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Integrated analysis of the electrical resistivity measurement at the EMR-site, insight from structural analysis, borehole logs and microgravimetry.

The de-risking of the geologic structures in the EMR is a crucial step in the preparation of the Einstein Telescope. Alongside active seismic and gravimetry, Deep Electric Resistivity Tomography surveys are a key instrument to identify and characterize large structures in the subsurface.
We present the geologic interpretation of a Deep ERT profile in Val Dieu, Belgium crossing the Booze Val-Dieu Block. The profile spreads over a length of 7.5 km and was interpreted using the knowledge from recent borehole logs, including correlating seismic velocities variations and resistivity variations, geologic cross-sections and microgravity measurements. To consolidate the interpretation, synthetic modelling was performed, testing different geologic hypotheses.
Furthermore, we show our latest results from a Deep ERT survey in Hombourg, Belgium close to the recent drill sites in Hombourg and Obsinnich. The survey included two perpendicular profiles, 4.5 and 6.1 km long, revealing insights on several faults. For the first interpretation previous conventional ERT profiles and a 3D Deep ERT survey were included.

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