NWO Data Management Plan Assessment Rubric

This is an assessment rubric[1] for DMPs following the NWO Data Management Plan template in force from September 2020, which matches the Science Europe's Core Requirements for Data Management Plans. This rubric is intended to assist in the assessment of NWO data management plans, against the criteria required by NWO.

The rubric has been divided into 'performance criteria' (on the left hand side) that match the questions and guidance in the NWO DMP template (version September 2020). Each performance criterion is followed by descriptions ('performance levels') outlining what NWO considers to be a sufficient and an insufficient level of response. The descriptions are intended as examples of how the performance criteria might be addressed, based on the DMP template and its respective guidance, and are not considered to be exhaustive. NWO encourages researchers to be as detailed as possible in completing data management plans for NWO-funded projects.

Performance Criteria		Performance Levels	
DMP Question	**DMP Guidance**	**Sufficiently Addressed**	**Insufficiently Addressed**
0.1 Name applicant and project number	Provide the name of the project leader and the project number provided by NWO.	Provides both the name of project leader and project number provided by NWO.	No information provided or only project leader or project number is provided.
0.2 Name of data management support staff consulted during the preparation of this plan Date of consultation with support staff	Project leaders are expected to consult with data management support staff at their home institution for the completion of this plan. **Plans that have not been consulted with institutional data management support staff will not be considered.**	Provides both the name of data management support staff consulted and date of consultation.	No information provided or only name or consultation date is provided.

---

[1] This rubric is inspired by and based on the Wellcome DMP assessment rubric v2.0 (http://doi.org/10.5281/zenodo.257650) and the Ghent University rubrics for DMPs (https://github.com/DMPbelgium/Guidance/tree/master/DMPReviewRubrics).

			One of the boxes checked.	None of the boxes checked and no explanation provided.
1.1	Will you re-use existing data for this research? ☐ Yes ☐ No **If yes**: explain which existing data you will re-use and under which terms of use.	NWO encourages the re-use of existing data wherever possible. Explain which existing data you will re-use and state any constraints on re-use of existing data if there are any.	If 'Yes' is selected, it clearly indicates the source(s) of any existing data being re-used and explains the terms of re-use. Otherwise, if 'No' is selected, no explanation required.	'Yes' is selected, but it doesn't specify source(s) of any existing data being re-used and/or the terms of re-use.
1.2	If new data will be produced: describe the data you expect your research will generate and the format and volumes to be collected or produced.	- Give details on the kind of data: for example numeric (databases, spreadsheets), textual (documents), image, audio, video, and/or mixed media. - Give details on the data format: the way in which the data is encoded for storage, often reflected by the filename extension (for example pdf, xls, doc, txt, or rdf). - Give preference to open and standard formats as they facilitate sharing and long-term re-use of data. Several repositories provide lists of such 'preferred formats' (see e.g. DANS File Formats and 4TU.ResearchData Preferred Formats).	Clearly describes or lists what data types will be generated (e.g. numeric, textual, audio, video, etc.) and their associated data formats. Alternatively, it clearly states that no new data will be produced or generated by the project. NB. Information derived from previously existing data sources (as listed in question 1.1) – namely, output, processed, analysed data – are to be considered new data under this question.	No information provided, without a valid reason to do so (e.g. a statement that no data will be produced or generated); or only lists/describes data types without specifying the data formats; alternatively, it only lists formats, without specifying the data types.
1.3	How much data storage will your project require in total? ☐ 0 – 10 GB ☐ 10 – 100 GB ☐ 100 – 1000 GB ☐ >1000 GB		One of the boxes checked. Or none of boxes is checked, but there is an explanation. That explanation may include a statement that an estimate is not yet possible, but the plan will be updated with that information in a revised version.	None of the boxes checked and no explanation provided.

