

DMP4NFDI Workshop: Building interoperable RDMO catalogs with the NFDI DMP Template Framework

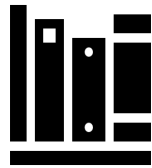
2025-03-12

Agenda

- 13:30 Introduction and Workshop Objectives
- 13:40 The NFDI DMP Template Framework
- 13:45 Group Exercise
- 14:25 RDMO Exercise: Template Framework Template
- 14:55 Conclusion and next Steps

Workshop objectives

- At the end of the workshop you should be able to...



Understand the NFDI
Template Framework



Know how to work in RDMO
with the NFDI Template
Framework

Introduction and Workshop Objectives

The DMP4NFDI Team

RDMO Hosting

David Wallace
Jürgen Windeck



Template Standardisation

Sabine Schönau



Support and Training

Katja Diederichs
Marisabel Gonzalez-Ocanto



DMP4NFDI

Service for the consortia

Hosting

- Hosting of an RDMO client that can be adapted to their own needs (theme, catalogs, login, plugins), but also enables cross-consortia collaboration
- Support with the integration of RDMO into your own service landscape

Template Management

- Support with the use of RDMO and the creation of templates
- Coordination of the standardization of NFDI DMP templates
- Maintenance of the common vocabulary

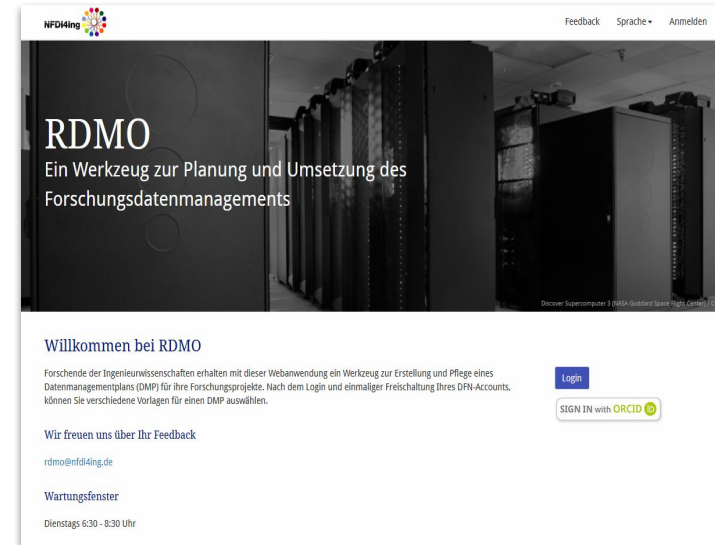
Training & support

- Training materials and capacity building / Train-The-Trainer workshops
- A central point of contact for questions about RDMO, DMPs or SMPs etc.

➡ Coordination with relevant communities (e.g. RDMO community)

The RDMO Tool

- RDMO clients for each consortium
- One database, thus shared use of catalogs and questions
- Central vocabulary (“attributes”) to ensure interoperability
- Modular structure of catalogs
- Can be linked to other services via API and plugins
- RDMO clients are aimed at research communities => login via NFDI-AAI, so can be used by all interested researchers



Questions around RDMO

- Training and educational materials are provided and can be freely reused
- Helpdesk on topics about RDMO

NFDI DMP Template Framework

NFDI DMP Template Framework

Central objective of DMP4NFDI:

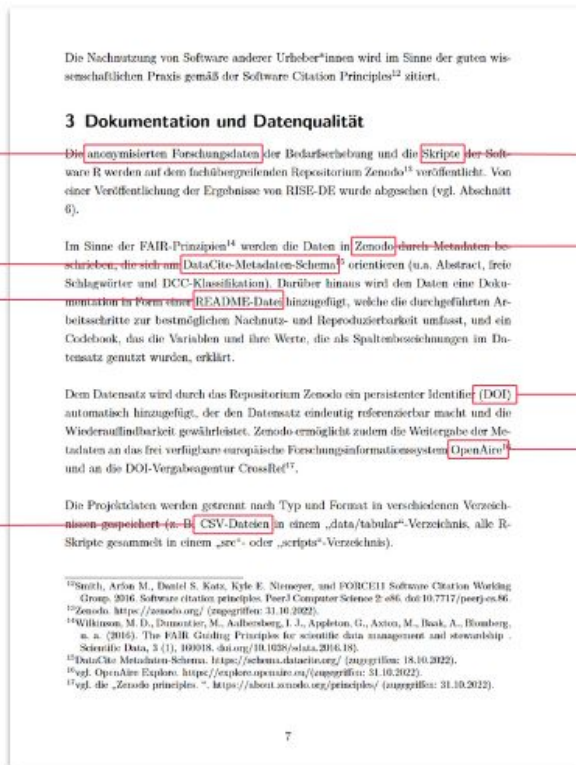
- establish and foster the NFDI-wide use and application of maDMPs and maSMPs

