

Brazil



Name: Brazilian Tunnelling Committee (CBT)

Type of Structure: CBT is a committee of the Brazilian Society for Soil Mechanics and Geotechnical Engineering (ABMS). It is an open society based on membership

Number of Members: 217 Individual Affiliate Members and 10 Corporate Affiliate Members.

ASSOCIATION ACTIVITIES DURING 2021 AND TO DATE

January

20th - Webinar CBT - "Safety on tunnel design" - Roberto Kochen"

28th - Webinar CBT - "Predicting tool wear in soils and planning the cutter head intervention strategy - Marc Comulada e Ulrich Maidl,

29th - Online tunnelers chat - chat regarding Morro Alto Tunnels

February

11th - Invisible construction that protects a city: Lisbon: PGDL - Gonçalo Mendes Diniz Vieira

26th - Online tunnelers chat

March

11th - "Perspectives on Underground Space: Past, Present, Future" - Antonia Cornaro

17th - webinar with the Portuguese geotechnical society about Jet Grouting Solutions. - Akira Koshima

25th - round table about woman in underground excavation.

26th - Online tunnelers chat

April

8th webinar CBT - Operational safety in underground construction. - Ricardo Miranda

22th webinar CBT - TBM operation follow up - Lars Badendererde and Gustavo Aguiar

30th - Online tunnelers chat

May

6th - webinar CBT - Emerald geomodelling - André Araujo Silva

27th - webinar CBT - Digital transformation and the application of Building Information Modeling in tunneling" - Janosch Stascheit e Felix Hegemann

28th - Online tunnelers chat

June

17th - Webinar CBT - "small diameter tunnels in Calgary, Canadá" - Heinrich K. Heinz

25th - Online tunnelers chat

July

15th - "Evolution in products and services in blasting - José Silvio Corsini
 30th - Online tunnelers chat

August

27th - Online tunnelers chat

September

24th - Online tunnelers chat

October

29th - Online tunnelers chat

December

01st - 04th - 5 Brazillian Tunnelling and Underground Structures Congress and Latin American Tunnelling 2021.

Online tunnelers chat: is an online meeting to bring together the Brazilian tunnel community, the idea is to connect seniors professionals and students in an informal chat.

Publication

Journal: Soils & Rocks (www.soilsandrocks.com.br), in English, published by the Brazilian Society for Soil Mechanics and Geotechnical Engineering (ABMS), the Brazilian Association for Engineering Geology and the Environment (ABGE) and the Portuguese Geotechnical Society (SPG). Three issues are released per year. The following volumes were published in 202:

- Volume 44, N. 1, January-March 2021 - Nine articles, five technical notes, one case study -
- Volume 44, N. 2, April - June 2021 - Nine articles, four technical notes, two case study, one discussion, one lecture and one editorial.
- Volume 44, N. 3, July -September 2021 - Eight articles, two technical note, two review article, one discussion, one lecture and one editorial.
- Volume 44, N. 4, October-December 2021 - Nine articles, one technical note, one case study, 1one lecture.

Press and social media

Articles on the CBT website; mailing on CBT@News; and posts on Facebook, Instagram and LinkedIn.

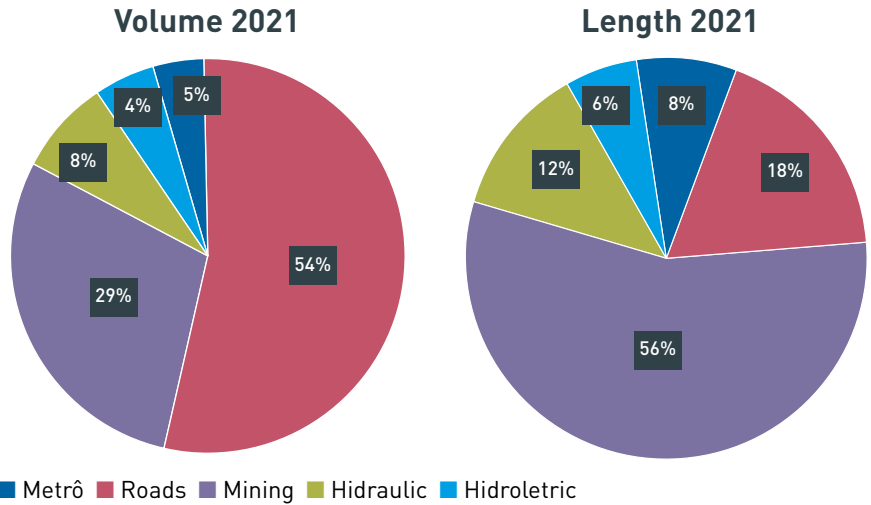
FUTURE TUNNELLING ACTIVITIES

New concessions around the country will bring previsions for new tunnels in SP, RJ, RS, but probably after 2022.

In Sao Paulo, Metro Line 2 will start TBM excavation in 2023.

CURRENT TUNNELLING ACTIVITIES

The estimated total volume of tunnels excavated in Brazil is 819.000m³ in 21.3km of tunnels. This includes roads, railways, hydroelectric facilities, mining and hydraulic. The distribution, in percentage is:



STATISTICS

1. Length or volume excavated 21.4km - 5% mechanized/95% conventional during 2021
2. Amount (USD or EUR) of tunnelling/underground space facilities awarded in 2021 - US\$180M
3. List of tunnels completed: Tamoios Road, PCH Alto Farias
4. List of tunnels under construction: Contorno de Florianópolis Road, Contorno de Caraguatatuba Road, Line 6 Sao Paulo Metro, Line 2 Sao Paulo Metro, Fortaleza Line 2 Metro.

EDUCATION ON TUNNELLING IN THE COUNTRY

There are no courses in Brazil yet that focus on tunnelling. Some universities have one or two disciplines related to underground construction, like Makenzie (São Paulo-SP), USP (São Paulo-SP), UnB (Brasília-DF), Iesplan (Brasília-DF). On post-graduate courses our references in Brazil are Brasilia Federal University (UnB) and São Paulo University (USP), São Carlos school.