Domain specific Data Management Plans

Introduction & experience

January 27, 2021

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Outline of this webinar

14:00 - 14:10	Welcome, goals and objectives of the training	Branko Marovic
14:10 - 14:35	• Moderators - participants - Goal of this webinar • Intro domain specific Data Management Plans	Cees Hof & René van Horik
14:35 - 14:40	Instructions working in breakout groups	
14:40 - 14:45	Stretch your legs / get a coffee	
14:45 - 15:05	• Working in breakout groups on Data Domain Plans	Break-out groups
15:05 - 15:30	Discussion - conclusions - next steps - feedback	All

Moderators / trainers:

René van Horik (rene.van.horik@dans.knaw.nl)
Data Archiving and Networked Services (DANS), The Netherlands
Trainer / project manager / researcher
Background: Humanities (PhD)

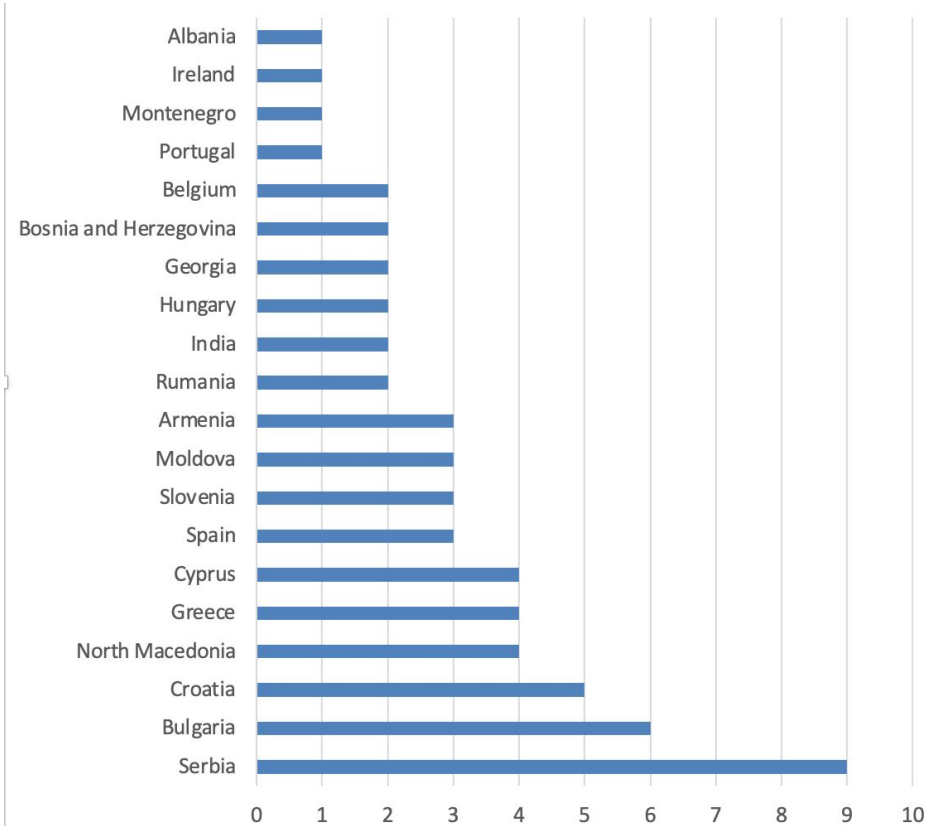
Cees Hof (cees.hof@dans.knaw.nl)
Data Archiving and Networked Services (DANS), The Netherlands
Trainer / project acquisition officer
Background: Biology / Life Sciences (PhD)

Both active in RDM Training Work package of EOSC-hub project

Data Archiving and Networked Services

DANS is about *keeping* data FAIR

60 registrations from 20 countries



38 different institutes represented

Which role suits you most?

Use the Polling option in the training room:

A

Researcher
Consumes, processes, deposits and provides data through discipline specific services

B

Service provider
Supports researchers and research infrastructures in RDM.
(data steward, data curator, research software engineer, …)

C

Policy maker / Funder
Defines documented set of intentions, expectations, goals, rules, requirements and budget for research data management

About You…..

