

British Tunnelling Society Annual Report and Accounts 2020



BTSYM Conference 2019 attendees



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Executive Summary



Ring Building on Thames Tideway West

2020 was a year like no other, bringing a pause to many tunnelling projects in the UK and around the world, whilst the industry developed ways of working during a pandemic. Whilst delay impacts were inevitable, such as nine months on the Thames Tideway Tunnel, it did not hinder the spirit of the tunnelling community to find solutions and begin tunnelling again. The industry has also taken the opportunity to accelerate innovative approaches and technologies that allow safe working whilst social distancing and it will be interesting to see how these are continued to be embraced after the pandemic.

Our membership has seen a slight fall in individual membership, balanced by continued growth in UK Corporate membership. There is a continuing slight reduction in overseas members.

The BTS and BSYM transitioned quickly to online evening lecture delivery via our You-tube channel, only losing one evening lecture in April due to the pandemic. We have had a good range of topics from silica dust control, Historical tunnel construction and the return of the Tideway Update. Our live You-tube hosted events have had a noticeable increase in online viewing, reaching over 10, 000 views for our Harding Memorial Lecture by Dr Keith Bowers.

Sadly our Annual Dinner, Design and Construction Course, Health and Safety Course and Awards Presentations all had to be postponed in 2020. The University of Warwick MSc Tunnelling and Underground Space was also put on pause for the 2020/21 intake.

Progress has continued with the development of the SCL Best Practice Guide and BTS Specification 4th Edition which should both be ready for publication in 2021/ early 2022, along with the CAWG BTS Guide to the WCA Regs sign off in early 2021.

Significant work took place to prepare for the transition of the BTS Website to a new platform and new web address – www.britishtunnelling.com. The upgraded website will be launched in early 2021 and as well as being device friendly it will allow us to expand for Transforming Tunnelling Safety.

Plans for the 50th Anniversary Book continue at pace with the number of stories submitted surpassing our expectations. To take account of the support the publication of the book has been delayed until October 2021 to incorporate all the stories we have to share.

The T&T Editorial Advisory Board have welcomed a new T&TI Editor with George Demetri taking over from Alex Conacher, assisted by Julian Champkin and Keivan Rafie.

Our ICE Funded Hyperloop Project was successfully completed in 2020 with a paper published in ICE Proceedings and a technical report published on the BTS Website.

I would like to thank all the committee for all their support and effort during my first year as Chair, they have thoroughly embraced a different online experience, whilst finding time to help shape approach and delivery of BTS activities throughout 2020. I am incredibly grateful for the passion and enthusiasm of our individual, corporate and committee members and what has been achieved by their voluntary efforts.

Whilst a tumultuous year the future for UK tunnelling is strong and I believe that our Society will continue to flourish and make a very significant contribution to that workload.

Kate Cooksey

BTS Chair



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1. BTS Committee

Chair: Kate Cooksey, Morgan Sindall

Vice Chair: Rod Young, Barhale Construction

Immediate Past Chair: Ivor Thomas, BAM Nuttall

Elected Members and Trustees

| Name | Company | Term | Responsibility |
|------------------|--|--------------|----------------------|
| Rod Young | Barhale Construction | Retired 2020 | Training and Courses |
| Martyn Noak | Jacobs | Retired 2020 | Communications |
| Rosa Diez | Mott MacDonald | Retired 2020 | |
| Neil Moss | Gall Zeidler Consultants | Retired 2020 | Awards, Technical |
| John Corcoran | Thames Tideway | Retires 2021 | Events |
| Benoit Jones | Inbye Engineering | Retires 2021 | Technical |
| Brian Lyons | Dr Sauer and Partners | Retires 2021 | Awards |
| Sarah Langley | Sika Ltd | Retires 2022 | Communications |
| Chris Pressdee | Construction Industry Research and Information Association | Retires 2022 | Education |
| Ignacio Castillo | Skanska | Retires 2022 | |
| Alastair Smith | Jacobs | Retires 2023 | |
| Christoph Eberle | Mott MacDonald | Retires 2023 | |
| Jérôme Furge | Bouygues Travaux Publics | Retires 2023 | |
| Mehdi Hosseini | London Bridge Associates | Retires 2023 | |

Co-opted Members:

| Name | Company | Responsibility |
|---------------------|---------------------------------|--|
| Ken Spiby | London Bridge Associates | Website, 50 th anniversary celebrations |
| Eddie Woods | Consultant | T&TI Editorial Advisory Board |
| John Scholey | CH2MHill | Annual Dinner |
| Paul Perry | Hewson Consulting Engineers Ltd | BGA, PHEW Liaison |
| Wojciech Markowski | Arup | Young Members Chair (From 4 November 2019) |
| Divik Bandopadhyaya | London Bridge Associates | Young Members Chair (From 5 November 2020) |
| Shani Wallis | Journalist | Media Relations and Publishing |
| Damian McGirr | COWI Holding A/S | ITA Affairs |
| George Demetri | Compelo | Tunnels and Tunnelling magazine |
| Roger Bridge | Balfour Beatty | Education, Think Deep |
| Anita Wu | London Bridge Associates | Website |
| Mark Leggett | Mott MacDonald | Conference, Education, APGGI |
| Neil Moss | Gall Zeidler Consultants | |

Institutional Representatives:

| Name | Company | Responsibility |
|------------------|--------------------------------|--|
| Andy Flowerday | Barhale | Pipe Jacking Association |
| Bill Grose | Independent | Institution of Civil Engineers, APPGI, ITIG |
| Alan Bozeat | Hunter Personnel | Institute of Materials, Minerals, and Mining |
| Andrew Hindmarch | Mott MacDonald Ltd | Institute of Materials, Minerals, and Mining |
| Donald Lamont | Hyperbaric & Tunnel Safety Ltd | Health and Safety, Technical |

2. Chair's Report

2020 brought an unprecedented year for the world. For the tunnelling industry it saw the temporary pause of many projects, vast delivery from teams working from home and a demonstration of a can do attitude that we must be extremely proud of.

The BTS transitioned quickly to online delivery, hosting its first virtual AGM and evening lecture in May, after only losing one evening lecture in April due to the pandemic. We are incredibly thankful to the BTSYM Chair Divik Bandopadhyaya for hosting and delivering the online evening lectures via our YouTube channel throughout 2020.

I am incredibly thankful to all our speakers who have embraced the online experience giving their time to come and present to us and share their knowledge and experience. Many have made an exceptional additional level of preparation to help make each of our events a success. The wide and varied selection of evening presentations not only showcases what our industry can do but it also continues to be a leading light in the knowledge sharing activities of the ICE and its Associated Societies. It has been fantastic to see the growing level of interest in our events with the increased online presence and our Harding Lecture given by Dr Keith Bowers reaching 10,000 views! Learning from the interest in our 2019 programme we also welcomed back the Tideway project for an update, once again giving an opportunity for younger members on the project to share their experiences so far. We have also been approached by several overseas tunnelling groups about how we have built our online presence and have shared our experience so far helping them to establish their own presence.

