Plan & Design: Writing a DMP

1. Organize yourselves in 4 groups (5 minutes)
2. Each group will engage with one of the four sections of the SNSF DMP (20 minutes)
    - Read requirements
    - Write answers and questions
    - Discuss with other group members
    - Designate presenter
3. Presentation and discussion of findings (20 minutes)

Data Management Plan – content of the mySNF form

	Question	Help text
1 Data collection and documentation		
	1.1 What data will you collect, observe, generate or re-use? Questions you might want to consider: - What type, format and volume of data will you collect, observe, generate or reuse? - Which existing data (yours or third-party) will you reuse?	Briefly describe the data you will collect, observe or generate. Also mention any existing data that will be (re)used. The descriptions should include the type, format and content of each dataset. Furthermore, provide an estimation of the volume of the generated data sets. (This relates to the *FAIR Data Principles* F2, I3, R1 & R1.2)
	1.2 How will the data be collected, observed or generated? Questions you might want to consider: - What standards, methodologies or quality assurance processes will you use? - How will you organize your files and handle versioning?	Explain how the data will be collected, observed or generated. Describe how you plan to control and document the consistency and quality of the collected data: calibration processes, repeated measurements, data recording standards, usage of controlled vocabularies, data entry validation, data peer review, etc. Discuss how the data management will be handled during the project, mentioning for example naming conventions, version control and folder structures. (This relates to the *FAIR Data Principle* R1)
	1.3 What documentation and metadata will you provide with the data? Questions you might want to consider: - What information is required for users (computer or human) to read and interpret the data in the future? - How will you generate this documentation? - What community standards (if any) will be used to annotate the (meta)data?	Describe all types of documentation (README files, metadata, etc.) you will provide to help secondary users to understand and reuse your data. Metadata should at least include basic details allowing other users (computer or human) to find the data. This includes at least a name and a persistent identifier for each file, the name of the person who collected or contributed to the data, the date of collection and the conditions to access the data. Furthermore, the documentation may include details on the methodology used, information about the performed processing and analytical steps, variable definitions, references to vocabularies used, as well as units of measurement. Wherever possible, the documentation should follow existing community standards and guidelines. Explain how you will prepare and share this information. (This relates to the *FAIR Data Principles* I1, I2, I3, R1, R1.2 & R1.3)

2 Ethics, legal and security issues	
2.1 How will ethical issues be addressed and handled? Questions you might want to consider: - What is the relevant protection standard for your data? Are you bound by a confidentiality agreement? - Do you have the necessary permission to obtain, process, preserve and share the data? Have the people whose data you are using been informed or did they give their consent? - What methods will you use to ensure the protection of personal or other sensitive data?	Ethical issues in research projects demand for an adaptation of research data management practices, e.g. how data is stored, who can access/reuse the data and how long the data is stored. Methods to manage ethical concerns may include: anonymization of data; gain approval by ethics committees; formal consent agreements. You should outline that all ethical issues in your project have been identified, including the corresponding measures in data management. (This relates to the *FAIR Data Principle* A1)
2.2 How will data access and security be managed? Questions you might want to consider: - What are the main concerns regarding data security, what are the levels of risk and what measures are in place to handle security risks? - How will you regulate data access rights/permissions to ensure the security of the data? - How will personal or other sensitive data be handled to ensure safe data storage and -transfer?	If you work with personal or other sensitive data you should outline the security measures in order to protect the data. Please list formal standards which will be adopted in your study. An example is ISO 27001-Information security management. Furthermore, describe the main processes or facilities for storage and processing of personal or other sensitive data. (This relates to the *FAIR Data Principle* A1)
2.3 How will you handle copyright and Intellectual Property Rights issues? Questions you might want to consider: - Who will be the owner of the data? - Which licenses will be applied to the data? - What restrictions apply to the reuse of third-party data?	Outline the owners of the copyright and Intellectual Property Right (IPR) of all data that will be collected and generated, including the licence(s). For consortia, an IPR ownership agreement might be necessary. You should comply with relevant funder, institutional, departmental or group policies on copyright or IPR. Furthermore, clarify what permissions are required should third-party data be reused. (This relates to the *FAIR Data Principles* I3 & R1.1)

3 Data storage and preservation	
3.1 How will your data be stored and backed-up during the research? Questions you might want to consider: - What are your storage capacity and where will the data be stored? - What are the back-up procedures?	Please mention what the needs are in terms of data storage and where the data will be stored. Please consider that data storage on laptops or hard drives, for example, is risky. Storage through IT teams is safer. If external services are asked for, it is important that this does not conflict with the policy of each entity involved in the project, especially concerning the issue of sensitive data. Please specify your back-up procedure (frequency of updates, responsibilities, automatic/manual process, security measures, etc.)
3.2 What is your data preservation plan? Questions you might want to consider: - What procedures would be used to select data to be preserved? - What file formats will be used for preservation?	Please specify which data will be retained, shared and archived after the completion of the project and the corresponding data selection procedure (e.g. long-term value, potential value for reuse, obligations to destroy some data, etc.). Please outline a long-term preservation plan for the datasets beyond the lifetime of the project. In particular, comment on the choice of file formats and the use of community standards. (This relates to the *FAIR Data Principles* F2 & R1.3)

4. Data sharing and reuse		
	4.1 How and where will the data be shared? Questions you might want to consider - On which repository do you plan to share your data? - How will potential users find out about your data?	Consider how and on which repository the data will be made available. The methods applied to data sharing will depend on several factors such as the type, size, complexity and sensitivity of data. Please also consider how the reuse of your data will be valued and acknowledged by other researchers. (This relates to the *FAIR Data Principles* F1, F3, F4, A1, A1.1, A1.2 & A2)
	4.2 Are there any necessary limitations to protect sensitive data? Questions you might want to consider: - Under which conditions will the data be made available (timing of data release, reason for delay if applicable)?	Data have to be shared as soon as possible, but at the latest at the time of publication of the respective scientific output. Restrictions may be only due to legal, ethical, copyright, confidentiality or other clauses. Consider whether a non-disclosure agreement would give sufficient protection for confidential data. (This relates to the *FAIR Data Principles* A1 & R1.1)
	4.3 I will choose digital repositories that are conform to the FAIR Data Principles. [CHECK BOX]	The SNSF requires that repositories used for data sharing are conform to the FAIR Data Principles. For more information, please refer to the SNSF's explanation of the *FAIR Data Principles*.
	4.4 I will choose digital repositories maintained by a non-profit organisation. [RADIO BUTTON yes/no] → If the answer is no: "Explain why you cannot share your data on a non-commercial digital repository."	The SNSF supports the use of non-commercial repositories for data sharing. Costs related to data upload are only covered for non-commercial repositories.