



Ready for
BioData.pt
Management?



Intensive Course

Data Management Planning

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I – DMP 101



Learning Outcomes:

- Explain the purpose and content of a data management plan

Data Management Plan (DMP)

- A. A formal document used to plan and support data management activities by anticipating needs and requirements in a (research) project, facility or institution
- B. A bureaucratic demand of funding agencies that we draft because we have to and then archive in the basement



Data Management Plan (DMP)

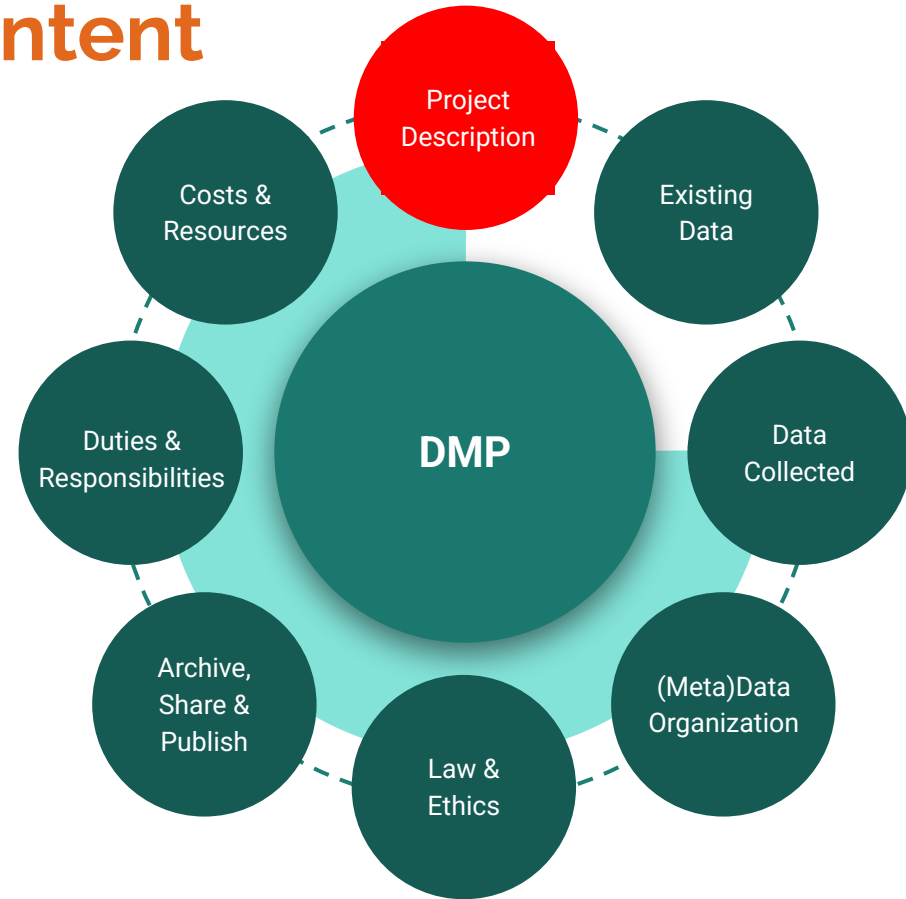
- Many funding agencies do require that grant proposals be accompanied by a DMP that demonstrates intent to comply with the FAIR data principles
- But being forced to do it should not detract from the value of doing it properly



DMP Content

A DMP should describe:

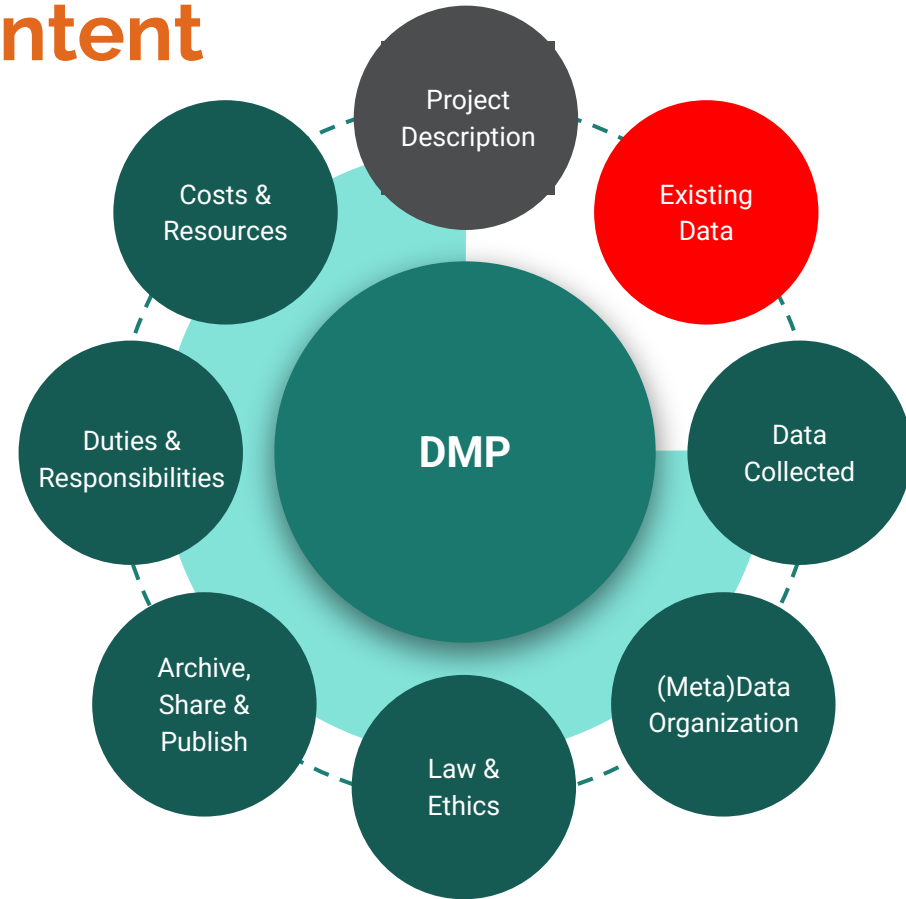
- The project (or institution or facility) to which it applies
 - Its goal
 - Its methods
 - Its funding status
 - The contact person



DMP Content

A DMP should describe:

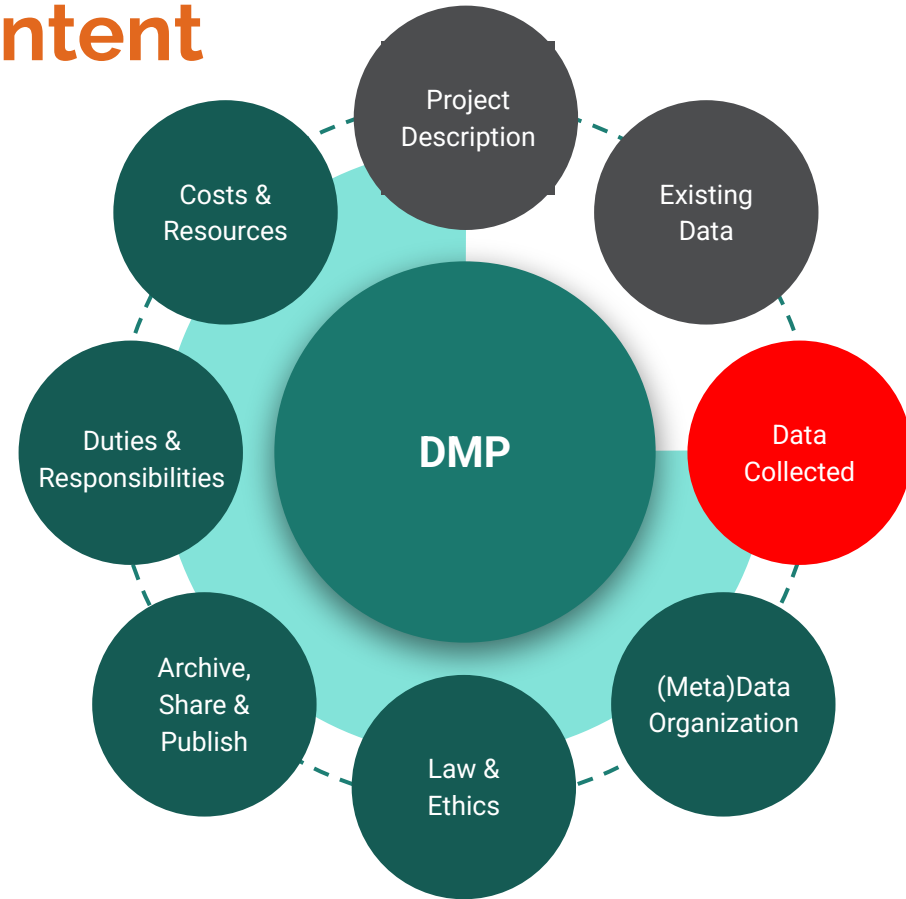
- Any pre-existing data
 - Including data that belongs to the team behind the DMP and external data
 - Their usage licenses
 - Their type and scope
 - Their volume



