Action Plan "Preparing Readiness for Data Stewardship – FH Graubünden"

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1 Status Quo

The University of Applied Sciences of Graubünden (FHGR) is the smallest of the eight individual institutions of its kind in Switzerland.¹ This relates to the number of researchers, students, and other staff as well as its budget, research projects, and externally financed research budget. Adding to that, most of its research projects – following its mission as a university of applied sciences – are performed for and financed by partners from different businesses and industries. As such, most of the data produced in its research does not fall into the categories of publicly financed data which is the topic of Open Research Data (ORD) policies and the like, but is usually kept private by those partners at the end of the research projects. Although private financiers could opt to follow the data procedures established for ORD, as of now the partners the FHGR is working with, tend not to.

In contrast to bigger institutions, which tend to employ specialised staff for tasks like research data stewardship, at the FHGR tasks are often performed as duty – with enough working hours provided for – by staff who perform other tasks as well. Often, the work necessary for such tasks does not add up many hours; it is impractical and often outright impossible to hire the needed specialized personnel for e.g. just 20% of a full position. No institute of the FHGR has a big enough continuous research budget to maintain specialized personnel for tasks not related directly to research. This holds true for data stewardship as well. Also, the FHGR does not have the financial space to innovate trough the hiring of temporary staff or test projects. What is needed is the best possible knowledge about possible solutions and good planning. Projects and new tasks must be included in the already established structures and often performed by the already employed personnel, e.g. by continuous education.

One peculiar fact of the FHGR concerning ORD is the Swiss Institute for Information Sciences (SII) which is part of the university. This institute has ORD as a topic of its research and teaching, e.g. it already aims to train its students to become prospective Data Stewards, Data Librarians and the like. The research and teaching staff of this institute has built up competences and contacts concerning the field of ORD which can be tapped into by the FHGR itself internally.

¹ For numbers on the FHGR, including budget and research output, see: FHGR (2022). *Jahresbericht 2021*. Chur. https://www.fhgr.ch/fileadmin/publikationen/jahresbericht/fhgr-jahresbericht_2021.pdf.

2 Target

The FHGR is committed to provide the infrastructures and competences needed to promote Open Science and Open Access, but must take into account its own special situation as a small institution with a heavy focus on business partnerships. In the foreseeable future, the FHGR will not be able to maintain a full position (or even more) specialised for Research Data Stewardship alone. At the one hand, its research projects do not produce the volume of possible Open Research Data that would need such Stewardship. As it stands, the interest by researchers at the FHGR concerning data management are low. (The one institute with a growing number of respective data is the aforementioned Institute for Information Science where the necessary competences are already situated.) Also, the FHGR does not have the budget to finance such a position in a sustainable way in the long run.

Instead, the situation dictates the organizational unit best suited for this topic, the library, will add the task of Data Stewardship to its portfolio. The library will build up the necessary competences to act on an interest on ORD by researchers of the FHGR when this topic will come up. Other organizational units, like the technical services (IT), will probably have to take over some tasks as well (e.g. maintaining servers and software), but always under guidance of the library. In other words: What is necessary, from a realistic and sustainable standpoint, at this point for the FHGR, is the preparation of readiness for data stewardship. The scheme proposed herein is suited for this aim. The scheme will use the specific infrastructure and competences at the FHGR to reach the goal of becoming ready to support the management of ORD in case this comes up in future research projects by FHGR researchers alone or in cooperation with researchers from other institutions.

3 Plan

The plan proposed herein uses the competences from the aforementioned Swiss Institute for Information Science (SII) to the advantage of the FHGR itself, although the library will take the lead.

1. The FHGR does not need a survey on the requirements of its researchers concerning ORD, as the "familiar ties" – where basically everyone knows each other on a first name basis – in this small institution already maintain a working relationship between researchers, librarians, IT, and other organizational units. The organizational units, like the library or the IT, do know the outlines of the interests and requirements of the FHGR-researchers. What is needed for the preparation for work in the ORD field in lieu of such an overview is a working knowledge of the handling of such tasks at comparable small institutions like the FHGR itself. The literature – e.g., in journals like Bausteine FDM, Issues in Science and Technology Librarianship or International Journal of Digital Curation or monographs like Neuroth, Putnings, Neumann (edit). Praxishandbuch Forschungsdatenmanagement. Berlin, Boston, 2021, Bauder (edit). Teaching research data management. Chicago, 2022 or Engelhardt (edit). How to be FAIR with your data: A teaching and training handbook for higher education institutions. Göttingen, 2022 - as well as policies on ORD tend to focus on the situation in grand, research-intensive universities with bigger infrastructural possibilities. But, as ORD is not a new topic as such, and has already been promoted in other European countries in the years past, we propose to use lessons learned in those countries in small institutions as well as smaller institutions in Switzerland, which have been active in this field before. Necessary fields of knowledge will include (a) which organizational units provide infrastructures or service and which services specifically, (b) how are those infrastructures and services used by the researchers of those institutions, especially which ones have not proved useful, (c) how are those infrastructures and services paid for and on what budget, (d) did the usage of those services and infrastructures change, e.g., did researchers used them more or less over time. All these lessons will be helpful to prepare the FHGR on the future use of such infrastructures. As such, in the first working package, the SII will be assigned to systematically collect knowledge by such comparable institutions in Switzerland and the nearby European countries and prepare a document with a roundup of this knowledge. (It will be part of the assignment to determine if such a gathering will be done best by a survey, interviews, or other methods. Also, the assignment will include the synopsis of this collection.) This roundup will be used for an internal consultation ("Vernehmlassung") of researchers and personnel in different organizational units of the FHGR about their perception on their needs and requirements concerning ORD considering the experiences of comparable institutions.

