



TECHNISCHE  
UNIVERSITÄT  
WIEN

# Vorteile, Nutzen und Fallstricke eines DMPs

Barbara Sánchez

TU Wien, Zentrum für Forschungsdatenmanagement

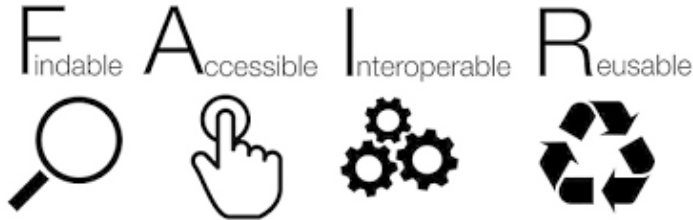
IKT DER ZUKUNFT: Interaktiver Workshop  
für Antragsteller\*innen, 22.2.2021

# Benefits

- Sichere Aufbewahrung und leichte Auffindbarkeit der Daten
- Dokumentation von Daten: Forschungsarbeit wird transparenter und besser nachvollziehbar
- Leichter Austausch zwischen den Projektpartnern und zwischen den Disziplinen
- Kosten- und arbeitsintensiv generierte Daten können von anderen genutzt werden
- Geklärte Rechtsverhältnisse in Bezug auf Eigentum und Verwendung
- Konformität mit Polycys und Richtlinien von Forschungsinstitutionen und Förderern

## Im Falle von Open Data:

- *Metrics beyond the paper*: Nicht nur Publikationen, auch Daten werden vermehrt in Evaluierungen miteinbezogen
- Eindeutige Zuordenbarkeit und dauerhafte Zitierbarkeit von Datensets durch DOIs
- Erhöhung der eigenen Sichtbarkeit
- *Underlying data* bei manchen Journals
- Erhöhung der Förderfähigkeit



- FAIR ≠ Open
- FAIRness for „closed“ data
- Sensitive data (privacy, IPR, ...)
- Data owner maintains full control over data and use
- Data Visiting instead of Data Sharing
- Enhancement of machine-actionability



## Open Data

- is **freely** available on the internet;
- permits any user to **download, copy, analyse, re-process**, pass to software or use for any other purpose; and
- is without financial, legal, or technical barriers other than those inseparable from gaining access to the internet

## CORE REQUIREMENTS FOR DATA MANAGEMENT PLANS



When developing solid data management plans, researchers are required to deal with the following topics and answer the following questions:

- 1. **Data description and collection or re-use of existing data**
  - a. How will new data be collected or produced and/or how will existing data be re-used?
  - b. What data (for example the kinds, formats, and volumes) will be collected or produced?
- 2. **Documentation and**
  - a. What metadata methodology of (data) will accomp
  - b. What data quality
- 3. **Storage and backu**
  - a. How will data ar during the resear
  - b. How will data sek taken care of dur
- 4. **Legal and ethical re**
  - a. If personal data a legislation on pers
  - b. How will other le rights and owne applicable?
  - c. How will possible codes of conduc

PRACTICAL GUIDE TO THE INTERNATIONAL ALIGNMENT

### 1. Data Summary

What is the purpose of the data collection/g objectives of the project?  
 What types and formats of data will the project g  
 Will you re-use any existing data and how?  
 What is the origin of the data?  
 What is the expected size of the data?  
 To whom might it be useful ('data utility')?

### 2. FAIR data

#### 2.1. Making data findable, including provisio

Are the data produced and/or used in the pr identifiable and locatable by means of a stand persistent and unique identifiers such as Digital O  
 What naming conventions do you follow?  
 Will search keywords be provided that optimize p  
 Do you provide clear version numbers?  
 What metadata will be created? In case metad discipline, please outline what type of metadata w


#### 2.2. Making data openly accessible

Which data produced and/or used in the project v default? If certain datasets cannot be share restrictions), explain why, clearly separating le voluntary restrictions.

