

New Civil Engineer

TUNNELLING

SUMMIT



7-8 DECEMBER 2016 | INMARSAT, LONDON

PINPOINTING PROJECT
OPPORTUNITIES AND EXPLORING
INNOVATION IN TUNNELLING

tunnelling.newcivilengineer.com



#NCEtunnelling



@ncedigital

Platinum partner:



Gold partner:



Silver partners:



Supported by:





We're delighted to announce the full programme and speaker line-up for this year's Tunnelling Summit on 7-8 December. Following the success of our 2015 event and your feedback, we've packed in more exciting new features as well as current and future tunnelling projects.

Highlights that I'm most looking forward to include:

- An exclusive keynote speech from Lord Robert Mair, who will be setting the scene and challenging the industry with his vision for the future of tunnelling
- A new, technology-focused half day seminar, exploring the latest technologies and innovative strategies being applied to tunnelling projects
- Post-event drinks and dinner for VIP delegates and speakers to reflect on the day's discussions, taking place at the Masonic Temple at the Andaz Liverpool Street
- Plus, back by popular demand, have your say through our series of interactive polls and Q&A sessions with the web-based app, Slido

Kind regards,

Mark Hansford

Editor, New Civil Engineer

PROJECTS IN FOCUS



HS2, phase 1

Construction start: 2017

Cost: £27.4bn

36km



Fehmarnbelt

Construction start: 2018

Cost: £6.2bn

18km



Tideway

Tideway

Construction start: 2016

Cost: £4.2bn

25km



The Silvertown Link

Construction start: 2018

Cost: £1bn

1.4km



Bank Station Capacity Upgrade

Construction start: 2016

Cost: £500m

570m



Humber Crossing

Construction start: 2017

Cost: £100m

5km



Gareth Burden
senior project manager
National Grid



Mike Devriendt
associate director
Arup



Tony Dixon
major projects director
Tarmac



Kuldeep Gharatya
head of technical strategy, system
performance & innovation
London Underground



Dr Benoit Jones
managing director
Inbye Engineering



Martin Knights
global technical director for tunnelling
CH2M



Lord Mair
professor of civil engineering
University of Cambridge



Ponciano Perez Lupi
project manager, Kirtling St & Heathwall
Tideway



David Rowe
head of Silvertown Tunnel sponsorship team
Transport for London



Peter Shipley
programme manager
Tideway



Tim Smart
project engineering director
HS2



Kim Smedegaard Andersen
contract director, immersed tunnel
Femern Belt



Andy Swift
programme manager,
Bank Station capacity upgrade
London Underground



Rand Watkins
lead project engineer, construction,
capital programmes directorate
London Underground



Mateusz Wojtasik
Geotechnical Engineer
Donaldson Associates
and chair
BTS Young Members

7 DECEMBER 2016 - MAIN CONFERENCE

8:00 **VIP breakfast briefing:**

Current project in focus (VIP delegates only)

The breakfast session will provide an informal setting to explore a tunnelling project whilst providing additional networking opportunities for VIP delegates and speakers.

8:45 **End of VIP breakfast briefing**

8:30 **Registration and refreshments**

9:00 **Chair's opening remarks**

Mark Hansford, editor, **New Civil Engineer**

KEYNOTE SESSIONS

9:10 **Preparing the industry for 36km of tunnelling for HS2's Phase One – Driving innovative design, efficiencies and collaboration**

- An update on the ground investigation and enabling works to date
- Exploring the design and technical strategy for tunnelling works and the role of innovation and technology will play
- Update on the procurement of tunnelling works the delivery strategy for phase one – what specific challenges are foreseen and how will they be mitigated?
- What is being sought from the supply chain and prospective partners in delivering the tunnelling works?

Tim Smart, project engineering director, **HS2**

9:30 **Tideway: Designing and constructing a £4.2bn, 25km long super sewer**

- An update on the design and delivery of tunnelling works, construction to date and key milestones for the next 12 months
- Addressing the technical challenges involved in the delivery via 24 construction sites and a varied geology
- The role of innovative procurement and engineering – what lessons will be drawn from Lee Tunnel and Crossrail and what will be done differently on Tideway?

Peter Shipley, programme director, **Tideway**

9:50 **Question and answer session and speaker panel**

What is needed from the tunnelling industry to deliver these two major infrastructure projects?

