



ENIGMACG
CONSULTING GROUP

Innovation in Tunnels

SIXTH EDITION

2020

*Construction, Maintenance
Safety and Fire Protection*

**The Novotel
Schipol Airport**
Amsterdam, The Netherlands

April 1st & 2nd 2020

www.tunnelsconference.com

Media Partners



Conference Overview

With over 55 live tenders for construction/development of new tunnels in just Spain, Switzerland, Italy and Belgium at the time of writing this, it is safe to say that tunnel construction/ development is growing at a very fast rate. Our last 3 Annuals on Tunnels were based around Fire and Safety, our 4th had a slight twist where we touched on the maintenance as well as the safety aspect of tunnels as the title suggests. The 5th Annual was in Chamonix and we had two technical tours of one of the most famous tunnels in the world - The Mont Blanc Tunnel and the other of a partially built tunnel by Telt.

EnigmaCG's 6th Annual Conference on Innovation in Tunnels: Construction, Maintenance, Safety & Fire Protection touches on all aspects of a tunnel. Innovation and the emerging of new technologies that go along with a tunnel will always be highly sought after to ensure that not just newly developed but also existing tunnels adhere to these best practices.

We at EnigmaCG are building on our success and bring you to our 6th edition, a two-day bonanza on the 1st and 2nd of April 2020 in Amsterdam - The Netherlands and on the 3rd of April an exclusive tour of recently built tunnel. EnigmaCG's event will cover topics not just in our back garden but as far as how to reduce terrorism in tunnels, the world's longest subsea road tunnel as well as a case study on Li-Ion battery fire tests and their impact on a tunnel.

If you are interested to know more about the above topics mentioned as well as what were the mistakes that have been made in the past such as the tunnels in Norway and the latest findings in Tunnels, Construction, Maintenance, Fire & Safety then this is a must attend event for you and your colleagues.

Join us on the 1st and 2nd of April 2020 for 2 days of exclusive networking sessions, professional and interactive panel discussions as well as high level case studies combatting the challenges, successes as well as lessons learnt from construction, Maintenance, as well as the unfortunate catastrophes where damage and sadly lives have been lost in the past. As well as spectacular tour of newly build tunnel in The Netherlands. This is another unmissable event brought to you by Enigma.

This should be the only tunnel event you should attend in the Spring of 2020!

Why Attend

Get a cross-industry view on big issues surrounding metro, roads and tunnels not just in Europe but globally. This platform provides an exceptional opportunity for event participants to assess the solutions and services that are available to help them achieve their business objectives.

An invitation-only meeting bringing together the most senior leaders from a list of global brands.

More than just speakers: When you attend our event you will be subjected to taking part in a variety of roundtable discussions, networking sessions as well as interactive panels.

So come armed with your questions!

- Excellent Opportunity for one-to-one business meetings
- A comprehensive grasp of the diverse opportunities for businesses regardless of size, best practices to leverage growth and competitive advantage by implementing external services, expertise and technology
- Understand how to adopt and apply design thinking and disruptive innovation
- Acquire insider knowledge on how to succeed better by implementing innovative safety procedures and systems.
- Getting the first-move advantage

Visitor Information

This is a Paid Event

DELEGATE SEATS ONCE SOLD CAN NOT BE CANCELLED BUT THEY CAN BE TRANSFERRED TO SOMEONE WITHIN THE SAME ORGANISATION.

Conference Time

Wednesday 1st April, 2020: **8.30 – 18.00**

Thursday 2nd April, 2020: **8.30 – 18.00**

Canvassing

Canvassing for orders by any unauthorised person is strictly prohibited and in any such case, the right of expulsion will be at once exercised. The distribution or display of placards, handbills or circulars, or other articles, except by the exhibitors on their own stand is prohibited.

Indemnity

EnigmaCG as organisers of this event are in no way responsible for the comments, thoughts or ideas made in connection with the presentation.

Security

Organisers cannot be held responsible for any loss or damage to the attendee's property. All attendees are advised not to leave their valuables unattended at any time when the hall is open.

Public Address System

Only messages of EXTREME URGENCY will be relayed over the public address system, such as in the event of having to evacuate the building. Under NO circumstances will messages of a general or promotional nature be relayed during the event.

INNOVATION IN TUNNELS is organised by Enigma Consulting Group
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Who Will I Meet?