- 2. In the second working package, this collection of knowledge as well as the feedback from the internal consultation will be used in a workshop by the library, the SII, and those units which proved to be important for ORD at other institutions according to this knowledge collection, to transfer it into actionable tasks, e.g. it will be determined which knowledge will be needed in which units or which infrastructures will have to be built or rather, if the previous experiences concerning Open Access prove an example licensed from other institutions. (In the plan herein the effort necessary for those tasks has been estimated based on knowledge from SII-staff on ORD infrastructures and services.) E.g., it will be necessary to decide if explicit advisory for ORD will be needed at the FHGR or if services for concrete data management will be necessary. Also, the FHGR as institution will have to determine which level of publicly funded research in contrast to industry funded research will be reached in the foreseeable future and therefore how much resources for ORD services will be necessary. Based on already acquired knowledge we assume that information and consulting on ORD will be the most needed services, not the actual data management or running of infrastructures.
- 3. In the third working package, the SII will, again on assignment by the library, provide specialised teaching on ORD to the staff in other units of the FHGR. This teaching will be based on the tasks formulated in the workshop in phase two and use the competencies of the SII on ORD as well as the results of the first assignment. It will use real examples of the comparable institutions, collected during the assignment in the first working package. As the aim of this project is to prepare the FHGR and its organizational units for ORD tasks when they come up, this teaching will focus on the built up of such competencies in the staff, most likely from the library and IT. In extreme cases this teaching could take a one-on-one approach. The SII will get the assignment to document those teachings as well, so that a knowledge transfer to new staff will be possible.
- 4. The fourth working package will contain the establishment or leasing of the necessary infrastructure, based on the task from the workshop in the second working package. Again, here the necessary efforts and expenses are estimated and will have to be adjusted accordingly.
- 5. In the fifth working package, a stress-test of the readiness for ORD will be performed. Again, the SII will be assigned to construct about three possible, complex scenarios concerning ORD which could come up at the FHGR, e.g., the inclusion of researchers from different FHGR institutes in a grander research project which mandates ORD. The infrastructures built and the staff taught in the months before will then have to perform as if those tasks are real. This stress-test will show the level of readiness reached as well as competencies missing.
- 6. After the project- and funding phase the FHGR will be prepared if questions and tasks concerning ORD come up, but in a realistic manner. Data Stewardship will have become a task, which can spring into action if needed and maybe become part of the research produced at the FHGR in a gradual way. The competent staff will be employed in other positions than Data Stewardship itself most definitely at the library –, so that they will be available if needed, but also employed when there are not enough tasks in this field.

Working Packages	Tasks	Date
WP 1: Collecting lessons learned	- Collecting lessons learned by comparable institutions in Switzerland and Europe	January 2023 – June 2023
	- Producing a synopsis of those lessons learned	
WP 2: Workshop on actionable tasks	- Formulate actionable tasks for the different organizational units, agreed by all stakeholders at the FHGR	July 2023
WP 3: Teaching competencies	- Formulate teaching / training tasks - Train staff (one on one or in small groups)	August 2023 – March 2024
WP 4: Work on infrastructures	- Install or licence necessary infrastructures ²	August 2023 – March 2024
WP 5: Stress test	- Formulate stress test	September 2024 – December 2024
	- Conduct and evaluate test	
WP 6: Project Management	- Project management	January 2023 – December 2024

² Included here are the work costs but not potential costs for licences or the like. Those have to be sustained from the normal budget of the FHGR in order to become sustainable from the start.

4 Budget plan

Work Package	Cost (estimate)	Provided by FHGR	Requested
WP 1	Work costs: 35.000	20.000	20.000
	Other costs (travel expenses): 5.000		
WP 2	Work costs: 5.000	5.000	0
WP 3	Work costs: 40.000	20.000	20.000
WP 4	Work costs: 10.000	10.000	0
WP 5	Work costs: 5.000	5.000	10.000
WP 6	Work costs: 30.000	10.000	20.000
Overhead cost	Other costs (rent etc.): 10.000	5.000	5.000
Budget		75.000	75.000
Total Budget			150.000