

# Cost Calculator a tool for your DMP

Dr A. Masson EPFL Library Switzerland

## Why a cost calculator ?

In recent years, funding agencies, governments, and international organization have issued a series of research data management and sharing policies, like the H2020 [1]. Researchers are encouraged or required to share their production in an open way, including attached publications and data [2]. One consequence of those policies for researchers is the necessity of providing a DMP (Data Management Plan) when applying for funding.

This DMP describes the life-cycle of the data during the funded project. In particular, researchers have to specify a description of the generated data, along with their storage, protection, publication and archive strategies. In order to assist researchers with those new requirements and provide them with good practices, many university libraries have developed services around the management of their data [3a][3b].

Among the many information required in a DMP, some are dedicated to the costs the researchers will face for their data management, storage or curation. Those questions are usually painful, as the applicant has to have full knowledge of existing providers for storage, archive or publication services. These providers can be part of their institution or exist outside.

It's in this context that we developed an online tool, creating a central place for researchers to find and calculate their costs related to the data life-cycle [4].

## The principle

The tools is a single webpage, each data life cycle category (for example Data Repository, Publication, ELN ...) is displayed. Inside each category the user will find a selection of providers from his/her institution or from outside companies. If the provider is not included in the database, the researcher can add it manually.

The researcher can then adjust his needs according to his data and calculate the cost for the entire project. Most of the provider's options are included in order to reflect the exact cost.

If the DMP is in another currency a conversion can be also obtained directly from the website, the actual rate is automatically applied.

When all the project is complete, the researcher can then export all the calculation and information to his DMP by a simple copy past from the website to his document.

The tool is also designed to help the researcher to prepare and think about his project : all the categories are automatically displayed in order to have complete view of the data life cycle, each category integrated link to external website in order for the researcher to find information about this particular step and furthermore when selecting a provider, links to its website is also added.

## A tool you can adapt

From the beginning of the project, it was clear for us that this tool should be designed in order to other institution to install, personalize and use it for its own researchers. That why the tool is GPL licensed meany everyone can understand it and change the engine for its needs.

The tool can be easily installed and any web server or even directly accessible from a GitHub repository. No external library are needed.

The cost database can be easily changed without any particular knowledge, a documentation is attached to the project in order for other to change the database of their own installation.

The tool is completely flexible, categories can be removed or added, you can add as many provider you want, different business model are already integrated to the tool. Many options can be changed directly (such as name, logo...) in order for you to personalize the tool.

The screenshot shows the Cost Calculator tool interface. At the top, there's a 'Project Duration' slider set to 5 years and a 'Change Currency' dropdown set to CHF. Below this is a table with categories and providers. The 'Active Storage' category is selected, showing 'EPFL-VPSI : NAS' with a cost of 67650 CHF. Other categories include 'Electronic LabBook' (EPFL-SV-IT : SLIMS, 15825 CHF), 'Database' (Select a Provider, 0 CHF), 'Data Repository' (Zenodo-CERN : Zenodo, 0 CHF), and 'Collaborative Repository' (Gitlab : Gitlab, 0 CHF). A 'Total Cost for 5 years' summary shows 83475 CHF. At the bottom, there are export buttons (HTML, HTML Source, Markdown, CSV) and a table summarizing the costs for each category.

Category	Provider	Name	Comments	Options	Cost
Active Storage	EPFL-VPSI	NAS		Amount : 83 TB Performance : Collaborative	67650 CHF
Electronic LabBook	EPFL-SV-IT	SLIMS		PI Status : Full Professor Amount : 1 TB ELN Storage : Stored on EPFL Server	15825 CHF
Database	Select a Provider				0 CHF
Data Repository	Zenodo-CERN	Zenodo		Options : Max 50GB per Dataset	0 CHF
Collaborative Repository	Gitlab	Gitlab		Amount : 1 User(s) Plan : Core Self Hosted	0 CHF

## To know more

The tool



[rdmepfl.github.io/costcalc](https://rdmepfl.github.io/costcalc) [github.com/rdmepfl/costcalc](https://github.com/rdmepfl/costcalc)

Source code



This poster

[1] : Guedj, D., Ramjoué, C.: European Commission Policy on Open-Access to Scientific Publications and Research Data in Horizon 2020. Biomed Data J. 2015;1(1):11-14. DOI: <http://dx.doi.org/10.11610/bmdj.01102>

[2] : Whyte, A., Pryor, G.: Open Science in Practice: Researcher Perspectives and Participation. Int. J. Digit. Curation. 6, 199–213 (2011). DOI : <https://doi.org/10.2218/ijdc.v6i1.182>

[3a] : Peters, C., Dryden, A.R.: Assessing the Academic Library's Role in Campus-Wide Research Data Management: A First Step at the University of Houston. Sci. Technol. Libr. 30, 387–403 (2011). DOI : <https://doi.org/10.1080/0194262X.2011.626340>

[3b] : Tenopir, C. et al.: Research Data Services in European Academic Research Libraries, LIBER Quarterly, vol. 27, n° 1, 23044 (2017). DOI : <http://doi.org/10.18352/lq.10180>

[4] : Cost Calculator, A. Masson, EPFL Library DOI: <http://dx.doi.org/10.5281/zenodo.1469035> <https://rdmepfl.github.io/costcalc/>