

Contents

1. Message from the Chairman.....	1
2. Report of the ITA COSUF Workshop in Prague, 30 September 2013	2
3. ITA COSUF Award 2014 is open for candidates!	2
4. Symposium ISTSS 2014 endorsed by ITA COSUF.....	3
5. Report from the Activity Groups.....	4
6. Future ITA COSUF events	5
7. ITA COSUF member introduction: Norwegian Public Roads Administration (NPRA).....	6

1. Message from the Chairman



Dear friends,

This is the last newsletter of this year. Consequently, it brings a short look back to the last months but we will also have an outlook to the coming year and what it will bring to ITA COSUF.

In section 2 you will read about our successful private ITA COSUF workshop in Prague, which was perfectly organised by Jiri Smolik, Lukáš Rákosník and other Czech colleagues. I would like to thank them once again for their efforts and their kind invitation.

ITA COSUF aims at a widespread adoption of best practices in the field of safety and security underground. Consequently, we need to develop the culture and know-how of practitioners and scientists. Like in previous years, we wish to attract the interest of the new generations of professionals on safety and security of underground facilities. Therefore, the Steering Board has decided to award the established COSUF prize also in 2014. In section 3 you can read how candidates can apply.

Then I would like to point your attention to the 6th International Symposium on Tunnel Safety and Security in Marseille, 12-14th March, 2014 organised by SP Technical Research Institute of Sweden (see section 4). Haukur Ingason (who is also a COSUF Steering Board Member as you know) and many others have been working hard to make this conference successful and I am very confident that they will succeed. ITA COSUF is an honorary sponsor of this event and I highly recommend it to all of you.

With regard to activities in 2014: Activity Group 4 is preparing the 3rd European Forum of Road Tunnel Safety Officers in March 2014, co-organised with the European Commission and PIARC like the two previous ones. The title is *Tunnel safety: a joint effort*.

In the second quarter of 2014 another ITA COSUF Workshop will be organised. The exact date and venue will be decided on short notice and we will inform ITA COSUF members as soon as possible.

So close to the end of this year, all Steering Board members and I would like to take the opportunity to thank you for the support and the cooperation of ITA COSUF in the past twelve months and we wish you good health and a – professionally and personally – happy and prosperous New Year.

Yours,

Roland Leucker - ITA COSUF Chairman



2. Report of the ITA COSUF Workshop in Prague, 30 September 2013

On 30th September another ITA COSUF Workshop took place at the Road Tunnel Complex Blanka in Prague. The largest underground construction in the Czech Republic is being carried out within the completion of the North-West section of the City Ring Road in Prague. Approximately 25 participants were present.

First of all, three lectures were given on operational safety, improving the level of safety using control systems and its algorithms and finally on the optimization of the ventilation system. After a brief discussion the audience had a drive through the tunnel including a visit of the main ventilation machinery room and the duct shafts.

The visit gave a very interesting insight into how the construction of tunnels in the Czech Republic, and how safety and security is maintained in with the tunnel systems. The next day after the workshop the ITA COSUF Activity Group Meetings took place at the House of the Technical Societies very close to the Karl's Brücke (Charles' bridge) in ancient Prague.



3. ITA COSUF Award 2014 is open for candidates!

"ITA COSUF aims at a widespread adoption of best practices in the field of safety and security underground. Consequently we need to develop the culture and know-how of practitioners and scientists. Like in previous years, we wish to attract the interest of the new generations of professionals on safety and security of underground facilities" said ITA COSUF chairman Roland Leucker in the introduction of this Newsletter, commenting the Steering Board decision to award the 2014 COSUF prize.



Any other information, including contents of the application file, is available on the COSUF website <http://cosuf.ita-aites.org/>. The application in English language must be received by the ITA secretariat by 28 February 2014.

