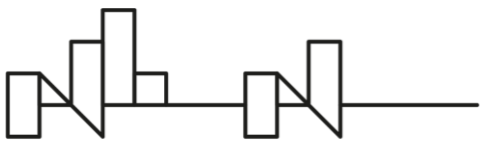


Iceland



Liechtenstein

Norway

Norway grants

grants

T A
C R

Data Management Planning

KAPPA Programme Workshop

Financed by the EEA and Norway Grants
2014–2021

ISL

NOR

CZE
LIE

Michal Růžička
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Agenda Items

talk outline

Intro into DMP & DMP Tools



Discussion





“Intro into Data Management Planning and DMP Tools”

DMPlanning vs. DMPlan

1. Data Management Planing

*“The process of **planning, describing, and communicating** the **life cycle of data** and the **activities** associated with its **management** during research.”*

2. Data Management Plan

“A document that describes these activities (documents are often required by grant or grant providers).”



Research Data Life-Cycle



Sample DMPs



- University of Vienna's Phaidra repository – several hundreds of publicly available Horizon 2020 DMPs:
<https://phaidra.univie.ac.at/detail/o:1140797>
- DMPonline: https://dmponline.dcc.ac.uk/public_plans
- Argos:
 - DMPs: <https://argos.openaire.eu/explore-plans>
 - Datasets: <https://argos.openaire.eu/explore>

Plan to make data work for you

Data Management Plans that meet institutional funder requirements.



DMPonline helps you to create, review, and share data management plans that meet institutional and funder requirements. It is provided by the Digital Curation Centre (DCC).

Sign in Create account

* Email

* Password

[Forgot password?](#)

Remember email

Sign in

- or -

Sign in with your institutional credentials

59,972 Users 314 Organisations 65,212 Plans 89 Countries



DMPonline – Public DMPs



Public DMPs

Public DMPs are plans created using the DMPonline service and shared publicly by their owners. They are not vetted for quality, completeness, or adherence to funder guidelines.

