EARTO Feedback
on the EC H2020 Data Management Plan's Template

17 July 2020

EARTO is a strong supporter of the European Commission (EC)'s efforts towards simplification of the EU R&I Framework Programmes (FPs). The EC services are now looking at streamlining data management within Horizon Europe projects, especially by providing an updated Data Management Plan (DMP) template. EARTO is happy to provide RTOs' feedback on the current EC Horizon 2020 DMP, as input towards the future Horizon Europe template.

In addition to this input, EARTO members are ready to provide their expertise to further contribute to the update of the EC DMP template. EARTO members are also willing to volunteer to test the pilot DMP template and provide further feedback and comments once it is ready.

1. General recommendations:

When making the new Data Management Plan template for Horizon Europe, the European Commission should:

- **Make its purpose clear:** The DMP needs to follow the logic of data management, whose aim is to improve the quality of research by making data FAIR. Clarifying the difference between FAIR data and open data is essential: FAIR data can be either open or closed, but open data needs to be FAIR first in order to be re-usable. It should be made clear in the DMP that making data open is only one of the options amongst others, and that it is not the end goal of the DMP. The DMP should also contribute to raise awareness of researchers regarding IPR and data ownership issues.
- **Ensure its user-friendliness:** The Data Management Template should be kept to the point and focus on a key set of essential questions. The minimum requirements to answer the different questions should also be made clear (incl. the level of details needed). This would ensure that all essential points are properly filled in by researchers. An intuitive structure should also be promoted, avoiding repetition and overlaps. The use of elucidation notes and concrete examples would also help researchers better understand the DMP-specific terminology (e.g. FAIR data, data storage, archiving, etc.).
- **Adopt a flexible approach:** To be efficient, any Data Management guidelines need to remain flexible in order to adapt to the specificities of the project and to the specific RD&I discipline. Incentives should be given for beneficiaries to use the EC DMP template, but this should not be made compulsory as some beneficiaries have developed advanced and tailored DMPs in compliance with EU rules and requirements. Such flexibility would enable data to be made "as open as possible, and as closed as necessary", thereby fostering the re-usability of research data.
- **Ensure its adaptability over the project lifecycle:** Researchers need to think of data management and how the data produced will be managed and used from the beginning of the project (incl. aspects such as ethics and legal issues). This is essential to prevent any issues in the implementation phase. An initial/light version of the DMP sufficient for the evaluation should be used in the preparatory phase (this is an important and time-consuming effort for large consortia to agree on), and then a longer/more detailed version of the DMP should be requested when the project is approved. The DMP needs to be thought as a living document and should include two sections: (1) the first should be adapted throughout the grant lifecycle whenever it is necessary, as snapshots of an evolving plan; and (2) the second should consist in a DMP report describing the datasets that will need to be preserved after the project has ended. These two aspects (DMP day-to-day tool to track research progress and DMP report) should not be confused.
- **Make it interoperable:** Recent developments and new digital tools impacting the way researchers manage their data also need to be taken into account by research funders. For instance, software such as electronic lab-books are increasingly used to record the research process, to track research progress, to ensure quality of research results, and sometimes even specifically to manage research data (e.g. in Germany RDMO – Research Data Management Organiser). In practice this translates to either developing electronic interfaces allowing for interoperability between research organisations' systems and the electronic version of the EC DMP template, or directly accepting reports being produced with these systems.
- **Include other aspects than FAIR, especially ethical (incl. management of personal data) and security aspects:** Ethical aspects and the management of personal data (linked to GDPR) need to be clearly defined.

