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1. Message from the Chairman

Dear members of ITA COSUF,

Time is flying and we are already in the second half of the year. I hope you all could enjoy a nice summer vacation so that you are full of energy for the remaining 4 months.

We would be more than pleased if some of this energy will be dedicated to your membership in ITA COSUF as we also have planned activities within our committee. The workshop in Stockholm, 19-20 October 2010 is for instance such an activity on which we invite you to participate; I am sure the Activity Group Leaders will prepare interesting sessions. And there will be more than just a session as you may find in the next section of this newsletter.

This newsletter also gives a look back to the workshop in Frankfurt which was very interesting because it also included presentations on risk assessment in other industries than ours. I personally remember well the lively discussions we had and this is a clear positive indicator for me: lively discussions are a proof that the presentations could stir up thoughts and reflections, pros and cons. And in Frankfurt we had quite many lively discussions.

The most significant progress ITA COSUF was able to do within the last couple of months was certainly the establishment of a fourth Activity Group. Last November, ITA COSUF organised the first Forum for Road Tunnel Safety Officers in Lyon in parallel to our annual workshop. The forum was very well attended by a large number of road tunnel safety officers from all over Europe who clearly expressed the need for such a platform. Based on this positive feedback, ITA COSUF initiated the establishment of the fourth Activity Group which was approved by ITA in May this year. For ITA COSUF this means a step forward in the fulfilment of its mission and we are more than pleased with this progress.

So you see, dear member of ITA COSUF we are slowly but surely gaining ground. I would like to use this newsletter to thank all those of you who have actively contributed and participated in the development of ITA COSUF.

Looking forward to seeing you in Stockholm in October,

Felix Amberg



2. ITA COSUF Workshop in Stockholm, 19-20 October 2010

Currently we are organising this year's 'internal' workshop which will be held in Stockholm on 19 and 20 October. On the occasion of this workshop the ITA COSUF-prize will be awarded for the second time to a young professional for an outstanding contribution in the field of safety and security of underground facilities.

We will apply the well-known formula and introduce a technical visit as a new element. There will be, of course, meetings of the Activity Groups. Your AG-leader will inform you about the workshop and the agenda of the AG-meeting.

Jointly with the Swedish Transport Administration a visit to the Citybanan will be organised and we will get an insight look into safety and security of this public transport system (for further information you may visit <http://www.trafikverket.se/citybanan>) We are convinced that our Swedish friends (Bernt Freiholtz and his colleagues) will do an excellent job to make this visit interesting.

So do not miss this opportunity moreover since you may combine it with the Seminar on Tunnel Safety which will be organised by the Nordic Road Association and which will take place on 20 (afternoon) and 21 October. The combination of these two events certainly makes it worthwhile to travel to Stockholm.

We are looking forward to welcoming many of you.

3. New ITA COSUF Activity Group in preparation

The new ITA COSUF Activity Group for Road Tunnel Safety Officers will be launched before the end of 2010. The Road Tunnel Safety Officers Forum on 4 and 5 November 2009 in Lyon was the first European Forum of Road Tunnel Safety Officers since the European Directive 2004/54/EC was introduced. This forum was very successful and attended by 45 Safety Officers from 18 EU member states. As we mentioned in a previous Newsletter, it was concluded at the Forum that further work would be needed. We are pleased that a more permanent follow-up will be established in ITA COSUF Activity Group 4 for Road Tunnel Safety Officers. AG4 will facilitate discussions on all relevant topics for Safety Officers, to direct new initiatives for new guidelines to support their duties and responsibilities.

Mr Alain Picard (Groupe Autoroutes Paris-Rhin-Rhône) will chair the Activity Group. His first job will be the recruitment of AG4 members based on a list of around 150 European road tunnel safety officers.

4. ITA COSUF Workshop on Risk Assessment – a state-of-the-art approach to deal with safety in underground facilities in Frankfurt, 8 June 2010

This ITA-COSUF Workshop at the InterCity Airport Hotel attracted 40 participants from 13 different countries. After a warm welcome by ITA-COSUF chairman Felix Amberg, Prof Ben Ale (Delft University of Technology, Safety Science and Disaster Management) held a key note lecture on risk analysis and risk policy.



He showed that risk has been with society for ages and that risk acceptability is a political issue: there is no law of nature about what risk is acceptable. Neither is risk acceptability constant in time or place. And zero risk is never accepted, so there always remains the potential for a disaster. Facing this reality is a challenge: scientifically, technically, politically, morally and ethically.



The first session was chaired by Ben van den Horn and dedicated to the principles and tools of risk assessment for underground facilities in operation. Christoph Zulauf showed an overview of methods for risk analysis and risk evaluation for road tunnels based upon the preliminary results of PIARC (World Road Association) working group TC4.2 "Road Tunnel Safety". Matthias Wehner presented a Quantitative Risk Assessment according to RABT and Niels Peter Høj reported the results of an attempt to benchmark a selection of available risk analysis methods to a test tunnel. It appeared that the motivation of this work was to prepare the right framework and starting points for a possible future benchmarking of road tunnel risk analysis programmes organised by ITA COSUF. This preliminary comparison showed that a great deal of discussion and interaction is to be done in order to reach consensus about how risk analysis models should be set-up and used.