Use the Polling option in the training room:

A — I have background in the **natural sciences**

B — I have background in the **life sciences**

C — I have background in the **social sciences or humanities**

D — I have background in **computer sciences**

E — I have background as a **librarian or in information sciences**

About You…..

Use the Polling option in the training room:

A I am new to Data Management Plans (DMPs)

B I know what a Data Management Plan is, but please update me on this topic

C I work with DMPs on a regular base

D (I am only interested in Machine-actionable DMPs)

Learning goals

- Short introduction on the state of art of:
  - Data Management Plans (DMP)
  - Domain Data Protocol (DDP)
- Recognize the similarities and differences between DMP and DDP
- Hands-on: create a small part of a DMP
- Hands-on: evaluate the process to introduce a DDP for a specific scientific field
- Assess the potential value of a DDP for your research environment

Please keep in mind...

- Domain specific Data Management Plans is a work in progress
- Developments within the different domains have their own pace
- First trials, using DMP tools, are running, but hands-on training for specific communities requires another training
- We stay away from technical stories such as machine-actionable DMPs
- Your thoughts and input are needed.....

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Why are DMPs important?

Filling in a DMP is a good way to think about the data collection process in a structured way. You answer questions such as:

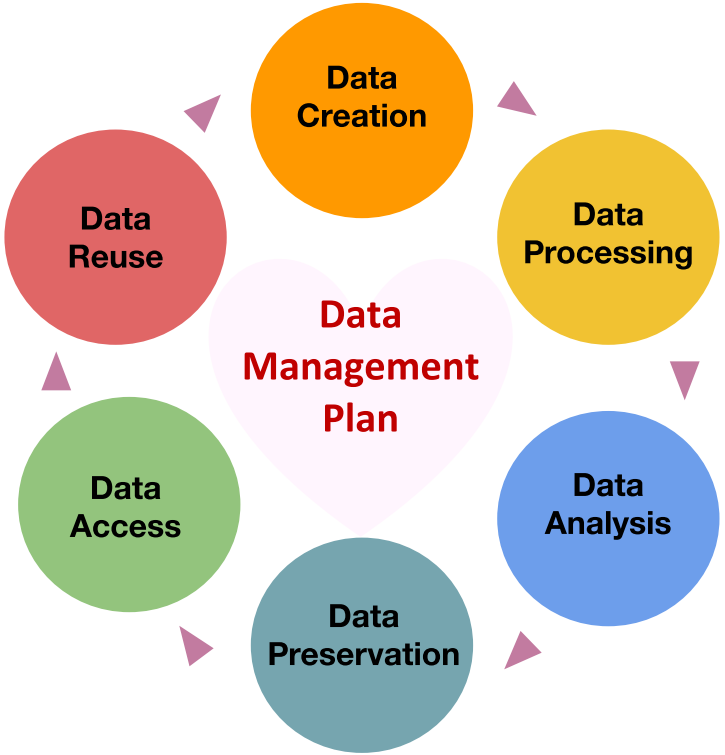
- What data are you going to collect or create? And with what method?
- How will you document the data?
- How will any ethical issues be addressed?
- How will you protect the privacy of any research participants?
- How do you ensure that data is stored securely and cannot be lost?
- What is the plan for the long-term storage of the dataset? Are you going to publish the data?
- Who is responsible for data management?

DCC: Checklist for a Data Management Plan, 2013

Why are DMPs important?

Research Data Management is at the core of good research

Your **Data Management Plan** covers all the phases of your research data life cycle



