

Poland



Name: Subcommittee of Underground Construction of Polish Committee on Geotechnics

Type of Structure: Non profit, open association

Number of Members: 58 members, 5 corporate members

ASSOCIATION ACTIVITIES DURING 2020 AND TO DATE

Because of the Covid pandemic all activities of the association were stopped.

The representatives of Poland were present online at the ITA General Assembly during WTC 2020 in Kuala Lumpur (digital) and at a special (digital) General Assembly on February 10th 2021. Monika Mitew-Czajewska (treasurer) is the member of WG20, Anna Siemińska-Lewandowska (president) - WG15, Bartłomiej Dziuban and Dymitr Petrow-Ganew - WG14, Maciej Ochmański - WG2 and WG22, Jerzy Lejk - WG3, and Bartłomiej Dziuban - ITAym.

CURRENT TUNNELLING ACTIVITIES

Construction of the 2nd metro line in Warsaw, extensions of the existing central part:

- In an east-northerly direction (three stations, 8km) - Gülermak Ağır Sanayi İnşaat ve Taahhüt A.Ş. Due date 2023.
- In a westerly direction (five + one stations, 12km) - Gülermak Ağır Sanayi İnşaat ve Taahhüt A.Ş. Building permit, due date 2024.

Construction of the 3rd metro line in Warsaw

- Design works begun, feasibility study
- Construction method: EPBM + cut & cover.

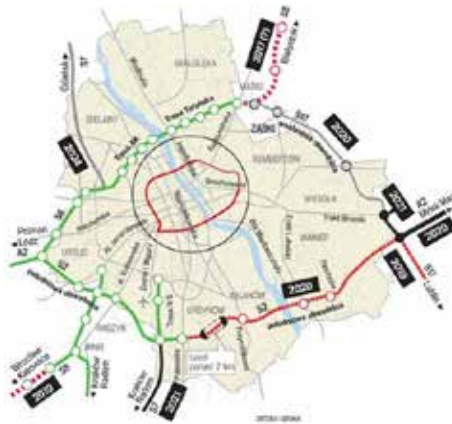
Road Tunnel in Warsaw – part of the south city ring

- A 2,700m long tunnel, 3 lanes in each direction, construction method - cut and cover.
- Construction works in progress. Due date June 2021.

Road Tunnel under the Świna river in winoujście – north Poland

The 1.44km long tunnel will connect the islands Uznam and Wolin. Construction method TBM – 13.46m diameter. Due date end of 2022. Design works are completed, a slurry TBM started on 5th March 2021.

Rail Tunnel in Łódź – Tunnel connecting Łódź Fabryczna and Łódź Kaliska stations



Road Tunnel in Warsaw – part of the south city ring

Length of the tunnel – 3km of double track tunnel, 4.5km of single track/tube tunnels; 2 underground stations; Construction method TBM + cut & cover. Due date 2022. Design works are completed. Two TBM's – diameter 13.04m and 8.76m are assembled. Starting shaft is completed. First TBM (8.76m in diameter) should start in April 2021.

Road Tunnel under Luboń Mały – south Poland

- Over 2 x 2km tunnels on the S7 motorway from Kraków to Zakopane (polish skiing resort)
- Construction works in progress, 2200m executed, the method of construction is ADECO RS. Due date 2021.



Road Tunnel under the Świna river in Świnoujście – north Poland

Road Tunnel on the S3 motorway Bolków-Kamienna Góra – south Poland
2.3km tunnel on the S3 motorway from Bolków to the state boarder. Design and build. Construction in progress. The method of construction – NATM. Due date end of 2023.

Two Road Tunnels on the S1 motorway, the ring road of Węgierska Górk – south Poland

Two road tunnels (830m and 980m) on the S1 motorway from Bolków to the state boarder. The contractor will construct the tunnel under a design and build contract. The tunnels will be constructed using the sequential excavation method or ADECO. Due date 2022.

Road Tunnels on the S19 motorway, Via Carpatia, Rzeszów - Babica

2,180m twin-tube TBM road tunnel on the S19 from Rzeszów to the state boarder. The feasibility study is completed, and tender awarded. Construction works will start at the end of 2021.

FUTURE TUNNELLING ACTIVITIES Three road Tunnels on the S19 motorway, Via Carpatia, section Rzeszów - Barwinek:

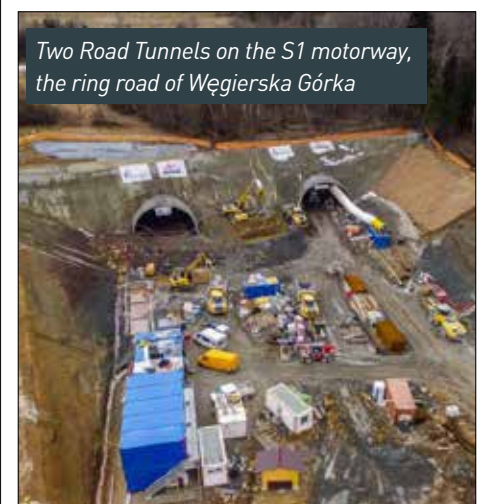
Three road tunnels (1.75km, 1.6km, 1.2km) on the S19 from Rzeszów to the state boarder. The conceptual design is in progress. Construction time 2021-2025.

2 Road Tunnels on the S7 motorway in Warsaw

Two road tunnels; 2 x 3 lines in each direction, in preliminary design

Road Tunnel on the S6 motorway,

Road tunnel on the west city ring of Szczecin, under Odra river, 5km, preliminary design.



Two Road Tunnels on the S1 motorway, the ring road of Węgierska Górk

Eleven (11) Rail Tunnels – 12km length in total on the planned 58km long new rail route Podłęże-Piekietko in the south part of Poland. In addition, two Rail Tunnels – 5.8km length in total on the rail route Chabówka – Nowy-Sącz, will be modernized.

Environmental approval was obtained.

The design works are in progress.

Preparatory works and the design are to be completed by 2021. The construction and modernization is planned for 2021-2026.

2.5km long railway tunnel in Łódź on the railway line 85; a high-speed train tunnel will connect the Central National Airport (under design) with Warsaw and Wrocław.

Two short rail tunnels in Górkki (0.22km) and Maksymilianowo (0.11km)

STATISTICS

1. Length or volume excavated - % mechanized / % conventional during 2020:

70% mechanized / 30% conventional

2. Amount (USD or EUR) of tunnelling / underground space facilities awarded in 2020:

€200M

3. List of tunnels completed

(2): Metro tunnels in Warsaw

4. List of tunnels under construction

(9) + 18 design stage

EDUCATION ON TUNNELLING IN THE COUNTRY

Basics of Underground Structures (1st degree studies), Underground Structures I and II, Fire safety in tunnels – 2nd degree studies – Warsaw University of Technology, Faculty of Civil Engineering

Underground Construction (1st degree studies), Geotechnology of underground structures and tunnels, The impact of underground construction on surface and surrounding rock mass, Ventilation in selected underground facilities – 2nd degree studies - AGH University of Science and Technology, Faculty of Mining and Geoengineering