 Search

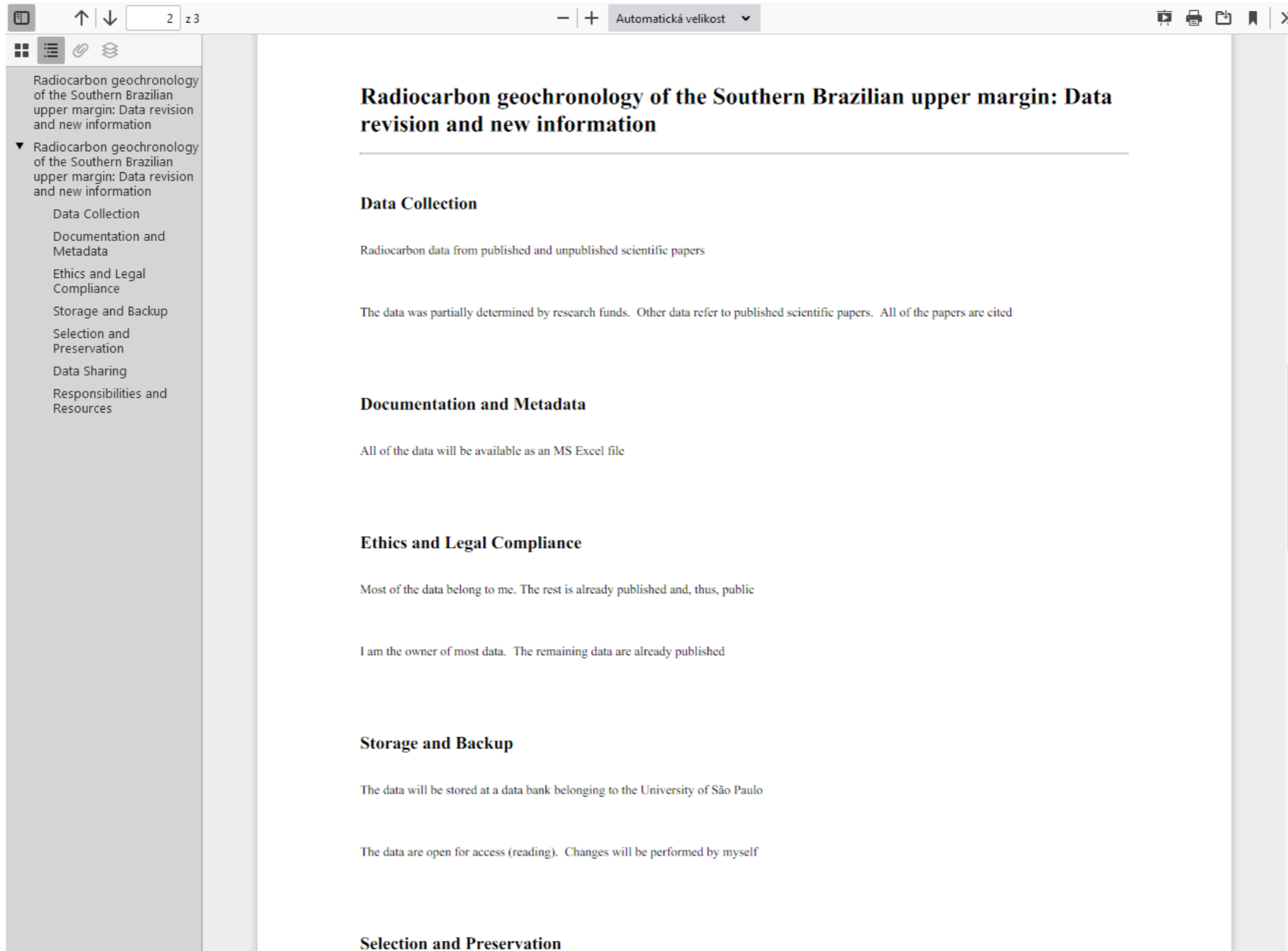
Project Title	Template	Organisation	Owner	Download
EXPECTPERCEPT - How our expectations can make us hallucinate: the neural mechanisms underlying perception	ERC DMP	University College London	Peter Kok	
TEST - Studie on metamorphose - TEST	Uppsala University - data management plan	Uppsala University	Jacob Hakansson	
Wellbeing Project During COVID-19	EUR Data Management Plan	Erasmus University Rotterdam	Sophie Sweijen	
Fieldlab Besmettingsrisicoanalyse	TU Delft Data Management Questions	Delft University of Technology	Daniel Brus	
Validation Studies of a Questionnaire for Evaluating Human Interaction with An Artificial Social Agent	TU Delft Data Management Questions	Delft University of Technology	Siska Fitrianie	
DEVELOPMENT OF A PROJECT RISK MANAGEMENT FRAMEWORK A STUDY OF AFRICAN MAJOR ECONOMIES	University of Manchester Generic Template	University of Manchester	BABATUNDE DOSUMU	
Quantum-accelerated algorithmic feature learning	TU Delft Data Management Questions	Delft University of Technology	Aritra Sarkar	
Radiocarbon geochronology of the Southern Brazilian upper margin: Data revision and new information	DCC Template	Other	Michel Michaelovitch de Mahiques	
Long Distance Accessibility By Air Transportation Focus Group Meeting	TU Delft Data Management Questions	Delft University of Technology	Sihyun Yoo	
Uncertainty, Ambivalence and Doubt: 'Indo-Guyanese' futures in the context of oil, flooding, and COVID-19	ESRC Template	London School of Economics and Political Science	Rhys Madden	

[View all](#)

1 2 3 4 5 ... Next Last



DMPonline – Public DMPs: Example



The screenshot shows a web browser window displaying a data management plan (DMP) for "Radiocarbon geochronology of the Southern Brazilian upper margin: Data revision and new information". The browser's address bar shows "2 z3" and "Automatická velikost". The left sidebar contains a navigation menu with the following items: "Radiocarbon geochronology of the Southern Brazilian upper margin: Data revision and new information", "Data Collection", "Documentation and Metadata", "Ethics and Legal Compliance", "Storage and Backup", "Selection and Preservation", "Data Sharing", and "Responsibilities and Resources". The main content area is divided into sections: "Data Collection" (Radiocarbon data from published and unpublished scientific papers), "Documentation and Metadata" (All of the data will be available as an MS Excel file), "Ethics and Legal Compliance" (Most of the data belong to me. The rest is already published and, thus, public. I am the owner of most data. The remaining data are already published), "Storage and Backup" (The data will be stored at a data bank belonging to the University of São Paulo. The data are open for access (reading). Changes will be performed by myself), and "Selection and Preservation". A large red 'X' is overlaid on the bottom right of the screenshot.