After the campaign in 2019 to bring back 'Sausage and Chips' for the BTS Evening Meetings the importance of providing a 'virtual' alternative was a key focus, so by the autumn we had introduced the 'BTS Virtual Bar', giving the opportunity to continue the essence of the BTS after lecture experience. It has been great to see the BTS spirit and community kept alive in these testing times.

However, with sadness, we had to postpone and cancel many of our muchloved events such as the Annual Dinner in May and the Design and Construction Course in July. We are incredibly grateful to many members who supported the BTS by foregoing a refund for the Dinner and holding their bookings for the 2021 Dinner.

The disruption to our calendar has given us time to work on improvements to our courses, fostering links to other tunnelling groups around the world and our communications materials. We have spent the time developing a new BTS Website which we will launch in early 2021 – www.britishtunnelling.com. In addition, we have also spent the time reviewing the BTS Constitution to determine if any future revisions are required, this work will continue through 2021.

Membership numbers have shown a slight decline in individual memberships, balanced by slight growth still in corporate membership. The challenge ahead is still to grow individual membership.

We have also continued with our aim to provide information and guidance with our publications, evening meetings and training courses. The work on our SCL Guide nears completion and publication is imminent, we have been focusing on the BTS Specification 4th Edition making use of a blog that helps gather comments against each of the clauses. We hope to be in a position to launch this in 2021.

Our work on the ICE-funded Hyperloop Challenge was successfully completed in 2020 with a paper published in the ICE Proceedings and a technical report posted on the BTS Website.

Work on the Publication of our 50th Anniversary Book of stories is progressing well and we have taken the decision to delay the release to later in 2021 to align with the BTS Conference, which we have also taken the decision to postpone to autumn 2021. We are overwhelmed by the response from the industry and have increased the size of the book to accommodate as many stories as possible.

The BTS Young Members group continues to grow and were quick off the mark to embrace delivery of online lectures and have taken the opportunity to grow collaboration with other ITAYM member nations including Greece, India, Canada and Brazil. Whilst their annual conference had to be postponed they have focused on social media campaigns and events to continue to support the younger members of the tunnelling industry.

For our members the normal working day saw many changes in 2020, however there were many achievements to be proud of through these testing times. The Thames Tideway Project has seen a number of machine breakthroughs and also launches during 2020. York Potash has been busy tunnelling and shaft sinking and the machines have started to arrive on the HS2 London to Birmingham route. Bank Station Upgrade tunnelling completed in autumn whilst Tunnelling at Hinkley Point continues, and works are progressing for Silvertown Tunnel and National Grid Tunnel in south London. Looking further forward procurement is progressing for Lower Thames Crossing, A303 Stonehenge Tunnel and HS2 Phase 2a. Busy future workload can be seen in further developments of Crossrail 2, the Bakerloo Line extension, the western approach to Heathrow and further extensions to HS2 to the north.

Whilst working remotely the Committee remains active in progressing the ambitions of the Society and I am incredibly grateful for the positivity in approach, as well as all the spare time the committee members provide to make our society what it is.

3. BTS Objectives and Communications

We have reviewed the BTS Objectives and are in the process of upgrading the Communication Strategy with a view of bringing it in line with a rapidly changing digital World.

This past year has seen several controversial requests for the Society to comment and as such we felt that it was necessary to reaffirm the Society's position on what and how to respond.

The primary aims of the Society communication strategy are to:

- i. To promote the art and science of tunnelling, including the creation and use of underground space
- ii. Inform and advance the education of its members
- iii. Influence UK government, clients, and industry
- iv. Inform the public.

This communication strategy aims to achieve the following:

- Make the BTS the first port of call and be seen as thought leaders in the industry

- Promote tunnelling as a credible career choice and contribute to the education of tunnellers
- Develop and promote readily available material and intellectual content, promoting best practice, and become the hub for tunnelling knowledge
- Make the BTS the forum for our members discussion, networking, and knowledge sharing
- Inform and influence national and local government, and influence and educate clients

Our list of Media Trained individuals has been reviewed and we plan to compile a new list of “Industry Experts” who can be called upon for their views in response to requests from members where a Society view is deemed inappropriate.

We have updated our full-page advert and it has been published in the last two issues of Tunnels and Tunnelling. Our aim is to build on the fantastic work that is happening with our 50th Anniversary Celebrations and draw on the images and highlights that have been submitted to the Society for our upcoming Book! This will provide us with some excellent images to grab the reader’s attention whilst delivering our intended message.



We have looked deeply into the way our membership and our wider audience use social media and have worked with BSYM to re-establish and expand our social media presence and develop a plan for the future. The number of subscribers on our YouTube channel have soared during 2020 and we have increased our spread across all our intended Social Media platforms.

Thank you again to the members of the team for your time and input.

4. Finance and Membership

This year we retained all of the existing rates and membership fees. The membership rates, per grade, can be seen in the table below.

The membership fee for 2020 again included the provision of a hard copy and digital version of Tunnels and Tunnelling magazine. An agreement has been signed between BTS and T&TI for 5 years (with a 3-year break clause) and a reduced contribution from BTS to the magazine. This provides stability and value for money for a significant period of time.

| Grade | UK | Overseas |
|--|-------|----------|
| Corporate Member Small (Up to 50 employees) | £430 | £541 |
| Corporate Member Medium (50 to 500 employees) | £685 | £935 |
| Corporate Member Large (More than 500 employees) | £1110 | £1604 |
| Individual | £85 | £138 |
| Retired | £32 | £44 |
| UK Student/Apprentice | £20 | n/a |
| Young Member | £42 | £53 |

Membership: The detail of the current membership (at the end of December 2020) is set out below:

| | Member Classification | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | Change 2019/20 |
|----------|-----------------------|------------|------------|------------|------------|------------|------------|----------------|
| UK | Corporate members | 88 | 82 | 75 | 71 | 50 | 64 | +6 |
| | Individual members | 414 | 457 | 461 | 446 | 490 | 484 | -43 |
| | Students and Retired | 69 | 67 | 76 | 72 | 83 | 87 | +2 |
| | Young Members | 192 | 193 | 199 | 191 | 152 | 90 | -1 |
| | Total | 763 | 799 | 811 | 780 | 775 | 725 | -36 |
| Overseas | Corporate members | 8 | 8 | 8 | 6 | 6 | 5 | 0 |
| | Individual members | 101 | 103 | 113 | 133 | 113 | 124 | -2 |
| | Students and Retired | 5 | 6 | 7 | 8 | 7 | 8 | -1 |
| | Total | 114 | 117 | 128 | 147 | 126 | 137 | -3 |

The change in membership from 2019 has shown a very slight net decrease in total membership. There has been a slight reduction in the number of individual members since 2019. However Corporate memberships continue to show a healthy increase of 6 new UK members and no change Overseas. Overall Overseas memberships continue to decline, which may be indicative of members moving back to UK projects from overseas and exchanging their membership status.