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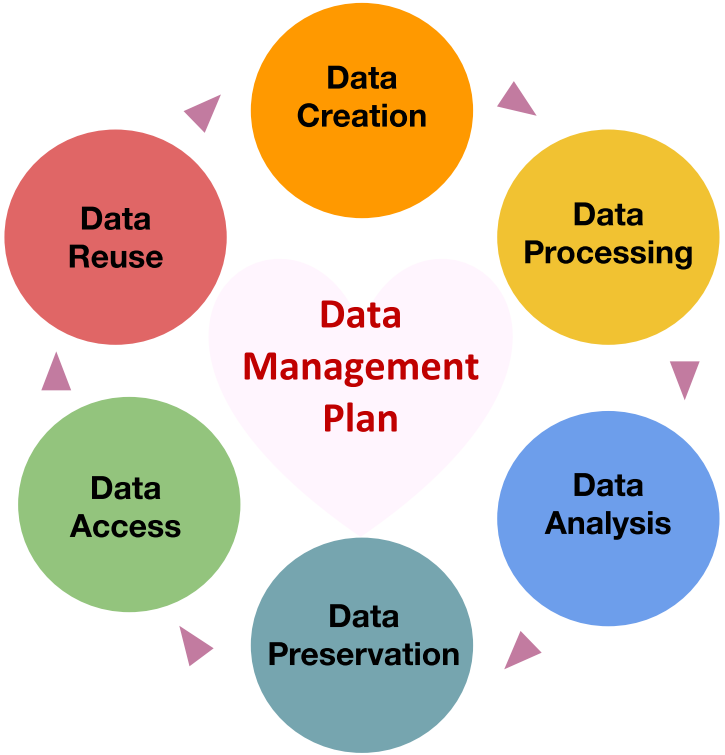


Your **Data Management Plan** is the tool and guide to get the best out of your data and software

Why are DMPs important?

Compare your research to scuba diving….

Why are DMPs important?

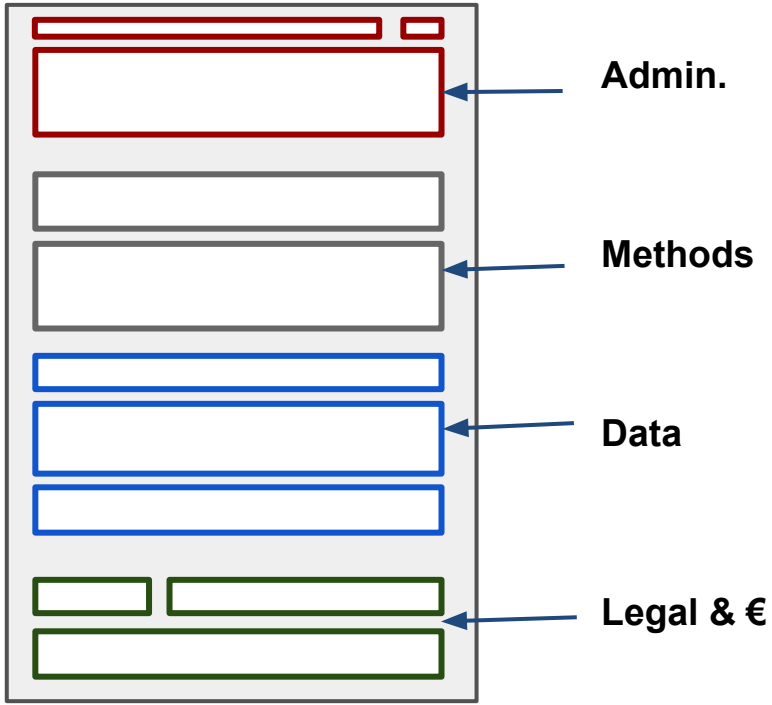
Compare your research to scuba diving….

- A DMP is for your own benefit and safety
- A DMP allows others to see where you are heading for

Why are DMPs important?

