

# SHOW TECH

INTERNATIONAL CONGRESS  
THEATRE OF TOMORROW  
7 – 8 JUNE 2023 · STATION BERLIN



## SUSTAINABLY CREATING WORLDS

No conference can turn a blind eye to the topic of sustainability. One thing that is often overlooked is that different people can have different ideas of what this term means. The claim that theatre is in itself sustainable is a truism – otherwise it wouldn't have continued to exist for over 2,500 years. Our shared goal is to develop this art form – which we consider the greatest form of ensemble art – in a way that ensures a CO<sub>2</sub> footprint that is as small as possible. Architects, engineers, lighting operators, mechanical engineers, sound and media people represent a part of the large theatre ensemble that can make a significant contribution. And the SHOWTECH Congress is the current reflection of possibilities, of technical and architectural visions and fantasies, of discussions and inspirations.

Germany has more than 1,000 theatres and a Theatre Technical Association that has been bringing together producers and users of these technologies since 1907. “We Are World Creators” is the confident motto. When questions arise (once again) about the theatre of the future, the world creators from all over the theatre world will have suggestions and answers. After a three-year break due to the COVID-19 pandemic, it will be a celebration to finally meet again in person. Theatre and congresses have at least one thing in common: an exchange, live, analogue, between humans is something that can't be replaced.

On behalf of the DTHG I would like to extend a warm welcome to everyone and wish you a joyful exchange.

Hubert Eckart  
Managing Director  
DTHG Service GmbH

## LOCATION

STATION BERLIN – HALL 5  
1st Floor – Access via roof terrace  
Luckenwalder Straße 4–6  
D–10963 Berlin  
Subway stop: Gleisdreieck

## CONGRESS TIMES

7 JUNE 2023: 14:30 – 18:30  
8 JUNE 2023: 10:00 – 17:00

## GET TOGETHER

7 JUNE 2023: 18:30 – 20:00

## SUSTAINABILITY

While planning and implementing SHOWTECH, we paid close attention to criteria of ecological as well as social sustainability from the very beginning. From the equipment and technology to the catering, travel and accommodation arrangements for everyone involved, we have tried to focus on the topic of sustainability in all planning steps. You can find a detailed description on our website.



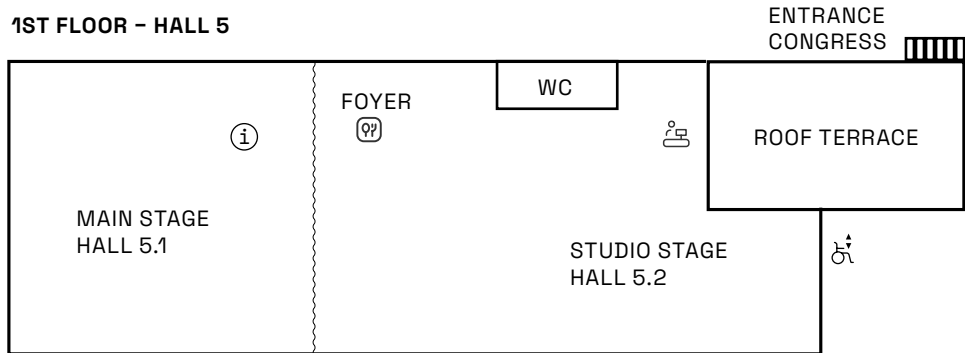
## THANKS & PARTNERS





The SHOWTECH Congress is supported by the Berlin Senate Department for Economics, Energy and Public Enterprises and co-financed by funds from the European Union.

We would like to thank Jörg Schildbach and the staff of Lichtblick as well as the companies KS Audio and HOAC for the setup and technical equipment. Many thanks also to the team at Hauptstadtdolmetscher for the simultaneous interpreting and to the team of STATION Berlin, especially to Ricarda Neißner.



**1ST FLOOR - HALL 5**



 CATERING    
  ADMISSION    
  LIFT    
  DTHG SERVICEPOINT

**MAIN STAGE - HALL 5.1**

Talks and discussions, simultaneous interpretation German/English as well as in sign language if required.

**Main topics:** Architecture, construction and renovation of theatres, sustainability and energy efficiency, new technologies for the theatre

**STUDIO STAGE - HALL 5.2**

Presentations and workshops, no simultaneous interpretation.

**Main topics:** new standards for theatre technology and radio frequencies, innovations in the field of media technology, virtual and augmented reality as well as European education and training in theatre technology.

## 7 JUN 23 | MAIN STAGE

**14:30 – 15:00**

Opening & welcome

**15:00 – 15:45**

Theatre of tomorrow

**15:45 – 16:30**

The Cité du Théâtre in Paris  
(Nieto Sobejano Arquitectos,  
2019 – 2024)

**17:00 – 17:45**

Tanssin Talo – Dance House Helsinki

**17:45 – 18:30**

Volkstheater Rostock – A new building  
for a four-section house

**18:30 – 20:00**

Get-together in the Foyer

## 7 JUN 23 | STUDIO STAGE

**15:00 – 15:45**

Revision of IGWW Quality Standards  
SQP1 “Trusses” and SQP2 “Electric Chain  
Hoists”

**15:45 – 16:30**

Wireless technologies for audio  
production – the influence of  
standardisation and regulation

**17:00 – 17:45**

New standard for stage technology:  
DIN EN 17736:2023-02 – Requirements  
for the design and manufacture of  
aluminium platforms and frames

