### CLIENT

**DEGES, Berlin**

#### PROJECT

**Commuter Railway – Tunnel in the City of Leipzig**

- Length 3.5 km, two single track tubes, diameter 9 m, distance from tube to tube 0.5 to 1 diameter; 4 stations by open cut construction
- Subsoil consists of non cohesive and mixed grained soil (glacial terrace, ground moraine), predominantly gravel sand, silt and clay
- Penetration of the structures up to 18 m depth, in partly highly permeable aquifers, temporary and permanent influence on the natural groundwater situation

### DUTIES

- Foundation expertise
- Tunnel constructive / geological expertise
- Hydrogeological expertise
- Preplanning of mechanized tunnel driving
- Expert consultancy of client while tendering (HOAI Part XI)
- Expert consultancy of client while building (HOAI Part XI)
- Expert- and detail planning on demand by client
- Site inspection during construction
- Groundwater monitoring