Overall cash reserves increased to £443,115 by the end of 2020, the increase in overall cash reserves is due to sponsorship payments for the BTS @ 50 book, with an improvement in Net Current Assets to £291,628 from £273,624 at the end of 2019. There remain some outstanding debts from one organisation for various historical events that we are confident will be cleared next year





A new restricted fund has been created after a donation of £10,000 was made by the widow of Doug Allenby. The Doug Allenby Award was established in 2020, the funds are to be used to award a medal to a young tunneller (BTSYM) annually in Doug's Memory.





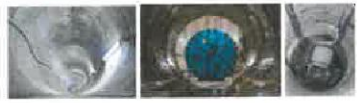
5. Evening Meetings

John Corcoran (Chair), Brian Lyons, Ignacio Castillo Dominguez, Christoph Eberle, Mehdi Hosseini

The year again has seen a full calendar of high-quality presentations covering a wide range of topics. The Committee's and members' thanks go to all the presenters.

The programme of monthly BTS meetings through 2020 were as follows:

| Date | Title | Speakers | Photo | Headlines | Attendance |
|-----------------------------------|--|--|--|---|------------|
| 16 th Jan 2020 | Technical Challenges with Future Tunnels in Norway | MSc Anne Kathrine Kalager Professor Eivind Grøv |  | Delegation from Norwegian Tunnelling Society on challenges they face | 90% |
| 13 th Feb 2020 | Joint BTS MinSouth meeting West Cumbria Mining | Mark Kirkbride – CEO of WCM |  | Outline of plans to develop a deep level coal mine off the Cumbrian coast to produce metallurgical coal for the steel industry | 75% |
| 12 th March 2020 | Experimental investigations into the spalling of high strength concrete and the fire performance of tunnel linings | Tom Lennon |  | Smaller dia fibres work better – You'll need less weight of fibre. Fibres affect concrete flow. Don't always need full-scale seg testing. Sometimes too much is spent on elaborate testing, which may not be necessary. | 50% |
| April 2020 | No lecture – Covid 19 | | | | |
| 14 th May 2020 | An industry first collaboration on Silica Dust control in Tunnelling – Australian Tunnelling Society Working group YouTube | Kate Cole Keith Bannerman |  | Tunnelling Society Working Group on how they are managing silica dust in tunnels | |

| | | | | | |
|----------------------------------|---|---|--|--|----------------------------|
| 18 th June 2020 | Historical Tunnel Construction – Building tunnels in the 19 th Century YouTube | Peter Harris |  | Fascinating insite into construction of old tunnels and challenges of now maintaining them | 350 - live 2600 - views |
| 17 th Sept 2020 | Hydrophobic & Pore Blocking Ingredient (HPI) for use in Tunnel Construction. YouTube | Ken Howes Alistair McDonald |  | How HPI technology can solve many of the problems associated with waterproofing tunnels. | 350 |
| 15 th Oct 2020 | Greenwich Tunnel Boring Machine Delivery YouTube | Robert Margariti-Smith Conor McQuade |  | Highlighted the challenges of transporting extremely heavy/large loads through urban areas. | 1900 views |
| 12 th Nov 2020 | Harding Memorial Lecture – Tunnelling in a changing world | Dr Keith Bowers |  | The lecture looked at changes affecting our industry and what we may need to do differently now and in the future. | 10,000 views |
| 10 th Dec 2020 | Tideway Update | Andy Alder, Robbie Quinn, Oscar Hueso Cuberos & Mikel Martinez Goirigolzarri |  | Included Barn Elms shaft & pipejack, Hyperbaric TBM interventions & East Main Tunnel TBM delivery and launch | 4,800 views |

6. BTS Young Members

Wojciech Markowski (Chair), Alasdair Fraser (Secretary), Divik Bandopadhyaya (Professional Development Sub-Chair; Ciara Maguire (Socials & Media Sub-Chair) and Cate Anthony (Schools and Universities Chair).

In the BSYM Committee year 2019/21 (spanning November 2019 and October 2020), most in-person activities remained suspended due to the COVID-19 pandemic; with the exception of the months between November 2019 and February 2020. The pandemic also led to the cancellation of the BSYM Conference 2020 at a short notice. This section is, henceforth, split into two sub sections, viz. “November 2019 to February 2020” and “March to October 2020”.

November 2019 to February 2020

During the said period, the Socials & Media Sub-Committee delivered two in-person socials. The first took place on 5th December 2019 to celebrate National Tunnelling Day, whilst the second was themed as the New Year Social (held on 31 January; Figure 6.1).

Additionally, the Professional Development Sub-Committee delivered their first, and only, in-person lecture on 20th February 2020 (see Table 6.1).

March to October 2020

All BTSYM activities from March 2020 onwards were delivered online due to COVID-19.



Figure 6.1 – BTSYM New Year Social, held on 31 January 2020

During this period, the Professional Development sub-committee, at times, through active engagement with other ITAym member nations, delivered 9 lectures (list presented in Table 6.1); however no workshops were held.

Table 6.1 - 2020 Lectures

| Date | Lecture Title & Presenter(s) | Collaborating Nation | Viewst |
|-----------------------------------|---|-------------------------|--------|
| 20 Feb 2020 | Tunnel Maintenance, Repair & Improvement <i>David Hindle (OTB Engineering)</i> | N/A | 1,345 |
| 9 April 2020 ¹ | Introduction to Tunnel Ventilation <i>Mark Gilby (WSP)</i> | N/A | 1,590* |
| 21 May 2020 ¹ | Tackling Uncertainty in Tunnelling <i>Vasilis Marinos & Andreas Benardos (National Technical University of Athens)</i> | Greece (GTSYM) | 1,072 |
| 23 June 2020 ¹ | How to design rubber products to make an immersed tunnel watertight <i>Nicas van den Brink (Trelleborg Ridderkerk BV)</i> | India (TAlym) | 857 |
| 16 July 2020 ¹ | Time-Dependent Deformations of Shafts and Tunnels in the Greater Toronto Area <i>Michael Dutton (Arup)</i> | TACym (Canada) | 3,335 |
| 24 July 2020 ¹ | Design Approaches to Avoid Problems During TBM Tunnel Execution <i>Cosimo Iasiello (Ayesa)</i> | India (TAlym) | 2,513 |
| 28 August 2020 ¹ | Introduction to Emerald Book (FIDIC Conditions of Contract for Underground Works) <i>Matthias Neuenschwander</i> | India (TAlym) | 738 |
| 3 September 2020 ¹ | Implementation of Tamoios Highway <i>Pedro Soares dos Anjos (Construtora Queiroz Galvão)</i> | Brazil (CBTym) | 1,306 |
| 28 September 2020 ¹ | Lessons Learned as A Trenchless Litigation Expert and Designer <i>Dr Mark Knight</i> | TACym (Canada) | 498 |

Note: ¹ Webinar † As on 11 February 2020 * Recording Unavailable

These lectures were delivered on BTS' YouTube Channel as live streams; whilst most remain on the channel as recordings for long-term wider public consumption. Building on the lessons learnt from its streams, BTSYM continued supporting BTS' Evening Meetings Sub-Committee to deliver monthly lectures on YouTube.