2.1	Indicate what documentation will accompany the data.	- Consider what other documentation is needed to enable re-use. This may include information on the methodology used to collect the data, analytical and procedural information, definitions of variables, units of measurement, and so on. - Consider how this information will be captured and where it will be recorded, for example in a database with links to each item, a 'readme' text file, file headers, code books, or lab notebooks.	Clear (even if brief) outline of documentation needed to enable data re-use, stating where the information will be recorded (e.g. a database with links to each item, a 'readme' text file, file headers, code books, or lab notebooks).	No information provided, or only a very vague mention of documentation, without providing any detail or explanation.
2.2	Indicate which metadata will be provided to help others identify and discover the data.	- Where these are in place, researchers are advised to use community metadata standards. The Research Data Alliance maintains a Directory of Metadata Standards. - Depositing data in a certified or trustworthy repository will typically involve providing information about the data according to a metadata standard scheme (typically Dublin Core or DataCite Metadata Schema). If this is the case for the data described in this plan, that can be specified here.	Clear (even if brief) outline of metadata that will accompany the data, with reference to good practice in the community (e.g. metadata standards), where this is possible. May indicate that no metadata standards exist for the discipline. Reference to a trustworthy repository where the data will be stored and metadata scheme applied by repository is also an acceptable answer.	No information provided or very vague mention of metadata without any detail or explanation.
3.1	Describe where the data and metadata will be stored and backed up during the project. ☐ Institution networked research storage ☐ Other (please specify)		One or two of the boxes checked.	None of the boxes checked and no explanation provided.

		Explanation:	Give preference to the use of robust, managed storage with automatic backup, such as provided by IT support services of your home institution. Most research institutions have networked research drives, which offer ample storage space and data security for most purposes. Please specify if you make use of other storage solutions for storage and backup of research data during the project, in addition to or instead of the institutional research drive. This may be because you need more space than offered by your institution; to facilitate data sharing with collaborators; or because your data requires additional security. Please explain.	If only 'Institution networked research storage' selected, it doesn't require further explanation. If 'Other' is (also) selected, then it clearly explains why institutional storage cannot be used (and for what part of the data) and describes the (additional) locations, storage media and procedures that will be used for storing and backing up data during the project.	'Other' is selected, but no explanation why is provided and/or there is no description of how data will be stored and backed up during the project.
3.2	How will data security and protection of sensitive data be taken care of during the research? ☐ Not applicable (no sensitive data) ☐ Default security measures of the institution networked research storage ☐ Additional security measures (please specify)			At least one of the boxes checked.	None of the boxes checked and no explanation provided.
	Explanation:		Consider data protection, particularly if your data is sensitive – for example, containing personal data, politically sensitive information or information relating to religion and health, trade secrets or national security information.	If 'Not applicable' is selected, or if only 'Default security measures of the institution networked research storage' is selected, then no additional explanation is required.	'Additional security measures' is selected but there is no explanation or the explanation is too vague.

