



## Research Data Management in Horizon Europe project proposals

The purpose of this document is to provide to the researchers of the University of Trento a very condensed summary of what EU recommends applicants to write in their project proposals about research data, with references to useful material that can be read to familiarize with the key concepts.

### Research data management

As described in [Section 16](#) of the [Horizon Europe Programme Guide](#) [1], **research data management** (RDM) is the process within the research lifecycle that includes the data collection or acquisition, organisation, curation, storage, (long-term) preservation, security, quality assurance, allocation of persistent identifiers (PIDs), provision of metadata in line with disciplinary requirements, licencing, and rules and procedures for data sharing. RDM is an essential element in any project that generates, collects or re-uses data.

Planning ahead to data needs that applicants are likely to encounter during the project is a best practice. For example, provisions need to be in place to ensure that data is managed responsibly. Further, data management should be in line with the **FAIR principles**, to ensure that researchers can find, access and re-use each other's data, maximising the effectiveness and reproducibility of the research undertaken. RDM, in line with the FAIR principles is a requirement that should be carried out regardless of whether the data generated and re-used in the project is intended to be openly accessible, or if access restrictions are foreseen. FAIR data is not equivalent to open data (publicly available to everyone to access and reuse). Data can, and should be FAIR even when access is restricted. RDM and the FAIR principles can be applied to research outputs other than data (i.e. workflows, protocols, software, samples, etc). Applicants are recommended to consider robust management practices for data and other research outputs as early as the proposal stage of their project.

Here, we give some quick hints about what applicants are supposed to write in part B of their project proposal about data and other research outputs. For more information, refer to [1].

### The Methodology section

RDM is mandatory in Horizon Europe for projects generating or reusing data. If you expect to generate or reuse data or other research outputs (except for publications), as part of the Methodology section (1.2) of the project proposal you are required to outline in a maximum of one page about how these will be managed. A full Data Management Plan (DMP) is not required at submission stage. Applicants may still want to give a look at the standard DMP template [3] to get an idea of what will be required during the project.

For those work programmes that require the use of the European Open Science Cloud (EOSC) federated repositories, applicants should explicitly discuss the use of such repositories in their proposals. By exception, in cases of a public emergency and if the work programme requires so, applicants should submit a full DMP already with submission of proposals or at the latest by the signature of the grant agreement.

The RDM sub-section should briefly anticipate the future content of the DMP and therefore address the following about data and research outputs [2]:

- **Data Description:** data types, format, purpose, estimated size, provenance and utility by distinguishing between data directly produced or collected by the partners of the project and data that will be re-used from elsewhere;
- **Findability:** types of persistent and unique identifiers (e.g. DOIs) and trusted repositories that will be used; the latter may include internal institutional or departmental repositories, or external ones such as disciplinary repositories or those federated with EOSC, e.g. Zenodo;

- **Accessibility:** intellectual property rights (IPR) considerations and timeline foreseen for open access to data (if open access is not provided, explain why); any provisions for access to restricted data for verification purposes (this includes any means for privileged data sharing among project partners or with third-parties, for instance to raw or experimental data);
- **Interoperability:** standards, formats and vocabularies for data and metadata that will be used;
- **Reusability:** licenses chosen for data sharing and re-use; availability of tools/software/models for data generation and validation/interpretation/re-use.
- **Allocation of resources:** curation, storage and long-term preservation costs; persons, teams or committees that will be responsible for data management, security and quality assurance;
- **Ethical and any other issues:** outline any ethical issues that may apply to data as well as measures that will be undertaken to comply with regulations, such as GDPR [5] for protection of personal data, and with any other national/funder/sectorial/departmental procedures for data management.

We suggest applicants to organize the text by providing 1-2-3 sentences for each of the headings above. Within them, you may want to stay general or describe issues that apply to individual Work Packages and partners. Complete the RDM with any further mention to how the project will comply with open science obligations or with other recommended open science practices (e.g. citizen, civil society and end-user engagement) and methodologies (e.g. citizen science, participatory design, open source) when dealing with research data.

Pay attention that this section of the project proposal is only about data. Therefore, mentions to open peer-review (including the ORE platform [4]) or open access to scientific publications would be out of scope. Still, in the RDM you may want to stress that the project will follow specific policies to ensure replicability of research by providing along with publications all relevant data necessary to validate conclusions.

#### Other sections

Two other sections of the project proposal are relevant for research data:

- **Section 2.2 Measures to maximize impact - Dissemination, exploitations and communication:** describe your strategies to maximize impact in open science and key performance indicators that will be used (for instance number of datasets produced, number of datasets publicly available, number of downloads, number of papers citing or using the produced datasets ...);
- **Section 4. Ethics and Security:** Any ethical and data security issue, in more detail w.r.t. section 1.2, for instance by specifying how the project will comply with GDPR in terms of data collection, processing, storage, informed consent, and other relevant issues.

#### References

- [1] Horizon Europe Programme Guide: [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide\\_horizon\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf)
- [2] Horizon Europe Programme - Standard Application Form: [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/af/af\\_he-ria-ia\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/af/af_he-ria-ia_en.pdf)
- [3] Data Management Plan template: [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/report/data-management-plan-template\\_he\\_en.docx](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/report/data-management-plan-template_he_en.docx)
- [4] The Open Research Europe platform: <https://open-research-europe.ec.europa.eu/>
- [5] The General Data Protection Regulation: <https://eur-lex.europa.eu/eli/reg/2016/679/oj>