2. More detailed comments on the current European Commission Data Management Template:

	EC H2020 DMP Template	EARTO text changes proposals	EARTO Comments
	Introduction		
	This Horizon 2020 DMP template has been designed to be applicable to any Horizon 2020 project that produces, collects or processes research data. You should develop a single DMP for your project to cover its overall approach. However, where there are specific issues for individual datasets (e.g. regarding openness), you should clearly spell this out.		
	Guidelines on FAIR Data Management in Horizon 2020 are available in the Online Manual.	**EARTO suggests moving the following section to the beginning of the DMP template, instead of in the end:** **Guidelines and support in developing your DMP** • Guidelines on FAIR Data Management in Horizon 2020 are available in the Online Manual. • The Research Data Alliance provides a Metadata Standards Directory that can be searched for discipline-specific standards and associated tools. • The EUDAT B2SHARE tool includes a built-in license wizard that facilitates the selection of an adequate license for research data. • DMP online and platforms for making individual scientific observations available such as ScienceMatters. • Discipline specific guidelines, explanations and examples/case studies; for example by the German Research Foundation (Link 1 and/or Link 2) Useful listings of repositories include: • re3data – Registry of Research Data Repositories • Some repositories like Zenodo (an OpenAIRE and CERN collaboration), allow researchers to deposit both publications and data, while providing tools to link them.	• Information should be provided to beneficiaries on how reviewers check the DMP (incl. how it is evaluated, what level of details is required, and how it can affect the success of the proposal). • The new Template should provide a short list of approved guidelines and examples (incl. link to the main data repositories in Europe such as re3data – Registry of Research Data Repositories) while still aiming at remaining user-friendly. Concrete discipline-specific guidelines and examples are indeed of considerable help to researchers when planning their data management and documenting their DMP. Examples of valuable external websites include the German Research Foundation upcoming a website with discipline-specific guidelines, but also some of the standards from the Fairsharing database or the example DMPs from the DCC Horizon 2020 collection or the LIBER DMP catalogue. • In general, persistent short links should be used, and their destination should be updated in case of website changes (e.g. by using some persistent identifier service). That would enable the hyperlinks within the template to remain accurate and up to date.
	FAIR data management	**EARTO suggests adding a link to the go-fair.org initiative.**	• As detailed in the general comments above, the structure of the DMP should be made more intuitive and user-friendly. Following the FAIR principles makes this DMP template repetitive at times, and quite lengthy.
	Structure of the template	**EARTO suggests updating the title of this paragraph:** ~~**Structure of the template**~~	• Any DMP, especially ones which are requested at an early stage of a research project, should include two main chapters: 1. A first chapter to be considered as snapshots of an evolving plan, to be adapted throughout the grant lifecycle with a new

	The template is a set of questions that you should answer with a level of detail appropriate to the project. It is not required to provide detailed answers to all the questions in the first version of the DMP that needs to be submitted by month 6 of the project. Rather, the DMP is intended to be a living document in which information can be made available on a finer level of granularity through updates as the implementation of the project progresses and when significant changes occur. Therefore, DMPs should have a clear version number and include a timetable for updates. As a minimum, the DMP should be updated in the context of the periodic evaluation/assessment of the project. If there are no other periodic reviews envisaged within the grant agreement, an update needs to be made in time for the final review at the latest. In the following the main sections to be covered by the DMP are outlined. At the end of the document, Table 1 contains a summary of these elements in bullet form. This template itself may be updated as the policy evolves.	**How to use this template to draft your Data Management Plan?**	version as soon as it is necessary (living document), in which the data produced are described (incl. how they abide by the FAIR requirements) 2. A second chapter describing the datasets once the project has ended. This chapter should specify which datasets are worth preserving in the long-term because of the interest in their re-use (cost-benefits analysis), and it should also detail the reason why other datasets were not considered useful to be preserved in the long run. • DMPs should be considered as living documents. In that respect, it should include clear principles for updating the document (incl. level of details required and under what timeline). The schedule and responsibility for reporting should be considered within the plan itself. • The first page of the template should include a table for versioning (Author/Data/Version(comment)), and well as some space for information on the project (incl. goal and scientific method).
1. Data summary			
	What is the purpose of the data collection/generation and its relation to the objectives of the project? What types and formats of data will the project generate/collect?	**EARTO suggests adapting the questions under this section:** What is the purpose of the data generation/processing and its relation to the objectives of the project? *Note: You may relate to corresponding sections in your proposal documents.* Will you re-use any existing data and how? What is the origin of the data? Is this data openly available and where (provide persistent identifier such as Digital Object Identifiers)? If data are from external sources what are their licences and terms of use?	• It is difficult to describe the datasets globally. It would be useful to provide a description by family of datasets according to how they were produced for instance. • We would also suggest beneficiaries to insert tables where differences between subprojects are to be shown. • Under the headline "Data Summary": beneficiaries can use two different tables to distinguish between the re-use of existing data and new data. Under the and "FAIR Data" headline: one table can be used for the whole section enhancing the table on new data with the most relevant FAIR aspects).