Note that in multi-beneficiary projects it is also keep their data closed if relevant provisions are and are in line with the reasons for *opting out*.

How will the data be made accessible (e.g. by dep  
 What methods or software tools are needed to ac  
 Is documentation about the software needed to a  
 Is it possible to include the relevant software (e.g  
 Where will the data and associated metada deposited? Preference should be given to certifi access where possible.

Have you explored appropriate arrangements with  
 If there are restrictions on use, how will access be  
 Is there a need for a data access committee?  
 Are there well described conditions for access (i.e  
 How will the identity of the person accessing the d



**ERC OPEN RESEARCH DATA MANAGEMENT PLAN (DMP)**

European Research Council  
Established by the European Commission

Project Acronym	Project Number
<p><i>Template for the ERC Open Research how you plan to make the project c</i></p> <p><i>Each of the following five issues sh</i></p>	
<p><b>SUMMARY</b> (dataset<sup>2</sup> reference and and formats)</p>	

### FWF Datenmanagementplan (DMP) Vorlage - Guide

Datenbeauftragter	Wer ist für das Datenmanagement und den DMP des Projekts verantwortlich (Name/ E-mailadresse)?
<b>I Dateneigenschaften</b>	
<b>I.1 Beschreibung der Daten</b>	Welche Arten von Daten/Quellecode werden erzeugt oder wiederverwendet (Typ, Format, Volumen)? Wie werden die Forschungsdaten generiert und welche Methoden werden eingesetzt? Wie werden die Daten strukturiert und Versionierungen gehandhabt? Wer ist die Zielgruppe?
<b>II Dokumentation und Metadaten</b>	
<b>II.1 Metadatenstandards</b>	Welche Metadatenstandards (falls vorhanden) werden verwendet und warum? (siehe <a href="#">Digital Curation Centre</a> )
<b>II.2 Dokumentation der Daten</b>	Welche Informationen werden benötigt, damit die Daten in Zukunft auffindbar, zugänglich, interoperabel und wiederverwendbar ( <a href="#">FAIR</a> ) sind? Sind die Daten maschinenlesbar? Wie wollen Sie die Informationen dokumentieren?
<b>II.3 Kontrolle der Datenqualität</b>	Welche Qualitätssicherungsverfahren werden Sie anwenden? Wie werden die Konsistenz und Qualität der Datenerfassung kontrolliert und dokumentiert? (Dies kann zum Beispiel Prozesse wie Wiederholungsproben oder Messungen, standardisierte Datenerfassung, Peer Review von Daten oder Darstellung mit kontrolliertem Vokabular umfassen)
<b>III Datenverfügbarkeit und -speicherung</b>	
<b>III.1 Datennutzungsstrategie</b>	Wie und wann werden die Daten zur Verfügung gestellt und zugänglich gemacht? Welches Repository werden Sie verwenden? Welcher persistente Identifikator wird verwendet?
<b>III.2 Datenspeicherungsstrategie</b>	Welche Daten sollen langfristig aufbewahrt werden und welche Daten werden nicht gespeichert? Wie und wo werden die Daten während des Projekts gespeichert und gesichert? Wie und wo werden die Daten nach Projektende gespeichert? Wie lange werden die Daten gespeichert? Gibt es Kosten, die für die Archivierung anfallen? Zu welchem Zeitpunkt während oder nach dem Projekt werden die Daten gespeichert? Gibt es technische Hindernisse, um alle Forschungsdaten vollständig oder nur teilweise frei zugänglich zu machen?

FWF DMP Vorlage - Guide (01/2019)

<sup>1</sup> Based on 'Guidelines on FAIR Data Manag  
<sup>2</sup> Several datasets may be included into a single



# CORE REQUIREMENTS FOR DATA MANAGEMENT PLANS



When developing solid data management plans, researchers are required to deal with the following topics and answer the following questions:

- **1. Data description and collection or re-use of existing data**
  - a. How will new data be collected or produced and/or how will existing data be re-used?
  - b. What data (for example the kinds, formats, and volumes) will be collected or produced?

