## re3data - Advancing Services for Open Science

Robert Ulrich<sup>1</sup>, Heinz Pampel<sup>2</sup>, Maxi Kindling<sup>3</sup>, Paul Vierkant<sup>2</sup>, Frank Scholze<sup>1</sup>, Michael Witt<sup>4</sup>, Martin Fenner<sup>5</sup>, Kirsten Elger<sup>6</sup> and Gabriele Kloska<sup>1</sup>

<sup>1</sup>Karlsruhe Institute of Technology (KIT); <sup>2</sup>Helmholtz Association; <sup>3</sup>Humboldt-Universität zu Berlin; <sup>4</sup>Purdue University, United States; <sup>5</sup>DataCite e.V., Germany; <sup>6</sup>GFZ German Research Centre for Geosciences;

re3data is the global registry for research data repositories [2]. With January 2019 the service lists over 2250 digital repositories and provides an extensive description based on a detailed metadata schema [3]. A variety of funders, publishers and scientific organizations around the world refer to re3data within their guidelines and policies, recommending the service to researchers looking for appropriate repositories for storage and search of research data.

Starting with an introduction and overview to re3data and its current status under the auspices of DataCite, the talk will outline the recent and upcoming development in a heterogeneous and highly dynamic research data infrastructure landscape. The diverse requirements of the institutional stakeholders as well as the scientific communities impose demanding challenges on the architecture, networking with other services and technical implementation. The presentation will illustrate that with recent examples, like the integration and reuse of re3data in the American Geophysical Union's (AGU) 'Repository Finder'[1], landscape analysis of data repositories for the Swiss National Science Foundation (SNSF) and a planned cooperation with B2FIND, RADAR and GeRDI on the subject classification. Fostering Open Science and FAIR data, the talk will close with a prospect on the planned next steps towards an open and linked data service matching the demands of researchers and organization.

## Literaturverzeichnis

- [1] Dasler, R. (2018). Data sharing made easier: use Repository Finder to find the right repository for your data. DataCite Blog, 19.12.2018. DOI:https://doi.org/10.5438/wday-8958.
- [2] Pampel, H. et al. (2013). Making Research Data Repositories Visible: The re3data.org Registry. PLOS ONE, 8(11), e78080. DOI: https://doi.org/10.1371/journal.pone.0078080.

- [3] Rücknagel, J. et al. (2015). Metadata Schema for the Description of Research Data Repositories. Version 3.0. DOI: https://doi.org/10.2312/re3.008.
- [4] Witt M. et al. (2019) Connecting Researchers to Data Repositories in the Earth, Space, and Environmental Sciences. In: Manghi P., Candela L., Silvello G. (eds) Digital Libraries: Supporting Open Science. IRCDL 2019. Communications in Computer and Information Science, vol 988. Springer, Cham DOI: https://doi.org/10.1007/978-3-030-11226-4\_7