



ARENA

Norwegian Tunnel Safety Conference

Stavanger, Norway
18.-19. June 2018



Norwegian Tunnel Safety Conference 2018





Exhibitors & Sponsors

Thanks to our exhibitors & sponsors at NTSC 2018.



Why Exhibit at the NTSC in Stavanger?

8 companies are invited to present and showcase their latest products and services at the NTSC 2018.

Latest technology and trends

Experience the latest products and advanced solutions during our two-day conference and with exhibitors, visitors and speakers from around the world.

Connect

Hear from conference chairs, speakers and decision makers offering you the opportunity to learn about the latest trends and topics on a global scale.

Brand recognition

Increase awareness through your exhibit space and showcasing your products and services.

About the Norwegian Tunnel Safety Conference

The Norwegian Tunnel Safety Conference's (NTSC) unique approach brings together tunnel operators and owners, policy makers, fire and rescue services with researchers and the tunnelling industry to spark innovative solutions to improve tunnel safety.

The goal of the NTSC is to bring global experts together to focus and share their views about the latest technology, innovations, trends, processes and knowledge to make tunnels safer and reduce accidents.

Organisers NTSC 2018:

Norwegian Tunnel Safety Cluster, ITS Norway, Association for Fire Safety Norway (AFSN), RISE Safety & Transport

Endorsed & Supported by:

ITA COSUF, Rogaland Fylkeskommune, Tekna



08:30 - 10:00

Registration & coffee

Opening session

Chair: Helen Roth, Managing Director, Norwegian Tunnel Safety Cluster

10:00 - 10:10

Welcome to Rogaland & Norwegian Tunnel Safety Conference 2018

County Mayor Solveig Ege Tengesdal

10:10 - 10:30

Opening

Director General Kirsti Slotsvik, Norwegian Railway Directorate

10:30 - 11:00

Norwegian Tunnel Safety Center & Norwegian Tunnel Safety Certification

Helen Roth and Arild Søvik

Norwegian Tunnel Safety Cluster and Søvik Consulting

11:00 - 11:40

**Road Tunnel Operations of the World Road Association
- PIARC and lessons learned in France**

Dr. Marc Tesson, Tunnel Study Centre (CETU) France, and chairman of the Technical Committee Road Tunnels Operations of the World Road Association - PIARC

11:40 - 12:10

Coffee & refreshments

Intelligent Transportation Systems (ITS) in tunnels

Chair: Managing Director Trond Hovland, ITS Norway

12:10 - 12:35

Experiences with security equipment & technologies

Terje Floor Heggeland, CEO, TRAFSYS AS

12:35 - 13:00

Today's and future's ITS installations

Anne-Marie Ytrehus, Project manager TMC 2020, Norwegian Public Roads Administration

13:00 - 14:30

Lunch & expo

Risk & Security management in tunnels

Chair: Arild Søvik, Søvik Consulting

14:30 - 14:55

ITS-solutions for safer tunnels

Lei Chen, Ph.D and Senior Researcher, RISE Research Institutes of Sweden

14:55 - 15:20

Emergency planning and management

Han Admiraal, Chairman of ITA Committee on Underground Space (ITACUS)

15:20 - 15:50

Coffee & refreshments

15:50 - 16:20

Cyber security of tunnel control centres - Possible threats and protection measures

Frank Leismann, Dipl-Ing, STUVA, Germany

16:20 - 16:45

Quantitative risk assessment and risk-based decision making

Bernhard Kohl, ILF Consulting Engineers Austria GMBH

16:45

Closing remarks day 1

16:50 - 18:00

Expo & refreshments

19:00

Conference dinner

09:00 - 09:05 **Welcome**

Tunnel research

Chair: Are Wendelborg Brandt, RISE Fire Research Norway

09:05 - 09:40 **New study on new energy carriers**

Maximillian Wietek, Chairman of ITA Cosuf

09:40 - 10:05 **“Kapasitetsløft tunnelsikkerhet”
- building research capacity in the field of tunnel safety**

Ove Njå, professor, University of Stavanger

10:05 - 10:30 **Presentation of Tunnel & Underground Safety Center (TUSC)**

Haukur Ingason, Group Leader fire research dynamics,
RISE Research Institutes of Sweden

10:30 - 10:55 **Research in the Norwegian Public Roads Administration**

Claus Larsen, Head of tunnel & concrete department,
Norwegian Public Roads Administration

10:55 - 11:25 **Coffee & refreshments**

Operation and emergency response management

Chair: Håkon Winterseth, Association for Fire Safety Norway (AFSN)

11:25 - 12:05 **Incident command**

Chief Garry English, Seattle Fire Department

12:05 - 12:30 **Contingency planning**

Morten Sommer, Associate Professor, Western Norway University
of Applied Sciences

12:30 - 13:00 **Expo**

13:00 - 14:00 **Lunch & expo**

14:00 - 14:25 **Evacuation in tunnels**

Rune Brandt, Director HIB Haerter

14:25 - 14:50 **Mobile units ventilation in tunnels**

Xavier Deckers, Fire Safety Engineer, Fire Engineered Solutions Ghent

14:50 - 15:15 **Tunnel Fire ventilation testing and new research**

Joan Piera, Fire Safety Project Director, Applus+ Laboratories

15:15 - 15:20 **Closing remarks**



Norwegian Tunnel Safety Cluster

The Norwegian Tunnel Safety Cluster (NTSC) was incorporated into the Norwegian Innovation Clusters (NIC) programme in June 2016, and formally established in November of the same year.

The objective of the Arena cluster is to boost its member companies' opportunities to commercialise innovative solutions for improved tunnel safety.

The goal is to develop a sustainable and innovative cluster for companies with the aim of commercialising solutions for improved tunnel safety in Norwegian and international markets. This will contribute towards safer tunnels and fewer accidents, which is vital to road users, the fire and rescue services, the transport sector and local communities everywhere.

Find out more at www.tunnelcluster.com

**Welcome back to Norwegian
Tunnel Safety Conference in 2019.**

Autumn 2019