Example: NFDI DMP Template Framework

- coordination and support of template creation and their standardization
- standard workflows and best practices
- Information mapped with international standard
- Connecting services and stakeholders
- modular, domain-specific DMP templates

Problems to solve:

- user can choose standardised modules
 - The risk of catalogs not being interoperable is reduced
- Thematic classification is intended to increase reusability
 - You don't have to search for linked attributes yourself
 - Easier editing
- Easier to find suitable attributes
 - Avoiding wild growth



DMP example taken from Ariza de Schellenberger et al (2022).
<https://doi.org/10.5281/zenodo.7399810>

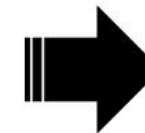
NFDI DMP Template Framework

https://rdmorganiser.github.io/terms/domain/project/additional_rdm_policy
https://rdmorganiser.github.io/terms/domain/project/additional_rdm_policy/requirements
https://rdmorganiser.github.io/terms/domain/project/additional_rdm_policy/yesno
<https://rdmorganiser.github.io/terms/domain/project/coordination>
<https://rdmorganiser.github.io/terms/domain/project/coordination/name>
<https://rdmorganiser.github.io/terms/domain/project/costs>
<https://rdmorganiser.github.io/terms/domain/project/costs/creation>
https://rdmorganiser.github.io/terms/domain/project/costs/creation/non_personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/creation/personnel>
<https://rdmorganiser.github.io/terms/domain/project/costs/ipr>
https://rdmorganiser.github.io/terms/domain/project/costs/ipr/non_personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/ipr/personnel>
<https://rdmorganiser.github.io/terms/domain/project/costs/metadata>
https://rdmorganiser.github.io/terms/domain/project/costs/metadata/non_personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/metadata/personnel>
https://rdmorganiser.github.io/terms/domain/project/costs/other_research_output
https://rdmorganiser.github.io/terms/domain/project/costs/other_research_output/non_personnel
https://rdmorganiser.github.io/terms/domain/project/costs/other_research_output/personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/pid>
https://rdmorganiser.github.io/terms/domain/project/costs/pid/non_personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/pid/personnel>
<https://rdmorganiser.github.io/terms/domain/project/costs/preservation>
https://rdmorganiser.github.io/terms/domain/project/costs/preservation/cover_how
https://rdmorganiser.github.io/terms/domain/project/costs/preservation/non_personnel
<https://rdmorganiser.github.io/terms/domain/project/costs/preservation/personnel>
https://rdmorganiser.github.io/terms/domain/project/costs/sensitive_data
https://rdmorganiser.github.io/terms/domain/project/costs/sensitive_data/anonymization



A total of 248 attributes

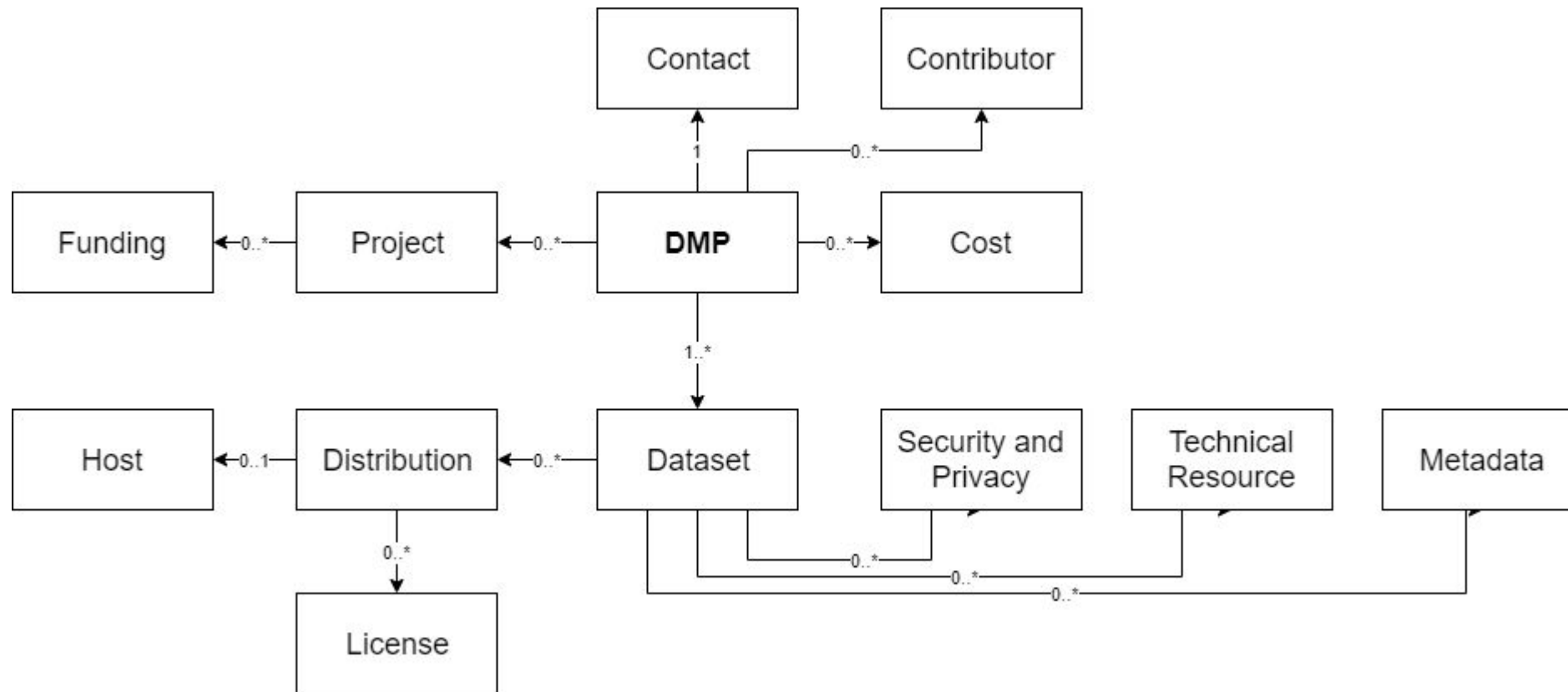
- Usage not always consistent
- Imprecise designation of attributes
- No easy mapping to other standards