	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')?	What types and formats of data will the project generate/collect? *Note: You may relate to corresponding sections in your proposal documents. If your project includes many different sub-projects/datasets, you may include tables (for instance, one table for data being re-used and one table for data being created).* Will data or sample collection include notifiable practices and when will you inform the responsible authorities? What is the expected size of the data (if known)? To whom might it be useful ('data utility')?	• The question on the open availability of the data has been moved from the "FAIR data – Findable" section to better differentiate between new data created and already published datasets, which should not be described under the section FAIR data of this new project.
2. Policies and Guidelines (new)			
		EARTO suggests adding a new section on "Policies and Guidelines": Do you make use of other national/ funder/ sectorial/ departmental procedures for data management? If yes, which ones?	• Policies are important and helpful: it's good for researchers to think already from the start of the project about why and how making the data accessible to others (question "To whom might it be useful" in 1. Data summary). • It would be advisable to think about relevant (e.g. disciplinary) policies as early as possible. That's why a question regarding relevant policies could be included right after Data Summary, for such question not to be "hidden" under "6. Other issues". • It would also be advisable here to specify if the way the data will be managed, stored and shared only needs to meet the funders' requirements, or if one or several of the partners also have a specific policy and strategy regarding data management.
3. FAIR data (re-numbered)			
(new) **Introduction**		**EARTO suggests adding a new introductory paragraph under FAIR data, as follows:** • If your project includes many different subprojects/datasets, you may include a table on the most important FAIR aspects that differ between the datasets (e.g., whether data is published and why not, which metadata standards are used, which license is used, responsibility). • In this section "FAIR data", please only include datasets that are not published yet. If you are re-using existing datasets, please mention them and their persistent identifier if applicable under section "1. Data summary". However, if you are re-using datasets from your institution(s) that are not available yet but will be published in the course of the project, please include them in this section and make considerations about their accessibility.	• It is advisable to clearly differentiate between (1) existing open data which should not be mentioned under FAIR data but under Data Summary (re-use of existing data), to avoid confusion, and (2) newly created data, or existing data that is newly made accessible (only these should be described under 3. FAIR Data).

3.1 Making data findable (re-numbered)	Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)? What naming conventions do you follow? Will search keywords be provided that optimize possibilities for re-use? Do you provide clear version numbers? What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.	**EARTO suggests adapting the questions as follows:** Are the data that your project ~~produced and/or used~~ publishes discoverable~~ with metadata~~, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)? What naming conventions do you follow? Are you providing search keywords / descriptive metadata while publishing your dataset at a repository to optimize possibilities for other researchers to find your dataset when they are searching? Will you use a discipline-specific vocabulary or follow an International Standard Classification of your discipline to describe your dataset? Are you linking datasets to corresponding publications at journals and appropriate research information systems? Do you provide clear version numbers? ~~What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how~~.	• Some questions were rephrased for better understanding. • It is important to underline that findability is not just about the dataset possibly showing up in a search, but also about being able to retrieve the most relevant search results and being able to evaluate if a resource is useful. • The added question is necessary to clarify whether datasets will be linked to corresponding publications at journals and appropriate research information systems. This is an important aspect to make data findable. • The metadata question should be moved to the section Interoperability.
3.2 Making data ~~openly~~ accessible (re-numbered and re-named)	Which data produced and/or used in the project will be made openly available as the default? If certain datasets cannot be shared (or need to be shared under restrictions), explain why, clearly separating legal and contractual reasons from voluntary restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if relevant provisions are made in the consortium agreement and are in line with the reasons for opting out. How will the data be made accessible (e.g. by deposition in a repository)? What methods or software tools are needed to access the data?	**EARTO suggests renaming this section and adapting the questions as follows:** Who has rights of ownerships over the data produced during the project, and what are the terms of use of such data by the different partners involved? Which data produced and/or used in the project will be made openly available ~~as the default~~? ~~If certain datasets cannot be shared (or need to be shared under restrictions), explain why, clearly separating legal and contractual reasons from voluntary restrictions.~~ Which data will not be made openly available and why? *Note that ~~in multi-beneficiary projects~~ it is ~~also~~ possible for beneficiaries to keep their data closed if relevant provisions are made in the consortium agreement and opt-out possibilities for open research data exist.* If there are restrictions on use, how will access be provided? Is there a need for a data access committee? Are there well described conditions for access (i.e. a machine-readable license)? How will the identity of the person accessing the data be ascertained?	• This subsection needs to be renamed: FAIR data is about making data accessible, not necessarily open. The DMP needs to follow the logic of data management, whose aim is to improve the quality of research by making data FAIR. Clarifying the difference between FAIR data and open data is essential: FAIR data can be either open or close, but open data needs to be FAIR first. It should be made clear in the DMP that making data open is only one of the options amongst others, and that it is not the end goal of the DMP. • Clarifying the rights of ownership of data and the terms of use by the different project partners are key elements that needs to be discussed before the project start. • A clear distinction and separation should be made between the data which will be made openly available and the data which will not. A note also needs to make clear that the DMP is not about making data open, and that it is possible for beneficiaries to keep it closed as long as the FAIR principles are respected. • The question on where the data and associated metadata will be deposited should be strongly emphasised. For supporting beneficiaries there should be another reference to national, institutional and disciplinary-specific repositories. This could help

	Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)? Where will the data and associated metadata, documentation and code be deposited? Preference should be given to certified repositories which support open access where possible. Have you explored appropriate arrangements with the identified repository? If there are restrictions on use, how will access be provided? Is there a need for a data access committee? Are there well described conditions for access (i.e. a machine readable license)? How will the identity of the person accessing the data be ascertained?	How will the data be made accessible? Where will the data and associated metadata, documentation and code be deposited? *Note: You may use national or institutional repositories and/or disciplinary-specific repositories. Preference should be given to certified repositories, ~~which support open access~~ where possible.* • *You may consult listings of repositories (like Re3data - Registry of Research Data Repositories)* • *Some repositories (like Zenodo, an OpenAIRE and CERN collaboration), allow researchers to deposit both publications and data, while providing tools to link them.* • *There are platforms for making individual scientific observations available such as ScienceMatters.* What methods or software tools are needed to access the data? Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)? Have you explored appropriate arrangements with the identified repository? *Note: if necessary describe the costs in section 7 and make sure to include them in your grant application.* Is there a timeline for data access?	avoid that all data are published in Zenodo, where only datacite search is possible. It should be possible to search for discipline-specific values, but also harvesting by OpenAire should be possible. Clarifying the characteristics of a suitable/trustworthy repository would also be useful. • The cost for making data FAIR needs to be eligible under H2020 and Horizon Europe. There should be a note within this template that costs are eligible, but must be included in the budget of the EU action. • The question of the timeline for data access should cover both the possible duration of an embargo period before opening but also the duration over time. The EC should also provide recommendations on the sustainability of data conservation over time.
3.3 Making data interoperable (re-numbered)	Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins)?	**EARTO suggests adapting the questions as follows:** Are the data produced in the project interoperable? *Note: Interoperable data is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins). It refers especially to three aspects:* • *file formats* • *data and metadata standards and/or controlled vocabularies* • *documentation* What file formats are you providing? *Note: It is advisable to archive both usual proprietary file formats (that are common in the discipline) AND copies of the data in more open file formats, e.g. .csv files additionally to proprietary tables/databases).*	• In this section, the first question is a very general one, and the other questions in this section should be considered as "subquestions" to help answer the first more general one. • To improve clarity, questions should be kept simple and to the point. Any precisions/clarification/definitions should be included in the form of "notes" or "elucidations" and clearly formatted as such. • A note should be added on file formats including examples.

		• *You may give a general statement and refer to a corresponding table for details.* • *Information on suitable file formats can be found on specific websites (e.g. such as the UK Data Service guide).*	
	What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?	What metadata will be created? What metadata are required to understand and reuse the data? What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable? How do you make sure the metadata descriptions are complete? *Note: In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.* *Relevant disciplinary policies (see question 2) and research data management services can support beneficiaries and provide information on relevant standards in your discipline.* • *The Research Data Alliance provides a Metadata Standards Directory that can be searched for discipline-specific standards and associated tools.* • *Other curated resources on data and metadata standards can be found at FAIRsharing.org and at the Digital Curation Centre.*	• Emphasis should be put on this question, since without sample descriptions of the measurements data is often useless. • In addition, as there are different kinds of "metadata" (in terms of findability, in terms of interoperability and in terms of reusability), these should be more differentiated in the template. It could be useful to explain and differentiate between structural, administrative and descriptive metadata: ○ Structural metadata: e.g. the file and directory structure, record trail of steps taken during collection and analysis, information about data formats. ○ Administrative metadata: e.g. licences, access rights. ○ Descriptive metadata: the context and information about the data, e.g. the name of dataset, research discipline, persistent identifier, the time and place of collection and publishing of the dataset, authorship and ownership, content description (keywords, variables, etc.).
	Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies?	Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? If not: How will you document your project specific data and metadata standards, ontologies or vocabularies? ~~In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies~~ Will you provide mappings to more commonly used standards/ontologies? Where are these documentations to be found? Will you include thorough documentation on your data and metadata and how? Where are these documentations to be found? *Note: This refers to aspects such as:* • *Are you providing Readme.txt files in your data folders?* • *What folder structures and naming conventions do you follow?* • *Are you documenting the used data and metadata standards or controlled vocabularies?* • *Are you documenting the methodologies and/or software necessary to use the data?* • *Are you providing workflows, e.g. as process diagrams and/or step-by-step sequences?* • *What Metadata will get generated automatically by device-Specific Software (E.G. Microscopy)?*	• Another note on where to find support and guidance to select suitable metadata standards can be given here. Recommendations from the end of the document should be moved to this section to provide better guidance on metadata standards, and additional links and resources should be added. • We suggest rephrasing this question, deleting the first part ("in case it is unavoidable…"), as it seems to be driven from not so realistic expectations. According to our research data management experience, the most typical case is that researchers have to define their own standards. Each and every research project has its own new scope so there will hardly be the case that an existing standard can be used 1:1. However it is important to encourage researchers to re-use existing standards/ vocabularies/

