



## **Publication of sensor data in the long-term environmental sub-observatory TERENO Northeast**

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Terrestrial Environmental Observatories (TERENO) is an interdisciplinary and long-term research project spanning an Earth observation network across Germany. It includes four test sites within Germany from the North German lowlands to the Bavarian Alps and is operated by six research centers of the Helmholtz Association. TERENO Northeast is one of the sub-observatories of TERENO and is operated by the German Research Centre for Geosciences GFZ in Potsdam. This observatory investigates geocological processes in the northeastern lowland of Germany by collecting large amounts of environmentally relevant data.

The success of long-term projects like TERENO depends on well-organized data management, data exchange between the partners involved and on the availability of the captured data. Data discovery and dissemination are facilitated not only through data portals of the regional TERENO observatories but also through a common spatial data infrastructure TEODOOR (TEreno Online Data repOsitORry). TEODOOR bundles the data provided by the different web services of the single observatories and provides tools for data discovery, visualization and data access. The TERENO Northeast data infrastructure integrates data from more than 200 instruments and makes data available through standard web services. TEODOOR accesses the OGC Sensor Web Enablement (SWE) interfaces offered by the regional observatories.

In addition to the SWE interface, TERENO Northeast also publishes time series of environmental sensor data through the DOI registration service at GFZ Potsdam. This service uses the DataCite infrastructure to make research data citable and is able to keep and disseminate metadata popular to the geosciences [1].

The metadata required by DataCite are created in an automated process by extracting information from the SWE SensorML metadata. The GFZ data management tool kit panMetaDocs is used to manage and archive file based datasets and to register Digital Object Identifiers (DOI) for published data.

In this presentation we will report on current advances in publication of time series data from environmental sensor networks.

[1]<http://doidb.wdc-terra.org/oaip/oai?verb=ListRecords&metadataPrefix=iso19139&set=DOIDB.TERENO>