RDA DMP Common Standard for machine-actionable Data Management Plans

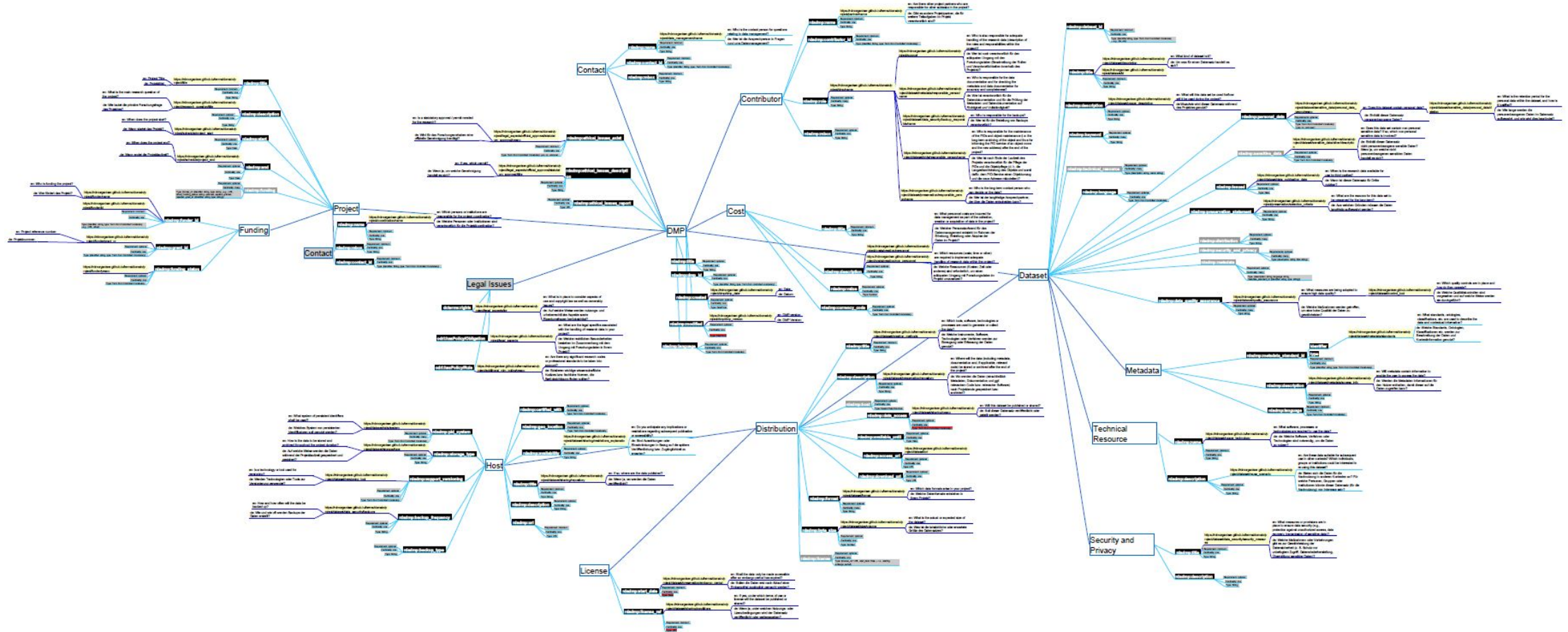
- International standard
- maDMP plugin
- template from SMP to RDMO

DMP4NFDI Template Framework



https://github.com/RDA-DMP-Common/RDA-DMP-Common-Standard/tree/master?tab=readme-ov-file#dataset_preservation_tree

NFDI DMP Template Framework



NFDI DMP Template Framework

Handout folder:

<https://is.gd/TnmTDI>

DMP

Need	Question	maDMP Mapping	RDMO Attribut	Type
minimum	Is a statutory approval / permit needed for the research?	DMP/rdadm p:ethical_iss ues_exist	https://rdmorganiser.github.io/terms/domain/project/legal_aspects/official_approval/statutory_approval/yesno	controlled term (yes, no, unknown)
optional	If yes, which permit?	DMP/rdadm p:ethical_iss ues_descript ion	https://rdmorganiser.github.io/terms/domain/project/legal_aspects/official_approval/statutory_approval/title	String
optional	Date:	DMP/rdadm p:created	https://rdmorganiser.github.io/terms/domain/project/dmp/dmp_date	DateTime

Group session

NFDI DMP Template Framework

Handout folder:

<https://is.gd/TnmTDI>

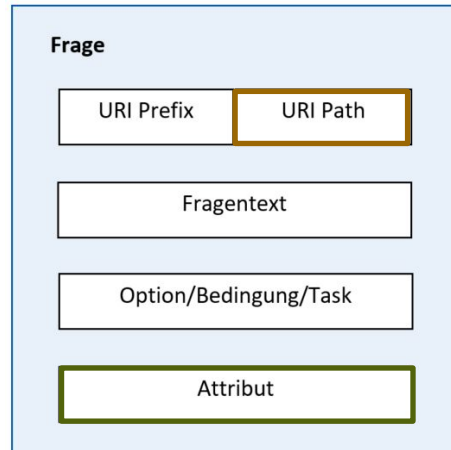
DMP

Need	Question	maDMP Mapping	RDMO Attribut	Type
minimum	Is a statutory approval / permit needed for the research?	DMP/rdadm p:ethical_iss ues_exist	https://rdmorganiser.github.io/terms/domain/project/legal_aspects/official_approval/statutory_approval/yesno	controlled term (yes, no, unknown)
optional	If yes, which permit?	DMP/rdadm p:ethical_iss ues_descript ion	https://rdmorganiser.github.io/terms/domain/project/legal_aspects/official_approval/statutory_approval/title	String
optional	Date:	DMP/rdadm p:created	https://rdmorganiser.github.io/terms/domain/project/dmp/dmp_date	DateTime

DMP4NFDI Template Framework

Identifying a module via attributes or uri

Attribut	maDMP-Mapping	Standard
https://rdmorganiser.github.io/terms/domain/project/dmp	dmp	RDA DMP Common Standard for machine-actionable DMPs
https://rdmorganiser.github.io/terms/domain/project/dmp/dmp_date	dmp/created	RDA DMP Common Standard for machine-actionable DMPs
https://rdmorganiser.github.io/terms/domain/project/dmp/dmp_version	dmp/modified	RDA DMP Common Standard for machine-actionable DMPs
https://rdmorganiser.github.io/terms/domain/project/dmp/name	dmp/contact	RDA DMP Common Standard for machine-actionable DMPs



Management

Questions Back New

× ▼ All editors ▼

Show URIs: ☒ Questions ☒ Attributes ☒ Conditions ☒ Option sets

Question: What system of persistent identifiers is used? ✎ 🔗 📄

https://rdmo.dmp4nfdi.de/terms/questions/Host/01/rdadmp_pid_system

<https://rdmorganiser.github.io/terms/domain/project/dataset/pids/system>

https://rdmorganiser.github.io/terms/options/pid_types

Question: Which system of persistent identifiers shall be used? ✎ 🔗 📄

https://rdmo.dmp4nfdi.de/terms/questions/Host/03/rdadmp_pid_system

<https://rdmorganiser.github.io/terms/domain/project/dataset/pids/system>

https://rdmorganiser.github.io/terms/options/pid_types

Group Session

3 Groups:

1. DMP & Project
2. Dataset
3. Distribution & Host

Handout folder:

<https://is.gd/TnmTDI>

RDMO Exercise

DMP4NFDI

RDMO Demo

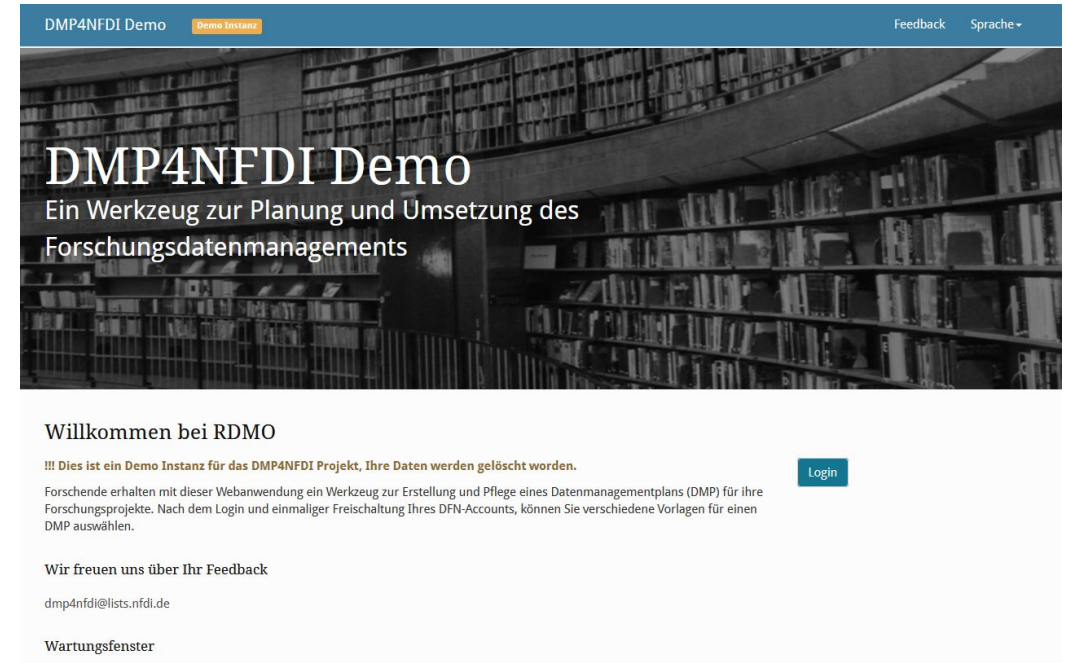
- URL:

<https://rdmo-test.dmp4nfdi.ulb.tu-darmstadt.de/>

- All content created during this workshop will be deleted

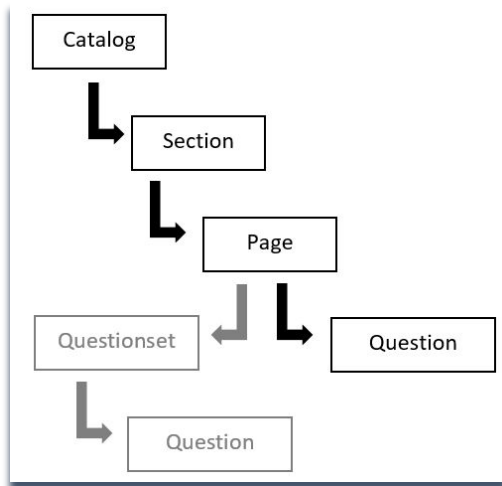
Handout folder:

<https://is.gd/TnmTDI>



RDMO Exercise

- Catalog hierarchy
 - Catalog: top-level container for your catalog of questions (aka DMP)
 - Section: Major divisions within the Catalog containing pages
 - Page: subdivisions of a section containing questions or question sets
 - Question sets: group of related questions within a page, e.g. responsible(s) for handling data
 - Questions
 - Questions
 - Option sets: a predefined group of answer choices used for questions
 - Options: the components of Option sets



RDMO Exercise

For this exercise you have to know how to:

- create a blanket catalog (catalog, section, page)
- copy and edit a question

You can find more informations here:

<https://rdmo.readthedocs.io/en/latest/management/catalog-development.html#getting-started>

Create a blanket catalog



Click on **Management** in the top navigation bar.

RDMO Exercise

The screenshot shows the DMP4nfdi Management interface. The top navigation bar includes 'Management', 'Demo Tools', 'Demo Instance', 'Feedback', 'Language', and 'Sabine Schönau'. The main heading is 'Management'. Below it, the 'Catalogs' section is active, showing a list of catalogs. The 'Show URIs' checkbox is checked, and the 'Catalogs' tab is selected. The list includes 'Catalog: DFG checklist' and 'Catalog: RDMO'. The right-hand navigation menu is visible, with 'Catalogs' highlighted in red.

Check that the heading under management is **Catalogs**, if not click on **Catalogs** in the right-hand navigation

The screenshot shows the DMP4nfdi Management interface. The top navigation bar includes 'Management', 'Demo Tools', 'Demo Instance', 'Feedback', 'Language', and 'Sabine Schönau'. The main heading is 'Management'. Below it, the 'Catalogs' section is active, showing a list of catalogs. The 'Show URIs' checkbox is checked, and the 'Catalogs' tab is selected. The list includes 'Catalog: DFG checklist' and 'Catalog: RDMO'. The right-hand navigation menu is visible, with 'Catalogs' highlighted in red. The 'New' button in the top right corner of the 'Catalogs' section is highlighted in red.

Click on the green **New** button.

RDMO Exercise

The screenshot shows the 'Create catalog' form in the RDMO interface. Red arrows with numbers 1 through 5 point to specific fields and buttons:

- 1** points to the **URI Prefix** text box, which contains the value `https://rdmo.dmp4nfdi.de/terms`.
- 2** points to the **URI Path** text box, which is currently empty.
- 3** points to the **Available** checkbox, which is checked.
- 4** points to the **Title (English)** text box, which is empty.
- 5** points to the **Create** button at the bottom right of the form.

The form also includes a **Comment** text area, a **Locked** checkbox (unchecked), an **Order** dropdown menu, language selection buttons for **English** and **German**, **Help (English)** text area, **Sections** management buttons (**Add existing section**, **Create new section**), **Sites** dropdown menu, and **Editors** dropdown menu.

