

Bewertungskriterien für Middleware Software Lösungen. Folgende mögliche Softwarelösungen sollen bewertet werden:

- **CKAN**
- **DSpace**
 - – Can comply with domain-level metadata schemas
 - – Is open-source and has a wide supporting community
 - – Has an extensive, community maintained documentation
 - – Can be fully under institutions control
 - – Structured metadata representation
 - – Compliant with OAI-PMH
- **Invenio** (<http://invenio-software.org>)

Tabelle1 – Bewertungskriterien für Middleware Lösung (Priorisierung +/-)

Importance rating	Category	Requirement	Description	Priorisierung für FoDaKo
1	Metadata	Support for different metadata (schemas), including domain-specificity and interoperability	Any form of metadata (schemas) should be allowed. This includes metadata such as author, owner, license, source publication, librarian, date and time stamps; and domain-specific descriptors.	o (Dublin Core ist ausreichend)
2	Persistent identifiers	Assignment of PID / DOI	At data ingest time or "project publication" or even before (e.g. when a paper was submitted but the data are not final yet) a PID has to be assigned to data and the collections it belongs to. It resolves to the "landing page" of the research data, which displays the required descriptive metadata during the embargo period. A clear transition for PID collections to a DOI has to be established.	+
19	Persistent identifiers	Integration of PIDs into data management	All data management activities should be integrated with PID management. PID metadata has to always be in sync with the data/metadata holding.	o
4	Data Access	Allow data providers to choose the level of access to data (e.g. Open Access).	Control over access to data is in the hands of those who provide the data	+
5	Data Access	Provide state-of-the-art user interfaces and clients over the life time of a repository platform	(Easy to use) User interface, features, and functionality should be updated over time to match the requirements and expectations of current researchers. They include web based user interfaces and others (e.g. WebDAV, FUSE, Java I/O, Python, Shell commands)	+
9	Data Access	Provide (authorized) users access to versions of data (e.g. different simulation runs)	Provide different versions of a data set.	o
10	Data Access	Embargo date selection for data-depositing user	The user can select a specific date (e.g., 2016-05-15) or time span (e.g., 1 year) for when the research data shall become available. The selecteable default values can be set by the repository administrator to match the policies of the university.	o

15	Data Access	Sophisticated search capabilities for metadata and data both for humans and computers	Allow search capabilities like full text search, schema specific search. Metadata and data should be indexable by search machines and harvestable by external search engines to increase usage and impact.	o
14	Submission / Ingest / Management	Record audit trails	Track changes to resource metadata and information relationships. Maintain a log of all events / operations. This provides a record of information flow into and out of the repository and charts the connections that are created and shift as use occurs and new files are added	-
21	Submission / Ingest / Management	Provide integrity and quality control mechanisms for data and metadata	This covers topics like bit preservation, replication, checksum of data and metadata completeness, accuracy, correctness.	-
16	Submission / Ingest / Management	Easy to use ingest process with few barriers to participation	Opening up many barriers to entry into the repository allows for the curation of unpublished materials and supports linking to published works in other places.	o
29	Submission / Ingest / Management	Provide both single and batch ingest paths	Allows for a range of data types and scales to be submitted with maximum efficiency whether or not one has many files or only one.	o
30	Submission / Ingest / Management	Allow content to be marked for deletion by authorized users	Authorized users should be given control to deem which data can be deleted.	-
13	Policy Support	Policy enforcement points	Control all operations with administrator defined rules	+
17	Authentication	Provide Single-Sign-On and/or support for different authentication methods	Combined support for methods like Shibboleth or LDAP	+
18	Integration	Federation	Enable interoperation with other existing data management systems	-
27	Preservation and Sustainability	The repository must be scalable regarding the amount of data	The petabyte level is relevant for the near future, but more will be needed afterwards.	o
33	Publication	Display bibliographic citation for data; ideally, also allow the export of bibliographic data to citation software.	Based on the required descriptive metadata and DOI (see above), the repository platform displays citations for the deposited research data (ideally, in several common styles, e.g. APA, MLA). In addition the repository platform can export the metadata necessary for a citation directly to widely used bibliographic software such as EndNote, Citavi, Zotero, etc.	+

Quellen

- a) <https://www.rd-alliance.org/group/repository-platforms-research-data-ig/outcomes/matrix-use-cases-and-functional-requirements>
- b) http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/news/institutional_repository_software.pdf
- c) <https://edoc.hu-berlin.de/handle/18452/2155>
- d) <https://www.re3data.org/browse/by-subject/>
- e) http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/9780838988596_crd_v1_OA.pdf