Focus on online content delivery also enabled BTSYM to substantially expand its social media reach globally; with BTSYM LinkedIn 'company page' follower count reaching 3245, and YouTube subscribers count increasing to 1,157 (a gain of 1,044 subscribers over 365 days).

Figure 6.2 provides an excerpt of geographic location of views (current to 11 February 2020).

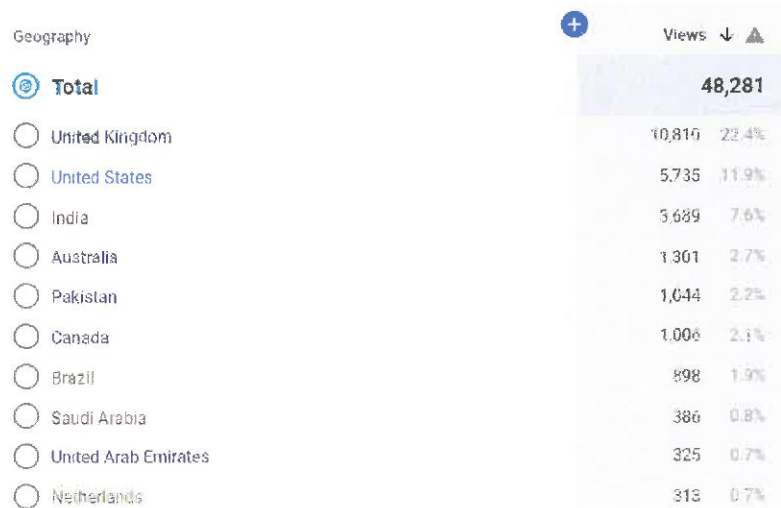


Figure 6.2 – Number of YouTube views per country (limited to top 10)

BTSYM would like to extend their gratitude to the tunnelling community for their patience and understanding, and continued support during these unprecedented times. Gratitude is also extended to the BTS Committee; Keith Bannerman of ITAYM; Sandeep Nirmal of TALym; Alex Nowak La Flor of CBTym; Tim Packulak, Madison Kennedy and Michael Dutton of TACym; Dimitrios Litsas of GTSYM; Mark Gilbey of WSP, and all other presenters who readily agreed to deliver the lectures as webinars on YouTube.

7. Awards

Brian Lyons (Chair), Chris Pressdee, Sarah Langley, Anita Wu.

Harding Prize 2020

The Harding Prize was not awarded in 2020 but invitations have been distributed for 2021's Award.

James Clark Medal 2020

The James Clark Medal winner for 2020 was Helen Nattrass. The award was made in recognition of her contribution to the All Party Parliamentary Group for Underground Space (APGUS) and for her long and outstanding contribution to the British Tunnelling Society and the tunnelling industry. The Award presentation has been postponed until it can be presented in person at a BTS Evening Meeting.

James Clark Medal Winners Luncheon 2020

The luncheon was not held in 2020. The 2020 James Clark Medal winner will be invited to the 2021 luncheon planned for October 2021.

Doug Allenby Award

The Doug Allenby Award was established in 2020, the funds are to be used to award a medal to a young tunneller (BTSYM) annually in Doug's Memory. The 1st award will be held at the next BTSYM conference.

8. Education

Chris Pressdee (Chair), Kate Cooksey, Ivor Thomas, Mark Leggett, Benoit Jones, Christoph Eberle, Mark Leggett, Roger Bridge, Wojciech Markowski.

MSc Course

The MSc Tunnelling and Underground space moved quickly to online delivery from March with the students completing their year with the project presentations in September, albeit virtually for the first time. A group of 7 full-time students worked together on their Group Design Project which was a proposal for an underground freight line into central London. The BTS was very impressed with how well they worked together to develop their proposals even while working remotely from each other.

In August the University of Warwick took the decision to pause the MSc for delivery of the 2020/21 year, due to the uncertainty of delivery of an in person lecture experience. The BTS Steering Board supported this decision on the basis that a series of short CPD courses would be introduced through early 2021 to provide educational opportunities in tunnelling. Increased focus has been put on promoting the course and addressing any improvements to the course that can be made before relaunch in autumn 2021.

MSc Course – BTS Bursary

The BTS did not award a bursary in 2020 due to the pause in the MSc Tunnelling and Underground Space at Warwick University. Applications have opened again in 2021. We would also like to encourage our corporate members to support the MSc by offering financial support to students or placing staff onto the course.

9. Training and Courses

Rod Young (Chair), Benoit Jones, Sarah Langley, Alastair Smith, Jerome Furge, Mehdi Hosseini, Anita Wu.

BTS Tunnel Design and Construction Course

The twelfth Tunnel Design and Construction course was to be held at Warwick University from 6th July to 10th July 2020. But due to the Covid pandemic unfortunately the course was cancelled, this has also had to occur for the 2021 planned course.

The 2022 course will be held from 4th to 8th July and will once again be held at Warwick University.

BTS Underground Health and Safety Course

The annual BTS Underground Health and Safety Course to be held at the ICE on 23rd and 24th November 2020, was also cancelled due to the Covid pandemic.

The 2021 Course dates will be at the ICE in London on 22nd and 23rd November.

Tunnel Survey Course

No Tunnel Survey Courses were arranged during 2020 due to the Covid pandemic.

All three courses rely totally on the time and effort given by the presenters outside of their day job and the help and understanding of their parent companies.

10. TunnelSkills

(Rod Young reporting)

CITB Immersive Learning

The CITB Immersive Learning project kicked off in February 2019, using awarded funding of £249,000. The range of products to be developed is progressing well :

- VR Classroom content and scenarios, desktop option being developed
- AR HoloLens application

- VR Cube Scenario – 4 applications have been developed
- Library of 3D content and assets for the TUCA VR Platform
- VR Promotional Game

Tunnelling Operative Trailblazer Apprenticeship

Due to the Covid pandemic the current cohort were put on hold for most of 2020.

9 Apprenticeships have now completed, 1 having being nominated for Young Tunneller but unfortunately didn't win. End Point Assessment was developed and Functional skills developed in 2021. A replacement for the provider Dudley College is being arranged. A further cohort is planned for 2021.

Trainee Assessor Program

Due to the high volume of major tunnelling projects that are currently underway in the UK the group recognises that there needs to be an increase in assessor numbers. The main difficulty is finding the right candidate that has the ability, time and importantly the desire to fulfil an assessor role on site. 4 assessors have undertaken the course in 2020, 2 completed & 2 nearly completed, the courses funded by TunnelSkills.

TUCA

Further development on the new TUCA format continued through 2020.

11. Health and Safety and Standards

Donald Lamont

Safety; Standards; Codes

CEN/TC151/WG4 – WG4 met five times during 2020 – once face to face and four times by Zoom. Progress continued on the revision of ENs 12110 and 16191. By the end of 2020 the technical content of EN 12110 Part 1 was around 95% complete and initial formatting and editing had been undertaken. The technical content of Part 2 of EN 12110 was around 90% complete. By the end of 2020 the revision of the technical content of the existing text of EN 16191 had been 90% completed and work was underway on additional material to be included in the standard such as on automation and remote control.