Who can apply

Students, young professionals or researchers (less than 35 years old) are eligible if they have recently (in the last 2 years) completed a research work in theory and/or practice in the area of operational safety or security of underground facilities. Applicants need not be ITA COSUF members.

The prize

Together with the award certificate, ITA COSUF shall grant the winner travel and accommodation costs to attend the award ceremony and a 1000 Euro prize.

The award ceremony

The ITA COSUF Award 2014 will be presented in the 2nd quarter of 2014 during the ITA COSUF Workshop for which date and venue will be set on short notice. The winner shall have the opportunity to present his/her own work during a plenary session of the workshop, which will take place during the ITA World Tunnel Congress.

The deadline

4. Symposium ISTSS 2014 endorsed by ITA COSUF



As an Honorary Sponsor ITA COSUF is enjoying exposure at the 6th International conference ISTSS – International Symposium on Tunnel Safety and Security which will be held in Marseille, France, 12-14th March, 2014.

Safety and Security have been high on the scientific agenda for decades, no more so than after the tragic attacks of nine-eleven in New York. The success of the International Symposium on Tunnel Safety and Security (ISTSS) is a tribute to the pressing need for continued international research and dialogue on these issues, perhaps in particular connected to complex infrastructure such as tunnels and tunnel networks. Organiser SP has been able to establish a regular ISTSS tunnel symposium that normally attracts over 200 delegates from all parts of the world.

Tunnel safety and security is a challenge for both private and public sectors. The 6th ISTSS symposium provides a forum over 2½ days to discuss current practice and emerging trends and research in the field of tunnel safety and security. Each day will be opened by invited Keynote Speakers, leaders in their field, providing an overview of their topic of expertise as an introduction to the themes of the day. Save the date and register via <http://www.istss.se>.



5. Report from the Activity Groups

AG1 Interaction with European and international initiatives

During the last meeting the output and activities of AG1 were brought in line with the general ITA COSUF mission statement. The main focus of AG1 will be on liaising with relevant initiatives on operational safety of underground facilities. The corresponding activities are the creation of a dynamic list with potential initiatives and proposals if and how to liaise (e.g. PIARC, ISTSS2014, ITA Tech, ITA CUS) and to promote COSUF as a major stakeholder at conferences and other networking platforms. Besides our communication plan will be followed, meaning that newsletters will be issued, the ITA COSUF Award will be opened annually, and the content of the website will be actual. AG1 will also contribute to COSUF review reports on research reports that demand comments of individual COSUF members.

AG2 Regulations and best practises

During the last months AG2 has been working on the various following topics. First of all, recommendations for layout of human machine interface of SCADA systems (Interface between operator and system – user system) have been established and a first draft of this guideline is to be finished in Q1 2014. Secondly, an engineering methodology for performance-based fire safety design of underground rail systems was launched (and also posted on <http://cosuf.ita-aites.org>) and a first version of the guideline will be finished at the end of 2013. The update of the previous survey of existing regulations and recognized recommendations for road tunnels will be initiated in 2013. In 2014 a plan that will lead to recommendations for handicapped people in emergency situations will be worked out. Further topics are under consideration in AG2.

AG3 Research and new findings

AG3 is working on the latest research projects and their results with regard to safety and security of underground infrastructure. AG3 is currently preparing a list of possible research topics, aiming for the upcoming Horizon 2020 call. Besides, AG3 is initiating external R&D assignments, not as research projects coming out of COSUF but as ideas that we bring up within AG3 and then try to bring partners together in the course of bachelor and master theses. One example is taking a look at concrete spalling during tunnel fires and how they can be stochastically predicted. This new approach of bringing partners together will be a more vivid part of AG3 in the upcoming months

