Towards
Semantic Enablement for
Spatial Data Infrastructures

Based on abstract reference models, the Open Geospatial Consortium (OGC) has established standards for the storage, retrieval, and processing of geographical information. These standards act as foundation for the implementation of concrete services and Spatial Data Infrastructures (SDI). Research on geo-semantics plays an increasing role to support complex queries and discovery across heterogeneous information sources, as well as for on-the-fly integration and semantic translation. So far, existing approaches only target individual solutions or focus on the Semantic Web, leaving the integration with SDI aside. What is missing is a common semantic enablement layer for Spatial Data Infrastructures which also integrates reasoning services from the Semantic Web. Focusing on Sensor Web Enablement (SWE) we outline how Spatial Data Infrastructures can benefit from such semantic enablement layer.