Multi Service Vehicles – a first draft of a standard for MSVs was under preparation by France for presentation to the WG in early 2021.

Refuge chambers – work on a standard for refuge chambers was put off till late 2021 due to lack of resources.

BS 6164:2019 – no major issues arose with this standard during its first year in use.

BTS CAWG – CAWG met once by Zoom. The revision of the BTS Guide to the WCA Regs progressed slowly to allow it to take account of ongoing work on the revision of EN 12110. At the end of 2020 revision of the BTS Guide was around 99% complete in anticipation of being signed off by CAWG early in 2021.

12. Technical Sub-Committee

Dr Benoit Jones (chair from May 2020 onwards), Brian Lyons, Christoph Eberle, Jérôme Furge, Mehdi Hosseini, Neil Moss (chair up to May 2020, then co-opted), Dr Donald Lamont (co-opted).

The Technical Sub-committee is working on the following principal topics which are summarised below:

SCL Best Practice Guide

The SCL sub-committee continued to work on the SCL Best Practice Guideline throughout 2020. The design guide has been copy-edited and is almost ready for publication. Publication is anticipated in 2021.

BTS Specification 4th Edition

After receiving comments on the previous edition via the blog, the committee has begun revising the text in earnest. Publication of the 4th Edition is anticipated in late 2021/early 2022.

13. APPGI

Bill Grose (Chair); Kate Cooksey; Mark Leggett; Ivor Thomas.

The All-Party Parliamentary Group for Infrastructure (APPGI) is run jointly by the ICE and the BTS, having merged the BTS's APPG on Underground Space (APGUS) several years ago in order to focus Parliamentarians on fewer overlapping All-Party groups.

This enables BTS to concentrate on site visits and projects and initiatives of interest to its members and parliamentarians whilst leaving the administration of the Group and broader ICE policy aims to the institution's Public Affairs department to manage.

The stated aim of the group is to "highlight the importance of infrastructure, engineering and the use of underground space to the economy and society, and to hear from experts and discuss matters arising."

Moving the meetings from late afternoon to 8:30am in 2019 increased attendance from Parliamentarians and the meetings were held frequently enough to have gained some momentum.

There were no meetings during 2020 as a consequence of COVID-19 restrictions.

14. Website

Anita Wu (Chair), Ken Spiby, Alastair Smith, Shani Wallis.

BTS Website

Anita Wu (Chair)

The new-look BTS website will be launched in February 2021. The old website has been in its current format since late January 2014 and it has grown considerably since that time. However, the old website structure looks its age, has its limitations and is not device friendly. A proposal for a new website was put forward in 2019. In 2021, to complement the BTS 50th anniversary celebrations, the BTS will launch a new website with a new domain. The new website is www.britishtunnelling.com. The BTS emails have also been upgraded to the new domain.

Please visit the website for further details.

Evening meetings, conferences, training courses and news are regularly updated with archive meetings available to watch online <https://britishtunnelling.com/events/evening-meetings-archive>.

Information on BTS publications and a suggested reading list are under the knowledge section of the website. The content for sustainability has also been expanded <https://britishtunnelling.com/knowledge/sustainability>.

The website content has continued to expand for Transforming Tunnel Safety (TTS) <https://britishtunnelling.com/tts/transforming-tunnel-safety> to encourage knowledge sharing of lessons learnt, best practice guidance and safety videos on tunnelling projects.

In developing the new website, we have changed to a free hosted site, which significantly reduces the ongoing costs (such that the new site will prove more economical than the old after just 3 years), whilst also permitting us a greater freedom of page set-up. The payment platform has been upgraded from the old site.

Tunnels Database

Ken Spiby (Chair)

The tunnels database is still not available to Members or the public. It has not been possible to get access to work reliably with the current database structure.

Further work on the database has been stopped pending the completion of the new website. Once this is operational, the plan is to build a new database onto this, with the required functionality built-in at the outset.

15. 50th Anniversary

Working Group: Ken Spiby (Chair), Sarah Langley, Jon Corcoran, Anita Wu, Divik Bandopadhyaya
General "BTS at 50 Sub-committee" as above plus Ivor Thomas, Mark Leggett, Shani Wallis

The BTS will celebrate its 50th Anniversary in March 2021 and the Committee wishes that this does not pass by unnoticed. Plans include:

- A book: "Tunnelling Tales: Fifty years of the British Tunnelling Society"
- A commemorative edition issue of T&T in March 2021
- A two-day Conference. Originally planned for March 2021, this has been postponed to the end of Sept 2021 due to COVID restrictions. It is possible that the date may need to be postponed again
- An out-reach / education programme making use of the new book to visit schools and universities (A BTSYM initiative)

Progress with the book has been good, but slow. Interest in the book is much higher than was anticipated and around 3 times the intended number of words have been produced by a large number and variety of contributors.

The target is now to publish in October 2021, with pre-ordering available from July.



16. T&T Editorial Advisory Board

Eddie Woods (Chair), Kate Cooksey, Roger Bridge, Mark Leggett, Andrew Smith, Ken Spiby, Ivor Thomas, Donald Lamont, Darren Page, Dave Terry, Benoit Jones, John Corcoran, Petr Salak, Rosa Diez, Rashik Bhandari, George Demetri, Wojciech Markowski (BTSYM).

As with everything about 2020 the editorial board was no exception. It has been a tumultuous year with the Editor Alex Conacher, North America Editor Nicole Robinson and Paola De Pascali leaving T&T and his two journalists Nichola and Paula leaving T&T in April.

George Demetri took over from Alex assisted by Julian Champkin and Keivan Rafie.

The new Editorial staff have been locked out of their offices in London and have been home working. It cannot have been easy but they have managed to keep the magazine going. The Editorial Board have liaised with the Editor and have been consulted over the period.

The conclusion of the review was that the magazine in general is thinner, there are significantly less advertisements, but that the standard of the small number of articles is high. The aim of the next editorial board meeting will be to obtain a forward view of what features are planned including the "rule of thumb" series. Whilst the concept of these was applauded the content required considerable improvement.

The editorial board would like to thank George for stepping into the breach in such difficult times for all of us and look forward to a brighter working partnership in the coming year.

17. International Tunnelling Association

Damian McGirr (Chair), Donald Lamont, Shani Wallis

The WTC and General Assembly was unfortunately postponed in 2020 in Malaysia due to the global pandemic. This was a very tough and troublesome year for all involved with the ITA family. There was much debate, discussion and annoyance in many quarters on the manner in which the postponement and refunding was handled. A virtual WTC was eventually held in September 2020 in Kuala Lumpur together with virtual General Assembly. This was a first for ITA.

The host nation for 2023 was due to be selected in the virtual GA. However, this was postponed as ExCo proposed that there would be additional requirements introduced for hosting the WTC in future and the vote between Turkey and Greece should be postponed to an emergency GA in February 2021. The proposal for "new rules" for hosting the WTC is welcomed by the BTS and we have fully engaged in the review process for this. The intent of ExCo for the new guidelines is that the ownership of WTC will come more under ITA control rather than the host country. This is something that has been suggested for some time and there will be much more before this is finalised.