The second session on risk-based decision-making was chaired by Peter Reinke. Ben van den Horn promoted an integrated approach to assess safety at all stages of the life of Dutch underground metro systems. Risk analysis is the core of this approach; insight was given in how safety decisions



like whether or not to invest in certain safety features for an existing metro system in Amsterdam have been underpinned by risk analysis. Bernt Freiholtz presented Risk Based Planning and Design and the Acceptance Criteria in Sweden. He concluded that many regulations prescribe the use of risk analysis, but not in a harmonized way. He supports the idea of including cost-benefit tools that include LCC-aspects in risk analysis as well as to develop guidelines for risk evaluation. Jochen Köhler showed that civil engineers support decisions and that large values (monetary, intangible) are at stake. Each decision is associated with uncertainties, risk assessment requires an adequate system understanding and a transparent system representation and a rigorous approach is necessary to accommodate the basis for these important decisions. This was illustrated in the presentation of a tunnel risk example.

The third session on Risk Management was chaired by Jos Wessels. He himself took care of the first presentation on explosions and tunnels in urban areas: how to manage the risk? He addressed the problem that there are no limits to risk-carrying activities – like transport of explosive goods in underground infrastructure - in densely-populated areas in the Netherlands. Nevertheless, more research is needed to improve models to predict loads and structural response. Jos also supported the precautionary principle for policy makers, like don't build upon an ADR Category A tunnel.

Ralf Mock went into risk analysis in nuclear power plants and what ITA COSUF can learn from it for tunnel risk management, like safety culture and defence-in-depth principles.

Didier Lacroix focussed in his presentation on Dangerous Goods through Road Tunnels: new European legislation and risk assessment practice in Alpine countries. He concluded that harmonisation of regulations for dangerous goods is a major step forward Differences between countries reflect different national risk cultures. Therefore, harmonisation of risk methods is not envisaged.

The workshop had lively discussions. The presentations will be made available soon.

5. ITA COSUF member FOGTEC wins UITP award

During the 58th UITP World Congress 2009 in Vienna ITA COSUF member FOGTEC Brandschutz GmbH & Co KG (Cologne) received the UITP award for the most innovative product for small and medium sized companies. UITP (International Association for Public Transport) stated that particularly small and medium sized companies in the sub supplier industry bring new ideas and innovations forward to the public transport market.



FOGTEC received the award for their innovative systems and integrated approaches in the field of public passenger transport. Mr Roger Dirksmeier, the rail systems product manager, got the honour to receive the prize from the UITP president Mr Roberto Cavaliere. Dirksmeier: 'Our approach comprises a complete and over-all fire protection concept. By using our system technology as on-board systems in vehicles for public transport in the cities the operator could get the acceptance from the approval body to reduce the fire scenario for the approval of the underground stations. In that case they could reduce the needed measures on infrastructure side, which help to reduce costs especially in older stations, which have to be refurbished.' With its RAIL Systems Team, FOGTEC is one of the leading providers of technical equipment for fire protections solutions for rail vehicles. The FOGTEC product portfolio comprises all important components of fire alarm technology, fire-fighting and marginal and supplementary products in rail-traffic approved design. Included also are those applications that are subject to raised performance standards (e.g. safety integrity level).

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6. ITA COSUF member introduction

ATKINS

Atkins is involved at the forefront of developments in tunnel safety standards and practice at an international level and actively supports the work of COSUF (Committee on Operational Safety of Underground Facilities) where Atkins' Principal Engineer Stig Ravn co-leads the COSUF Activity Group 2 dealing with Regulation and Best Practice. Part of the motivation for undertaking this role is that uniquely amongst consultants Atkins operate a number of Trans-European Road Network (TERN) tunnels, as well as designing solutions across a number of UK and international tunnels. The work undertaken by COSUF for the operational safety of tunnels, fostering of innovation and the work for best practice is very much in line with the holistic and integrated approach Atkins takes to tunnel projects.

Atkins - Overview

Atkins is the UK's largest engineering and design consultancy and the world's 11th largest design firm. We have the depth and breadth of expertise to respond to the most technically challenging and time-critical infrastructure projects, providing practical solutions to the most complex challenges for clients in a number of markets.

We plan, design and enable solutions.

The Atkins tunnel team includes an expert tunnel safety group that is currently engaged in design and analysis for road, rail and metro safety projects in the UK and internationally. Some of the current and recent prestigious projects the Atkins Tunnel team have been responsible for include:

- Gautrain Rail Link (South Africa)
- Crossrail (UK)
- Dubai Metro (UAE)

Through Atkins work on the international committees of COSUF, PIARC (World Road Association) and BHRG (British Hydraulics Research Group), the Atkins tunnel safety group contributes significantly to international developments in tunnel safety and the drive to optimise and harmonise safety improvements in tunnels.

Contact

If you would like to learn more about the services and products of ATKINS related to tunnel operational safety, please contact:

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