

Name: Australian Tunnelling Society (ATS)

Type of Structure: The ATS is an industry based Technical Society of Engineers Australia (EA).

Number of Members: 703 members, 6 Platinum Sponsors and 61 Corporate Members

ASSOCIATION ACTIVITIES DURING 2021 AND TO DATE

With the ongoing pandemic in 2021, the Australian Tunnelling Society's activities have become a hybrid of online and in-person events, where possible.

Activities and Events: Activities and Events: ATS technical presentations have remained online and in person events have been held where and when possible. The ATS has collaborated with several other societies including the Australian Geomechanics Society, British Tunnelling Society, NZ Tunnelling Society on engaging technical presentations. Online seminar attendance continues to exceed expectations and the hybrid model is proving successful.

Presentations have also been recorded and are available to members to view online. There are currently about 18 videos available to view. The 2021 David Sugden young

tunneller's Award was presented to Harry Buchanan.

The ATS biannual conference ATS2020+1, postponed from 2020, was held in Melbourne on 10th - 13th May, in person. The conference theme was 'Innovating the next 50 years.' There were technical and special seminar streams covering this topic as well as highlighting some of Australia's current major projects. The Gala dinner attracted over 500 of Australia's tunnelling community. The inaugural Women in Tunnelling Award was presented to Diane Mather and the Allen Neyland Tunnelling Achievement Award was presented to Tony Peach during the conference. The next conference will be held in New Zealand with the NZ Tunnelling Society in 2023.

With restrictions being reintroduced around the country toward the end of 2021 many events have either moved online or been postponed to early 2022.

The ATS will be running a short course on an introduction to tunnelling over two days in May which will also include in person events.

The ATS celebrates its 50th anniversary in 2022 and planning is underway for numerous events throughout the year, including localised dinners, an issue of the Journal focusing on outstanding tunnelling achievements over the last 50 years in Australia.

Publications: The ATS Journal was published twice in the last calendar year in conjunction with Tunnelling Journal International. The Journal will focus on 50th anniversary items throughout 2022 and a photo competition has been held for the front cover design.

The ATS Young Members developed and ran useful and insightful workshops through 2021 and 2022 on the ATS Tunnel Design Guidelines that were published in 2021. A second version is under development.

Work is being undertaken to further develop and enhance the ATS website to provide more value to members.

Working Groups: A Tunnel Operators focus group has been established and developed the content for the short course being held in May 2022.

The ATS has established a working

group to review Australian Standard 4825 Tunnel Fire Safety to ensure that it is current and up to date.

The ATS has also established several subgroups to work on several topics including technical sessions, 50th anniversary celebrations and Women in Tunnelling.

The ATS also continues to regularly participate in the Silica Working Party discussions, established by the Australian Government.

The ATS has eight members active in ITA Working Groups which includes shotcrete, shafts and BIM.

CURRENT TUNNELLING ACTIVITIES NSW

WestConnex: Stage 3A. M4-M5 Link under construction and planned to be open for traffic 2023. Stage 3B. Rozelle Interchange: Underground interchange linking the M4-M5 Link to Anzac Bridge, Iron Cove Link and the future Western Harbour Tunnel. The project is under construction and due for completion in 2023.

Sydney Metro City & Southwest Tunnel and Stations Excavation: Underground rail Link from Chatswood to Sydenham via Central Station which includes twin 15km long tunnels excavated by TBM. Due to be completed in 2021.

Queensland

WestConnex: Stage 3A – M4-M5 Link under construction and planned to be open for traffic 2023. Stage 3B - Rozelle Interchange: Underground interchange linking the M4-M5 Link to Anzac Bridge, Iron Cove Link, and the future Western Harbour Tunnel. The project is under construction and due for completion in 2023.

Snowy 2.0 Hydro Project: Civil works include 27km of TBM tunnels.