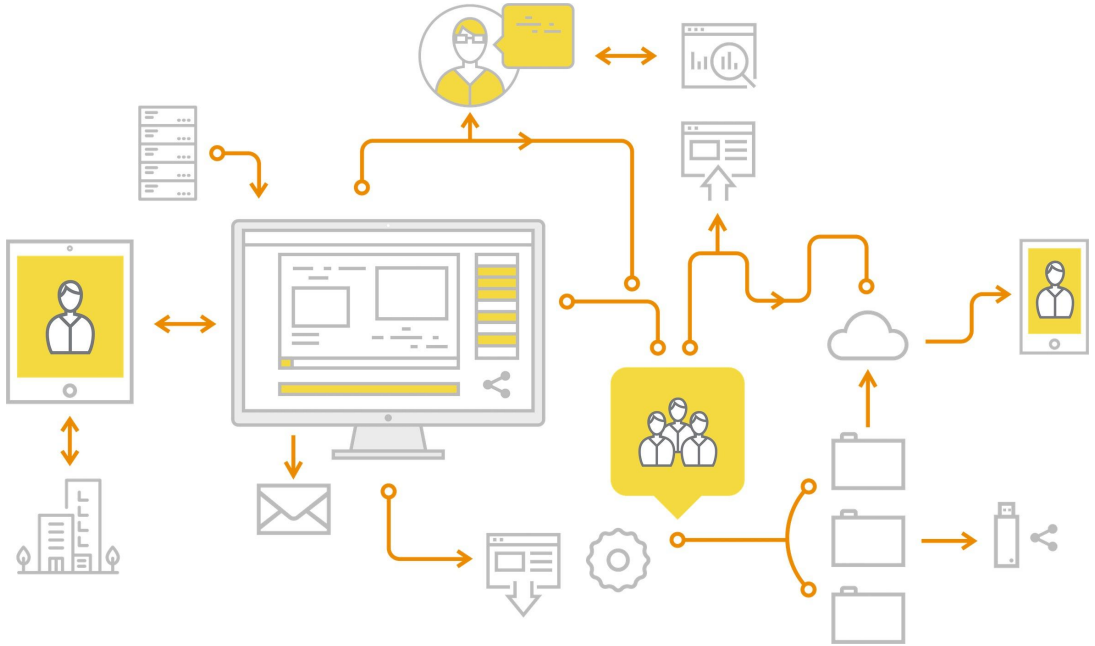
- A DMP is also part of your research output
- A DMP is publishable
- A good DMP contributes to open Science Practices
- A DMP is a key to FAIR data management

DMP templates (traditional)



- Hundreds of formats circulating
- Often based on common standards/elements
- Open to interpretation of the authors
- Free text fields
- Limited use of Knowledge Organisation Systems
- …..

DMP templates



- https://dmponline.dcc.ac.uk
- Many acknowledged (funder) templates
- Hundreds of free templates available

What about Data Management Plans and you

A I have never completed a Data Management Plan

B I completed a few Data Management Plans, because I had to

C I create / receive DMPs quite often and am familiar with different templates

D I am completely into DMP tools, forget the fill-in forms

Use the Polling option in the training room:

What about Data Management Plans and your organisation?

Use the Polling option in the training room:

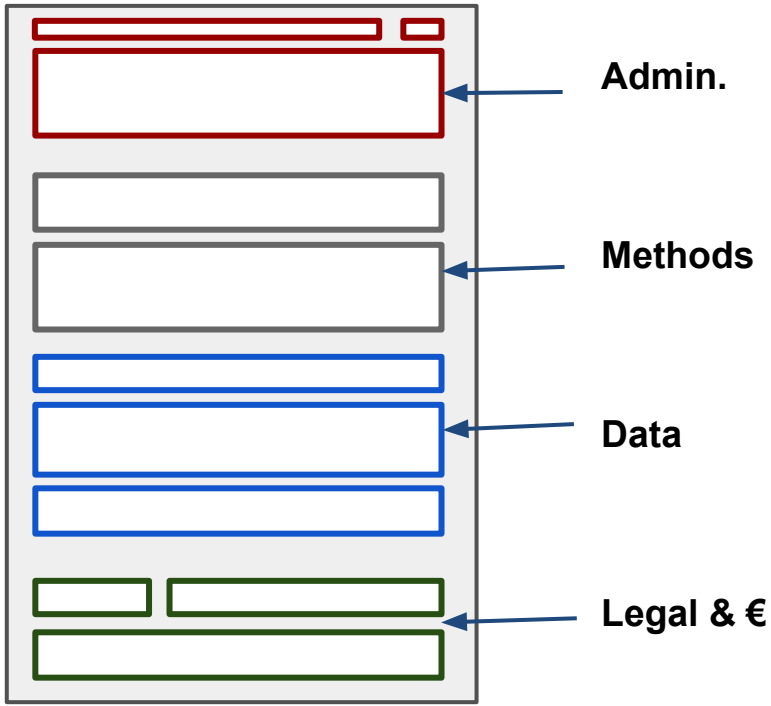
A My organisation, research group, library has their own DMP templates

B Within my organisation there are DMP guidelines and directions, but referring to external services (such as DMP online)

