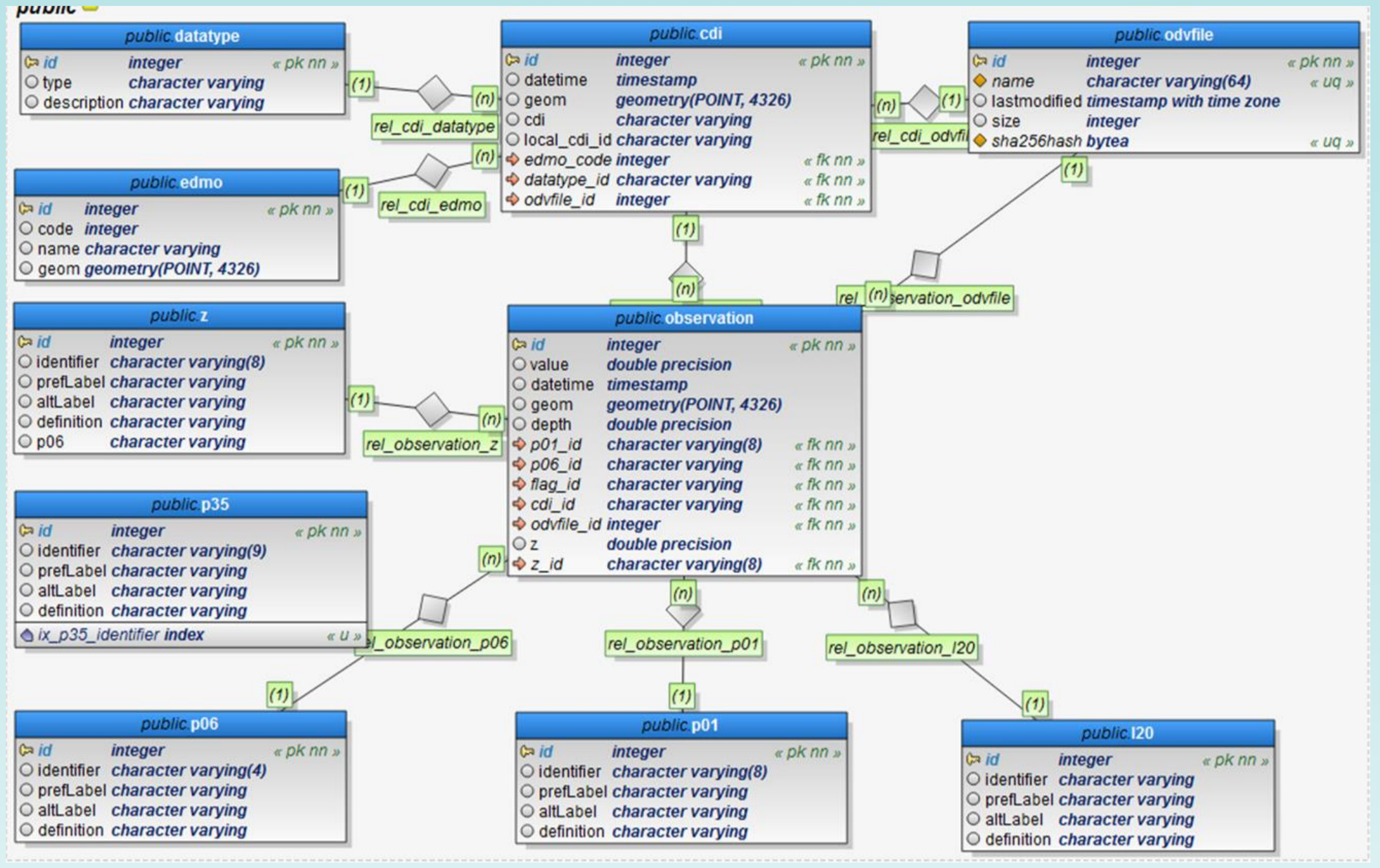


Analysis of ocean in situ observations and marine data products: Web-visualization and Services for EMODnet Chemistry

