

ITA COSUF Workshop

6 December 2023



Digitalization of tunnels

Towards BIM-based operation and maintenance

**Preceded by ITA COSUF Activity Group Meetings and
General Assembly on 5 December 2023**

Venue: –
[Empire Riverside Hotel](#)
Hamburg
Germany

ITA COSUF Internal Meetings

Tuesday 5 December 2023



Venue: BZ-Beraterzentrum & Service GmbH, Hamburg

10:00u – 12:30u: Steering Board Meeting

12:30u – 14:00u: Lunch

14:00u – 16:30u: Activity Group Meetings

16:45u – 17:45u: General Assembly

.15:00



Goal of the Workshop



BIM-related operation and Digital Twins are kind of modern buzzwords when it comes the operation of infrastructure in general and tunnels in special. But while certain owners have already developed “master plans” for the implementation and usage of such tools, people still don’t have a common ground what actually a BIM-related operation means, how it is designed, which functions it should incorporate and what kind of functionality a digital twin needs to have if one would like to run his tunnel operation using it. Also the question arises, how such technical approaches may influence the safety of the tunnel user and if – for instance – tunnel operation centers may become obsolete once all operational procedures are carried out using a DT of the tunnel. Does such an approach make things more complicated, especially from an operator’s point of view, or are these tools delivering valuable features and information that eases the operator’s burden on a daily basis?

In the course of the upcoming workshop ITA-COSUF wants to tackle such questions and give an overview about current initiatives and future developments. A group of international expert in terms of BIM-related operation as well as Digital twins will show how the future could (and will) look like and what possible loopholes we have to avoid. We will close the workshop with a round table discussion that gives all participants the possibility to throw in their thoughts and ideas.



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Preliminary Program



Keynote lectures

10:15h Digital operation of bore platforms - possibilities and obstacles, Bernd Gmeiner, Visco

10:35h Digitalization of tunnels - current developments, Matthias Flora, University Innsbruck

10:55h BIM in tunnelling - Where we are at?, Florent Robert, CETU

11:15h Discussion

11:25h Refreshment Breaks

Digitized Operation of Tunnels - current developments

11:40h What can be done vs. what should be done, Michel Rives, VIANOVA

12:00h IoT radio communication in tunnels – state of the art and developments, Jérôme Buquet, SEE Telecom

12:20h Experiences of BIM applications in Italy, Simone Casa, Finelco

12:40h Go with the Data Flow, Maximizing tunnel operation and maintenance, Ben van den Horn, ARCADIS

13:00h Discussion

13:10h Lunch



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Preliminary Program (continued)



Probable developments - Operation 2.0

14:40h Lifecycle costing in operation, Stephan Engelhardt, FH Munich

15:00h Status report about use of models and digital twins, Jan Christian Thorén, Trafikverket

15:20h Tunnel operation center vs. Digital Twin, Götz Vollmann, RUB

15:40h Discussion

15:50h Refreshment Break

Perspectives and Expectations - Roundtable Discussion

16:10h Part I - In 2030 all tunnels are operated by Digital Twins: pro's and con's, risks and opportunities

16:40h Part II - What do we want to achieve with Digital Twin-based tunnel operation? Next steps, road map

17:10h Discussion

17:20h Closing the ITA-COSUF workshop

map



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www.ita-cosuf.org

Contact

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ALTER ELBTUNNEL

Seit 1901 geplant als Verbindung zwischen St. Pauli, dem Freihafen und den Werften auf Steinwerder.

1907-11 Realisierung durch die Holzmann & Cie Gmbh Frankfurt, architektonische Gestaltung L. Raabe & O. Wöhlecke, keramische Plastik H. Perl.

The "Old Elbe Tunnel" was planned from 1901 onwards, to link St. Pauli, the Free Port, and the Steinwerder shipyards.

It was built in 1907-11, by Holzmann & Cie GmbH Frankfurt, to architectural design by L. Raabe & O. Wöhlecke, with ceramic relief sculptures by H. Perl.

Registration fee for non-COSUF members.

Go to www.ita-cosuf.org/bim for a registration form.

Registration grants a free membership of ITA COSUF for one year

ITA COSUF Workshop on BIM in tunnels

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