

Research data publication – why, how and where?

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Research data can be the result of a scientific working process or will arise throughout it. Research data appears in many different formats and encompass, among others, observations and measurements, images, program codes, computer simulations, audio recordings, geo-data, descriptions, results of surveys as well as physical objects of collections and samples of experiments. Thus it is one of the most valuable commodities produced, since arguments, theories, tests or hypothesis are based on it and it forms finally the basis of scientific publications. To guarantee transparent, efficient and high quality research and allow validation of results, research data should be made publicly available and citable as well as properly archived and documented. Funders, such as the DFG and the EU within their Horizon 2020 programs, require these criteria requesting an obligatory data management plan. Also Journals, such as *PLOS ONE* and *Nature*, set up their own data policies where they require authors to make all data promptly and fully available without restriction that underlies the findings in their submitted manuscripts. The JKI passed its own Data Policy in March 2017 which regulates the data management, documentation, publication and responsibility as well as who supports and helps. The JKI supports, promotes, pushes and recognizes any effort of its scientists and PHD students to manage their data properly

and make them publicly available as soon as possible. The publication of research data is an important step to make them **FAIR** – namely **F**indable, **A**ccessible, **I**nteroperable and finally **R**e-usable for others. The **FAIR** Data Principles are the most accepted guidelines to date for data management and are also recommended by the JKI Data Policy. They were designed and endorsed by a diverse set of stakeholders representing academia, industry, funding agencies, and scholarly publishers and are intended for all wishing to enhance the reusability of data. However, not every way of data publication fulfills these criteria. There are big differences between publishing your data on your website, as supplement of an article, in a repository or in a data journal as “data paper”. The JKI maintains the Open Access repository OpenAgrar which is suited for publication of research data according to the **FAIR** principles. In OpenAgrar a permanent digital object identifier (DOI) and metadata will be assigned to your data, which make them **F**indable, citable and **A**ccessible. Together with a linkage to your research paper and an open license your data would be **I**nteroperable and **R**eusable. The library of the JKI provides practical advices on what you need to do when publishing your data in OpenAgrar or in another **FAIR** repository.