Giorgio Santinelli, Gerrit Hendriksen, Alexander Barth

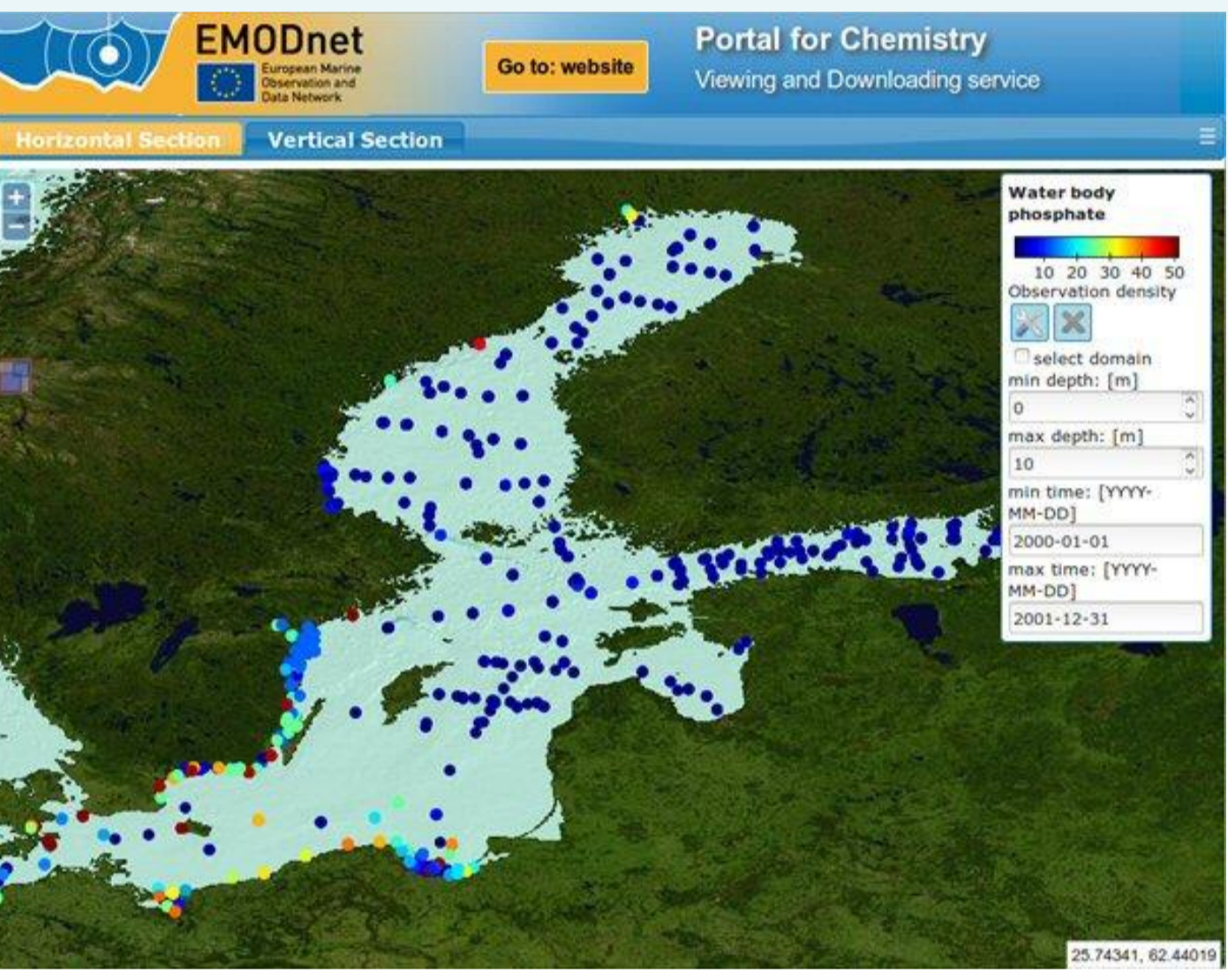
Database and WFS services



OGC services