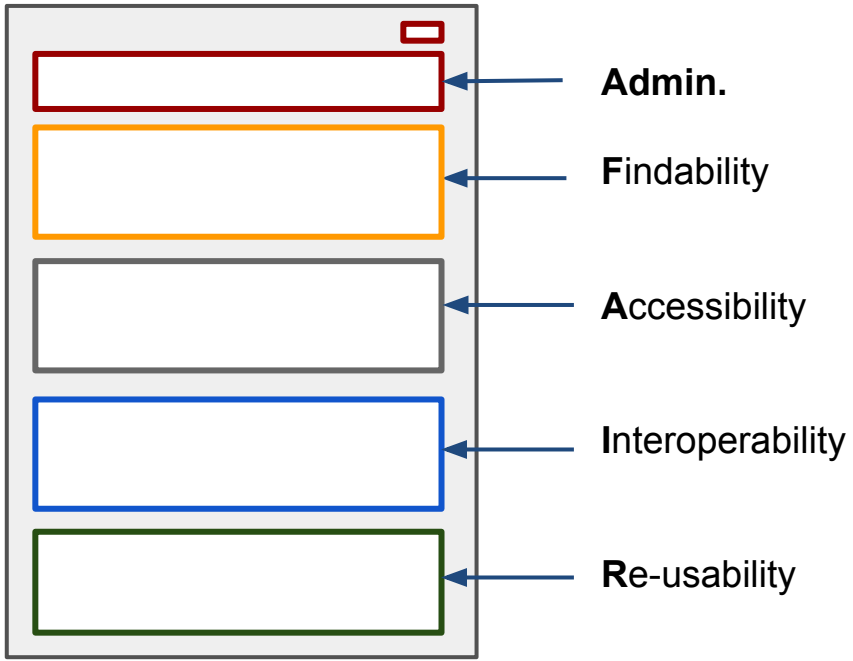
C I don't know / we are just beginning….

The shape of DMP's is evolving

"Traditional"



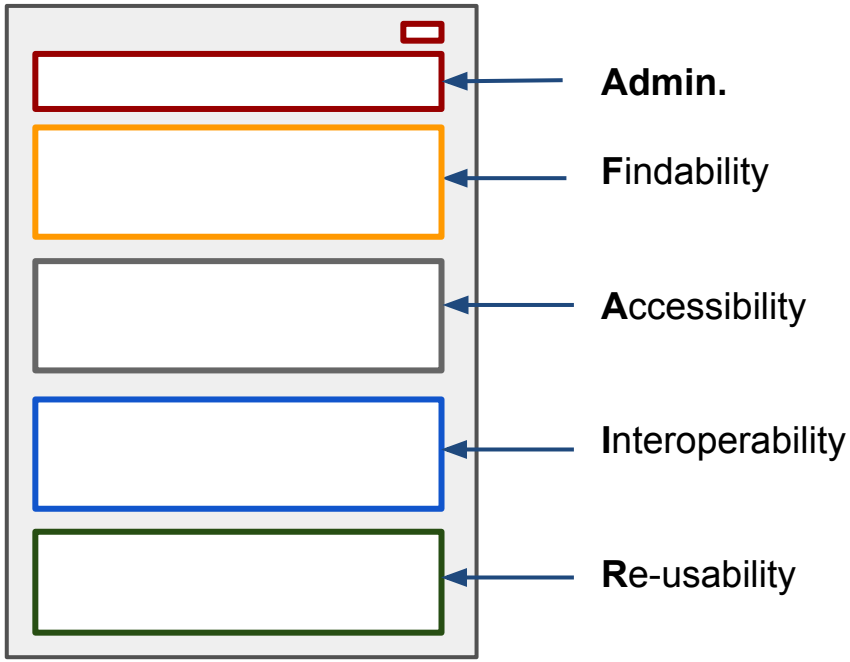
European Research Council



The shape of DMP's is evolving

Findable Accessible Interoperable Reusable

European Research Council



Changes in progress:

- DMPs more directed towards "return on investments"
- FAIR aspects become leading
- Machine readable
- Dynamic documents
- Domain specific...