---

- **2. Documentation and data quality**
  - a. What metadata and documentation (for example the methodology of data collection and way of organising data) will accompany data?
  - b. What data quality control measures will be used?

---

- **3. Storage and backup during the research process**
  - a. How will data and metadata be stored and backed up during the research process?
  - b. How will data security and protection of sensitive data be taken care of during the research?

---

- **4. Legal and ethical requirements, codes of conduct**
  - a. If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?
  - b. How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?
  - c. How will possible ethical issues be taken into account, and codes of conduct followed?

- **5. Data sharing and long-term preservation**
  - a. How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?
  - b. How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?
  - c. What methods or software tools will be needed to access and use the data?
  - d. How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

---

- **6. Data management responsibilities and resources**
  - a. Who (for example role, position, and institution) will be responsible for data management (i.e. the data steward)?
  - b. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Science Europe: [Practical Guide to the International Alignment of Research Data Management](#)

# Die Fallen



# CORE REQUIREMENTS FOR DATA MANAGEMENT PLANS



When developing solid data management plans, researchers are required to deal with the following topics and answer the following questions:

- **1. Data description and collection or re-use of existing data**
  - a. How will new data be collected or produced and/or how will existing data be re-used?
  - b. What data (for example the kinds, formats, and volumes) will be collected or produced?

- **2. Documentation and data quality**
  - a. What metadata and documentation (for example the methodology of data collection and way of organising data) will accompany data?
  - b. What data quality control measures will be used?

- **3. Storage and backup during the research process**
  - a. How will data and metadata be stored and backed up during the research process?
  - b. How will data security and protection of sensitive data be taken care of during the research?

- **4. Legal and ethical requirements, codes of conduct**
  - a. If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?
  - b. How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?
  - c. How will possible ethical issues be taken into account, and codes of conduct followed?

- **5. Data sharing and long-term preservation**
  - a. How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?
  - b. How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?
  - c. What methods or software tools will be needed to access and use the data?
  - d. How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

- **6. Data management responsibilities and resources**
  - a. Who (for example role, position, and institution) will be responsible for data management (i.e. the data steward)?
  - b. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?



# CORE REQUIREMENTS FOR DATA MANAGEMENT PLANS



When developing solid data management plans, researchers are required to deal with the following topics and answer the following questions:

- **1. Data description and collection or re-use of existing data**
  - a. How will new data be collected or produced and/or how will existing data be re-used?
  - b. What data (for example the kinds, formats, and volumes) will be collected or produced?

---

- **2. Documentation and data quality**
  - a. What metadata and documentation (for example the methodology of data collection and way of organising data) will accompany data?
  - b. What data quality control measures will be used?

---

- **3. Storage and backup during the research process**
  - a. How will data and metadata be stored and backed up during the research process?
  - b. How will data security and protection of sensitive data be taken care of during the research?

---

- **4. Legal and ethical requirements, codes of conduct**
  - a. If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?
  - b. How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?
  - c. How will possible ethical issues be taken into account, and codes of conduct followed?

- **5. Data sharing and long-term preservation**
  - a. How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?
  - b. How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?
  - c. What methods or software tools will be needed to access and use the data?
  - d. How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

---

- **6. Data management responsibilities and resources**
  - a. Who (for example role, position, and institution) will be responsible for data management (i.e. the data steward)?
  - b. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?



# CORE REQUIREMENTS FOR DATA MANAGEMENT PLANS



When developing solid data management plans, researchers are required to deal with the following topics and answer the following questions:

- **1. Data description and collection or re-use of existing data**
  - a. How will new data be collected or produced and/or how will existing data be re-used?
  - b. What data (for example the kinds, formats, and volumes) will be collected or produced?

---

- **2. Documentation and data quality**
  - a. What metadata and documentation (for example the methodology of data collection and way of organising data) will accompany data?
  - b. What data quality control measures will be used?

