



The BonaRes Data Portal: FAIR access to Soil and Agricultural Research Data

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In the frame of the joint research project BonaRes (“Soil as a sustainable resource for the bioeconomy”, Germany) a data infrastructure has been set-up to upload, manage, store, and provide soil and agricultural research data, accompanying data (e.g. management, socioeconomic or meteorological data) and associated metadata. A consistent and standardized storage and provision of well-described research data within the BonaRes data infrastructure enhance the research visibility and data accessibility via the BonaRes Data Portal, enable the long-term availability and re-usability, and, not least, facilitate interoperability with international data infrastructures. The developed BonaRes Metadata Schema (Specka et al., submitted) is based on existing and accepted international schemes, combines all elements from DataCite and INSPIRE and uses controlled vocabularies (Agrovoc and GEMET) to indexing data sets. The BonaRes data infrastructure thus fulfils FAIR data principles (data should be “Findable, Accessible, Interoperable, and Re-usable”) and requirements for Open Data.

We present the current state of the BonaRes Data Portal, show typical data workflows from data owner to data user, discuss solutions to manage and standardize highly diverse research data e.g. from agricultural long-term experiments, give insights to metadata elements, demonstrate data accessibility, introduce into data policy elements, e.g. embargo times and licenses, and provide an outlook of future progress.

Reference:

Specka, X., Gärtner, P., Svoboda, N., Stecker, M., Einspanier, U., Senkler, K., Hoffmann, C., Zoorder, M.A.M., Kühnert, T., Heinrich, U. (submitted to Computer & Geoscience): The BonaRes Metadata Model for geospatial soil-agricultural research data – Merging INSPIRE and DataCite metadata schemes.