1. The **URI Prefix** should already be set by your administrator. Although you can choose a different **URI Prefix**, such as your institution's URI, it will be used to indicate where the **Catalog** was created.

If you change the prefix and wish to revert to the default value set for the RDMO instance, you can simply click on the "magic wand icon" to reset the entry back to the default value.

2. The **URI Path** should be a unique label for your **Catalog**. Choose a label that is appropriate for your purpose.
3. The "available" button indicates that the catalog is available for use by the users. If the button is unchecked, users cannot see the catalog in the list.
4. The **Title** text box is for the title of the Catalog.
5. Click on **create**

To include questions in that catalog, there has to be a section and a page.

RDMO Exercise

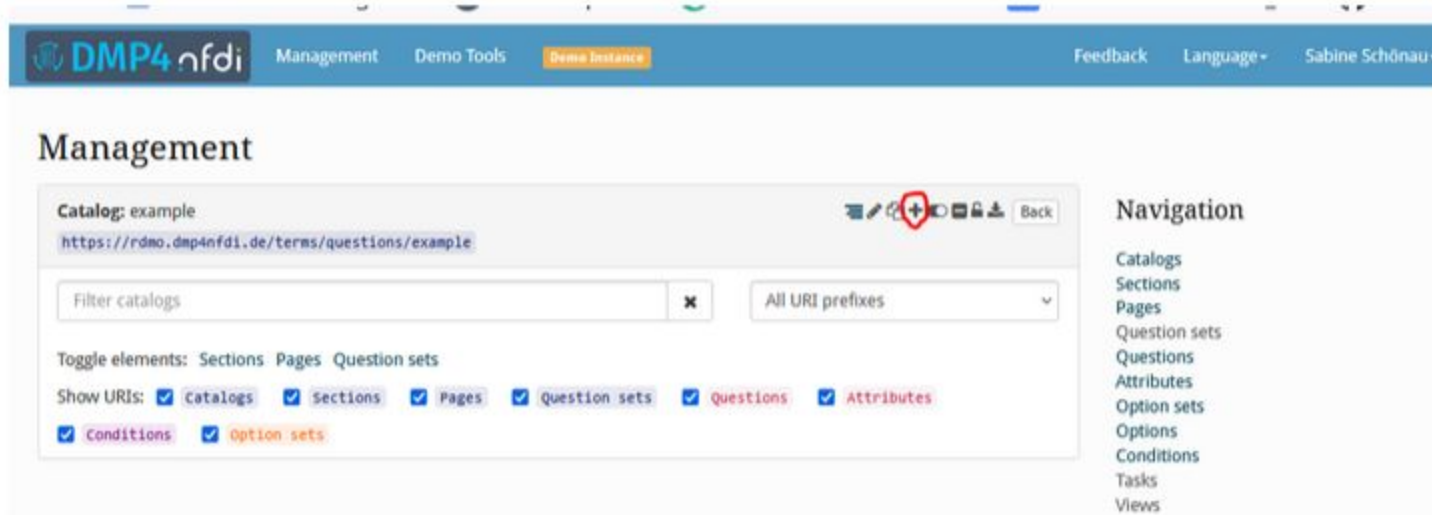
Create a section

The screenshot shows the DMP4 nfdi web interface. The top navigation bar includes 'Management', 'Demo Tools', and 'Demo Instance' buttons. The main content area is titled 'Catalogs' and features a search bar, filters, and a list of catalogs. The 'Catalog' column lists various catalogs, and the 'URI' column shows the corresponding URLs. The 'Actions' column contains icons for editing, deleting, and other actions. A red arrow points to the 'example' catalog entry. The right sidebar contains 'Navigation' and 'Export' sections.

Catalog	URI	Actions
Catalog: DFG checklist	https://rdmorganiser.github.io/terms/questions/DFG-Checkliste	[Icons]
Catalog: RDMO	https://rdmorganiser.github.io/terms/questions/rdmo	[Icons]
Catalog: Brief questionnaire	https://rdmo.fh-potsdam.de/terms/questions/fhpshort	[Icons]
Catalog: Horizon Europe	https://rdmorganiser.github.io/terms/questions/horizon-europe	[Icons]
Catalog: Software Management Plan for Researchers	https://rdmorganiser.github.io/terms/questions/smp	[Icons]
Catalog: SNF	https://rdmorganiser.github.io/terms/questions/snf	[Icons]
Catalog: DCC Checklist 4.0	https://rdmorganiser.github.io/terms/questions/dcc	[Icons]
Catalog: NFDI DMP Template	https://rdmo.dmp4nfdi.de/terms/questions/TF_RDA_minimal	[Icons]
Catalog: DFG checklist	https://rdmorganiser.github.io/terms/questions/TUBS-Checkliste	[Icons]
Catalog: example	https://rdmo.dmp4nfdi.de/terms/questions/example	[Icons]

Go back to the **Catalog** overview. Now you should see your blanket catalog in the list. Open it by clicking on the left icon.