Construction

- ▶ Architects and designers
- ▶ Planners and Researchers
- ▶ Geologists
- ▶ Project Managers
- ▶ Construction Companies
- ▶ Chemical & Paints
- ▶ Boring companies
- ▶ Steel/concrete/cement lining
- ▶ Fire Insulation
- ▶ Cabling and piping
- ▶ Ventilation
- ▶ Data and Communication
- ▶ Quality Control
- ▶ Surveyors

From Fire Brigades

- ▶ Head of Fire Safety
- ▶ Head of Operations
- ▶ Fire/ Safety Engineer

Innovation

- ▶ Strategy and Innovation Consultants

Government and Ministeries

- ▶ Ministry of Transport & Infrastructure
- ▶ Ministry of Rail & Road
- ▶ Ministry of Fire & Safety

Safety

- ▶ Fire Suppression/ Detection/Prevention
- ▶ Risk Prevention
- ▶ Evacuation measures
- ▶ Communications/ Lighting/CCTV
- ▶ Operations
- ▶ Infrastructure Planning
- ▶ Design
- ▶ Project Management
- ▶ Data Analytics/IOT/ Connectivit

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There are tremendous and very real benefits to leaving your workplace and attending an EnigmaCG industry specific conference. Learn best practices from the experts, reignite your career enthusiasm and get inspired to do your job better.

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Key Highlights

- 1 Speakers from over 15 countries
- 2 20+ Industry Expert Keynote Presentations
- 3 70+ Tunnel Professionals in Attendance
- 4 Real Life case studies
- 5 Interactive sessions with Top-notch Industry Leaders
- 6 Explore Fire Protection for Metro/Road/Railway Tunnels
- 7 More than 6 hours of networking
- 8 New & Updated topics on Ventilation & Lighting
- 9 Focused Panel Discussions

Some of the Speakers

Dr Fathi Tarada, Managing Director - Mosen Ltd and Chairman for the event

Rafael López Guarga, Chief Engineer of the State Highway Demarcation in Aragon Ministry of Development, Spain

Murat Gucuyener, Chief Technical Officer – Avrasya Tüneli İşletme İnşaat ve Yatırım A.Ş. , Eurasia Tunnel, Istanbul

John Osborne FICE, Senior Civil Engineer - CERN – the European Organization for Nuclear Research, Switzerland

Marius Hofseth, Tunnel safety advisor for for the E39 Rogfast tunnel - ÅF Advansia AS, Norway

Sanjeev Malik, Executive Director - National Highways & Infrastructure Development Corporation Limited (NHIDCL), India

Lin Wei, Senior Consultant – CCCC Highway Consultants Co. Ltd - China

Jakob-Matthias Böttger, Team leader Planning and deployment fire brigade – BLS, Switzerland

Federico Benolli, Senior Associate - Associazione SAFE, Italy

ON INVITE - **Michiel Dubbeldeman**, PNational Coordinator Rail Safety - Ministry of Infrastructure and Water Management, Netherlands and volunteer for the knowledge center for underground construction (COB)

ON INVITE - **Gert-Jan Ransijn**, Project Manager Preparation Operation and Management – Uithoflijn, Netherlands

ON INVITE - **Dieter Wuergler**, Senior Engineer (RAM and Safety Expert) ENOTRAC. Switzerland

Agenda

Day 1 AM | 1st April, 2020

- 08.00 – 09.00 Breaking the Enigma: Registration & Networking
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- 09.00 – 09.05 Introduction & Opening Remarks: Abeed Rhemtulla, MD of The Enigma Group of companies and Enigma Data Labs
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- 09.05 – 09.10 Opening and Welcome Speech by Conference Chairman: Dr. Fathi Tarada, Managing Director – Mosen Ltd, United Kingdom
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- 09.10 – 09.45 Unconventional facilities in tunnels and New Technologies
- Rafael López Guarga**, Chief Engineer of the State Highway Demarcation in Aragon Ministry of Development, Spain
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- 09.45 – 10.20 Sponsor Slot
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- 10.20 – 10.55 Eurasia Tunnel Project
- Brief Information of the project
 - Construction
 - Operation Safety
- Murat Gucuyener**, Chief Technical Officer – Avrasya Tüneli İşletme İnşaat ve Yatırım A.Ş. , Eurasia Tunnel, Istanbul
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- 10.55 – 11.20 Networking Tea/Coffee Break
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- 11.20 – 11.55 Sponsor Slot
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- 11.55 – 12.30 CERN's Large Hadron Collider and Future Tunnelling Projects
- This talk will delve into CERN's construction and engineering projects, including:
- Geological challenges faced during the construction of the Large Hadron Collider
 - The proposal to build the 100km Future Circular Collider (FCC) and Linear Colliders at CERN
 - Safety aspects of tunnel design for physics projects
- John Osborne FICE**, Senior Civil Engineer - CERN – the European Organization for Nuclear Research, Switzerland
- *Under Invitation
-
- 12:30 – 13:05 E39 Rogfast tunnel - the world's longest subsea road tunnel
- Tunnel safety in the world's longest road tunnel
Operational safety
Traffic safety
Fire safety
- Marius Hofseth**, Tunnel safety advisor for for the E39 Rogfast tunnel - ÅF Advansia AS, Norway
*Under Invitation
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- 13.05 – 14.00 Networking Luncheon