Other ITA publications can be viewed at <https://about.ita-aites.org/publications>

The WTC for 2021 has already been postponed and will now take place in Copenhagen in 2022. However there will still be a Virtual General Assembly in June 2021.

Working Groups

- [Working Group 2: Research](#)
- [Working Group 3: Contractual Practices](#)
- [Working Group 5: Health and Safety in Works](#)
- [Working Group 6: Maintenance and Repair](#)
- [Working Group 9: Seismic Effects](#)
- [Working Group 11: Immersed and Floating Tunnels](#)
- [Working Group 12: Sprayed Concrete Use](#)
- [Working Group 14: Mechanized Tunnelling](#)
- [Working Group 15: Underground and Environment](#)
- [Working Group 17: Long Tunnels at Great Depth](#)
- [Working Group 19: Conventional Tunnelling](#)

- [Working Group 20: Urban Problems, Underground Solutions](#)
- [Working Group 21: Life Cycle Asset Management](#)
- [Working Group 22 : Information Modelling in Tunnelling](#)

COMMITTEES

- ITACUS (Underground Space)
- ITA Tech (technical documentation)
- ITACET (Education and Training)
- ITACOSUF (Operational Safety of Underground Facilities)

18. Annual Dinner

John Scholey (Chair), Kate Cooksey, John Corcoran, Roger Bridge, Shani Wallis.

Although tickets for the Society's 32nd annual dinner in May 2020 went on sale from 1st February, by mid-March it became increasingly clear that the event could not be held because of the Covid-19 Pandemic. By that time, we had received 46 bookings representing 474 covers. Each applicant was offered the choice of a refund or deferring their booking to May 2021; most chose to defer.

At the time of writing, we remain unable to hold the event in May 2021 so the next annual dinner will be in May 2022.

In the absence of a dinner either this or last year, members can at least revisit the delights of past dinners in the form of the photo galleries hosted by Tunnel Talk (see <https://www.tunneltalk.com/BTS-Dinner-image-galleries.php?year=2019> for the gallery from the last dinner, in 2019, together with links to those of previous years).

19. Institution of Civil Engineers

Bill Grose

The BTS continues to enjoy a close and positive relationship with ICE. As one of the largest and most active of the ICE's Associated Societies the BTS is a significant user and beneficiary of ICE facilities including meeting rooms, lecture theatres, bar and restaurant, and secretariat support. The arrangement is via a Service Level Agreement which continues to be reviewed annually.

A change in the financing arrangements in 2018 encouraged us to focus more on technical projects and to seek funding assistance from the ICE Enabling Fund. One project has been funded (Hyperloop Challenge) and others are under consideration. This involves working closely with the Vice President for Learned Societies.

ICE regularly refers tunnel-related media queries to BTS committee members and rely on our advice and expertise in such matters. These referrals have resulted in senior BTS members appearing on TV (for example ITN News on the tunnels under Euston Square being dug by HS2 protestors) on radio and reported in the national and local press.

The ICE-funded Hyperloop Challenge was successfully completed in 2020 with a paper published in the ICE Proceedings and a technical report posted on the BTS website.

BTS and ICE continue to jointly run the All Party Parliamentary Group for Infrastructure.

20. BGA Liaison

Paul Perry

This year has been a challenging one for all, although like the BTS, BGA have seen a growing attendance from online participation at their evening meetings. It is a keen debate as to whether this represents the new normal!

The BTS continued its rewarding liaison with the BGA in the year with several initiatives including assisting CIRIA with their report on Geotechnical Baseline Reports and the discussions relating to a new publication on Tunnel Asset Management.

Paul Perry, a member of BTS committee regularly attends BGA meetings and forms the link in communication between the two groups. We look forward to a fruitful coming year.

21. Reserves Policy

The Trustees policy for reserve is for there to be the equivalent of 6-12 months expenditure, this will ensure sufficient funds will be available to meet the needs of the Society. BTS reserves at the end of 2020 is £291,628. The current reserve of £291,628 exceed the amount require as per the policy. BTS will review the reserve in 2021.

Independent Examiners

The audit requirement for a Charity such as the BTS is for an 'independent examination' of our accounts. This independent examination is undertaken by Lindeyer Francis Ferguson Ltd. We have been satisfied with the service provided to date and we propose that this relationship continues for the forthcoming year.

Trustees' responsibilities for the financial statements

The trustees are required to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and the incoming resources and application of resources, including the net income or expenditure, of the Charity for the year. In preparing those financial statements, the Trustees are required to:

- Select suitable accounting policies and then apply them consistently
- Make judgements and estimates that are reasonable and prudent
- State whether applicable accounting standards and statements of recommended practice have been followed, subject to any material departures disclosed and explained in the financial statements.
- Prepare the financial statements on an on-going concern basis unless it is inappropriate to presume that the Charity will continue in business.

The Trustees are responsible for keeping proper accounting records which disclose, with reasonable accuracy, at any time, the financial position of the Charity and which enable them to ensure that the financial statements comply with the Charities Act 2011. They are also responsible for safeguarding the assets of the Charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Trustees' Report overleaf was approved by the Committee and was signed on its behalf by:

Ms Kate Cooksey

Chair of the British Tunnelling Society

Date of Approval:

K Cooksey 20/1/22

22. Legal and Administrative Information

The British Tunnelling Society was formed as an unincorporated association by the Constitution adopted on 23 September 1971 and as amended on 21 January 1993, 16 May 2002, and 17 May 2012. The Society became a registered charity in March 1993. The Charity number is 1017887.

The principal and registered office of the charity is:

One Great George Street
Westminster
London SW1P 3AA

Names and addresses of other relevant organisations or persons:

Bankers

| | |
|---------------------------|------------------------------------|
| National Westminster Bank | CCLA Investment Management Limited |
| Strand Branch | St. Alphage House |
| PO Box 414 | 2 Fore Street |
| 38 Strand | London |
| London WC2H 5JB | EC2Y 5AQ |

Solicitors

Solicitors are appointed from time to time as the need arises.

Examiner

Jonathan Healey FCA
Lindeyer Francis Ferguson Ltd
North House
198 High Street
Tonbridge
Kent
TN9 1BE

Investment Advisers

Investment advisers are appointed from time to time as the need arises.

23. Trustees Report

The Trustees present their report together with the financial statements of the British Tunnelling Society (the 'Society') for the year ending 31st December 2020. The financial statements have been prepared on the accounting policies set out in the financial statements and comply with the current statutory requirements, applicable law and the Statement of Recommended Practice 'Accounting and Reporting by Charities' issued in April 2005.

Organisational structure

The Trustees of the British Tunnelling Society are the ex officio and elected members of its Committee, with the Committee consisting of elected members, nominated members, co-opted members, and ex-officio members. Ten members of the Committee are elected by electronic/postal ballot, the result of which is announced at the Annual General Meeting. Members elected to the Committee serve for a term of three years and then retire from the Committee unless they are elected Chairman or Vice-Chairman. A retiring member is ineligible for re-election to membership of the Committee for a period of one year after they retire.