RDMO Exercise



To create a section, click on the “+”-symbol and fill in the same fields as you did when creating the catalog.

RDMO Exercise

Create a page

The screenshot shows the DMP4 nfdi RDMO Management interface. The top navigation bar includes 'Management', 'Demo Tools', 'Demo Instance', 'Feedback', 'Language', and 'Sabine Schönauf'. The main content area is titled 'Management' and displays a 'Catalog: example' with the URL 'https://rdmo.dmp4nfdi.de/terms/questions/example'. Below this, there is a 'Filter catalogs' input field and a 'Show URIs' section with checkboxes for 'Catalogs', 'Sections', 'Pages', 'Question sets', 'Questions', 'Attributes', 'Conditions', and 'Option sets'. A 'Section: Example Section' is shown with the URL 'https://rdmo.dmp4nfdi.de/terms/questions/example_section'. A red circle highlights the '+' icon in the section's toolbar. On the right, a 'Navigation' sidebar lists various elements like 'Catalogs', 'Sections', 'Pages', 'Question sets', 'Questions', 'Attributes', 'Option sets', 'Options', 'Conditions', 'Tasks', and 'Views'. An 'Export' section at the bottom right indicates 'Export all visible elements.'.

To create a page, click on the “+”-symbol and fill in the same fields as you did when creating the catalog and the section.

RDMO Exercise

Copy and edit a question

The screenshot shows the 'Management' section of the DMP4 nfdi interface. It features a table of catalogs with columns for catalog name, URI, and actions. The 'NFDI DMP Template' catalog is highlighted with a red arrow. The first button in its action menu is circled in red.

Catalog	URI	Actions
Catalog: DFG checklist	https://rdmorganiser.github.io/terms/questions/DFG-Checkliste	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: RDMO	https://rdmorganiser.github.io/terms/questions/rdmo	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: Brief questionnaire	https://rdmo.fh-potsdam.de/terms/questions/fhpshort	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: Horizon Europe	https://rdmorganiser.github.io/terms/questions/horizon-europe	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: Software Management Plan for Researchers	https://rdmorganiser.github.io/terms/questions/smp	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: SNF	https://rdmorganiser.github.io/terms/questions/snf	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: DCC Checklist 4.0	https://rdmorganiser.github.io/terms/questions/dcc	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: NFDI DMP Template	https://rdmo.dmpnfdi.de/terms/questions/TF_RDA_minimal	[Edit] [Copy] [Add] [Share] [Lock]
Catalog: DFG checklist	https://rdmorganiser.github.io/terms/questions/TUBS-Checkliste	[Edit] [Copy] [Add] [Share] [Lock]

But first have a look into the NFDI DMP Template Catalog. A good insight of all sections and questions are available, when you click on the first button.

RDMO Exercise

The screenshot shows the 'Management' interface of the DMP4 nfdi system. The top navigation bar includes 'Management', 'Demo Tools', 'Demo Instance', 'Feedback', 'Language', and 'Sabine Schönau'. The main content area is titled 'Management' and displays a hierarchical structure of RDMO elements. The selected element is a 'Question' titled 'Project Title', which is highlighted with a red box. The question's URI is https://rdmo.dmp4nfdi.de/terms/questions/DMP/Project/rdadmp_title. The interface also shows a 'Filter catalogs' field, a 'Toggle elements' section with checkboxes for 'Sections', 'Pages', 'Question sets', 'Questions', 'Attributes', 'Conditions', and 'Option sets', and a 'Navigation' sidebar on the right with links to 'Catalogs', 'Sections', 'Pages', 'Question sets', 'Questions', 'Attributes', 'Option sets', 'Options', 'Conditions', 'Tasks', and 'Views'. An 'Export' section on the right offers options to 'Export all visible elements' in XML, PDF, Rich Text Format, or Open Office.

Choose a question you're interested in and copy it by clicking on the symbol above.

WARNING: You could also copy a page or a section in that way, but since there dependencies on the lower levels, you would overwrite the former catalog!

RDMO Exercise

Management

Create question Back Copy and continue editing Copy

URI Prefix
https://rdmo.dmp4nfdi.de/terms
The prefix for the URI of this question.

URI Path
DMP/Project/rdadmp_title
The path for the URI of this question.

Navigation

- Catalogs
- Sections
- Pages
- Question sets
- Questions

When copying, you can leave every former setting, but you should at least change the **URI Prefix** and the **URI Path** to avoid overwriting the original question.

Management

Catalog: example
https://rdmo.dmp4nfdi.de/terms/questions/example

Filter catalogs × All URI prefixes

Toggle elements: Sections Pages Question sets

Show URIs: ☒ Catalogs ☒ Sections ☒ Pages ☒ Question sets ☒ Questions ☒ Attributes

☒ Conditions ☒ Option sets

Section: Example Section
https://rdmo.dmp4nfdi.de/terms/questions/example_section 1

Page: Example Page
https://rdmo.dmp4nfdi.de/terms/questions/example_page 1

Navigation

- Catalogs
- Sections
- Pages
- Question sets
- Questions
- Attributes
- Option sets
- Options
- Conditions
- Tasks
- Views

Export

Export all visible elements.
XML

Now go back to your blanket catalog and click on “edit”, where you want to include the copied question.

