Magnetotelluric (MT) soundings were conducted along four 60-kilometre-long profiles in middle and southern Germany. Two of these profiles cross the transition from the Rhenotherryan to the Saxothuringian unit of the Variscan belt and the other two profiles cross the transition between the Saxothuringian and the Moldanubian unit.

Each profile consisted of seven RAP-Stations, MT devices developed at the University of Göttingen, capable of recording very low frequency, subterranean electromagnetic signals. The devices collected data between September 2010 and December 2010. In addition a reference site in the Ohmgebirge was installed to perform Geomagnetic Depth Sounding (GDS).

The surveys aim to determine conductivity anomalies due to the collision of the micro-terrane and to investigate possible accumulation of graphite along the borders of the micro-terrane, as indicated by earlier surveys by the ERCEUGT-Group (V. Haak et al., 1992) and S. Reich (2010), and its role during the collision of the terrane-units. However, other conduction mechanism are considered also.

GDS turns out to be an excellent method to map terrane-borders and identify possible high conductivity structures along the edges of the terranes because of its good ability to determine horizontal conductivity anomalies without being impaired by effects like static shift. Results from the GDS analysis and 3D-modelling of the survey area will be presented.