Two members, one nominated by each of the Institutions of Civil Engineers and Mining and Metallurgy, serve for a three-year term of office and then retire from the Committee unless they are elected Chairman or Vice-Chairman.

The Committee elects from amongst its members a Chair to hold office for two years immediately following the Annual General Meeting. Such election is held at the last Committee meeting of the previous Chairman's term of office. On expiration of a Chair's term of office, they may serve on the Committee in an ex officio capacity for a period of two years as immediate past Chairman. The Committee elects from amongst its members a Vice-Chairman to hold office for two years immediately following the Annual General Meeting. Such elections are held at the last meeting of the Committee of the previous Vice-Chairman's term of office.

The Committee may co-opt a member of the Society to the Committee at any time and for whatever purpose the Committee so decides. A co-opted member to the Committee will hold office until the following Annual General Meeting. Any casual vacancy, whether in the offices of Chairman or Vice-Chairman or amongst the elected or nominated members of the Committee, may be filled by the Committee, with the approval of the appropriate Institution in the case of a nominated member. A person appointed to fill a casual vacancy will hold office until the following Annual General Meeting, they will then retire. The casual vacancy will then be filled either by an election, by postal ballot, or by a nominated person from an Institution, as appropriate.

A term of office in a co-opted capacity or as the result of an appointment to fill a casual vacancy will not be counted for purposes of eligibility for subsequent re-election to the Committee.

Any individual member of the Society or nominated representative of a corporate subscriber of the Society or a nominated individual from an Institution will be eligible, except as otherwise provided, for election or appointment or co-option to the Committee.

Objects and policies and public benefit

The Society's objective is summarised as the advancement of the education of the public in and the promotion of the art and science of tunnelling, including the creation and use of underground space, by fostering learning, understanding, experience, interest, and research therein.

In furtherance of this the Society:

- Provides a forum for the discussion of the problems and techniques of tunnelling by holding monthly meetings which are free and open to all interested parties in addition to Society members
- Encourages tunnelling research and development to improve health and safety of the workforce, reducing both risk to the public and the cost of provision of infrastructure
- Provides training courses on a non-profit-making basis to train young tunnellers in tunnelling best practice
- Supports a Young Members division that embraces the objectives of the Society but focuses towards graduates, school leavers, and students still at school
- Supports the development of skills through support to courses such as the MSc in Tunnelling and Underground Space at Warwick University.
- Supports the development of apprenticeships and QCF NVQ qualifications via its work with the National Working Group, TunnelSkills and the Tunnelling and Underground Construction Academy (TUCA).
- Produces and arranges for the publication of papers and reports to disseminate information on tunnelling and to provide points of reference
- Co-operates with other associations in holding meetings and conferences locally, nationally, and internationally
- Is the national representative body to the General Assembly of the International Tunnelling and Underground Space Association (ITA) for the UK
- Pays its annual membership fees to the ITA for the maintenance and on-going management of the Association.
- Maintains liaison with similar associations and individuals in other countries and co-operates and participates in the formation, continuance and furtherance of an international society devoted to the interests of tunnelling and of other international, national, or local associations whose objects are allied to those of the Society
- Offers specialist assistance and advice to H.M. Government, statutory authorities, boards, institutions, and similar bodies and to make representations to such bodies
- Does all such other things as are incidental or conducive to the attainment of any or all the above aims.

Administration of the Society

The business affairs of the Society are administered by a committee consisting of ten elected members, several co-opted and ex officio members together with a representative from the Institution of Civil Engineers, the British Geotechnical Association, the International Tunnelling and Underground Space Association, the Institute of Materials, Minerals and Mining and the Pipe Jacking Association.

The 2020 AGM saw vacancies arise in the Committee, due to the retirement of elected members. This year 4 BTS members were duly elected to serve from the 2020 AGM for a period of three years. They were: Alastair Smith, Christoph Eberle, Jérôme Furge and Mehdi Hosseini.

In addition, the Committee requested that Eddie Woods, Anita Wu, Donald Lamont, Shani Wallis, Ken Spiby, Roger Bridge and John Scholey continue their roles as co-opted members of the Committee,

which they agreed to do and welcomed Neil Moss remaining on the Committee this time as a co-opted rather than elected member. Mark Leggett was also co-opted onto the Committee now that his position of ex chair had expired. George Demetri was co-opted onto the Committee as the new T&T representative, following Alex Conacher's move to another post. Wojciech Markowski took on the responsibility of the Young Members' Chair in 2019, followed by Divik Bandopadhyaya in 2020. The British Tunnelling Society is one of the largest and most active of the Associated Societies of the Institution of Civil Engineers. The Committee deals with its substantial workload by allocating it to sub-committees as detailed in their individual reports.

24. Independent Examiner's Report to the Trustees of the British Tunnelling Society

I report to the Trustees on my examination of the accounts of the charity for the year ended 31 December 2020, which are set out on pages 26 to 30.

Responsibilities and basis of report

As the charity trustees of the Association, you are responsible for the preparation of the accounts in accordance with the requirements of the Charities Act 2011 ('the Act').

I report in respect of my examination of the Trust's accounts carried out under section 145 of the 2011 Act and in carrying out my examination I have followed all the applicable Directions given by the Charity.

Independent examiner's statement

I have completed my examination. I confirm that no material matters have come to my attention in connection with the examination giving me cause to believe that in any material respect:

1. accounting records were not kept in respect of the Trust as required by section 130 of the Act; or
2. the accounts do not accord with those records; or
3. the accounts do not comply with the applicable requirements concerning the form and content of accounts set out in the Charities (Accounts and Reports) Regulations 2008 other than any requirement that the accounts give a 'true and fair view which is not a matter considered as part of an independent examination.

I have no concerns and have come across no other matters in connection with the examination to which attention should be drawn in this report in order to enable a proper understanding of the accounts to be reached.



Jonathan Healey FCA
Lindeyer Francis Ferguson Limited
Chartered Accountants
Tonbridge, Kent

Date 11 March 2021

BRITISH TUNNELLING SOCIETY
STATEMENT OF FINANCIAL ACTIVITIES
(INCLUDING INCOME AND EXPENDITURE ACCOUNT)
FOR THE YEAR ENDED 31 DECEMBER 2020