			Describe the main risks and how these will be managed. Inquire with your institution's research support staff whether your intended storage solution meets your institution's data security policy if your research involves sensitive data.	If 'Additional security measures' is (also) selected, then it clearly describes the additional security measures (in terms of physical security, network security, and security of computer systems and files) that will be taken to ensure that stored and transferred data are safe.	'Not applicable (no sensitive data)' is selected, but this is in contradiction with the answers to the questions in section 4. For example, if personal data is clearly being stored and processed and/or there are intellectual property rights to the data.
4.1	Will you process and/or store personal data during your project? ☐ Yes ☐ No			One of the boxes checked.	None of the boxes checked and no explanation provided.
	If yes, how will compliance with legislation and (institutional) regulation on personal data be ensured?		If yes, NWO strongly recommends that you seek advice from specialised support staff at your university or institute. You must ensure that when dealing with personal data, data protection laws (for example GDPR/ Dutch AVG) are complied with.	If 'Yes' is selected, it clearly describes how compliance with applicable legislation will be ensured (e.g. use of informed consent forms, encryption, managed access to the data). Alternatively, it states that advice is being sought from privacy specialists at the project's host institution and that the plan will be updated accordingly.	'Yes' is selected, but there is no explanation, or the explanation is too vague, particularly when there is no indication that specialised support staff at the home institution have been consulted or are going to be consulted.
4.2	How will ownership of the data and intellectual property rights to the data be managed?		- Explain who will be the owner of the data, meaning who will have the rights to control access. - Make sure to cover these matters of rights to control access to data for multi-partner projects and multiple data owners in the consortium agreement. - Indicate whether intellectual property rights are affected. If so, explain which and how they will be dealt with.	If applicable, it clearly explains who will have rights to control access to which part of the data and how intellectual property rights will be managed. For multi-partner projects and multiple data owners, it explains how these matters are addressed in the consortium agreement. It may state that this agreement is still being discussed and that the plan will be updated accordingly. Alternatively, there is a clear statement that there are no such restrictions on the data.	Does not address this issue or only for a subset of the data, without good reason or explanation for doing so. It is a multi-partner project and matters of rights to control access to the data are not addressed at all, without good reason or explanation for not doing so.

			One of the boxes checked.	None of the boxes checked and no explanation provided.
5.1	How will data be selected for long-term preservation? ☐ All data resulting from the project will be preserved for at least 10 years ☐ Other (please specify)			
	Explanation:	- Indicate what data must be retained or destroyed for contractual, legal, or regulatory purposes. Indicate how it will be decided what data to keep. Describe the data to be preserved long-term. - NWO expects you to preserve the data resulting from your project for at least ten years, unless legal provisions or discipline-specific guidelines dictate otherwise.	If 'All data resulting from the project will be preserved for at least 10 years' is selected, then no additional explanation is required. If 'Other' is selected, it clearly indicates which (versions of) data and accompanying documentation will be retained or destroyed, and explains rationale (e.g. contractual, legal, or regulatory purposes).	'Other' is selected and no further information is provided or lacks adequate explanation.
5.2	Are there any (legal, IP, privacy related, security related) reasons to restrict access to the data once made publicly available, to limit which data will be made publicly available, or to not make part of the data publicly available? ☐ Yes ☐ No		One of the boxes checked.	None of the boxes checked and no explanation provided.
	If yes, please explain.	Indicate whether there are any restrictions on the re-use of the data. If it is necessary to restrict access to certain parts of the data or to apply a data sharing agreement, explain how	If 'Yes' is selected, it clearly explains what are the restrictions on data re-use and their rationale. It also explains what actions, where possible, will be taken to overcome or to minimize such restrictions. Otherwise,	'Yes' is selected, but there is no explanation, or the explanation is too vague or deemed inadequate. Alternatively, 'No' is selected, but this is

				One of the boxes checked.	

			and why. Explain what actions will be taken to overcome or to minimize restrictions.	if 'No' is selected, no explanation is required.	in contradiction with the explanation given in question 5.1 above.
5.3		What data will be made available for re-use? ☐ All data resulting from the project will be made available ☐ Other (please specify)		One of the boxes checked.	None of the boxes checked and no explanation provided.
		Explanation	Indicate what data will be made available for re-use. This selection may differ from the data that is preserved, when the data are so large that it is unfeasible to deposit the data in a repository in its entirety, or if there are reasons that prohibit making data available for re-use as specified in the previous question.	If 'Other' is selected, it clearly indicates which (versions of) data and accompanying documentation will be made publicly available for reuse and explains why not all the results from the project will be made available. Otherwise, if "All data …" is selected, no explanation is required.	'Other' is selected, but there is no explanation, or the explanation is too vague or incomplete (e.g. does not clearly indicate which part of the data will be made available and/or does not explain why some parts of the data will not be made available).
5.4		When will the data be available for re-use, and for how long will the data be available? ☐ Data available as soon as article is published ☐ Data available upon completion of the project ☐ Data available after completion of project (with embargo)		At least one of the boxes checked.	None of the boxes checked and no explanation provided.
		Explanation	Explain when the data will be made available. Indicate the expected timely release. Explain the reason and duration of any embargo periods. Explain whether exclusive use of the data will be	If the data or parts thereof will not be available as soon as research articles are published (i.e., if boxes other than 'Data available as soon as article is published' are	No information provided or only offers a vague or inadequate explanation for not making data available alongside article publications.