RDMO Exercise

DMP4 nfdi Management Demo Tools Demo Instance Feedback Language Sabine Schönau

Title (English)
Example Page
The title for this page.

Short title (English)
The short title for this page, used in the navigation.

Help (English)
The help text for this page.

Name (English)
The name displayed for this page.

Attribute
Select...
Create new attribute
The attribute this page belongs to.

Elements
Add existing element Create new question Create new question set
The questions and question sets for this page.

Conditions
Add existing condition Create new condition
List of conditions evaluated for this page.

Editors
DMP4NFDI Demo
The sites that can edit this page (in a multi site setup).

Back Create and continue editing Create

Navigation
Catalogs
Sections
Pages
Question sets
Questions
Attributes
Option sets
Options
Conditions
Tasks
Views

Export
Export all visible elements.
XML
XML (full)
PDF
Rich Text Format
Open Office
Microsoft Office
HTML
Markdown
mediawiki
LaTeX

Import
Import an RDMO XML file.
Select file

You can now search for the **URI Path** of your copied question. After that click on "create". You will then see the question in your catalog.

Conclusion and next Steps

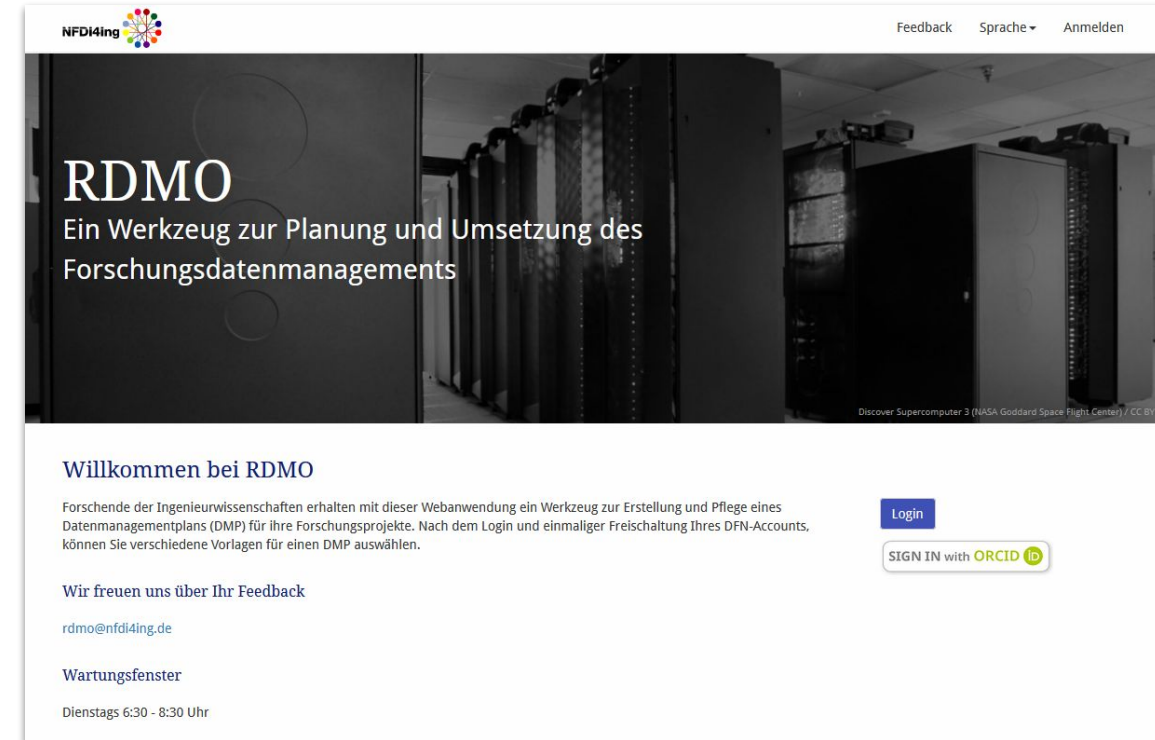
DMP4NFDI

Integration phase

- Incubator projects
 - Hosting RDMO
 - Template development
 - Integration of RDMO with other services
 - Support & training
 - Outreach to community
- 3-6 months
- Submission in preparation

Interested?

Get in touch with us: dmp4nfdi@lists.nfdi.de



Support Infos

- Website
 - <https://dmp.services.base4nfdi.de>
- Support
 - <https://dmp.services.base4nfdi.de/contact>

DMP4NFDI

Survey on Training Needs for DMPs/SMPs & RDMO

Help Shape the Future of DMP/SMP Training!

Share your insights on DMPs, SMPs, and the use of RDMO. Your input will guide future training initiatives for the NFDI and RDM community.

Scan me



Thank You !