DMPonline – Funder Requirements



Funder requirements

Templates for data management plans are based on the specific requirements listed in funder policy documents. The DCC maintains these templates, however, researchers should always consult the funder guidelines directly for authoritative information.

 Search

Template Name	Download	Organisation Name	Last Updated	Funder Links	Create a new plan	Sample Plans (if available)
AHRC Data Management Plan		Arts and Humanities Research Council (AHRC)	28-05-2020	Data Management Plan guidance Data Management Points		Religious studies DMP from Bristol Language studies DMP from Glasgow UK and German International Criminal Co-operation example from Robert Gordon University
BBSRC Template		Biotechnology and Biological Sciences Research Council (BBSRC)	16-05-2019	BBSRC policy on DMPs		TRDF Grant DMP from Cambridge Drosophila Genetics DMP from Glasgow
Data Management Plan NWO (September 2020)		Netherlands Organisation for Scientific Research (NWO)	26-10-2020	NWO Data management protocol NWO		
Datamanagement ZonMw-template 2016-2018		ZonMw (Nederlands)	16-06-2020	ZonMw FAIR data management (2016-2018)		ischemic heart disease example
Data management ZonMw-template 2019		ZonMw (Nederlands)	15-06-2020	ZonMw FAIR data management (2019)		
DCC Template		Digital Curation Centre	15-06-2020			
EPSRC Data Management Plan		Engineering and Physical Sciences Research Council (EPSRC)	16-05-2019	Policy framework on research data		Synthetic chemistry example from Glasgow
ERC DMP		European Research Council (ERC)	18-10-2018			



Argos

Plan and follow your data. Create, Configure, Link, Share DMPs.

Argos (argos.openaire.eu) is the online machine-actionable tool developed by OpenAIRE to facilitate Research Data Management (RDM) activities concerning the implementation of Data Management Plans (DMPs). It is an open, extensible and collaborative tool which follows global standards as endorsed by the Research Data Alliance (RDA). Argos uses OpenAIRE guides created by its RDM Task Force to familiarize users with basic RDM concepts and guide them throughout the process of describing their data. It also utilises the OpenAIRE pool of services and inferred sources to make DMPs more dynamic in use and easier to be completed and published. Argos is based on the OpenDMP open source software, developed in collaboration with EUDAT CDI.

DMP Data Management Planning tool Data Management Plan DMP tool machine-actionable maDMPs

Homepage Service

Usage

TECHNOLOGY READINESS LEVEL
9 - actual system proven in operational environment

LIFECYCLE STATUS Production

TARGET USERS

2020-11-16

researchers; research communities; research administrators; research institutions; academic libraries; research libraries; funders

Service coverage

Countries serviced by Argos



Argos – Features



Produce DMP outputs

Close the data management planning lifecycle by publishing your DMPs in a FAIR manner. Assign licenses, PIDs and publish DMPs in a repository of your choice.



Re-use datasets & templates

Identify datasets to be re-used in your DMP. Copy or clone dataset descriptions to other DMPs.



Customise dataset descriptions

Differentiate DMPs from dataset descriptions. Describe your datasets with more than one template and tailor its content to your specific needs.



Update DMPs

Treat DMPs as living documents. Secure their provenance and continue work in new versions (new DOIs assigned).



Import and Export DMPs

Import a json file of your DMP and continue work in ARGOS. Export DMPs in machine readable (xml) and machine-actionable (json) formats.



Connect with OpenAIRE & EOSC

Use OpenAIRE and EOSC underlying services, sources and semantics to ease completion of DMPs and trace the quality of your research.

Start your ARGOS experience

- 1 Select Templates
- 2 Fill the information
- 3 Share DMP



Argos – Public DMPs



Start new DMP

FAQ

EN

LOG IN

Home

Public DMPs

Public Dataset Desc.

