



CTIF Tunnel Fire Working Group - virtual meeting

30.05.2024 -Virtual

Record of the meeting:

<https://ncs.hzsmsk.cz/s/gxJgfALHRXSRQkj>

Meeting agenda

AGENDA

1. Opening of the meeting
2. Responsibility for the group
3. Internal activities in countries
4. Lessons learned – exchange of experience
5. Discussion
6. Opportunities for collaboration
7. Next meeting plan
8. Conclusion

1. Introduction, consent to record

The meeting of the working group was opened by the Vice-President of the CTIF Martin Nekula, who welcomed the participating members. The president of CTIF Milan Dubravac greeted the participants of the meeting with the short foreword. The president thanked the members for the participation in the working group and he emphasized the importance of this group as it is very relevant technical commission and the issue of tunnels represents one of the biggest challenges for the firefighters worldwide.

Martin stated that he had a discussion with his colleagues in the Czech Republic and that they are interested in new information and opinions regarding this group. It is important to have feedback from the other countries, it is necessary to share experience in order to elevate the issue of tunnels.

Participants agreed with the recording of the virtual meeting.

Approval of the agenda

The agenda was approved by the participating members.



Roll call of participants and overview of participants

Martin Nekula – Czech Republic

- A member of the Fire Rescue Service of the Moravian-Silesian Region, the Vice-President of the Czech Association of Fire Officers and he is also the Vice-President of the CTIF.

Ole J. Hansen – Norway

- Ole served at the Rescue and Firefighting Department at the Oslo Airport and had also worked in the municipal fire and rescue services for many years and at the fire academy. Now he serves as a consultant. Ole currently holds the position of the senior advisor in the field of rescue and firefighting. He served as the Vice-President of CTIF 2015 - 2023.
- Norway is very interested in this special topic as there are many tunnels in Norway, maybe the most in the world. In Norway there were also some serious incidents regarding fires in the tunnels. He joined the board in this working group as its secretary in the past.

Peter Sjøe – Denmark

- A director of one of the national fire brigades. A tunnel has been being built between Denmark and Germany, it will be two tubes for the vehicles and two for the railways. It is very special because the preparedness of the fire brigades of the two nations has to be coordinated and they have to work very closely together and work as one fire brigade. The first incident commander is in charge wherever he comes from Germany or Denmark. It is a new form of two countries working together for an incident. Experience from the other countries would be very valuable.

Martin Pliska – Czech Republic

- A member of the Fire Rescue Service of the Moravian-Silesian Region. A head of the fire prevention department. Among his responsibility belong tunnels and other buildings as well.

Per Arne Lindvik - Norway

- From the industrial fire department. He has been studying fire technology and is an assistant professor at the university where he educates fire engineers. They deal with the issue of fires in tunnels in Norway. There are new tunnels built every year in Norway, he is also used as a consultant in the issue of tunnels, ventilation, etc.

Joonatan Suosalo - Finland

- He works in Helsinki city rescue department as a fire officer and an incident commander. He is responsible for tunnels and different underground facilities as well as electric vehicles, batteries, storage systems. He is a part of the European fire service tunnel group.



Giordan Denis – France

- His colleague Frederic Dutel was not able to attend this meeting. He is a deputy of the Savoie fire department. There are a lot of tunnels in the area due to the mountains as well as underground facilities. Currently the railway tunnels between France and Italy are being built. Facilities linked with the production of energy.

Michael Halwachs – Austria

- He is a volunteer firefighter, head of the tunnel fire commission in Austria. He works for a construction company building tunnels and is responsible for health and safety, fire safety management, head of the working group of the international tunneling association dealing with health and safety.

Jörg Winkler - Switzerland

- Representing the International fire academy in Switzerland. He is a specialist in designing of training facilities. Participating in CTIF training, education.

2. Responsibility for the group

If someone is interested in this topic and would be willing to take part in the group as a chairman or a secretary, they should provide their CV to Martin Nekula. Martin will ask member countries for the suggestions for the chairman and the secretary. It should be somebody who will be active and willing to lead the group as well as experienced in the area. Peter would consider to be a chairman.

3. Internal activities in countries

In the Czech Republic there is one region where new railways will be built. The Czech Republic could use experience from other countries regarding this issue.

