Geomagnetic Observations

Overview

The monitoring of Geomagnetic fields has a long history across Europe, though there has been little European-level coordination. EPOS will consolidate the community; modernise data archival and distribution formats for existing services, such as INTERMAGNET; and create new services for magnetotelluric data and geomagnetic models.

Objectives

- Enhance existing services providing geomagnetic data such as INTERMAGNET (INTERNATIONAL Real-time MAGnetic observatory NETwork); the World Data Centre for Geomagnetism; IMAGE (International Monitor for Auroral Geomagnetic Effects) and existing services providing geomagnetic indices such as ISGI (International Service of Geomagnetic Indices);
- Develop and build access to magnetotelluric (MT) data including transfer functions (TFs) and time series (TSs) data from temporary, portable MT-arrays in Europe, and lithospheric conductivity models derived from TM-data;
- Develop common web and database access points to global and regional geomagnetic field and conductivity models;
- Establish links from the WP data services, products and models to the Integrated Core Services.

Our services ready for 2019

- Virtual Access to data/products/services relying on existing organizations: (INTERMAGNET, WDCG, IMAGE, ISGI)
- Magnetotelluric data; geomagnetic data from magnetic networks; airborne and shipborne magnetic surveys; auroral zone variometer networks (Level 0, 1)
- Global and regional geomagnetic field and conductivity models (Level 2, 3)
- Characterisation of geomagnetic activity and space weather conditions
- Virtual Access to computational platform/s
- Access for the compilation of lithospheric conductivity models