Published DMPs

Sort by: **Published**

Search DMPs

DMP

Published: August 21, 2020

DMP For Grant : Demonstration and implementation of an integrated process for the Plasma-Enhanced Chemical Solution Deposition of PMMA-multicomponent coatings on wood and wood-based substrates

Published . Version 0 . Grant: Demonstration and implementation of an integrated process for the Plasma-Enhanced Chemical Solution Deposition of PMMA-multicomponent coatings on wood and wood-based substrates

Contained Datasets: (1)

Horizon 2020 Dataset Description

Export ...

DMP

Published: August 5, 2020

ENHANCEMENT OF UV STABILITY OF THERMALLY MODIFIED WOOD THROUGH ENVELOPE IMPREGNATION WITH NANO BASED STABILISERS

Published . Version 0 . Grant: H2020-MSCA-IF-WF-2018

Contained Datasets: (1)

NewSiest_DMP

Export ...



Co-Branding

Support

Send feedback

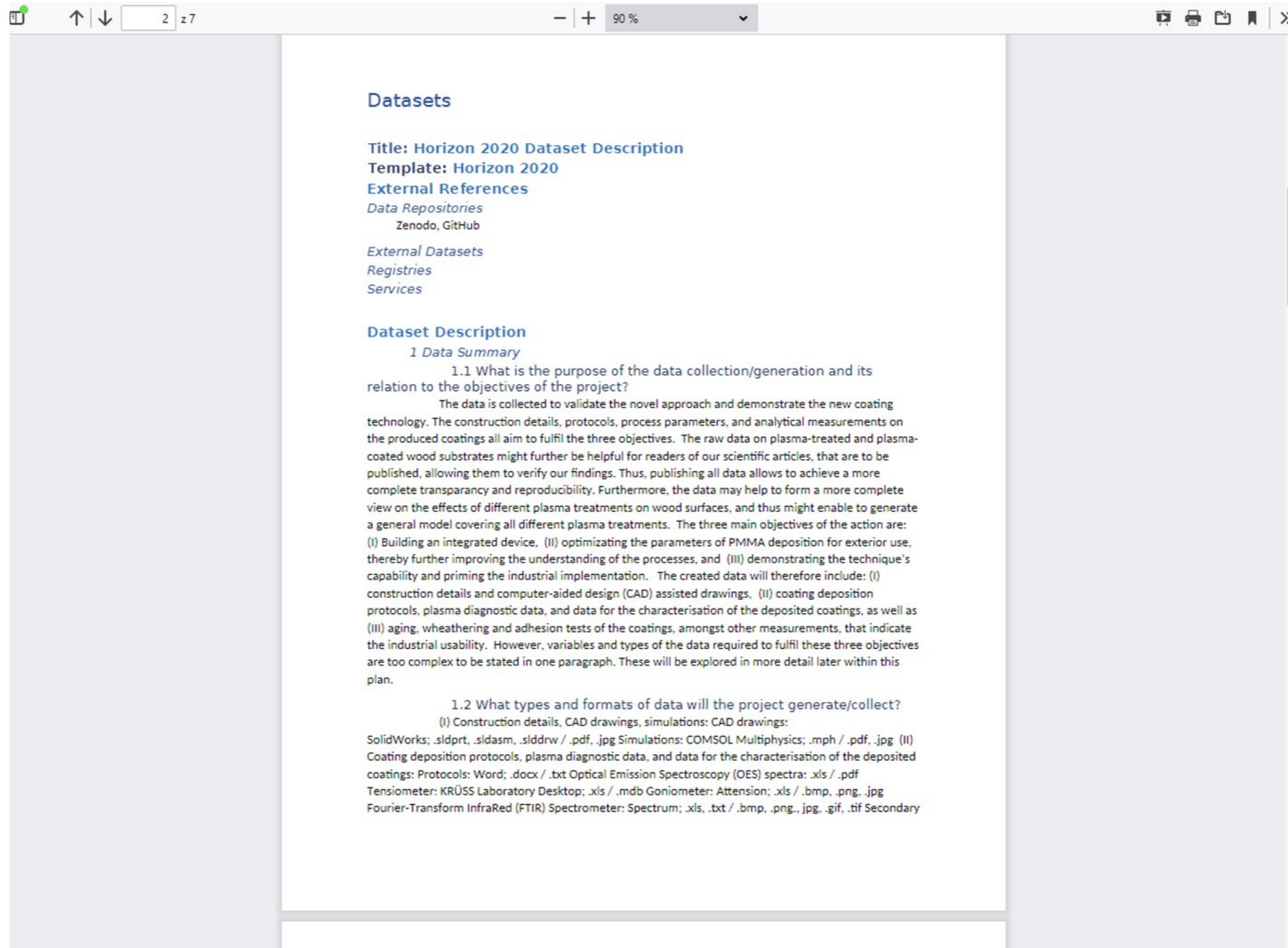
About

Terms Of Service

Glossary

User Guide

Argos – Public DMPs



Datasets

Title: Horizon 2020 Dataset Description
Template: Horizon 2020

External References

Data Repositories
Zenodo, GitHub

External Datasets
Registries
Services

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 data is collected to validate the novel approach and demonstrate the new coating technology. The construction details, protocols, process parameters, and analytical measurements on the produced coatings all aim to fulfil the three objectives. The raw data on plasma-treated and plasma-coated wood substrates might further be helpful for readers of our scientific articles, that are to be published, allowing them to verify our findings. Thus, publishing all data allows to achieve a more complete transparency and reproducibility. Furthermore, the data may help to form a more complete view on the effects of different plasma treatments on wood surfaces, and thus might enable to generate a general model covering all different plasma treatments. The three main objectives of the action are: (I) Building an integrated device, (II) optimizing the parameters of PMMA deposition for exterior use, thereby further improving the understanding of the processes, and (III) demonstrating the technique's capability and priming the industrial implementation. The created data will therefore include: (I) construction details and computer-aided design (CAD) assisted drawings, (II) coating deposition protocols, plasma diagnostic data, and data for the characterisation of the deposited coatings, as well as (III) aging, weathering and adhesion tests of the coatings, amongst other measurements, that indicate the industrial usability. However, variables and types of the data required to fulfil these three objectives are too complex to be stated in one paragraph. These will be explored in more detail later within this plan.

1.2 What types and formats of data will the project generate/collect?

(I) Construction details, CAD drawings, simulations: CAD drawings: SolidWorks; .sldprt, .sldasm, .slddrw / .pdf, .jpg Simulations: COMSOL Multiphysics; .mph / .pdf, .jpg (II) Coating deposition protocols, plasma diagnostic data, and data for the characterisation of the deposited coatings: Protocols: Word; .docx / .txt Optical Emission Spectroscopy (OES) spectra: .xls / .pdf Tensiometer: KRÜSS Laboratory Desktop; .xls / .mdb Goniometer: Attension; .xls / .bmp, .png, .jpg Fourier-Transform InfraRed (FTIR) Spectrometer: Spectrum; .xls, .txt / .bmp, .png, .jpg, .gif, .tif Secondary



Argos – Public Datasets



× **argos** Start new DMP [FAQ](#) [EN](#) [LOG IN](#)

- Home
- Public DMPs
- Public Dataset Desc.**

Published Datasets Filter

Sort by:

Dataset Published: August 21, 2020

Horizon 2020 Dataset Description

Public . Grant: Demonstration and implementation of an integrated process for the Plasma-Enhanced Chemical Solution Deposition of PMMA-multicomponent coatings on wood and wood-based substrates

Part of **DMP** DMP For Grant : Demonstration and implementation of an integrated process for the Plasma-Enhanced Chemical Solution Deposition of PMMA-multicomponent coatings on wood and wood-based substrates

Export ...

Dataset Published: August 5, 2020

NewSiest_DMP

Public . Grant: H2020-MSCA-IF-WF-2018

Part of **DMP** ENHANCEMENT OF UV STABILITY OF THERMALLY MODIFIED WOOD THROUGH ENVELOPE IMPREGNATION WITH NANO BASED STABILISERS

Export ...

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[Glossary](#) [User Guide](#)



Argos – Public Datasets



×

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- Public DMPs
- Public Dataset Desc.