		Websites provide information on good documentation, e.g. in RDM toolkits (e.g. by the UWA, "Making a research project understandable"). *Relevant disciplinary policies and research data management services can support beneficiaries and provide information on relevant documentation in your discipline.* • *Where lab folders are usual, these documentations should be archived digitally as well (at least scans of the analogue lab folder) and documented well.* • *Where you use software to process/analyse data, state whether you are including the open source code and/or documentation about the software.* Will you include examples on the (re-) use of your data? Which data quality assurance processes do you apply? *Note: for instance, let project-external persons check if they can follow your examples and step-by-step guides to re-use the data?)*	ontologies as far as possible, as well as to include them/map them in the project-specific data, and document this. • Documentation should be provided beyond metadata, therefore this question and following sub questions were added. These additional questions should be understood as help and not as obligation. It should be made clear that practical reasoning should prevail. Documentation should therefore be focusing on data which is relevant to others and might be re-used. • The inclusion of examples and step-by-step workflows is one important aspect of re-usability. • The concept of quality assurance is a complex one. Clarifications should be added on the level of details required to answer this question and/or the different aspects to include (validity, reliability, integrity, etc.).
3.4 Increase data re-use ~~(through clarifying licences)~~ (re-numbered and re-named)	How will the data be licensed to permit the widest re-use possible? When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible. Are the data produced and/or used in the project useable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why.	**EARTO suggests adapting the questions as follows:** How will the data be licensed to permit the widest re-use possible? *Note:* • *The EUDAT B2SHARE tool or the DCC guide includes a built-in license wizard that facilitates the selection of an adequate license for research data.* • *The data which is made openly accessible should be published under CC0 or CC-BY license to fully comply with Open Access requirements.* When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible. How will data privacy be established during the embargo period? *Note: There may be fraudulent attacks, interception or eavesdropping of information as well as loss or theft of portable storage media or devices; data may be handled carelessly by external parties.* Are the data produced and/or used in the project useable by third parties, in particular after the end of the project? ~~If the re-use of some data is restricted, explain why.~~ How long is it intended that the data remains re-usable?	• Notes and references were added to provide further help. This should be understood as guidance not as obligation. • The question on data re-use restriction is already covered in section 3.2 on "making data accessible", it should not be repeated here.

	How long is it intended that the data remains re-usable? Are data quality assurance processes described?	~~Are data quality assurance processes described?~~	• The question on data quality assurance processes has been moved to section 3.3 on interoperability.
4. Data management and responsibility (new)			
		EARTO suggests adding a new section including questions as follows: Who will be responsible for data management in your project? *Note: The name(s) of the organisation as well as of the responsible person(s) during the project duration and his/her/their supervisor should be mentioned, to assure long-term traceability and accountability. There might also be several different persons responsible for specific datasets. The schedule and responsibility for updating the data management plan itself should also be indicated.* How is your data stored and managed during the project? *Note: This refers to aspects such as:* • *Will you use a joint storage or project platform to store and exchange data / information during the project?* • *Will you store data in a uniform folder structure and naming convention?* • *What data flows are relevant for the project? Which subprojects/project partners/colleagues work with data of the others? Describe the workflows of these data exchanges, quality assurance processes, etc.* *Where there are similar processes/standards as described in 3.3 (FAIR – interoperable), researchers can refer to them directly.* If your project involves provision of IT systems what is your exit or migration plan concerning these systems after your project funding has ended?	• The responsibility issue is an essential one, and it should be emphasised as such. • Researchers need to think of data management and how the data produced will be used from the beginning of the project. Data management organisation for the start of the project and during the whole project lifecycle is very important.
5. Data security (re-numbered)			
	What provisions are in place for data security (including data recovery as well as secure storage and transfer of sensitive data)? Is the data safely stored in certified repositories for long term preservation and curation?	**EARTO suggests adapting the questions as follows:** What provisions are in place for data security (including data ~~recovery~~ backup as well as secure storage and transfer of sensitive data)? *Note: This includes for instance quality checks or checksum usage to ensure the availability of data and avoid that it may be corrupt after processing (e.g. due to processing errors)*	• The question on data storage is already covered in section 3.2 on "making data accessible", it should not be repeated here.