DMP Content

A DMP should describe:

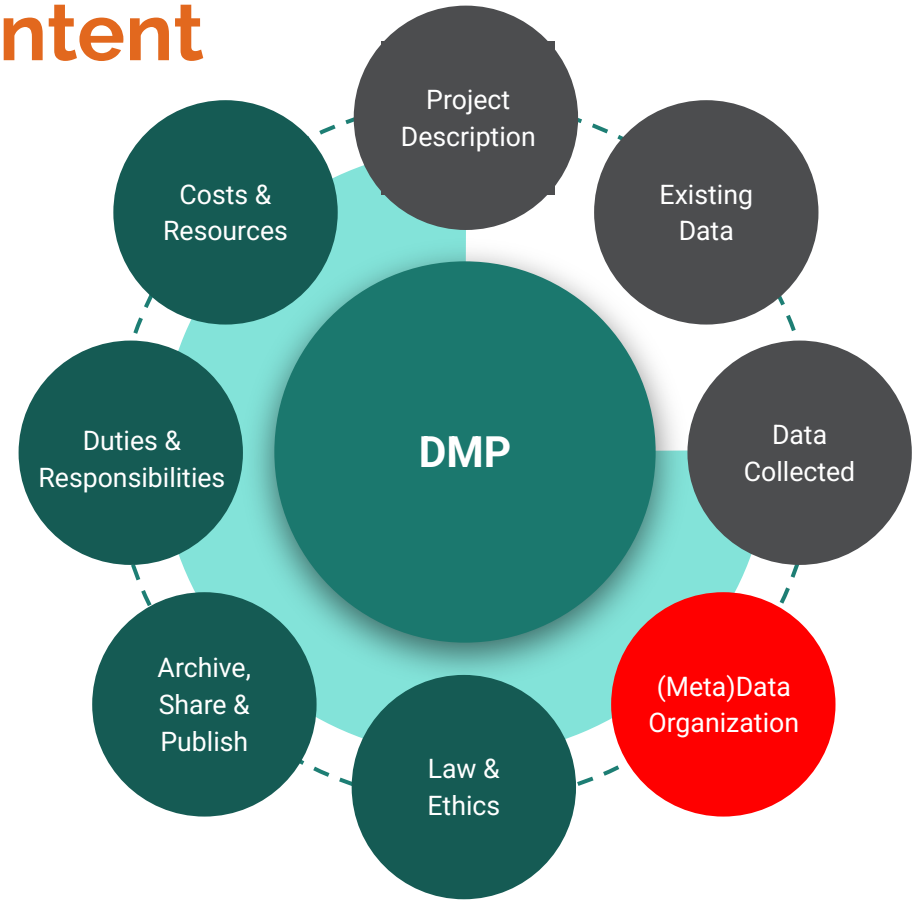
- Data to be collected
 - Their type
 - The methods
 - Their volume
 - Their purpose



DMP Content

A DMP should describe:

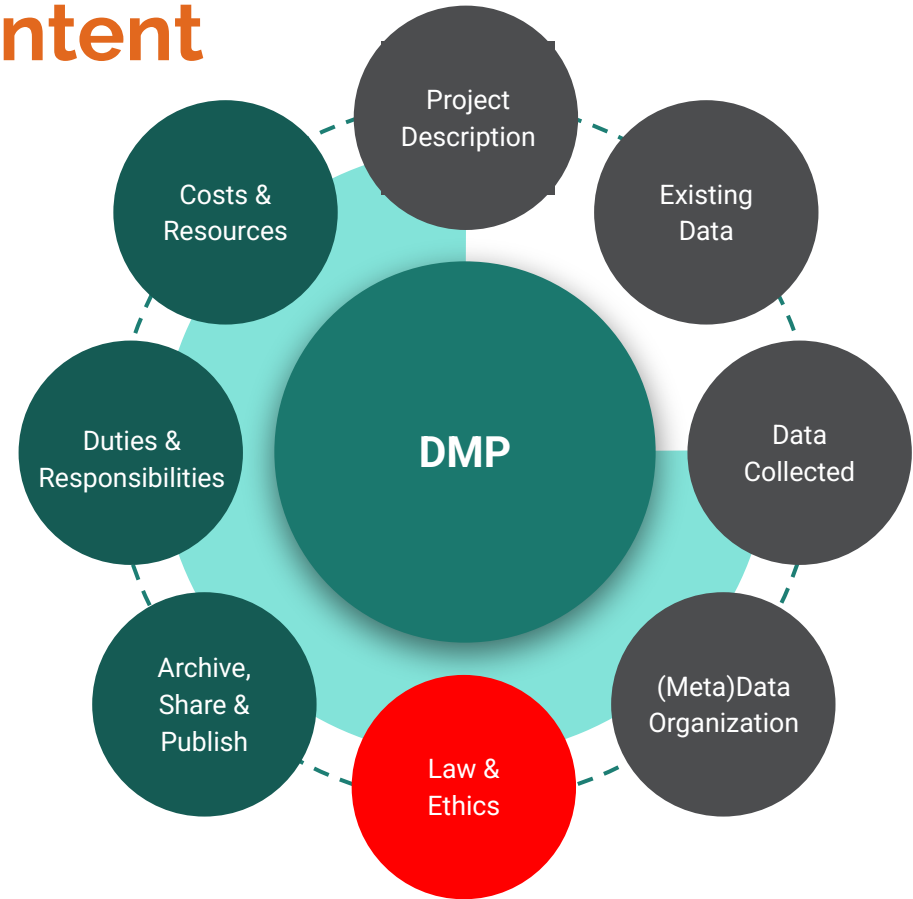
- How collected and/or existing data and metadata will be organised
 - File formats
 - Data structures
 - File system organisation
 - Metadata standards



DMP Content

A DMP should describe:

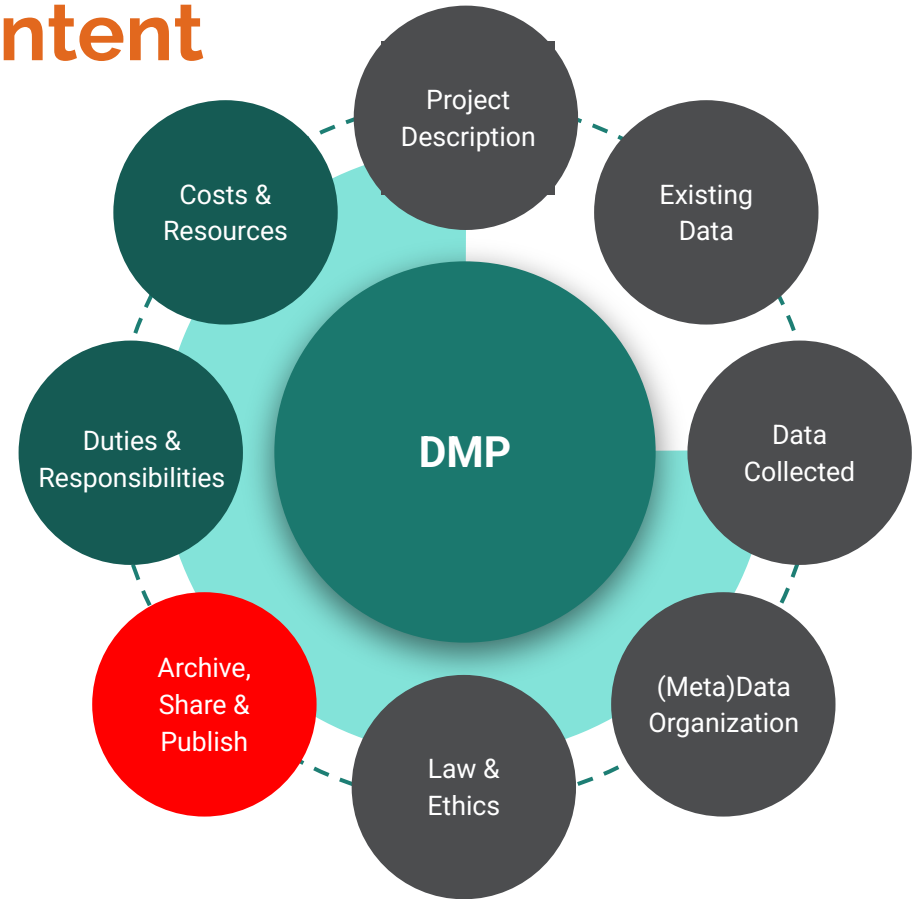
- Legal and ethical aspects pertaining to the data
 - Whether there is personal data (and how GDPR compliance will be ensured)
 - Whether there is sensitive data (and how it will be handled)