Agenda

Day 1 PM | 1st April, 2020

- 14.00 – 14.35 Sponsor Slot
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- 14.35 – 15.10 Presentation
- Sanjeev Malik**, Executive Director - National Highways & Infrastructure Development Corporation Limited (NHIDCL), India
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- 15.10 – 15.45 Presentation on Immersed tunnel; submerged floating tunnel; artificial islands
- Discuss design methodology of immersed tunnel based on presenter's 10 year site experience in HZMB Island-Tunnel project that builds the longest roadway immersed tunnel.
 - Brief the latest technological development in immersed tunnelling including deployable element, memory bearing, semi-rigid element, etc.
 - Introduce the latest research progress in CCCC Submerged Floating Tunnel Technical Joint Research team.
- Lin Wei**, Senior Consultant – CCCC Highway Consultants Co. Ltd - China
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- 15.45 – 16.15 Networking Tea/Coffee Break
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- 16.15 – 16.50 Examples on how to reduce risks in train tunnels during operation and the relation with European regulations
- Vision on the TSI – SRT Technical Specifications for Interoperability Safety in Railway Tunnels;
 - Investigation of the Safety of Railway Tunnels;
 - Examples of risk reducing measurements;
 - Development of the guide for tunnel cyber security (reducing risks)
- Michiel Dubbeldeman**, National Coordinator Rail Safety - Ministry of Infrastructure and Water Management, Netherlands and volunteer for the knowledge center for underground construction (COB)
- *Under Invitation
-
- 16.50 – 17.50 Panel Discussion on How to Plan Tunnel Operations in order to Improve Safety
- Design phase: incorporating the operational perspective in tunnel design considerations
 - Construction phase: addressing operational safety challenges during construction
 - Planning & executing renovation projects in live tunnels: the operational perspective
 - Operating and maintenance phase: the impact new and upcoming future propulsion technologies and the development of Intelligent Transport Systems, connected and autonomous vehicles, intelligent sensors, smartphones etc on safety
 - Enhancing incident response whilst maintaining safe traffic flow
 - Post-incident recovery: minimising the impact on traffic operations after incidents
- Chair: **Dr. Fathi Tarada**, Managing Director – Mosen Ltd, United Kingdom
- Panelists
-
- 17.50 Closing Remarks by Conference Chairman & End of Day One

Agenda

Day 2 AM | 2nd April, 2020

08.00 – 09.00	Breaking the Enigma: Registration & Networking
09.00 – 09.05	Introduction & Opening Remarks: Abeed Rhemtulla , MD of The Enigma Group of companies and Enigma Data Labs
09.05 – 09.10	Opening and Welcome Speech by Conference Chairman: Dr. Fathi Tarada , Managing Director – Mosen Ltd, United Kingdom
09.10 – 09.45	Emergency escape doors – are they fit for purpose? <ul style="list-style-type: none">• Types of emergency escape doors in tunnels and stations• Maximum manual forces to open doors – are they set to a reasonable level?• The effect of legislation against gender discrimination• Comparison of full-scale measurements and CFD analysis• Disabled access through emergency doors Dr. Fathi Tarada , Managing Director – Mosen Ltd, United Kingdom
09.45 – 10.20	Sponsor Slot
10.20 – 10.55	Impact of automatic earthing protection systems on the safety in case of railway tunnel fires Jakob-Matthias Böttger , Team leader Planning and deployment fire brigade – BLS, Switzerland
10.55 – 11.20	Networking Tea/Coffee Break
11.20 – 11.55	Sponsor Slot
11.55 – 12.30	Presentation Gert-Jan Ransijn , Project Manager Preparation Operation and Management – Uithoflijn, Netherlands
12:30 – 13:05	Presentation Gregor Schibig , Project Manager Overall Validation – AlpTransit Gotthard AG, Switzerland
13.05 – 14.00	Networking Luncheon
14.00 – 14.35	Sponsor Slot
14.35 – 15.10	Presentation Dr. Michael Halwachs , Head of Tunnel Security – PORR Group, Austria

Agenda

Day 2 | 2nd April, 2020

- 15.10 – 15.45 Public - Private - Partnership to support Tunnel Security from CBRN risks
- The importance of Public-Private-Partnerships (PPP) in Tunnel Security
 - How the CBRN threat may affect the Security of Tunnels
 - The TRANSTUN project as an example of PPP to support the Security of cross-border Tunnels against chemical risks
- Federico Benolli**, Senior Associate - Associazione SAFE, Italy
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- 15.45 – 16.15 Networking Tea/Coffee Break
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- 16.15 – 16.50 Presentation
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- 16.50 – 17.30 Open Forum: Discussion with the attendees on measures and safety precautions to take in light of recent terrorists attack
- Reviewing emergency response procedures
 - New and unexpected challenges terrorist attacks pose on critical infrastructure to provide physical security
 - Looking at the safety & security of the transportation system so that they are not vulnerable to significant disruption by terrorist attacks
- Chair: **Dr. Fathi Tarada**, Managing Director – Mosen Ltd, United Kingdom
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- 17.30 Closing Remarks by Conference Chairman & Thank you Note by **Abeed Rhemtulla**, Managing Director - Enigma Consulting Group
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