

## **Selected Projects**

- New construction of Highway BAB A44, Kassel-Eisenach, Germany: Herleshausen, Ground investigation and geotechnical reports of roads, tunnels and bridges
- Mine Almaznaya Public Company, Russia: development and expansion planning for the reopening of an existing mine
- Prosper Haniel mine, Bottrop, Germany: roadway cross section of 170 m<sup>2</sup> at 1,200 m depth (shaft bottom); rock mechanical and numerical analysis of the surrounding rock
- Stuttgart 21, NBS Wendlingen Ulm, Tunnel Widderstall, Germany: Geotechnical investigations in tunnel construction and tunnel mapping
- BGE Mine Shaft Konrad, Peine, Germany:
  Design of various final roadway supports

#### **DMT GROUP**

Excellence and innovation in everything we do – this is our claim as an independent, global engineering and consulting company in the construction, mining, plant and mechanical engineering sectors. DMT is the "Engineering & Natural Resources" division of the TÜV NORD GROUP.

Sustainable value creation for our clients is always the goal – knowledge, digitalization and internationalization are our success factors. To this end, we count on our 1,100 employees, 14 subsidiaries, 30 locations and 280 years of experience.

In infrastructure, civil engineering and mining, we are general planners and specialists. We implement system and individual solutions in every discipline and bundle competencies for consulting, engineering, tendering, implementation, monitoring, operation and refurbishment, ensuring planning and investment safety for our customers.

We call this engineering performance.

### **DMT**

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# Tunneling

Consulting, Planning and Construction Supervision

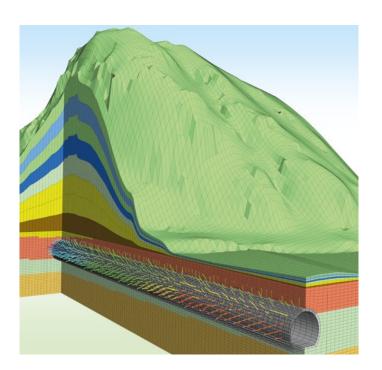
Civil & Mining Engineering dmt-group.com

Engineering Performance

TUVNORDGROUP

# **Tunneling**

- Construction project management DIN 69901 out of one hand
- Customized solutions
- Delivery of selected or turnkey packages
- A strongly customer-oriented team
- Compliance of quality, safety, health and environment
- Use of the DMT SAFEGUARD Monitoring Platform and services for geotechnical and surveying project monitoring
- Three-dimensional numerical simulations
- Coupled thermal-hydraulic-mechanical modeling
- High-precision measurement of the tunnel course with DMT-Gyromat





Holistic Project approach: structured – comprehensive – up-to-date



### **Our Services**

# Ground investigation for tunnel construction projects

- Design and supervision of a customized investigation program
- Performance of in-situ experiments and laboratory tests
- 3D ground model
- Geotechnical and tunnel construction reports

### Planning of civil engineering structures

- Shafts and tunnel gantries
- Access by temporary tunnels, road and railroad tunnels, caverns
- Utilities: Electricity, water and materials

#### Shaft and tunnel construction

- Application of analytical, empirical and numerical calculation methods
- Design and implementation planning
- Advanced numerical 3D modelling of the tunneling as well as the preliminary and permanent support
- Groundwater management
- Monitoring and supervision of civil engineering structures via DMT SAFEGUARD
- Weather technology
- Fire protection