| | 2020 Unrestricted funds £ | 2020 Restricted funds £ | 2020 Total funds £ | 2019 Total funds £ |
|--|------------------------------------|----------------------------------|-----------------------------|--------------------------|
| INCOME FROM | | | | |
| Charitable activities: | | | | |
| Subscriptions | 117,852 | - | 117,852 | 113,492 |
| Income from other trading activities: | | | | |
| BTS Course & Annual Dinner | - | - | - | 192,092 |
| Royalties & Sales | 1,087 | - | 1,087 | - |
| Underground Health & Safety Course | - | - | - | 8,175 |
| BTS Young Members Conference | - | - | - | 6,343 |
| Grant - Hyperloop Challenge (R & D) | 7,500 | - | 7,500 | 26,900 |
| BTS Soriee | - | - | - | - |
| Sundry Income | 264 | - | 264 | 750 |
| Sponsorship | 889 | - | 889 | 800 |
| Doug Allenby Award | - | 10,000 | 10,000 | - |
| Investments: | | | | |
| Interest | 165 | - | 165 | 435 |
| Total income | 127,757 | 10,000 | 137,757 | 348,987 |
| EXPENDITURE ON | | | | |
| Charitable activities | | | | |
| Postage | 28 | - | 28 | 112 |
| Printing, stationery and photocopying | 27 | - | 27 | 156 |
| Meeting Expenses and secretarial | 15,970 | - | 15,970 | 18,941 |
| Subscriptions to other bodies | 1,120 | - | 1,120 | 1,803 |
| Other costs | 1,507 | - | 1,507 | 1,975 |
| Publicity | 883 | - | 883 | 0 |
| Website | 13,272 | - | 13,272 | 9,599 |
| Award & Prizes | - | - | - | 1,577 |
| Grant | 12,000 | - | 12,000 | 17,000 |
| Training | - | - | - | 5,346 |
| Hyperloop Challenge (R & D) | 14,400 | - | 14,400 | 15,000 |
| Professional fees | 4,162 | - | 4,162 | 2,626 |
| | 63,369 | - | 63,369 | 74,135 |
| Expenditure on raising funds | | | | |
| Expenses re course and dinner | 12,450 | - | 12,450 | 134,911 |
| Publications | 41,544 | - | 41,544 | 39,816 |
| Underground Health & Safety Course | 1,730 | - | 1,730 | 8,486 |
| General Function Expenses | 434 | - | 434 | 6,161 |
| Young Members Committee | 226 | - | 226 | 136 |
| BTS Young Members Conference | - | - | - | 5,444 |
| | 56,384 | - | 56,384 | 194,954 |
| Total expenditure | 119,753 | - | 119,753 | 269,089 |
| Net income and net movement in funds | 8,004 | 10,000 | 18,004 | 79,899 |
| RECONCILIATION OF FUNDS | | | | |
| Fund balances brought forward 1 January 2020 | 273,624 | - | 273,624 | 193,725 |
| Fund balances carried forward at 31 December 2020 | 281,628 | 10,000 | 291,628 | 273,624 |

The statement of financial activity includes all gains and losses in the period.

All income and expenditure derives from continuing activities.

BRITISH TUNNELLING SOCIETY
BALANCE SHEET
AS AT 31 DECEMBER 2020

| | Notes | 2020 £ | 2019 £ |
|--|-------|----------------|----------------|
| CURRENT ASSETS | | | |
| Debtors | 2 | 114,948 | 80,905 |
| Short term deposits | | 62,583 | 62,580 |
| Cash at bank | | 380,532 | 191,835 |
| | | <u>558,063</u> | <u>335,320</u> |
| CURRENT LIABILITIES | | | |
| Creditors: Amounts falling due within one year | 3 | 266,435 | 61,696 |
| | | <u>291,628</u> | <u>273,624</u> |
| NET CURRENT ASSETS | | | |
| INCOME FUNDS | | | |
| Unrestricted | 6 | 281,628 | 273,624 |
| Restricted | 6 | 10,000 | - |
| | | <u>291,628</u> | <u>273,624</u> |

The notes on page 28 to 30 form part of these financial statements.

Approved by the committee on 20/1/22 and signed on its behalf by:


 Kate Cooksey - Chair

BRITISH TUNNELLING SOCIETY
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020

Accounting Policies

Accounting Convention

The financial statements have been prepared in accordance with the Financial Reporting Standard 102 (effective January 2019) (FRS 102) and the requirements of the Statement of Recommended Practice (SORP) applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) (Charities SORP FRS 102).

The British Tunnelling Society meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

There are no material uncertainties about the charity's ability to continue, and so the going concern basis of accounting has been adopted.

Income

All subscriptions and investment income is accounted for when received, except in the case of subscriptions which are specifically stated to be in respect of an ensuing accounting period. No credit is taken for subscriptions unpaid at the balance sheet date.

Expenditure

Expenditure is recognised when there is a legal or constructive obligation to transfer resources to a third party, settlement is probable and the amount can be measured reliably. Expenditure is included within the Statement of Financial Activities on an accruals basis.

Fund Accounting

Unrestricted funds can be used in accordance with the charitable objectives of the Society, at the discretion of the Trustees. Restricted funds can only be used for the particular restricted purposes within the objectives of the Society.

Taxation

The charity is exempt from corporation tax on its charitable activity.

BRITISH TUNNELLING SOCIETY
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020

1 Member's subscriptions

The geographical analysis of subscriptions is as follows:

| | 2020 | 2019 |
|-------------------|----------------|----------------|
| | £ | £ |
| United Kingdom | 96,877 | 92,815 |
| Rest of the World | 20,975 | 20,677 |
| | <u>117,852</u> | <u>113,492</u> |

2 Debtors

| | 2020 | 2019 |
|------------------|----------------|---------------|
| | £ | £ |
| Debtors | 20,960 | 46,295 |
| Prepayments | 77,924 | 18,804 |
| ICE Intercompany | 16,064 | 15,806 |
| | <u>114,948</u> | <u>80,905</u> |

3 Creditors

| | 2020 | 2019 |
|---------------------------------|----------------|---------------|
| | £ | £ |
| Purchase Ledger Control Account | 8,187 | 11,108 |
| Subscriptions in advance | 34,092 | 31,100 |
| Accruals | 1,980 | 3,950 |
| Other Creditors | 10,274 | 15,538 |
| Receipts in Advance | <u>211,902</u> | <u>-</u> |
| | <u>266,435</u> | <u>61,696</u> |

Within the amount for other creditors BTS are holding £10,274 on behalf of Think Deep UK

4 Employees and Employment costs

The society does not employ staff directly.

5 Unrestricted Funds

| | Unrestricted funds | Restricted funds | Total Funds |
|---|--------------------|------------------|----------------|
| | £ | £ | £ |
| Fund balances at 31 December 2020 are represented by: | | | |
| Current assets | 548,063 | 10,000 | 558,063 |
| Current liabilities falling due within one year | (266,435) | - | (266,435) |
| | <u>281,628</u> | <u>10,000</u> | <u>291,628</u> |

6 Funds

| | Unrestricted funds | Restricted funds | Total Funds |
|---|--------------------|------------------|----------------|
| | £ | £ | £ |
| Balance brought forward at 1 January 2020 | 273,624 | - | 273,624 |
| Net movement in funds | 8,004 | 10,000 | 18,004 |
| Fund balances carried forward at 31 December 2020 | <u>281,628</u> | <u>10,000</u> | <u>291,628</u> |

7 Restricted Funds

The Doug Allenby Award was established in 2020, the funds are to be used to award a medal to a young tunneller (BTSYM) annually in Doug's Memory.

8 Committee Members

Committee Members do not and never have received any remuneration.

| | 2020 | 2019 |
|---|------------|--------------|
| | £ | £ |
| Travel and subsistence expenses reimbursed to committee members (n.b.2 trustees reimbursed in 2020, 3 in 2019) | 225 | 1,222 |
| | <u>225</u> | <u>1,222</u> |