

# Belgium



**Name:** ABTUS-BVOTS (Association Belge des Techniques et de l'Urbanisme Souterrains - Belgische Vereniging voor Ondergrondse Technieken en Stedebouw)

**Type of Structure:** non profit, open association

**Number of Members:** 19 individual members, 50 corporate members

## ASSOCIATION ACTIVITIES DURING 2020 AND TO DATE

In 2020 unfortunately, no site visits could be organized due to the Covid pandemic. Nevertheless, digital activities were organized instead. The Belgian seminar on Mechanized Tunnelling in Urban Context was a successful event on the 30th June. In corporation with the Dutch Member Nation KIVI-TTOW, the COB and the Flemish engineering association ie-net and several European partners, we organised the European Conference Beyond a Tunnel Vision 2.0 with 700 attendees (<https://beyondatunnelvision.eu>).

We strengthened our close cooperation within the EUTF regarding the interests of the European Tunnel Community in general, with knowledge sharing the objective. Finally, our scientific 2020 prize was organised. We continued our close cooperation with the French Tunneling Society AFTES, with whom we share the magazine T&ES. Our activities are visible on <https://www.abtus-bvots.com/>

## CURRENT TUNNELLING ACTIVITIES

In 2020, the following activities were ongoing:

- The renovation of the metrostation Lemonnier and the start of a new metrostation Toots Thielemans (MIVB/STIB)
- Several mechanized tunnels:
  1. Storm basin Avenue Grandchamp (Vivaqua), tunnel i.d. 5.2m, length 370m
  2. Stormwater drainage networks from the airport to the Meuse (Sowaer), carried out by microtunnelling with mud pressure: total length 3,600m in DN1800 and DN1600mm
  3. Wastewater networks Vliegtuiglaan (Farys), carried out by microtunnelling, AVN2500 at mud pressure with a length of 350m
  4. Luxemburg Airport, technical gallery, carried out by microtunnelling AVN1800 with mud pressure at a length of 260m under the landing strip.

- In Brussels the rehabilitation of the road tunnels of the city's inner ring has started. These old tunnels are completely refurbished and will get an up-to-date control system. The most important is the Leopold II Tunnel.
- Renovation of the Kennedy railway tunnel with new control and safety systems.
- Start of the construction dock in Zeebruges for the tunnel elements for the Scheldt tunnel of the Oosterweel connection (this 1.8km long immersed tunnel will have two tubes for motorway traffic and a separate tube for cyclists and pedestrians).

## FUTURE TUNNELLING ACTIVITIES

- On the 30th March 2021, our annual seminar will be held with this year's topic 'Webinar on European Research in Underground Techniques and Urbanism'.
- On the 4th May 2021, a webinar on "le Grand Paris Express" will be organized
- In Brussels, the existing metro line will be adapted at the south station, so that the whole line can be changed into a fully automated subway system. The works have started. The tender for the extension of the metro from the north station towards the new NATO-building will begin.

- In Antwerp the works for the Oosterweel Connection (closing the northern motorway ring) have started with the adaptation of the interchange at the left bank of the Scheldt river. The preparation works for the immersed tunnel under the Scheldt river have started (works 2020-2027). The tender for the cut-and-cover tunnels under the Straatsburg dock will start.
- The road tunnels on the Brussels inner ring will be further rehabilitated and will become safer.
- In the future, the second railway track from Antwerp's main shunting station towards the hinterland will become needed. This will be done via two single track, 16km long, tunnels to underpass the Albert canal and several motorways and to avoid interference with the dense urban area on the surface.
- In Brussels the existing north-south railway link with its six tracks has reached saturation point. The link needs to be extended by four extra tracks (each in a separate tunnel of some 10km length) that will be bored by TBM under the existing ones. The need is there but the funding will determine the start of this project.

## STATISTICS

1. **Length:** Roughly 350,000m<sup>3</sup> were excavated with 35% mechanized and 65% conventional
3. **Amount (US\$ or EUR) of tunnelling/ underground space facilities awarded in 2020:** About €500M (50% of the investments is situated in tunnel renovation)



The Scheldt tunnel - this 1.8km long immersed tunnel will have two tubes for motorway traffic and a separate tube for cyclists and pedestrians).