WP13 - GEOMAGNETIC OBSERVATIONS
INTEGRATION OF GEOMAGNETIC AND MAGNETOTELLURIC DATA

MAGNETIC DATA
World Data Centre for Geomagnetism (Edinburgh)
& INTERMAGNET

http://www.wdc.bgs.ac.uk
http://www.intermagnet.org

MAGNETOTELLURIC DATA AND MODELS
(Example: Thickness of the electric lithosphere)

MAGNETIC STATIONS
IMAGE
(International Monitor for Auroral Geomagnetic Effects)

http://space.fmi.fi/image

MAIN FIELD & SECULAR VARIATION

MAGNETIC DECLINATION MAP

CRUST & LITHOSPHERE CHARACTERISTICS

CRUSTAL MAGNETIC ANOMALY MAP

MAGNETIC CONDITIONS & SPACE WEATHER

http://isgi.unistra.fr

EPOS Implementation Phase Project
Grant Agreement number 656764

https://www.epos-ip.org

International Service of Geomagnetic Indices
Work Package 13 will bring geomagnetic data, derived geomagnetic data products and geomagnetic services (models of the geomagnetic field) to the EPOS platform.

The WP13 Thematic Core Service (TCS) has three main technical tasks, in respect of building:

**EGMODA**
European Geomagnetic MOdel and Data Archive

Based on existing distributed infrastructures (INTERMAGNET; the WDC for Geomagnetism, Edinburgh, and IMAGE), the service will provide:
- open academic access to **geomagnetic data** (permanent magnetic observatory data, magnetic surveys, auroral zone variometer networks, i.e. non-absolute-level magnetic time series data)
- open academic access to **geomagnetic models** (main field models, e.g.: IGRF, WMM, & crustal field model, e.g.: WDMAM)
- comprehensive data and metadata through a web interface and web services and through direct access to databases.

**ESGI**
European Service of Geomagnetic Indices

Based on existing distributed infrastructures (ISGI; Service on Rapid Magnetic Variations, and Service of Kp planetary Index), the service will provide:
- tools (discrimination of quiet or disturbed magnetic periods) & **geomagnetic indices**, including lists of significant events, with clear common data formats,
- characteristics of geomagnetic activity and space weather conditions (past and in quasi real-time) with comprehensive metadata, through Web interface/services and direct access to databases.

**EMTDAMO** *(service in implementation)*
European service of MagnetoTelluric DAta and MOdels

Magnetotelluric data have not yet been collected on the European level.

The inventory of existing data will be done jointly with the definition of metadata (survey and instrument information).

The service will provide:
- magnetotelluric time series (magnetic, electric field), magnetotelluric transfer functions and crustal/lithospheric conductivity models,
- computational platform to compile several local conductivity models into a single regional model.