10:00 **Keynote speech: Developing world-leading, smarter tunnels**

The keynote session will push the agenda for further innovation in the design and delivery of tunnel infrastructure, highlighting the role of engineering innovation such as monitoring technologies, and stressing the importance of skills and training in this sector. The speaker will explore the latest innovations across the industry and touch on key lessons learnt on recent major projects, such as Crossrail.

Lord Mair, professor of civil engineering, **University of Cambridge**

10:45 **Networking refreshment break**

TRANSPORTATION TUNNELS IN FOCUS

11:15 London underground upgrades round 1 – Adding 1km of new running tunnels at Bank Station

- An update on the design strategy and construction timeframes
- Technical challenges with existing infrastructure, above and below ground, and strategies to de-risk those challenges – revising the tunnel profile and lining
- Advancing collaborative working and procurement and construction management approaches
Andy Swift, programme manager, Bank Station capacity upgrade, **London Underground**

11:35 London underground upgrades round 2 – The Future Stations Programme

- Addressing technical challenges, from ground conditions and existing infrastructure to site logistics and construction on an operational underground, and drawing learnings from recent station upgrade projects
- The Future Stations Programme – an overview of the projects in the early stages of planning and how recent experiences are driving their development
- How technology will shape the future design, management and maintenance of the London Underground system
Rand Watkins, lead project engineer, construction, capital programmes directorate, **London Underground**

11:55 River Crossings focus – The Silvertown Link

- Outlining the scope and benefits of the project, together with the design requirements
- An update on the consents and procurement processes and timeframes for delivery
- Mitigating risks during construction and operation
David Rowe, head of Silvertown Tunnel sponsorship team, **Transport for London**

12:15 Question and answer session and speaker panel

Pinpointing and de-risking the challenges to tunnelling in a congested environment, around existing over and underground structures

12:35 Networking lunch

13:50 Future tunnelling projects on the Strategic Road Network

This session will provide an overview of emerging Highways England projects with tunnelling elements. Honing in on specific projects in the pipeline, the presentation will outline their emerging timeframes and planning to date.

Neil Loudon, group manager, **Highways England**

POWER AND MINING TUNNELS IN FOCUS

14:15 National Grid's power tunnels – Lessons from past tunnels and plans for future tunnels

- Reflecting on learnings from the London power tunnels programme; achievements to date and innovation
- Outlining the scope and timeframes of other major projects for National Grid (including the Humber Crossing and Morecambe Bay tunnels)
- Honing in on technical challenges and the innovative and collaborative approaches being sought from potential partners
Gareth Burden, senior project manager, **National Grid**

14:40 Question and answer session and speaker panel

Contrasting processes and approaching to delivering vital tunnel infrastructure and the sharing lessons for the next generation of projects

INTERNATIONAL PROJECTS IN FOCUS

14:55 Networking refreshment break

15:25 International tunnelling spotlight

This session will present the challenges and opportunities of innovation in a project delivery scenario from an international perspective, drawing examples from projects such as Miami Port Tunnel and Tuen Mun HK.

Seved Robin, project director, **Bouygues Travaux Publics**

15:50 Europe tunnelling spotlight: Delivering the longest immersed tunnel in the world at the Fehmarnbelt Fixed Link

- An update on design strategy for the 19km fixed immersed tunnel link
- Advancing construction and tunnelling works – the procurement strategy and timeframes
- Overcoming the technical and logistical challenges of building the world's longest immersed tunnel between two countries

Kim Smedegaard Andersen, contract director, immersed tunnel, **Femern A/S**

16:15 Question and answer session and speaker panel

Sharing approaches and lessons from global tunnelling projects and comparing with schemes in the UK

DELIVERING THE PIPELINE OF TUNNELLING WORKS

16:30 Industry leaders' panel – What is needed to accommodate and deliver the extensive pipeline of tunnelling projects in the UK over the next 20 years?

