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Abstract	As part of Horizon 2020, the DISIRE project participates in a pilot action on open research data. The aim is to provide indications as to what kind of data the project will collect, how the data will be preserved and which sharing policies will be adopted towards making research data readily available to the research community.

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List of Acronyms

ABBREV	Explanation
DMP	Data Management Plan
DOI	Digital Object Identifier
EU	European Union

1 Introduction

1.1 Summary

As part of Horizon 2020, the DISIRE project participates in a pilot action on open research data. The aim is to provide indications as to what kind of data the project will collect, how the data will be preserved and which sharing policies will be adopted towards making these data readily available to the research community.

1.2 Purpose of document

This Data Management Plan (DMP) details what kind of research data will be created during the project's lifespan and prescribes how these data will be made available - and thus re-usable and verifiable - by the larger research community. The project's efforts in the area of open research data are outlined giving particular attention to the following issues:

- The types of open and non-open data that will be generated or collected by the consortium, via experimental campaigns and research, during the project's lifespan;
- The technologies and infrastructures that will be used to securely preserve the data long-term;
- The standards used to encode the data;
- The data exploitation plans;
- The sharing/access policies applied to each data-set.

The plan can be considered as a checklist for the future and as a reference for the resource and budget allocations related to data management.

1.3 Methodology

The content of this document builds upon the input of the project's industrial partners and all the peers of work-packages 5, 6, 7 and 8. A short questionnaire, outlining the DMP's objectives and stating the required information in a structured manner, has been edited by LTU and disseminated to the partners. The compiled answers have been integrated into a coherent plan.

The present DMP will evolve as the project progresses in accord with the project's efforts in this area. At any time, the DMP will reflect the current state of the consortium's agreements regarding data management, exploitation and protection of rights and results.

1.4 Outline

For each partner involved in the collection or generation of research data a short technical description is given stating the context in which the data has been created. The different data-sets are identified by project-wide unique identifiers and categorized through additional meta-data such as, for example, the sharing policy attached to it.

The considered storage facilities are outlined and tutorials are provided for their use (submitting and retrieving the research data). A further appendix lists the format standards that will be used to encode the data and provides references to technical descriptions of these formats.

1.5 Partners involved

Partners and Contribution	
Short Name	Contribution
LTU	Coordinating and integrating inputs from partners

2 Data sharing, access and preservation

The digital data created by the project will be diversely curated depending on the sharing policies attached to it. For both open and non-open data, the aim is to preserve the data and make it readily available to the interested parties for the whole duration of the project and beyond.

2.1 Non-Open research data

The non-open research data will be archived and stored long-term in the REDMINE portal administered by LTU. The REDMINE platform is currently been employed to coordinate the project's activities and to store all the digital material connected to DISIRE.

2.2 Open research data

The open research data will be archived on the Zenodo platform (<http://www.zenodo.org>). Zenodo is a EU-backed portal based on the well established GIT version control system (<https://git-scm.com>) and the Digital Object Identifier (DOI) system (<http://www.doi.org>). The portal's aims are inspired by the same principles that the EU sets for the pilot; Zenodo represents thus a very suitable and natural choice in this context.

The repository services offered by Zenodo are free of charge and enable peers to share and preserve research data and other research outputs in any size and format: datasets, images, presentations, publications and software. The digital data and the associated meta-data is preserved through well-established practices such as mirroring and periodic backups.

Each uploaded data-set is assigned a unique DOI rendering each submission uniquely identifiable and thus traceable and referenceable.

3 List of the data-sets

This section will lists the data-sets produced within the DISIRE project.

4 Annex: Tutorial on Zenodo

4.1 Brief introduction

The portal enables researchers, scientists and institutions to share research data and results in a wide variety of formats including text, spreadsheets, audio, video. To each submitted data-set is attached a unique DOI that enables referencing the data in research and institutional contexts.

4.2 Submitting research data

The submission of research data to Zenodo can be done through the following steps:

1. The upload procedure starts by prompting the user to select the files that will be part of the data-set and need to be uploaded (see Figure 1);
2. Successively the data must be classified according to given categories such as: dataset (i.e., tables of numerical data), image and others (see Figure 2);
3. Finally the portal prompts for additional meta-data such as authorship of data and sharing policies. The structure of the data-set must be specified here as well (see Figures 3 and 4).

zenodo Research. Shared.

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Home / Upload

Upload

Share your research – all research outputs from across all fields of science are welcome.

Choose files ... Max 2GB per file – OR – Choose from Dropbox

My uploads
You currently have no uploads.

Filename	Size
test	5.00 Bytes

Start upload

Drag and drop files to upload

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Powered by:
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Fig. 1: Submitting a data-set: Choose the local files to be uploaded.


New upload


Instructions: (i) Press "Save" to save your upload for editing later, as many times you like. (ii) Upload and remove extra files in the bottom of the form. (iii) When ready, press "Submit" to finalize and make your upload public.


Type of file(s)
required ▼



 Publication



 Poster


 Presentation


 Dataset


 Image


 Video/Audio


 Software



 Lesson

Fig. 2: Submitting a data-set: Specifying the data-set type.

Basic information
required ▼

Digital Object Identifier

Optional. Did your publisher already assign a DOI to your upload? If not, leave the field empty and we will register a new DOI for you. A DOI allows others to easily and unambiguously cite your upload.

Pre-reserve DOI

Publication date *

Required. Format: YYYY-MM-DD. In case your upload was already published elsewhere, please use the date of first publication.

Title *

Required.

Authors *

↕ ✕

[+ Add another author](#)

Description *

Source ↕ ✕

Required.

Keywords

↕ ✕


[+ Add another keyword](#)


Additional notes


Optional.


Fig. 3: Submitting a data-set: Authorship meta-data and description of contents.

License required ▾

Access right *  Open Access

 Embargoed Access

 Restricted Access

 Closed Access


Required. Open access uploads have considerably higher visibility on Zenodo.

License *

Required. The selected license applies to all of your files displayed in the bottom of the form. If you want to upload some files under a different license, please do so in two separate uploads. If you think a license missing is in the list, please inform us at info@zenodo.org.


Communities recommended ▾

Any user can create a community collection on Zenodo ([browse communities](#)). Specify communities which you wish your upload to appear in. The owner of the community will be notified, and can either accept or reject your request.

 Communities

Funding recommended ▾

Zenodo is integrated into reporting lines for research funded by the European Commission via OpenAIRE (<http://www.openaire.eu>). Specify grants which have funded your research, and we will let your funding agency know!

 Grants

Optional. Note, a human Zenodo curator will validate your upload before reporting it to OpenAIRE, and you may thus experience a delay before your upload is available in OpenAIRE.

Fig. 4: Submitting a data-set: Specifying the sharing policies

5 Annex: Details on file formats and standards

Here we will briefly describe and provide additional references related to the format standards that will be used to store and share the project's data.