SFB754 - data management in large interdisciplinary collaborative research projects: what matters?

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Data management for SFB 754 is an integral part of the joint data management team at GEOMAR Helmholtz Centre for Ocean Research Kiel, a cooperation of the Cluster of Excellence “Future Ocean”, the SFB 754 and other current and former nationally and EU-funded projects. The coalition successfully established one common data management infrastructure for marine sciences in Kiel. It aims to help researchers to better document the data lifecycle from acquisition to publication and share their results already during the project phase. The infrastructure is continuously improved by integration of standard tools and developing extensions in close cooperation with scientists, data centres and other research institutions.

Open and frequent discussion of data management topics during SFB 754 meetings and seminars and efficient cooperation with its coordination office allowed gradual establishment of better data management practices. Furthermore a data policy was agreed on to ensure proper usage of data sets, even unpublished ones, schedules data upload and dissemination and enforces long-term public availability of the research outcome. Acceptance of the infrastructure is also backed by easy usage of the web-based platform for data set documentation and exchange among all research disciplines of the SFB 754. Members of the data management team act as data curators and assist in data publication in World Data Centres (e.g. PANGAEA). Cooperation with world data centres makes the research data then globally searchable and accessible while links to the data producers ensure citability and provide points of contact for the scientific community.

A complete record of SFB 754 publications is maintained within the institutional repository for full text print publications by the GEOMAR library. This repository is strongly linked with the data management information system providing dynamic and up-to-date overviews on the various ties between publications and available data sets, expeditions and projects. Such views are also frequently used for the website and reports by the SFB 754 scientific community.

The concept of a joint approach initiated by large-scale projects and participating institutions in order to establish a single data management infrastructure has proven to be very successful. We have experienced a snowball-like propagation among marine researchers at GEOMAR and Kiel University, they continue to engage data management services well known from collaboration with SFB 754. But we also observe an ongoing demand for training of new junior (and senior) scientists and continuous need for adaption to new methods and techniques. Only a standardized and consistent data management warrants completeness and integrity of published research data related to their peer-reviewed journal publications in the long run. Based on our daily experience this is best achieved, if not only, by skilled and experienced staff in a dedicated data management team which persists beyond the funding period of research projects. It can effectively carry on and impact by continuous personal contact, consultation and training of researchers on-site.

(This poster is linked to the presentation by Dr. Christiane K. Schelten)