

The InGrid® Catalog

- an application to manage INSPIRE compatible metadata -

Fred Kruse, Stefanie Uhrich, Martin Klenke

In Germany, the InGrid®Catalog (IGC) is in use in most federal and state environmental agencies in order to describe and manage environmental data and information. It emerged from the German catalog of environmental data, which was developed over the last decade and has evolved to a quasi-standard for referencing environmental information and data in Germany. Today the IGC contains more 16,000 metadata objects from the federal government and the 16 German states. The InGrid®Catalog is the central knot of the environmental administration to the German Spatial Data Infrastructure and therefore an important part of the INSPIRE-process.

The IGC metadata subset which describes geospatial data and services considers the most relevant international standards, namely the ISO 19115 and 19119. The InGrid®Catalog is part of InGrid® which is the underlying software of the German Environmental Information Portal, PortalU® (<http://www.portalu.de>).

Our article will present the InGrid®Editor an INSPIRE compatible metadata editor which is part of the InGrid®Catalog. We will show the efforts that was necessary to fit the ISO 19115/19119 compliant IGC data model to the INSPIRE requirements formulated by the INSPIRE Implementing Rules for Metadata and present the experiences concerning the crucial data migration of more than 16,000 German metadata-objects.

Besides the metadata model itself, the communication interfaces have to be adapted. Following the actual Draft of the INSPIRE DT Network Services, the OGC CSW (Catalog Service Web) interface will play a main part in exchanging metadata within the INSPIRE community. To the present state, the existing CSW implementations do not support all INSPIRE metadata discovery options, both in technique and content.

Furthermore we will present some features of the application that can be used to build up an efficient INSPIRE architecture. The DT Network Services' commitment to the OGC CSW ISO 19115/19119 Application Profile (CSW ISO AP) for the INSPIRE Discovery Services has several implications, e.g. touching questions regarding performance and topology of the involved catalog services. The software InGrid® offers an approach for those problems by the following features:

- Flat service topology instead of multilevel cascading services
- Harvesting of data to a central repository instead of pure distributed services
- Indexing of metadata in order to rapidly present a "mixed" result set with ranked hits built-up by responses of different data sources

The paper will give a brief summary of the architecture of the software InGrid®.