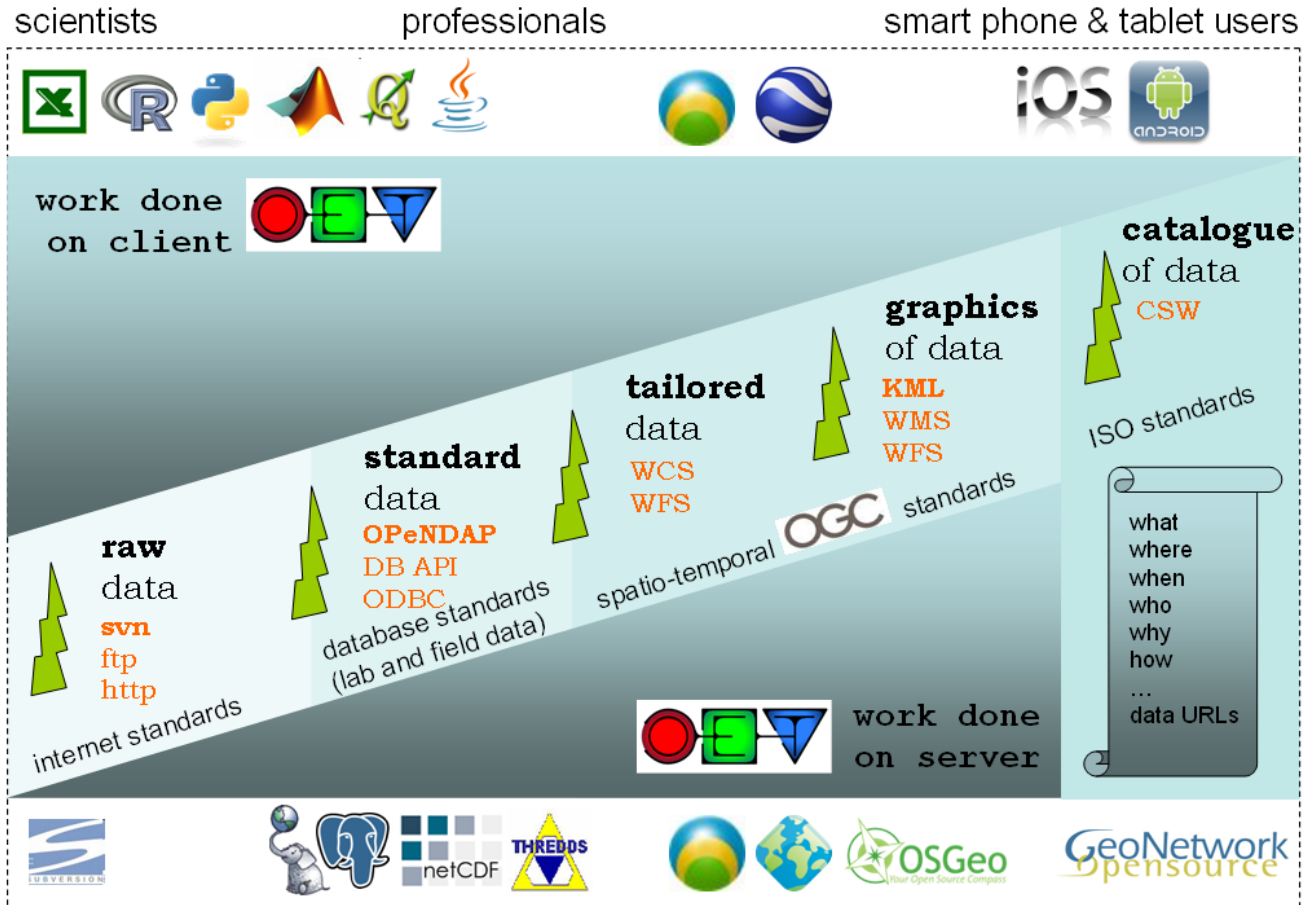


netCDF-CF-OPeNDAP

The trio netCF-CF-OPeNDAP provides a powerful and complete software stack to work with data as written in this [OceanObs09 paper](#).

- [netCDF](#) from UniData is standard syntax for data files. NetCDF is (i) an open format for which (ii) two open implementations (C, java) are available. NetCDF is a NASA and [OGC standard](#). Note that netCDF4, the latest release, uses HDF5 under the hood.
- CLimate Forecast ([CF](#)) is a semantic extension to netCDF to annotate data. The CF extension for geospatial meta-data is an [OGC standard](#). CF also includes controlled vocabularies for quantities, units, time, statistical aggregation methods.
- [OPeNDAP](#) is a network protocol. When the netCDF libraries are compiled with OPeNDAP, this is basically web-enablement of netCDF. OPeNDAP and netCDF will be [integrated](#).

These netCF-CF-OPeNDAP standards are an important part of the suite of layered standards OpenEarth identified. netCF-CF-OPeNDAP provides standard data for grid data and vector data. For the full user range they need to be accompanied though by standards for exchange of relational data ([PostgreSQL-PostGIS](#)), for raw data (subversion), and for [tailored data](#), [graphics of data](#) and [catalogs of data](#).



Automatic tree of OpenEarth Tech Notes

On this wiki we provide tutorials how to work with netCDF-CF-OPeNDAP.