---

- **3. Storage and backup during the research process**
  - a. How will data and metadata be stored and backed up during the research process?
  - b. How will data security and protection of sensitive data be taken care of during the research?

---

- **4. Legal and ethical requirements, codes of conduct**
  - a. If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?
  - b. How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?
  - c. How will possible ethical issues be taken into account, and codes of conduct followed?

- **5. Data sharing and long-term preservation**
  - a. How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?
  - b. How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?
  - c. What methods or software tools will be needed to access and use the data?
  - d. How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

---

- **6. Data management responsibilities and resources**
  - a. Who (for example role, position, and institution) will be responsible for data management (i.e. the data steward)?
  - b. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

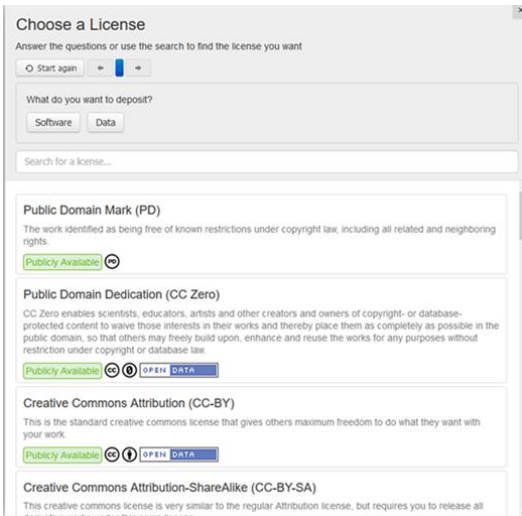
## Lizenzen für Daten

<https://creativecommons.org/>



## Lizenzen für Software

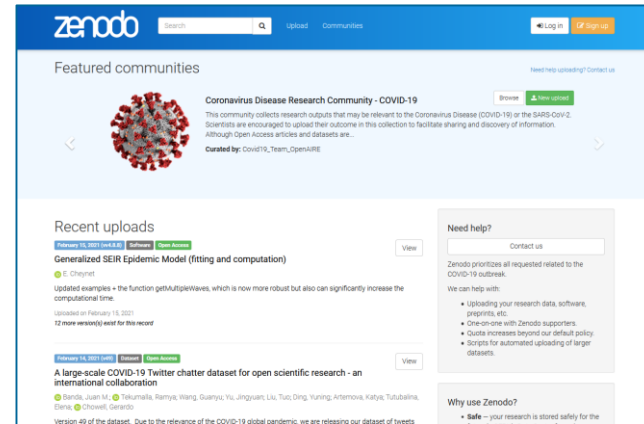
- <https://ufal.github.io/public-license-selector/>
- <https://choosealicense.com/>



## Repositorien



re3data: Register von 2.000 Datenrepositorien  
<https://www.re3data.org/>



GitLab

# Häufig nachgefragt: DMP-Beispiele

DMP Use Case Project (H2020 Projekte): <https://phaidra.univie.ac.at/view/o:1140797>

LIBER DMP CATALOGUE: <https://zenodo.org/communities/liber-dmp-cat/>

# Danke!

Sie können mich gerne für weitere Fragen kontaktieren.


## **Barbara Sánchez Solís**

TU Wien, Zentrum für Forschungsdatenmanagement

✉ [barbara.sanchez@tuwien.ac.at](mailto:barbara.sanchez@tuwien.ac.at)

Website: [www.tuwien.at/researchdata](http://www.tuwien.at/researchdata)

Weiterführende Infos zum Thema DMP: <https://www.tuwien.at/forschung/fti-support/forschungsdaten/dmp/>

 @RDMTUWien



Diese Präsentation ist mit einer Creative Commons Attribution 4.0 International License (CC BY 4.0) lizenziert.  
Sánchez, Barbara. Präsentation. Vorteile, Nutzen und Fallstricke eines DMPs. PPT