- Co-Branding
- Support
- Send feedback

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Dataset **H2020 NEANIAS WP4 Space Astrophysics Datasets**

Public · Edited : June 16, 2020 ✓ FINALIZED

Part of

DMP For H2020 NEANIAS WP4 Space Astrophysics

Grant

Novel EOSC services for Emerging Atmosphere, Underwater and Space Challenges

Researchers

Marco Molinaro, Eva Sciacca, Eugenio Schisano, Robert Butora, Filomena Bufano

Description


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








EXPORT




Dataset authors


- George Kakalettris
Member
- Eva Sciacca
Owner
- Marco Molinaro
Member



 DS Wizard






-  Users
-  Knowledge Model Editor
-  Knowledge Models
-  Projects
-  Documents
-  Templates
-  Storage Costs Evaluator





-  Settings
-  Help >
-  Albert Einstein >


 Collapse sidebar




My Experiment

 Questionnaire  Metrics  Preview  Documents  Settings

View    

TODOs Version history 

Current Phase



Before Submitting the Proposal 

Chapters

- I. Administrative information 1
- II. Re-using data 3
- III. Creating and collecting data 7
- IV. Processing data 4**
- V. Interpreting data 2
- VI. Preserving data 5
- VII. Giving access to data 2

IV. Processing data


In the processing phase, the data will be undergoing the mostly automated steps for processing, before the analysis and interpretation.


1 Will you be using a shared working space to work with your data?  


Horizon 2020 DMP Science Europe DMP

Will you be using a working space that is shared between all the people working on the data in the project? Sometimes such a system is called a *Virtual Research Environment*.



Desirable: *Before Submitting the Proposal*

a. No 

b. Yes 

 Clear answer

Answered less than 20 seconds ago by Albert Einstein.


1.b.1 Will this work space be run by dedicated specialists?  

If your work space is run and maintained by specialists, e.g. the ICT department of one of the institutes involved in the projects, this means that backup and restore as well as access management is properly addressed.

Named versions only

March 2021


▼ 19. 3.


9:56 

Current 1.0.0

Will this work space be run by dedicated specialists?


No


 Albert Einstein

9:56 


Will you be using a shared working space to work with your data?


Yes

 Albert Einstein

9:56 

Data format/type

 [RDF/XML Syntax Specification](#)

 Albert Einstein

DMPonline

- Well known.
- Simple interactive form.
- Helps and comments on forms questions from many organizations.

Argos

- Connection to OpenAIRE Research Graph.
- Publish to DMP in Zenodo.
- Export to RDA DMP Common Standard.
- Separates the description of datasets.
 - Datasets can be referenced in multiple DMPs.

Data Stewardship Wizard

- Development in the Czech Republic (ELIXIR).
- Concept of Knowledge Models.
- Metrics measuring the fulfilment of FAIR attributes.
- Targeted for machining.





“Qestions”



Interoperable and re-useable data tools: R Markdown, GitHub, ... detailed and transparent documentation of data, data collection & manipulation (i.e., data-science methods).

JupyterLab example:

- <https://jupyter.org/>
- Try it in your browser.

At what “quality” level should data be open? Raw data, cleaned data, aggregated data. To which degree can an industrial partner secure their sensitive data?

What data would you appreciate from your colleagues to be usefull for you?

That is the quality you should share...





What kind of data and where should be stored and made open access? What data formats are to be used? To what degree the meta-data standards should be followed?

<https://re3data.org/> → Browse

Again – think of data formats and metadata you would like to get from your colleagues.





Data Management Plan and levels of OA.





Although I have experience with DMP, it is still unclear to me the real purpose and how we are going to benefit from these actions in the future.

Data are first-class citizens.

Data needs care – your research future critically depends on data.

DMP should help you take the care, not be yet another piece of paper for a grant agency.

Some examples of a good and bad data management plan – complete documents – would be nice.

<https://phaidra.univie.ac.at/detail/o:1140797>





How to draft a good Data Management Plan? Are there any recommendations on where and how to publish project data that should be publicly accessible?

DSW KM & metrics can help.

<https://re3data.org/> → Browse

Where your colleagues share data?

Look at <https://osf.io/>.





Do you have software tools for handling the research data/metadata?

<https://rdmkit.elixir-europe.org/>, **Git**,

JupyterLab, **OSF**, **DSW**,

<https://re3data.org/>, **ARX**,

<https://www.ukdataservice.ac.uk/manage-data.aspx>.





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Norway grants

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grants



www.tacr.cz/en