6. Personal data and ethical aspects (re-named)			
	Are there any ethical or legal issues that can have an impact on data sharing? These can also be discussed in the context of the ethics review. If relevant, include references to ethics deliverables and ethics chapter in the Description of the Action (DoA). Is informed consent for data sharing and long term preservation included in questionnaires dealing with personal data?	**EARTO suggests adapting the questions as follows:** Are there any ethical or legal issues (e.g. regarding personal data, GDPR or the ABS-regulation) that can have an impact on data sharing? How will you proceed? *Note: These aspects can also be discussed in the context of the ethics review. If relevant, include references to ethics deliverables and ethics chapter in the Description of the Action (DoA).* *In the context of data management, this refers to aspects such as:* • *separating personal data* • *anonymisation / pseudonymisation* • *making use of data trust centres, if applicable* Is informed consent for data sharing and long-term preservation included in questionnaires dealing with personal data? When handling personal data will you abide applicable data protection laws? Are there any other relevant issues not mentioned yet?	• The main focus in this section should be put on personal data. • Any other issues (incl. on other ethical aspects) should be asked for in this section, to avoid creating a whole new section for that.
7. Allocation of resources (re-numbered)			
	What are the costs for making data FAIR in your project? How will these be covered? Note that costs related to open access to research data are eligible as part of the Horizon 2020 grant (if compliant with the Grant Agreement conditions). Are the resources for long term preservation discussed (costs and potential value, who decides and how what data will be kept and for how long)?	**EARTO suggests adapting the questions as follows:** What are the costs for making data FAIR in your project? What are the resources needed to ensure the long-term preservation of data and what is its potential value? *Note: this should include considerations of costs versus potential value, who decides and what data will be kept, how and for how long, resources for long term data curation, possibly need for a data access committee, etc.* How will these be covered? *Note: Costs related to ~~open~~ FAIR access to research data are eligible as part of the Horizon 2020 grant (if compliant with the Grant Agreement conditions). More information on this (such as examples for applied data management costs) can be found at https://...* Is institutional support for data management available in the responsible organisation(s)?	• These questions are usually very difficult to answer for researchers. Guidance and support needs to be provided in the note, including examples, a link to further help, etc.
Summary Tables			

		EARTO suggests deleting this section.	• Considerations should be made whether this duplication of questions is necessary. If the template as such is well structured and the questions are kept to the point with well-separated elucidation notes, this table might not be needed and clarity might be added by deleting it.

EARTO and its legal experts remain of course ready to further discuss this input with the European Commission representatives, and to further contribute to the update of the EC DMP template. EARTO members are also willing to volunteer to test the pilot DMP template and provide further feedback and comments once it is ready.

RTOs - Research and Technology Organisations

From the lab to your everyday life. RTOs innovate to improve your health and well-being, your safety and security, your mobility and connectivity. RTOs' technologies cover all scientific fields. Their work ranges from basic research to new products and services' development. RTOs are non-profit organisations with public missions to support society. To do so, they closely cooperate with industries, large and small, as well as a wide array of public actors.

EARTO - European Association of Research and Technology Organisations

Founded in 1999, EARTO promotes RTOs and represents their interest in Europe. EARTO network counts over 350 RTOs in more than 20 countries. EARTO members represent 150.000 highly-skilled researchers and engineers managing a wide range of innovation infrastructures.

EARTO Working Group Legal Experts: *composed of 20+ RTO Legal experts from EARTO members. Established in 2013, this Working Group is following the legal aspects of the EU RD&I Framework Programme, including IPR-related topics, Dissemination & Exploitation of results, Open science and data management, EU State Aid rules for RD&I, pre-commercial procurement, etc.*