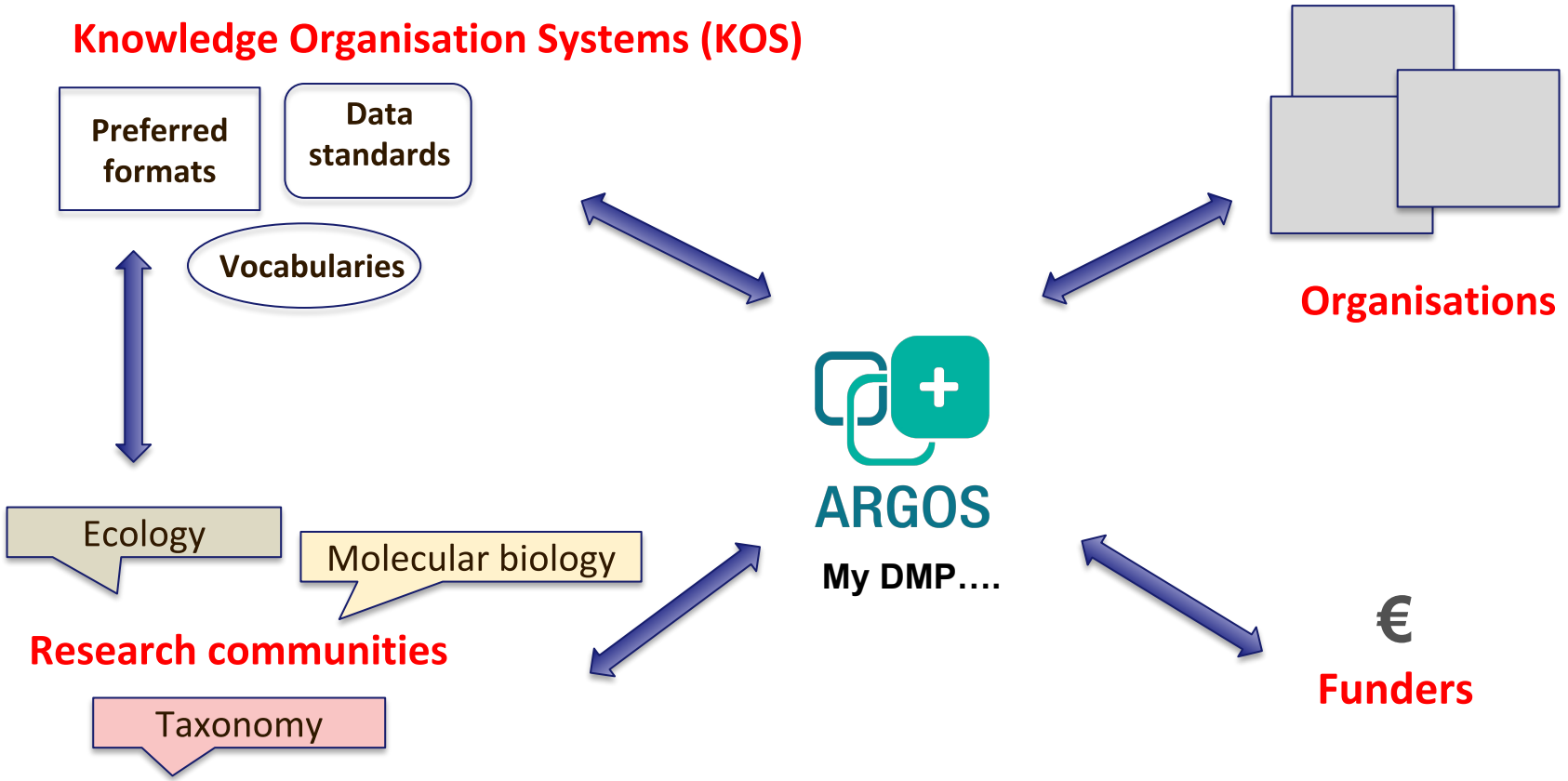
The shape of DMP's is evolving (Tools)