- Comparing and contrasting procurement strategies – how can we gain more efficiencies in procurement models?
- Keeping skills in the industry – how should the industry and future projects leverage off schemes such as TUCA?
- What are the barriers to adoption of technology and innovation and whose responsibility is it?
- Drawing learnings from outside the UK – from skills requirements to technical best practice and procurement methods

Rand Watkins, lead project engineer, construction, capital programmes directorate, **London Underground**

Ponciano Perez Lupi, project manager, **Ferrovial Agroman Laing O'Rourke JV, Tideway Central**

Mateusz Wojtasik, geotechnical engineer, **Donaldson Associates**, and chair, **BTSYM**

Vincent Avrillon, managing director, **Bouygues Travaux Publics UK and Europe**

Mark Leggett, chair, **British Tunnelling Society**

Tony Dixon, major projects director, **Tarmac**

17:25 Closing remarks and close of Summit

17:45 **VIP networking dinner (VIP delegates only)**

Masonic Temple, **Andaz Liverpool Street**



8 DECEMBER 2016

TECHNOLOGY IN TUNNELLING SEMINAR (CONFERENCE PLUS AND VIP DELEGATES ONLY)

8:00 Registration and refreshments

8:40 Chair's opening remarks

Martin Knights, global technical director for tunnelling, **CH2M**

8:50 Overview of technology in today's tunnelling projects

The opening session will draw on specific technologies that have been introduced in recent and current projects, whilst considering the barriers to further adoption of technology and exploring ways to encourage and integrate technology in future tunnelling works.

Dr Benoit Jones, managing director, **Inbye Engineering**

9:10 Client perspective: Exploring the role of innovation within the underground

- An overview of innovation and its role within the London Underground
 - The role of virtual reality as an invaluable tool to demonstrate station design and people behaviour
- Kuldeep Gharatya**, head of technical strategy, system performance & innovation, **London Underground**

9:30 The role of monitoring in designing and maintaining smarter tunnel assets – The Crossrail story

- Assessing the risks from movement of tunnelling under the City and deciding on the requirements of a monitoring system approach to be used on the project
- Turning data into information – assessing the monitoring data and how this determined construction during the project to mitigate potential effects of ground settlement

Mike Devriendt, associate director, **Arup**

Javier Gonzalez Marti, service/project manager, **Crossrail**

9:50 Q&A and roundtable discussions: What role can technology, from data to monitoring and drone technology, play in designing and managing tunnelling assets?

10:10 Networking and refreshments break

10:35 Tech showcase

Three leading innovators will be shortlisted to present their technologically driven solutions to delegates at the seminar. Following the tech pitches, delegates will have a chance to ask the three presenters questions, before voting for their preferred solution which they believe will be critical to the future of the tunnelling sector.

11:35 Chair's closing remarks and end of seminar

© EMAP Ltd. 2016. The programme may change due to unforeseen circumstances. EMAP reserves the right to alter the venue and/or speakers.

JOIN US AT THE NEW CIVIL ENGINEER TUNNELLING AWARDS

From 12:15, 8 December 2016 | The Grosvenor House Hotel, London

For more information and to book your seat, please visit

tunnellingawards.newcivilengineer.com



New Civil Engineer

TUNNELLING SUMMIT

7-8 DECEMBER 2016
INMARSAT, LONDON

FEATURE	VIP	CONFERENCE PLUS	CONFERENCE
Attendance of the main conference – Wednesday, 7 December	✓	✓	✓
Access to the exhibition	✓	✓	✓
Delegate list on the day	✓	✓	✓
Presentations post-event	✓	✓	
Attendance of post-conference seminar – Thursday, 8 December	✓	✓	
Attendance of VIP breakfast briefing – Wednesday, 7 December	✓	✓	
Attendance of the VIP dinner	✓		
Delegate list 1 week prior to the event	✓		
Fast track registration	✓		
Priority seating	✓		

PRICES

Preview (until 30 September)	£799+VAT	£649+VAT	£499+VAT
Early bird (until 4 November)	£849+VAT	£699+VAT	£549+VAT
Standard (from 5 November)	£899+VAT	£749+VAT	£599+VAT

TO REGISTER

 tunnelling.newcivilengineer.com

 020 3033 2609

 Ilja.Ryndin@EMAP.com

 #NCETunnelling

 @ncedigital

PARTNER WITH US

Are you a leading player in the tunnelling industry? Become a partner to position your business at the forefront of the tunnelling industry and gain exclusive access to clients and key decision-makers.

To find out about our tailored sponsorship and exhibition packages, please contact:
Roland Maybank Roland.Maybank@EMAP.com 020 3033 2911

tunnelling.newcivilengineer.com