

Germany



Name: Deutscher Ausschuss für unterirdisches Bauen e. V. (DAUB, German Tunnelling Committee)

Type of structure: Registered non-profit and restricted association (limited to 30 individual members)

Number of members: 30 members

ASSOCIATION ACTIVITIES IN 2017

Activities

- DACH-meeting (German, Austrian, Swiss Tunnelling Committees) in Germany (technical seminar and site visit)
- STUVA Conference '17, Separate Segments on "Tunnelling" and "Tunnel Operation", attended by more than 1900 participants and 200 exhibitors
- Inaugural Meeting of Young Engineering Professionals "STUVA YEP"

Working Groups

- Financing of tunnels via PPP/BOT-projects
- Recommendations for contracts with low potential for conflict
- Requirements for refuge chambers
- Life-cycle costs calculation
- Design, production and installation of segmental rings
- External communication of DAUB
- Digitization and Building Information Modelling (BIM) in tunnelling
- Selection of tunnelling machines
- Planning and implementation of occupational health and safety concept on underground worksites

Publications (recently finished)

- Recommendations for Face Support Pressure Calculations for Shield Tunnelling in Soft Ground

Publications of DAUB can be found in/on

- Journal "tunnel" (www.tunnel-online.info)
- German Handbook of Tunnelling ("Taschenbuch Tunnelbau", published annually)
- Recommendations are available for download from website (www.daub-ita.de); the majority is bi-lingual (German/English)

Future Activities

- Regular meetings with Austrian and Swiss colleagues
- Munich Tunnel Symposium, 8 June 2018, Munich
- InnoTrans Tunnel Forum, 18–21 September 2018, Berlin



- Sealing of buildings by injections, "Forum Injektionstechnik", 21–22 November 2018, Cologne
- STUVA-Conference 2019, 26–28 November 2019, Frankfurt



CURRENT TUNNELLING ACTIVITIES

About 174km of **traffic tunnels** are under construction in Germany in 2017.

- As in the previous year, the main activities relating to **inner-urban rail tunnelling** are taking place in Stuttgart, where some 9.7km of urban and rapid transit tunnels are under construction at the turn of the



TBM start up ceremony at the Albvorland Tunnel on the new Wendlingen–Ulm Line
(Source: Deutsche Bahn AG)



Length-related classification according to federal states for transportation tunnel projects under construction, with the number of registered transportation tunnel projects given in brackets

year 2016/2017. This is followed by Karlsruhe (4.7km), Frankfurt/Main (4.4km) and Berlin (3.2km). Further tunnel projects amounting to less than 2km are underway in Dortmund, Hamburg and Nuremberg

- The **main-line rail tunnels** largely relate to works in the greater Stuttgart area. Of the tunnelling projects currently being implemented (a total of 122km) some 47km are accounted for by the major project “Stuttgart 21 rail hub” and some 59km by the new Wendlingen–Ulm rail route. Further main-line tunnels are being constructed in conjunction with the upgraded/new Karlsruhe–Basle section and the upgraded Hanau–Nantenbach line. 35% of these main-line rail tunnel projects employ the shotcreting method, with tunnel boring machines (TBMs) used for a further 61% of the current excavated volume
- **Road tunnel** construction, like the two other transportation tunnel segments, has been subject to pronounced contracting fluctuations in recent years. Currently about 28km of road tunnels are under construction in Germany. In this connection, shotcreting predominates in the majority of cases as far as trenchless projects are concerned.

FUTURE TUNNELLING ACTIVITIES

About 209km of traffic tunnels are projected but not yet started in 2017.

- There has again been a slight decrease in the number of Underground, urban and rapid transit tunnels (about 52km). In this context, the planned volume for the city of Munich, comprising just about 30km, is conspicuous among the projects still planned. Almost 10km of tunnels are being planned for the Hamburg Metro (partly at the pre-planning stage). Further tunnel construction schemes, all accounting for less than 3km in each



Length-related classification according to federal states for future transportation tunnels, with the number of registered transportation tunnel projects given in brackets

- case, are scheduled for the cities of Frankfurt/Main, Nuremberg, Berlin, Düsseldorf, Stuttgart and Dortmund.
- Regarding the planned volume of main-line rail tunnels (about 45km), it should be noted that roughly half of it is accounted for by the tunnels approved for the new/upgraded Karlsruhe–Basle rail line (excavation length: some 19km). Some 8km of tunnels are planned in conjunction with the new Rhine/Main–Rhine/Neckar route and the Nuremberg–Fürth route. A further 5km of main-line tunnels are still

to be awarded for the Stuttgart 21 rail hub project.

- The planned volume of projected road tunnels (about 113km) remains largely unchanged in comparison with the previous year. On account of the German state’s revamped planning requirements, the scheduled volume has dipped considerably in recent years.

STATISTICS

Detailed statistics available at <https://www.stuva.de?statistik>



Waterproofing in the Alabstieg Tunnel, new Wendlingen–Ulm rail route (Source: Deutsche Bahn AG)