4. Lessons learned

High – speed rail and regulations

- Requirements for high – speed tracks (dry lines, water, communication, ensure train voltage line, procedures – different rules in different countries)
- Questionnaire – research on conditions
- Regulations in the field of tunnel constructions
- Legislation
- Statistic data – possibilities for sharing
- Presentation in order to have comparisons for the member countries

Current approaches to risk assessment in tunnels

- Modern methods and tools for risk analysis
- Integration of risk assessment results into tunnel planning and operation



New technologies in road and rail tunnels

- Innovative materials and construction techniques
- Advanced detection and monitoring systems (e.g. sensors, AI, IoT)
- Automated and intelligent control systems

New road and rail tunnel firefighting capabilities

- In the Czech Republic there are different procedures
- Advanced extinguishing agents and technologies (e.g. water mist, foam extinguishing systems)
- Confined space intervention strategies and tactics
- Firefighter education and training

Technical requirements for the tunnels of the European high-speed system

- Design principles and safety standards
- Special technical equipment of high-speed line tunnels
- Requirements for firefighting in the context of high-speed rail transport

Transnational solutions in the fire rescue services

- Transnational cooperation

Tunnel construction sites

Development of new solutions through EU projects

5. Discussion

All topics are very interesting. Peter thinks that a topic about transnational solutions in fire rescue services should be included, e.g. tunnels between two countries like the UK and France. How to work together on a transnational level.

Martin suggests that next meeting should take place at the end of the year in October and in then it would be appropriate for the group to meet in person in 2025.

Michael suggests location for the meeting in person at the Brenner Base Tunnel. This tunnel is one of the most interesting tunnels in regard with the topic. Peter says that meeting could be also arranged in Denmark at the construction area. Denis also invited members to Lyon-Turin tunnel. Then he proposed a topic regarding tunnel construction sites, especially underground sites. Transnational tunnels have specific regulations, and new solutions from the EU projects. Jörg said that Switzerland has a lot of the intercountry tunnels and a lot of experience with different kind of fire brigade regulations of those tunnels. He also invited group members to Switzerland.



6. Opportunities for collaboration

- Collaboration with the HAZMAT commission of the CTIF is possible.

7. Next meeting plan

Next virtual meeting should take place at the end of the year in October and in then it would be appropriate for the group to meet in person in 2025.

8. Conclusion

Regarding the conclusions the main directions of the group were set up.

Next steps for the group include important tasks, mainly to vote the chairman and the secretary of the working group.

Other issue to deal with is the platform for sharing knowledge, information, documents etc. It will be established on a non-conflict version of software available ideally in all countries.

It was also suggested that meeting should be arranged for the members of the working group to meet in person in 2025 and also the date for next virtual meeting was planned on October.

Contact – email list

Name	Country	Contact
Martin Nekula	Czech Republic	martin.nekula@hzscr.cz
Martin Pliska	Czech Republic	martin.pliska@hzscr.cz
Ole J. Hansen	Norway	olejahansen@gmail.com
Peter Søe	Denmark	petes@lolland.dk
Joonatan Suosalo	Finland	joonatan.suosalo@hel.fi
Denis Giordan	France	dgiordan@sdis73.fr
Per Arne Lindvik	Norway	Perarne@lindviken.no
Michael Halwachs	Austria	michael.halwachs@porr.at
Jörg Winkler	Switzerland	joerg.winkler@ifa-swiss.ch



CTIF Meeting - Tunnels-20240530_115913-Meeting Recording.mp4

CTIF Tunnel Fire Work Group - virtual meeting
30.05.2024 - Virtual

Meeting agenda

AGENDA

1. Opening of the meeting
 - Introduction, consent to record
 - Milan Dubravac - speech by the president of the CTIF
 - Approval of the agenda
 - Roll call of participants and overview of participants
2. Responsibility for the group
 - Chairman, Vice-Chairman and Secretary - proposal
3. Internal activities in countries
4. Lessons learned - exchange of experience
 - High - speed rail and regulations
 - Requirements for high - speed tracks (dry lines, water, communication, ensure train voltage line, procedures)
 - Questionnaire - research on conditions
 - Regulations in the field of tunnel constructions
 - Legislation
 - Statistic data
 - Current approaches to risk assessment in tunnels
 - Modern methods and tools for risk analysis
 - Integration of risk assessment results into tunnel planning and operation
 - New technologies in road and rail tunnels
 - Innovative materials and construction techniques
 - Advanced detection and monitoring systems (e.g., sensors, AI, IoT)
 - Automated and intelligent control systems
 - New road and rail tunnel firefighting capabilities
 - Advanced extinguishing agents and technologies (e.g., water mist, foam extinguishing systems)
 - Confined space intervention strategies and tactics
 - Firefighter education and training
 - Technical requirements for the tunnels of the European high-speed system

Participants: Ole J. Hansen, Suosalo Joonatan, Per Arne Lindvik, Norway, Peter See, CTIF - Milan Dubravac, Piskop Martin, Nekula Martin, GD, GIORDAN ...