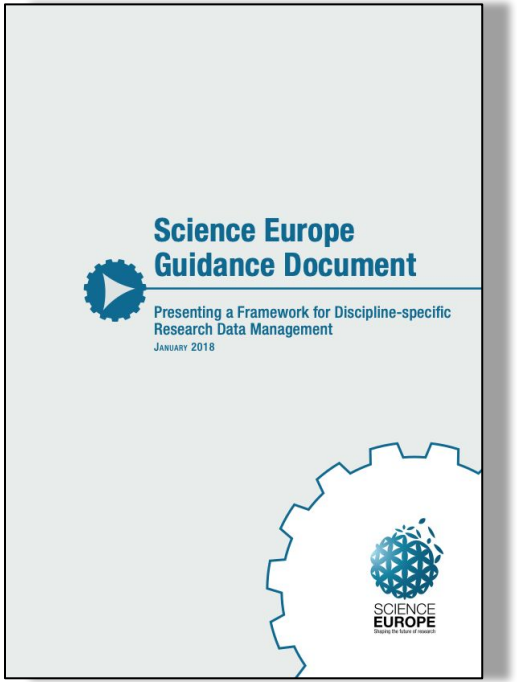
- https://argos.openaire.eu/splash/
- Create machine actionable DMPs
- Configure to best fit your discipline
- ....

- https://ds-wizard.org
- Machine-actionable Export
- Includes FAIR metrics
- .....

- https://dmponline.dcc.ac.uk
- Many acknowledged (funder) templates
- Large user community
- .....

The shape of DMP's is evolving (Tools)





> Our resources

18.01.2018

Guidance Document Presenting a Framework for Discipline-specific Research Data Management

Research organisations and funders increasingly ask researchers to create Data Management Plans for their work and proposals. A lack of standardisation means that these can be time-consuming to create and difficult to compare and evaluate. Science Europe presents a framework for the creation of domain-specific protocols that can be used as standardised templates, reducing the administrative burden on both researchers, research organisations, and funders.

https://www.scienceeurope.org/our-resources/guidance-document-presenting-a-framework-for-discipline-specific-research-data-management

EOSC-hub One size of Data Management Plans doesn't fit all

A domain oriented approach:

- May get better acceptance by a community
- May be much better suitable to serve community needs
- Addresses specialised solutions for a community

A DMP for a specific scientific discipline is called a Domain Data Protocol (DDP)

Examples:

- DDP for Archeology contains specific section on vocabularies

Data vocabularies
Specify the data vocabularies you will follow to facilitate interoperability

- ☐ Art and Architecture Thesaurus (AAT) http://www.getty.edu/research/tools/vocabularies/aat/
- ☐ PeriodO http://perio.do/en/
- ☐ Pleiades https://pleiades.stoa.org/
- ☐ Other

https://vast-lab.org/dmp/ariadneplus/form/

- DDP for Social Sciences pays attention to management of personal data

4.a.3. If no consent for deposit and preservation or sharing of personal data after/outside the project is obtained:

- ❑ Data will be anonymized before it will be deposited for preservation or data sharing after/outside the project, and the identifying information (names, addresses, etc.) will not be deposited.
- ❑ The project will make sure (= make a reasonable effort to guarantee) that anonymized research subjects cannot be re-identified by a combination of variables in the data set, or without excessive effort, by combining the research data with external information.
- ❑ Other (please specify): . . . . . .

https://www.europeansurveyresearch.org/conf2019/uploads/837/465/63/ESRA_2019_DMP_Vipavc_Doorn_Leenarts.pdf

Hands-on in breakout groups

The aim of the assignment is to fill in a small part of a DMP template and to evaluate whether the elements of the DMP you have chosen can be used as a basis for a Domain Data Protocol.

We use the breakout rooms

Based on the poll on the background of the participants we try to make groups of people that are active in the same scientific discipline.

Read the instructions in https://tinyurl.com/NI4OS-DDP-Workshop

Putting you to work…

The assignment consists of 4 parts:

1. Introduction
2. Define a scientific domain and a data collection
3. Describe a couple of requirements of a Data Management Plan for your data collection
4. Report back on the discussion in your group

<replace text between brackets with input from the group>

Putting you to work

Breakout Room 01 (Computer sciences)
Breakout Room 02 (Computer sciences)
Breakout Room 03 (Libraries / data support)
Breakout Room 04 (Libraries / data support)
Breakout Room 05 (Life Sciences)
Breakout Room 06 (Engineering / technology)
Breakout Room 07 (Social Sciences / education / humanities)
Breakout Room 08 (Spare room…..)

(if needed we will transfer people from one room to another….)

Did we meet the learning goals?

- Short introduction on the state of art of:
  - Data Management Plans (DMP)
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- Hands-on: create a small part of a DMP
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Thank you
for your attention!

Questions?

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