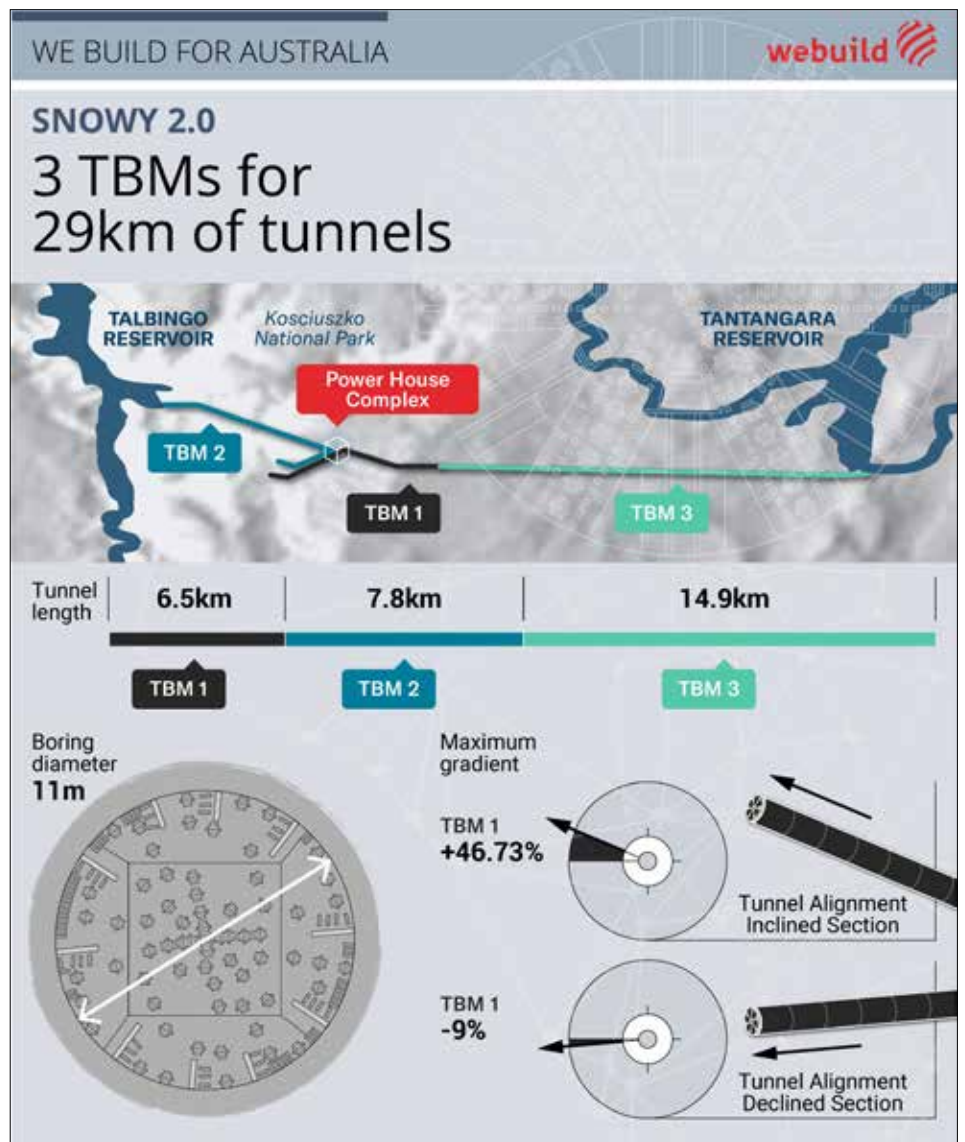
M6 Stage 1 (formerly known as F6 Stage1): 4km of motorway tunnel from new M5 to Presidents Ave Kogarah.

Western Harbour Tunnel: Road tunnel linking WestConnex with North Sydney.

Sydney Metro City & Southwest Tunnel and Stations Excavation: Underground rail Link from Chatswood to Sydenham via Central Station which includes twin 15km long tunnels excavated by TBM.

Victoria

Melbourne Metro: Twin 9km tunnels,



and construction is underway on 5 new stations and testing of the new High Capacity Signalling system that will enable turn-up-and-go services.

West Gate Tunnel: Twin Road tunnels (2km – 4km long) and elevated road structures linking the Westgate Freeway at Williamstown Road with City Link.

Suburban Rail Loop (SRLE): 26km twin rail tunnels, 6 new underground stations.

Northeast link: 6.5km twin three lane TBM road tunnels.

Western Australia

Forrestfield – Airport Link Project: A 7.1km twin-bored, concrete lined and 6.2m internal diameter tunnels extending from Guildford Road to Dundas Road in Forrestfield. Three stations will be located underground close to the current Domestic Airport precinct. Due to be completed 2021.

South Australia

0.5km Torrens to Darlington (T2D) Project: Final piece of the North – South Corridor. Southern Tunnel is 4.8km twin three lanes, Northern Tunnel is 2.2km twin three lanes.

Queensland

Cross River Rail

New north – south tunnel(s) with connections running from Dutton Park in the south to Victoria Park in the north and new underground stations.

Brisbane Metro

A 21km service connecting 18 stations along dedicated busways with easy links between Metro, bus and train services. This project includes a new underground bus station. Early utility diversions commenced.

FUTURE TUNNELLING ACTIVITIES

Great Western Highway – New South Wales

11km of twin tunnels between Katoomba and Lithgow, forming the longest road tunnel in Australia. Expected to start in 2022, taking 8 – 10 years.

Beaches Link – New South Wales

Road tunnel connecting Warringah Freeway with the Northern Beaches.

Coffs Harbour Bypass – New South Wales

A road project including three tunnels with a combined length of 1km.

Inland Rail Project – Kagaru to Gowrie PPP package – Queensland

A 126km rail link which includes three tunnels totalling 8.5km in length.

Maribyrnong River Main Sewer Augmentation – Victoria

Augmentation of the existing sewer with a 1.3km pipeline which includes 800m of DN1400 pipejacking.

Hobson Bay May Sewer – Victoria

Upgrade of existing Hobson Bay Main Sewer crossing of the Yarra River.

EDUCATION ON TUNNELLING IN THE COUNTRY

Post-graduate (Master of Engineering) subject courses were held at the University of NSW, The University of Queensland, Royal Melbourne Institute of Technology, and the University of Wollongong.

