinical data
- Early emergence vs late adoption









# 1970 - Enhancing DMPs with Software

- Mostly required formally in pharmaceuticals and finance.
- Quality Assurance
- Standardisation
- Links to data (input and output)
- Separate plans or combined?









# 2018 - Artificial Intelligence

- Datasheets for Datasets (Microsoft)
- Necessary to secure non-discriminatory outcomes
- Industry oriented











# 2023 - Towards Reproducibility Management Plans (RMPs)

"a document that outlines how reproducibility activities are embedded and followed in the different steps of a research output management lifecycle."

Addressing the growing need for reproducibility

- Pre-registration
- False results sharing
- Improving Efficiency
- Building Trust and Integrity
- Pilot with ARGOS for TIER2 project









# DATA MANAGEMENT PLANS - TODAY

### **Policy**

- Public DMPs
- Rich content
- Support
  - Not Open Access
- Granularity of content
- Unclear about the process, e.g. where to start, how to get input

#### **Technical**

- Search & retrieve
- Interoperability
- Semantics

### Adoption

- FAIR practices
- Disciplines / Communities
- Data sharing

- Resource\_type
- Reused datasets
- Qualified references

- Reproducibility
- Domain Data Protocols
  - Input & Output Data









# **DMP PLATFORMS - TODAY**

TOPIC	<u>ARGOS</u>	<u>Data Stewardship Wizard</u>	<u>DMP tool</u>	<u>DMPonline</u>
Brief Description	ARGOS is an open extensible service that simplifies the	Data Stewardship Wizard brings together	DMP tool is used in the US region	DMPonline helps users to create, review,
Coverage	Europe; Worldwide	Europe; Worldwide	US	UK; Europe
Domain	Generic	Started as discipline-specific for the Life	Generic	Generic
Login options	No sign up, but login required to use the service. Login via	Sign in required to use the service. Login with	Sign in required to use the service.	Sign in required to use the service. Login
Machine-	Yes	Yes	Limited	Limited
Persistent, Unique	DOIs are assigned when publishing DMPs to Zenodo,	No	DOIs are assigned from the DMP	No
Licensing Options	Yes, licenses are assigned to all DMPs	No	No	No
Version support	Yes. Two types of versioning are supported, both for non	Yes	N/A (edits can be made, but no	N/A (edits can be made, but no visible
Formats Supported	Human readable (docx, pdf); Machine readable (.xml);	Human readable; Machine readable;	Human readable; Machine readable	Human readable; Machine readable (csv,
<b>Publishing options</b>	Two publishing options: a. internal, under the Public DMP	Internal publication of DMPs, on the website,	Internal publication of DMPs, on the	Internal publication of DMPs, on the
Linking of derived	Yes via the OpenAIRE Graph	No	No	No
Co-editing of DMPs	Yes	Yes	Yes	Yes
Costs to the	Free	Free	Free	Free
Networking	Community Calls run every last Wednesday of the month	On occassion	On occassion	Monthly Drop-In Sessions with the

#### Simple forms ->

#### **DMP repositories ->**

#### **Integrated systems**









# 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.











# References

- Papadopoulou, E., Bardi, A., Kakaletris, G. et al. Data management plans as linked open data: exploiting ARGOS FAIR and machine actionable outputs in the OpenAIRE research graph. J Biomed Semant 14, 17 (2023).
  https://doi.org/10.1186/s13326-023-00297-5
- DMP Common Standard: https://github.com/RDA-DMP-Common/RDA-DMP-Common-Standard
- Data Management Plans in Horizon 2020: what beneficiaries think and what we can learn from their experience: https://open-research-europe.ec.europa.eu/articles/1-42
- Monitoring the open access policy of Horizon 2020: <a href="https://op.europa.eu/en/publication-detail/-/publication/56cc104f-0ebb-11ec-b771-01aa75ed71a1/language-en">https://op.europa.eu/en/publication-detail/-/publication/56cc104f-0ebb-11ec-b771-01aa75ed71a1/language-en</a>
- Presenting a Framework for Discipline-specific Research Data Management:
  - https://www.scienceeurope.org/media/nsxdyvqn/se\_guidance\_document\_rdmps.pdf









#### **Email**

elli.p@athenarc.gr

#### **Twitter**

@elli\_lib

#### **ORCID**

0000-0002-0893-8509

