



The BonaRes infrastructure for open soil and agricultural research data as basis for efficient data access and reuse

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The BonaRes Project:

The German research initiative BonaRes (“Soil as a sustainable resource for the bioeconomy”, financed by the Federal Ministry of Education and Research, BMBF) was launched in 2015 with a duration of 9 years and perpetuation envisaged. BonaRes includes 10 collaborative soil research projects and, additionally, the BonaRes Centre. The BonaRes Centre provides support for communication, a seamless data exchange and creates modelling concepts and assessment tools for a sustainable soil and landscape management respectively.

IT-infrastructure and open data concept:

Within the BonaRes Centre the IT-infrastructure for upload, management, storage, and provision of research data from soil and agricultural as well as data from long-term field experiments is maintained. According to the “Digital Information” Initiative by the Alliance of Science Organizations in Germany (2017) these data will not be subject to any restrictions on re-use. After a limited embargo-time, all research data will be provided open for the international research community under creative commons license. Prospectively, the data infrastructure will be open for all soil-related research data e.g. from other research projects.

To enable smooth data management and to fulfill open and accessible data requirements from the beginning, all research data must be described by standardized metadata. Benefits of open and well described data are its high visibility, easy accessibility, long-term availability and re-usability, and interoperability with international data. The developed metadata schema is based on existing and accepted international schemes and combines all elements from DataCite and INSPIRE.

Our contribution:

Accessible, structured and well described soil and agricultural research data as managed within the BonaRes Data Centre are predestined to be part of a modern environmental data infrastructure.

We will present the main components of the research data infrastructure and address technical, legal and publishing aspects as well as possibilities to find and explore stored research data. The technical components include a web based user interface which enables a standardized metadata and data upload. The legal component contains embargo and copyright issues. The publishing component refers to the service of Digital Object Identifier assignment (DOI creation via DataCite).