WMS, WFS, WPS



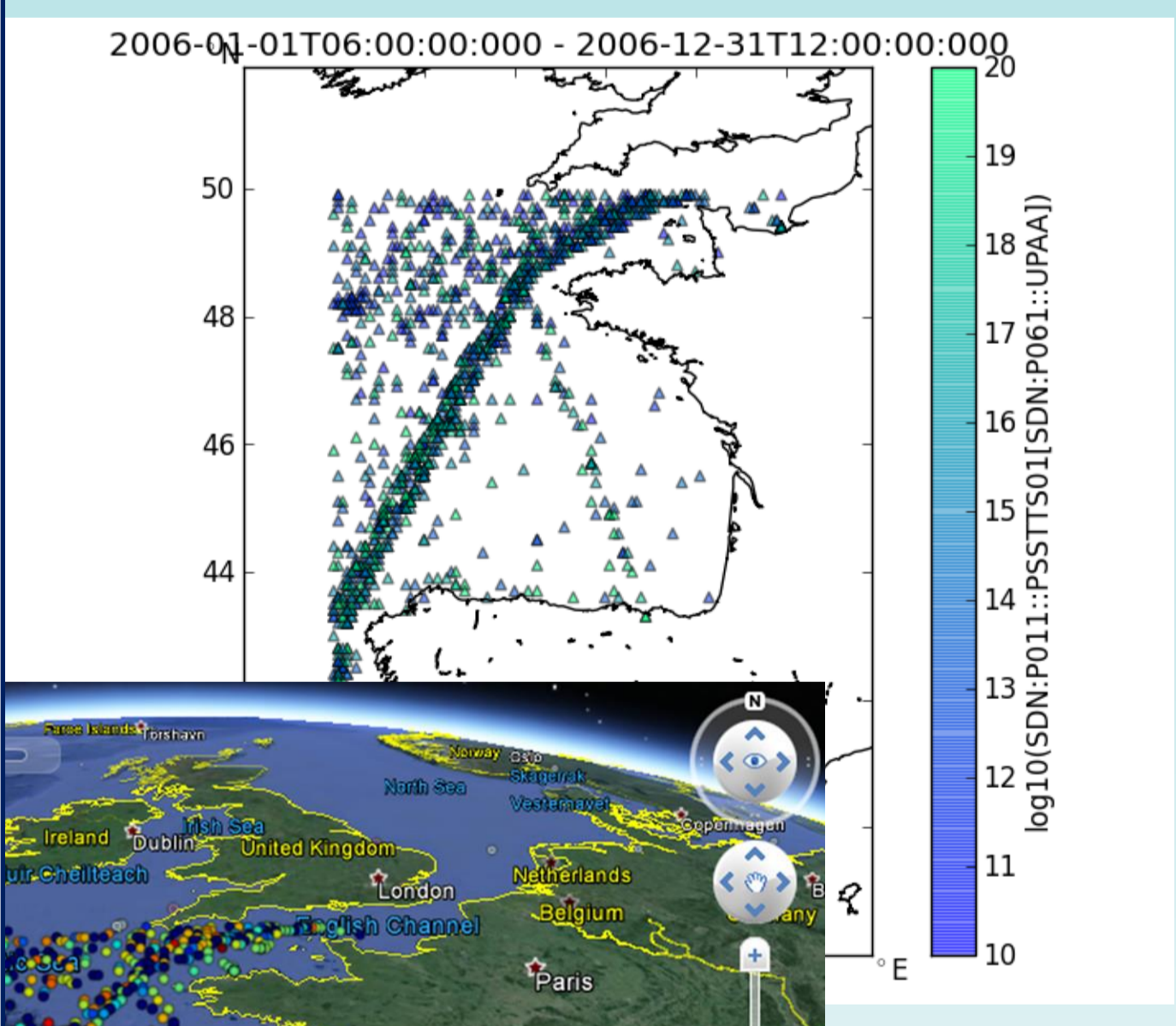
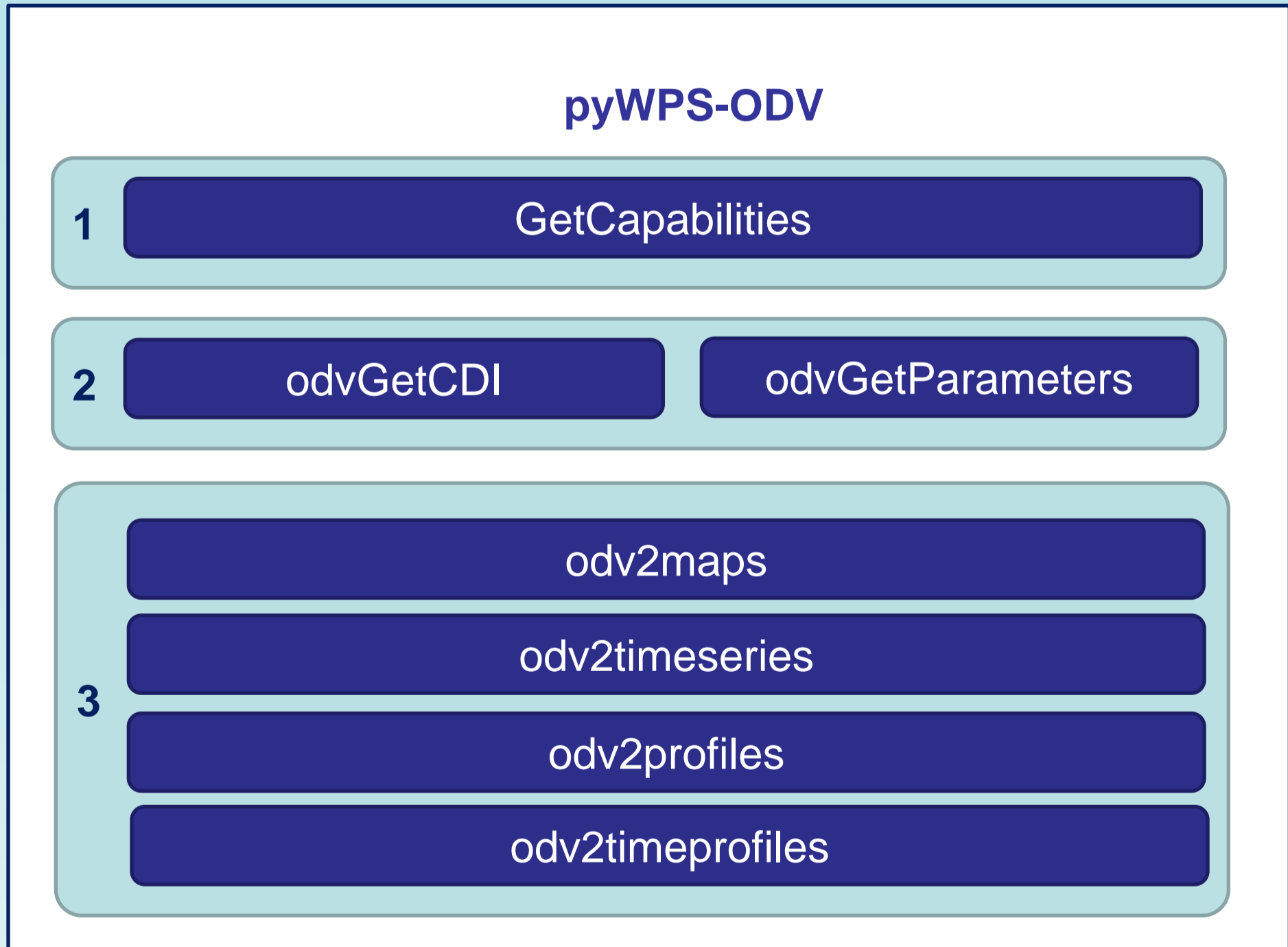
ODV
Enriched ODV files per region