AG4 European Tunnel Safety Officers

AG4 aims to be the Platform for European Tunnel Safety Officers for exchange of experiences through its bi-annual forum and development of best practices. At this moment all effort is put into organising the 3rd Forum for European Tunnel Safety Officers that will take place on March 27 & 28 in Luxembourg. The theme of this forum is: "Tunnel safety: a joint effort" and it will be a two day event including an informal welcome on Wednesday late afternoon. The programme will include a visit to the Central Highway Control Centre in Luxembourg (Wednesday, March 26th, late in the afternoon). A plenary session of which the main topic is "Multi disciplinary exercise" with a key note on "The inertia of decision making" and three presentations (Thursday, March 27th morning), a visit to the Grouft tunnel (Thursday, March 27th afternoon), three workshops on various topics and an evaluation of the event (Friday, March 28th). The Forum will be organised in cooperation with the EU committee on Road Safety and PIARC.



6. Future ITA COSUF events

ITA COSUF workshops and activity group meetings

Spring 2014

ITA COSUF Workshop (the exact date and venue has not been decided at this moment and we will inform ITA COSUF members you as soon as possible)

Other events organised or endorsed by ITA COSUF

12–14th March 2014

[6th International Symposium on Tunnel Safety and Security, Marseille, France](#)

Tunnel safety and security is a challenge for both private and public sectors. ISTSS provides a forum over 2½ days to discuss current practice and emerging trends and research in the field of tunnel safety and security. Each day will be opened by invited Keynote Speakers, leaders in their field, providing an overview of their topic of expertise as an introduction to the themes of the day.



26–28th March 2014

3rd European Forum of Road Tunnel Safety Officers in Luxembourg.

AG4 is currently preparing this 3rd Forum, which is co-organised with the European Commission and PIARC like the two previous ones. The theme is: “Tunnel safety: a joint effort”. The programme will include a visit to the Central Highway Control Centre in Luxembourg and a visit to the Grouft tunnel

For all enquiries to ITA COSUF membership please contact Ben van den Horn: ben.vandenhorn@arcadis.nl



7. ITA COSUF member introduction: Norwegian Public Roads Administration (NPRA)

The Norwegian Public Roads Administration (NPRA) is responsible for the planning, construction and operation of the national and county road networks, vehicle inspection and requirements, driver training and licensing.

Norway is a tunnel country. Norway has the most to offer, the longest, deepest, urban tunnels and tunnels that are far from people and cities. There are currently 1070 - 1080 road tunnels in Norway. 490 tunnels are over 500 meters, 140 are over 2 km long. Over 30 tunnels are subsea tunnels. In 2013, 60-70 road tunnels are under construction. Many more are under planning.

A lot happens in Norway these days. Many activities in research and development of methodology and performance of construction of tunnel projects, and also record-breaking tunnels in a challenging Norwegian landscape will be built in the near future.

There is also research and development in the management of road tunnels, especially in terms of security management and physical measures in an existent infrastructure. Report on "Vehicle fires in Norwegian road tunnels 2008-2011" is an example of such research. This is followed up by further reports to uncover challenges in road tunnels.

Norway has just completed work on developing new strategies for tunnels. This work is followed up with several new development activities.

"Durable structures" is a four-year research and development programme of the Norwegian Public Roads Administration (NPRA). The programme focuses on the critical structures in the road network; bridges and tunnels, and aims to ensure that the right materials and products are used correctly in the NPRA structures. The programme period is 2012-2015.



Bu tunnel.

Contact:

Arild Petter Sovik

Senior Principal Engineer

Road Management and development, Roads and transport Department

Norwegian Public Road Administration (NPRA)

Phone: +47 95088793

E-mail: arild.sovik@vegvesen.n

The Hardanger bridge is a 2 lane suspension bridge that opened in August 2013. The bridge will have a main span of 1310 m and a total length of 1380 m. The bridge towers will elevate to 200 m above sea level. The project also includes 2,7 km of new tunnels and upgrading 7.5 km of existing tunnel.

The connection in each end to the existing roads is with roundabouts. The roundabout on the north side is inside the existing Vallavik tunnel, and on the south side the roundabout is inside the new