SESSION 1 - Welcome and Keynotes - Conference Chair: Daniel Garbutt

9.10am: Welcome

9.15am - 9.45am: Building and maintaining low-carbon infrastructure

Keith Bowers - Lower Thames Crossing Project Director - Tunnel & Approaches

9.45am - 10.15am: Innovation - a force for CHANGE

Nick Sumption, i3P Delivery Lead (Director, Sumption Solutions)

10.15am - 10.45am: A look ahead to where AI and related technologies will advance tunnel design and construction in the coming years

Professor Mike A Mooney, PE PhD, Grewcock Chair Professor of Underground Construction & Tunneling, Colorado School of Mines

10.45am - 11am - Q&A

11am - 11.45am: Coffee Break

SESSION 2 - Innovation in action

11.45am - 12.05pm: Current developments and innovations in TBM technology

Prof. Dr. Gerhard Wehrmeyer, Product Management TT Herrenknecht AG

12.05pm - 12.25pm: Elon Musk's NOT-A-BORING Competition winner 2024!

Swissloop Tunneling - A student project reaching new milestones in TBM innovation

Philippe Kientsch, Head of Mechanical & Civil Engineering, Swissloop Tunneling,

12.25pm - 12.45pm: Battery Electric Vehicles (BEVs) in tunnelling: why are our mining industry friends so far ahead?

Ross Dimmock, Vice President Tunnelling, Normet Group

12.45pm - 1.05pm: InSAR & Tunnelling: An innovative complement to design, construction & monitoring

Dr Renalt Capes, InSAR Application Consultant

1.05pm - 1.15pm: Q&A

1.15pm - 2.15pm: LUNCH

SESSION 3 - Sustainability and the Environment

2.15pm - 2.35pm: Sustainable tunnelling in the face of climate change

Dr. Panos Spyridis, Professor for Concrete Structures and Infrastructures Engineering, University of Rostock, co-authored by Prof. Dr. mult. Konrad Bergmeister, Head of Institute of Structural Engineering (IKI), BOKU University

2.35pm - 2.55pm: Low carbon concrete linings

Dr Benoit Jones, Managing Director, Inbye Engineering

2.55pm - 3.30pm: Panel Discussion - Innovation and its role in creating a sustainable environment

Chair: Ken Kwok, Technical Director, Bouygues TP UK - Panelists: Crystal Moore, Senior Lead, i3P seconded from the Environmental Agency; Philip Morley, Director, Arup; Antoine Schwob, Project Director, BMJV for Lower Thames Crossing Project; Mark Hansford, Knowledge Director, ICE; Benoit Jones, Managing Director, Inbye Engineering

3.30pm - 4pm: COFFEE

SESSION 4 - Innovative construction, materials and lining technology

4pm - 4.20pm: Using codes and standards to facilitate the adoption of lower carbon fibre reinforced concrete tunnel linings

Chris Peaston, Director, Peaston Concrete Consultancy Limited

4.20pm – 4.40pm: Ultra-low carbon precast concrete tunnel linings in practice

Bruno Paul-Dauphin - Director of Exegy - Sustainable Concrete Solutions at VINCI Construction

4.40pm – 5pm: Advancing understanding of stress distribution in Composite Tunnel Linings: Insights from case studies using advanced numerical modelling

Jiang Su PhD MPhil BEng CEng FICE, Chief Tunnel Engineer, AtkinsRéalis

5pm - 5.30pm: The Suppliers angle

Featuring: Sarah Langley, Sika, Head of Infrastructure; Steve Price, Mapei UTT - Underground Technology Team, Country Manager UK and ROI; Chris Moxham, Master Builders Solutions, Global Tunnelling Marketing Manager

5.30pm – 5.40pm: Q&A and Close

6pm – 7.30pm BTS Evening Presentation: Join us in celebrating three ground-breaking UK projects from the past 50 years that have been recognised by the International Tunnelling and Underground Space Association as part of their "50 Iconic Projects at 50" list. The Channel Tunnel, Crossrail-Elizabeth Line, and Thames Tideway are transformative projects that have significantly impacted our society. Speakers: **Martin Knights** – in Memory of Olivier Vion and Claude Berenguier; **Alan Myers** – Channel Tunnel; **Mike King** – Crossrail Elizabeth Line; **James Smith** - Tideway Tunnel

DAY 2 - OCTOBER 9th

SESSION 1

9am - 9.05am - Session Chair welcome

9.05am - 9.35am: David Wallis Paper

John Corcoran, BTS Chair

9.35am - 9.55am: Tunnelling Through the Chilterns

Ben Bryant, Senior Tunnel Engineer, ALIGN JV

9.55am – 10.15am: Woodsmith Mine Project – Optimised ground support design of the Mineral Transport System (MTS) caverns for the mining of a low carbon, high value crop nutrition solution

Sebastian Kumpfmueller, Dr. Sauer & Partners, Senior Associate & Senior Tunnel Engineer

10.15am - 10.35am: Tunnelling the Scandinavian way - the casting of concrete 'mega columns' underground in central Gothenburg

Tom Crabtree, Senior Site Manager and Oliver Gerstmann, Production Manager, Wayss & Freytag Ingenieurbau AG

10.35am - 10.45am: Q&A

10.45am - 11.30am: COFFEE

SESSION 2

11.30am - 11.50am: Tunnelling 100m under a metropolis

LEE Ka Leung (Project Director / FICE FHKIE IStructE LLB MSc BENg)

11.50am - 12.10pm: What bimers whisper to tunnellers: The extension of the Stockholm Metro Blue Line

Alejandro Cantarero. Head of Section in the Geotechnical Department of TYPSA in Madrid.

12.10pm - 12.30pm: Capping off the top of the shaft for Tideway at Carnworth Road

Alexi Bond, previously Project Director - Energy & Water, Morgan Sindall Infrastructure; and Andy Hodgkinson, Director, Hewson Consulting

12.30pm - 12.50pm: Advanced InSAR on urban tunnelling: managing risks and enhancing operational efficiency

Blanca Payas Puigarnau, Managing Director SIXENSE

12.50pm - 1pm: Q&A

1pm - 2.15pm: LUNCH

SESSION 3 - Small Bore (CHAIR Rod Young)

2.15pm - 2.35pm: Multiple under-track culvert installation

Jim Kirby Director at Active Tunnelling Ltd

2.35pm – 2.55pm: Single pass pipe-jacked pressure pipes

Bryn Phillips, Ward and Burke Construction

2.55pm - 3.10pm: Newly revised design guide for CDM duty holders

Sean Martin - Pipe Jacking Association Chair

3.10pm - 3.20pm Q&A

SESSION 4 - Inclusivity in our industry

3:25pm - 3:35pm Being a female leader in tunnelling today

Sharon Strugnell, Group Leader – Underground Structures Team, WSP UK Ltd

${\bf 3.35pm-4:20pm: Panel\ discussion\ on\ inclusivity\ in\ the\ tunnelling\ industry}$

Featuring: Sharon Strugnell (WSP), Sarah Langley (SIKA), Tasnia Khanom (SCS Railways), and Anna Lau (HS2 – C1) - Chaired by Daniel Garbutt.

4:20pm - 4-30pm Conference Chair, Daniel Garbutt's closing words