Data from Baltic Sea, North Sea, Mediterranean, Black Sea and part of the Atlantic region has been entered into the geodatabase, and consequently being instantly available in the OceanBrowser.

Data products from regional leaders were made available using OpenEarth ETL procedures to transform data into a cloud database. This has been done by python scripting, reading so-called enriched ODV files and inserting data directly into a cloud relational geodatabase. The main table is the observations table which contains the main data (over 152 million records) and meta-data associated with the enriched ODV files. Various performance enhancements have been made for quick access to data in order to improve on-the-fly computational speed.

WPS Services for ODV enhanced data products



Deltares has developed an application that provides additional visualisation services for the aggregated and validated data collections in EMODnet Chemistry lot.

These visualisations are produced by making use of part of the **OpenEarthTool** stack (<http://www.openearth.eu>) and by the integration of Web Processing Services (WPS) in a Python framework. The goal is the generation of server-side plots of time series, profiles, time profiles and maps of selected parameters from data sets of selected stations.

Regional data collections are retrieved using EMODnet Chemistry cloud geo-database. The spatial resolution in time and the intensity of data availability for selected parameters is shown by requesting WFS services via the OceanBrowser EMODnet Web portal.

JSON strings of EDMO codes and LOCAL_CDI are listed as links to detailed metadata and for data shopping and download.