	claimed and if so, why and for how long. Indicate whether data sharing will be postponed or restricted for example to publish, protect intellectual property, or seek patents. As a minimum, NWO requires that the data underpinning research papers should be made available to other researchers at the time of the article's publication, unless there are valid reasons not to do so.	selected), it clearly explains the reason for not intending to publish data alongside article publications, including the reason for and duration of any embargo periods. NB. As a minimum, NWO requires that the data underpinning research papers should be made available at the time of the article's publication, unless there are valid reasons not to do so.	
5.5	In which repository will the data be archived and made available for re-use, and under which license?	- Indicate where the data will be deposited and made available for re-use. Repository Finder can help you find an appropriate repository to deposit your research data. - Indicate whether a persistent identifier will be pursued. Typically, a trustworthy, long-term repository will provide a persistent identifier. - Indicate under which license the data may be re-used. Check the commonly used Creative Commons licenses. - Indicate whether the repository is certified. In case no such repositories can be found or are suitable, NWO advises adherence to the following minimum selection criteria: provision of persistent and unique identifiers; use of metadata standards that are broadly accepted by the scientific community; provision of information that is publicly available; enabling access to data	Provides name of the repository that will be used to make data available for re-use, indicating whether a persistent identifier (e.g. DOI, Handle, URN, ARK) will be assigned to the data (if not, why not) and under what licence(s) the data will be made available. Specific details (on the repository itself, persistent identifier, and license) may not be available at the time of writing of the DMP. It may be stated that the plan will be updated with that information in a revised version, as long as there is also a clearly stated intention and plan to archive the data in a repository, or an explanation of why this may not be possible. NB. An institutional server or network research drives, or a (project) website are	Does not indicate name of the repository that will be used to make data available for re-use and/or does not make any mention at all to licenses or persistent identifiers, without a valid reason for not providing any of these pieces of information.

		under well-specified conditions and following open and standard access protocols; provision of information about licenses and permissions; ensuring persistence of data and metadata.	not to be considered repositories for the purpose of this question.	
5.6	Describe your strategy for publishing the analysis software that will be generated in this project.	Indicate whether potential users need specific tools or software (e.g. specific scripts, codes or algorithms developed during the project) to access, interpret and (re-)use the data. Indicate how these items will be made available. Consider the sustainability of software needed for accessing and interpreting the data. Check the Five Recommendations for FAIR Software.	If not applicable, field may be left blank. If applicable, it clearly indicates which specific tools or software (e.g. specific scripts, codes or algorithms developed during the project) potential users may need to access, interpret and (re-)use the data. Outlines also a strategy for making these items available. Full details may not be yet available, but there is a clearly stated intention and plan to do so, or explanation of why this may not be possible.	It is stated that software (developed during the project) will be necessary to access and interpret the data, but no explanation of how it will be made available (or why that may not be possible) is offered.
6.1	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)?	Explain how the necessary resources (for example time) to prepare the data for sharing/preservation (data curation) have been costed in. Indicate whether additional resources will be needed to prepare data for deposit or to cover any charges from data repositories. If yes, explain how much is needed and how such costs will be covered. Please elaborate on the budget in your NWO grant application, if appropriate.	There is a statement that no additional resources are needed. Or it provides estimates of the necessary resources and costs to prepare the data for sharing and long-term preservation. Elaborates on the budget in the NWO grant application, if applicable.	No answer provided, or it is stated that resources are needed, but details are not provided.