DMP Content

A DMP should describe:

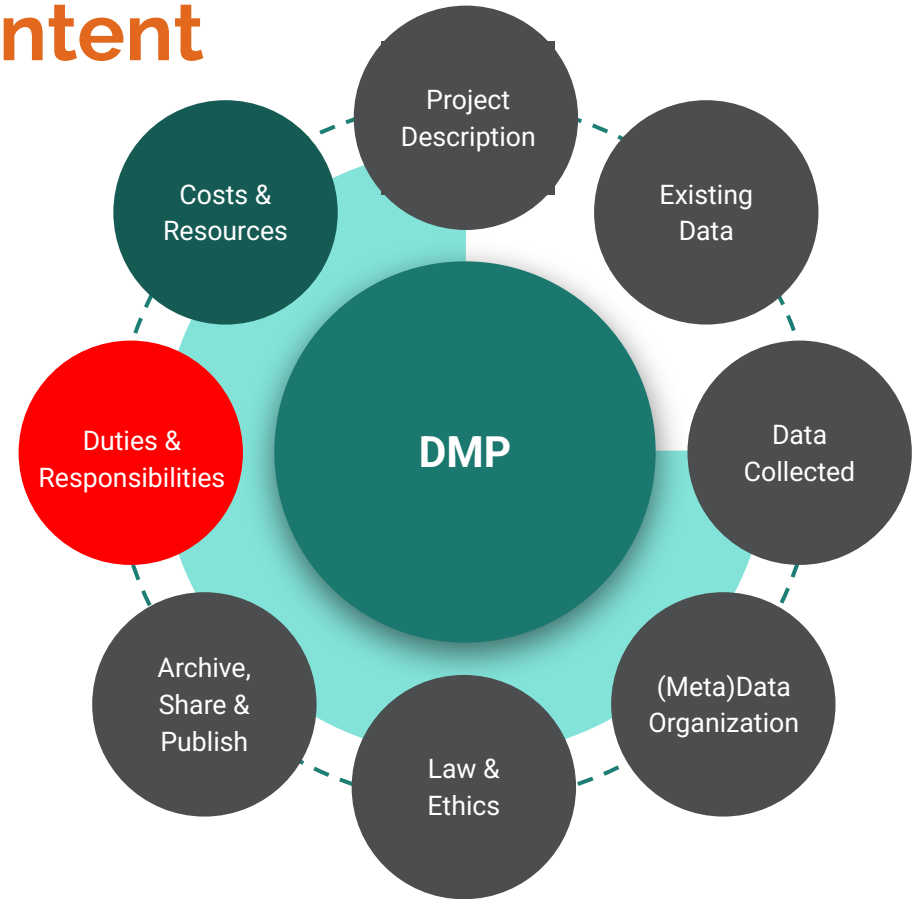
- How data will be preserved and/or shared:
 - For how long it will remain archived
 - Where it will be published
 - What will be the license and accessibility



DMP Content

A DMP should describe:

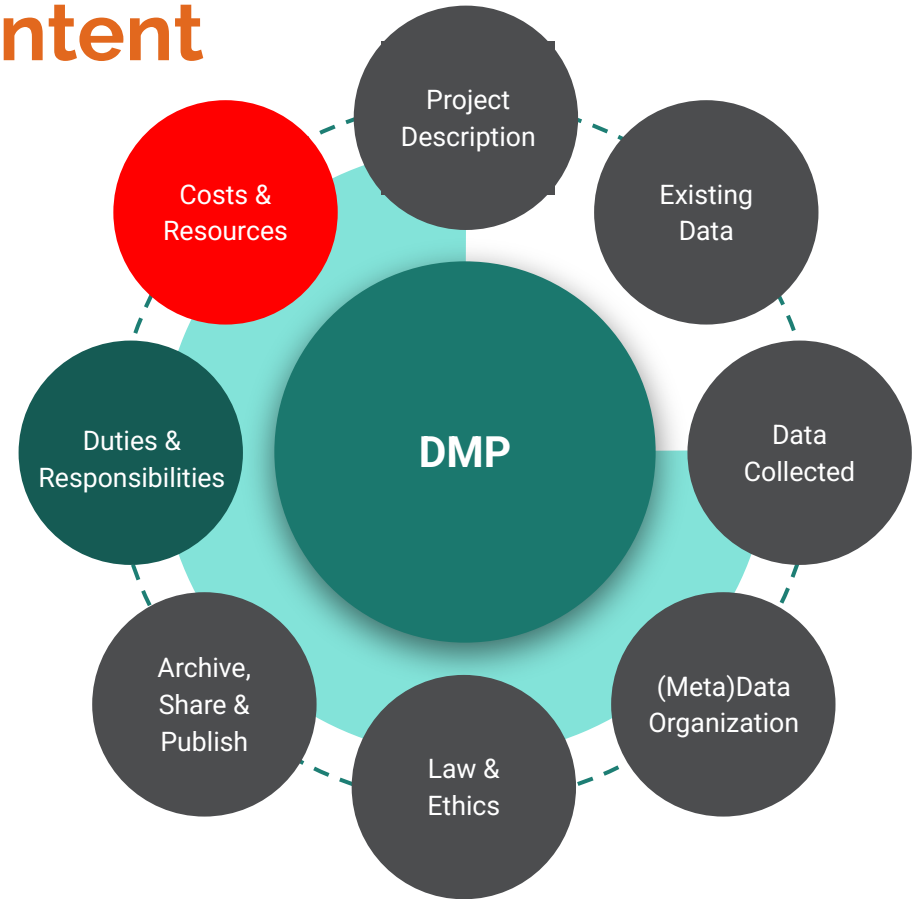
- The duties and responsibilities of everyone with a significant role in the project/institution
 - Data owner
 - Data steward
 - Data protection officer



DMP Content

A DMP should describe:

- All resources (existing or to be acquired) and their usage and/or acquisition costs
 - Hardware
 - Software
 - Human Resources



DMP Integration

- A project's DMP should not be made in a silo
- It should reuse relevant parts of institutional or facility DMPs if they exist, or at least contemplate any infrastructure provided by your institution (e.g. storage, compute, institutional repository, ethical committee)
 - E.g. project DMP < lab DMP < institutional DMP



Machine-Actionable DMP

- Machine and human readable descriptions
- FAIRer
- Extensible
- Could enables automated policy enforcement

Current DMPs

```
<admindata>  
  <question>Who is the Principle Investigator?</question>  
  <answer>The PI is John Doe from the JDU</answer>  
</admindata>
```

maDMPs

```
"dc:creator":[{  
  "foaf:name":"John Doe",  
  "@id":"orcid.org/000-1111-2222-3333",  
  "foaf:mbox":"mailto:jdoe@jdu.edu",  
  "madmp:institution":"JDU-John_Doe_University"  
}],
```

Reuse of existing standards

Use of persistent identifiers

Use of controlled vocabularies



DMP Challenges

- **Too many DMP templates out there:**
 - Not a problem if you have to do a DMP for a grant application (the funder specifies the template)
 - But if you want to a DMP for internal consumption, choosing a template can be challenging



DMP Challenges

- Several online tools available:



- DSW and argos are more customizable and produce maDMPS
- DMPOnline is simpler and easier to use



DMP Challenges

○ Which tool to use?

	DSW	Argos	DMPOnline	DMPTool	DataWiz	easyDMP
Template Selection	✓	✓	✓	✓	✗	✓
Template Creation	✓	✗	✗	✗	✗	✗
Funder Templates	✓	✓	✓	✓	✗	✗
Machine-Actionability	✓	✓	✗	✗	✗	✗





Hands-On



Learning Outcomes:

- Draft a data management plan



- An online platform for drafting and sharing DMPs (and more)
- You can define/select knowledge models that serve as basis for DMP templates
- There are several instances available online
- We have a training instance available at:
<https://training-biodatapt.dsw.elixir-europe.org/>
 - Again, do not use this instance beyond this course



Group Exercise

1. Open our training instance of DSW at:
<https://training-biodatapt.dsw.elixir-europe.org/>
2. Register
3. Create a Data Management Plan for the [mock project](#)
 - Go to Project -> Create -> Custom -> Life Sciences Model





Thank You!

Questions?