France

Name: French Tunnelling and Underground Space Association (AFTES)

Type of Structure: Non-profit, open association

Number of Members: 1062 members (including 133 corporate members and 94 young members or students)

ASSOCIATION ACTIVITIES DURING 2019 AND TO DATE

International Partnership

- May: ITA WTC in Naples
- June: BEFIPS and DACH meeting in Luzern during the Swiss Tunnel Congress
- October: European Underground & Tunnel Forum (EUTF) meeting in Lisbon, Portugal

Technical Day Conferences

- March: The new metro projects in Paris, Marseille, Lyon and Toulouse
- May: Underground space and urban planning
- June: Very deep tunnels (organized with the French rock mechanics society)
- September: Construction machinery and equipment for conventional tunnelling

Young Members Events:

- February and July: Worksite visits
- June and October: Technical events

Evening Conferences and Visits

- February: The launch of the construction of Line 18 of Grand Paris Express
- March: Refurbishment of the Caluire Tunnel (visit)
- April: West extension of RER line E in Paris (visit)
- May: The underground law and presentation of line 16 du Grand Paris Express
- October: Cavern and tunnel on the CERN site in Meyrin in Switzerland (visit)
- December: Health and safety in urban tunnelling

Education in Tunnelling

Action 1: Initial training (Post graduate master's course « TUNNELS AND UNDERGROUND STRUCTURES from design to operation » Promotion 8 (9 students): 9 graduates - Pro Licence «Underground Works and Geotechnical Works» Promotion 3 (4 students): 4 graduates)

- Action 2: Lifelong learning
- Action 3: Public students
- Action 4: Research

TES Review (Tunnels and Underground Space) Main topics:

- TES 267: Techniques of shafts
- TES 268: Deep shafts
- TES 269: Rock blasting
- TES 270: Explosive risk management

Technical

- 2 recommendations:
- GT35: Management and use of excavated materials
- GT16: Impact of tunnelling on surrounding constructions

CURRENT TUNNELLING ACTIVITIES Grand Paris

- 16 active TBMs:
- 8 on line 15 South,
- 3 on line 14 South
- 4 on line 16
- By 2022, there should be up to 22 TBMs.

Lyon Sytral

Extension of subway line B with a total length of 2.4km due for commissioning in June 2023. Construction of the shaft and the stations in 2019 - TBM assembly is underway for a late 2019 start up to the end of 2020.

FUTURE TUNNELLING ACTIVITIES Grand Paris

- Metro line 15 South: 33km 16 stations
- Metro line 16: 29km 9 stations
- Metro line 17 North: 20km 6 stations

Toulouse

- 3rd metro line: 27km 21 stations Line between line A, line B and rail. Five railway stations and two metro lines will be served.
- CLB (Connection Line B): Project to extend line B to the south, which must allow a connection with the 3rd line.

Lyon

Metro line E: From Alaï to Bellecour or from Alaï to Hôtel de Ville – 6.5km and 5 to 7 stations.

Marseille

Extension of line 2 east of Marseille, from the current terminus Dromel/Sainte-Marguerite - Line would therefore cover a total of 15km, including an underground section with a length of 4.8km.

TELT (France)

TELT - Tunnel Euralpin Lyon Turin: 2 x 50km in tunnel.



