Data Stewardship Wizard https://dsw.fairdata.solutions

Rob Hooft, Robert Pergl, Marek Suchánek, Celia van Gelder

The Data Stewardship Wizard is a joint ELIXIR CZ and ELIXIR NL project bringing a smart solution for researchers to help them understand what is needed for good (FAIR based) Data Stewardship, to find ELIXIR experts to help out, and to build their own Data Management Plans.

Data Stewardship Plans

To support efficient, simple and smart work with data within research projects, an elaborate DM/DS Plan is desirable. Adopting FAIR Data principles is essential not just to satisfy requirements of funders, but to benefit your own research project as well.



- Data Management Plans (DMPs) are a key element of good data management.
- DMPs are important and required (e.g. H2020 projects).

DS Wizard – The Roadmap

We are working on a new "generation" of Data Stewardship Wizard as a Docker-based modular portal solution that is hosted by ELIXIR CZ, but can be also deployed locally within your organization. The system includes:

- interactive tool for creating the plan by answering relevant questions for your project,
- knowledge models registry, editor, and migration tool,
- organisation and user management (administration).

The Wizard is being developed as part of an 18-month ELIXIR Implementation Study of the ELIXIR Training Platform, which also includes doing an inventory of training materials and needs in the ELIXIR nodes, and setting up DM/DS trainings.

Interactive DS Planner

Researcher or trainee can go through the questions and fill in their answers via DS **Planner** tool in the form of interactive questionnaire. There can be thousands of questions in the knowledge model (KM), but the user won't be overwhelmed – only questions important for the specific case will be shown based on previous answers. For researchers, output will be a project FAIR DS Plan. A trainee will learn what considerations should be made and what is data stewardship about. The last (but vital) part is a feedback system that allows **continuous improvement** of the KM.

Root Questionnaire (ELIXIR Root Package, 1.0.0)



Design of experiment

User-friendly knowledge model editor

All the knowledge about data stewardship (**DS Domain**) is contained in the **knowledge model**. Data Stewards can use our editor to customize (add, edit, delete) the knowledge: chapters, questions, answers, follow up questions, references, and experts. You can simply build your own knowledge model on top of another one as a customization.

Smart migrations of the knowledge model

You can rely on consistency and up-to-date state of your customized knowledge model thanks to the migration tool: it handles all various versions in the hierarchy of models that need to be merged together. It works automatically in the background, however, you have full control of the migration.

experiment

nsiaht

Information and

Before you decide to embark on any new study, it is nowadays good practice to consider all options to keep the data generation part of your study as limited as possible. It is not because we can generate massive amounts of data that we always need to do so. Creating data with public money is bringing with it the responsibility to treat those data well and (if potentially useful) make them available for re-use by others.

Data integration

Data Capture/Measureme nt	Is there any pre-existing data? Are there any data sets available in the world that are relevant to your planned research?
	○ No
Data processing and curation	O Yes \i≡
Data interpretation Data design and planning	Will you be using any pre-existing data (including other people's data)? Will you be referring to any earlier measured data, reference data, or data that should be mined from existing literature? Your own data as well as data from others?
	 No Yes \i≡
	Did you research all the data that exists? You may not be aware of all existing data that could be available. Although using and/or integrating existing data sets may pose a challenge, it will normally be cheaper than collecting everything yourself. Even if you decide not to use an existing data set, it is better to do this as a

Will reference data be created?

conscious decision

Will any of the data that you will be creating form a reference data set for future research (by others)?

No 🔿 Yes 🗮



Come, try, and stay tuned with us!

- Register and try to use our DS Planner for you real or imaginary project.
- Get into the role of Data Steward and customize the knowledge model with your specific organisational, geographical, legal or other expertise.
- In the future, you will be able to run your own instance of DSW if needed (via Docker).