**8 JUN 23 | MAIN STAGE****10:00 – 10:45**

Why we should use BIM for designing theatres

**10:45 – 11:30**

Saving energy and good ventilation – quick and easy to implement

**11:30 – 12:15**

Sustainability in the theatre:  
Theatre Green Book

**12:15 – 13:00**

StuFF – New material cycles for theatres

**14:00 – 14:45**

Theatre spaces of the future: BWKI speaks about technical challenges

**15:00 – 15:45**

Using video mapping formats in a theatre context

**15:45 – 16:30**

CO<sub>2</sub>e-Management in technical planning: comparing scenarios as a valid basis for decision-making

**16:30 – 17:00**

The advantages of bipolar ionisation in indoor air

**8 JUN 23 | STUDIO STAGE****10:00 – 10:45**

panthea.live – innovative approaches to theatre, opera & performances

**11:00 – 11:45**

XR technologies at the theatre:  
Construction rehearsal and production planning

**12:00 – 13:00**

Finnish National Opera and Ballet:  
Enhancing safety of live performances through virtual reality

**14:00 – 14:30**

„Every day, there is one more day of history“ – a European collaboration on the history of theatre technology

**14:30 – 15:15**

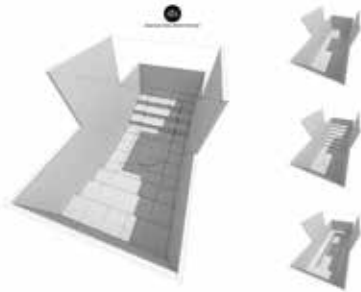
Training in Europe: Technical training as a continuously evolving opportunity

**15:15 – 16:00**

ETTE – European Theatre Technicians Education

## The Theatre of Tomorrow

Theatre buildings of tomorrow



Simple logistics, special architecture, maximum adaptability – this is what one would like the theatre of the future to be like. In their excursion into the theatre building of tomorrow, Wesko Rohde and Sebastian Franssen describe how such a building could function under the standards of the 21<sup>st</sup> century. Flexible technical structures, elaborate stage technology, modular construction methods in the buildings, theatre quarters with short access routes. What will we want to have?



## Wesko Rohde

DTHG e.V.



Wesko Rohde is a certified stage and lighting master and has experience in all areas of theatre work. He currently oversees and manages refurbishment projects of (heritage-protected) event buildings as a freelance consultant. Wesko Rohde is chairman of the board of the DTHG.

## Sebastian Franssen

ARCHITEKTUR.dlx



Sebastian Franssen founded ARCHITEKTUR.DLX in Dortmund in 2005 and is joint managing director with Markus Stratmann. Since 2022 he has been working as a Consulting Architect for the Theater Dortmund. From 1998 to 2008 he worked as project manager for BKB Architekten in Essen. He completed his diploma studies in architecture and urban planning at the TU Dortmund University.

## **Reworking the IGWW quality standards**

SQP1 “Trusses” and SQP2 “Electric chain hoists”

With the publication of DIN EN 17115 “Event technology – requirements for the design and manufacturing of aluminium and steel trusses” in 2018 and DIN EN 17206 “Event technology – machinery for stages and other production areas – safety requirements and testing” in 2020, the national IGWW SQP1 and SQP2 leaflets, which referred to the now replaced national standards, had to be revised. This presentation shows the most important changes that have proved to be mandatory or are based on experience with the two standards in daily practice.

## Dipl.-Ing. Matthias Moeller

SIXTY82 BV



Matthias Moeller is Senior Technical Officer of the Dutch truss and stage manufacturer SIXTY82 B.V. and authorised expert for the testing of mechanical work equipment in event technology. Since 2006, he has been the DTHG board representative for rigging and flying constructions and has represented DTHG in the IGWV since its constitution in 2007, currently as chairman of the IGWV expert committee for quality standards FAQs. He is chairman of WG2 “Work Equipment and Installations” in CEN TC433 “Entertainment Technology” and an expert in the associated national mirror committee DIN NA 149-00-06 AA “Work Equipment and Installations” as well as DIN NA 149-00-05 AA “Machinery” and DIN NA 005-11-15 AA “Flying Structures”. Since 2021, he has been the provisional head of the IGWV specialist groups SQP1 and SQP2.

## The Cité du Théâtre in Paris

Nieto Sobejano Arquitectos, 2019–2024



The Cité du Théâtre is one of the most important projects of Grand Paris, Greater Paris, which is scheduled for completion in 2024. The competition for it was won by the architectural firm Nieto Sobejano Arquitectos. In his lecture, Enrique Sobejano reports on the project to create new scenic spaces for three prestigious theatre institutions in the Ateliers Berthier built by Charles Garnier in 1895: the Comédie-Française, the Conservatoire National Supérieur d'Art Dramatique (CNSAD) and the Théâtre National de l'Odéon – Théâtre de l'Europe.

## Enrique Sobejano

Nieto Sobejano Arquitectos



Enrique Sobejano has been working as an architect since he completed his studies at the Polytechnic University of Madrid (UPM) and Columbia University in New York City in 1983. He is a professor at the Universität der Künste in Berlin, where he holds the chair for Experimental Design and Foundations of Design. Sobejano is a guest critic and gives lectures at numerous universities worldwide. From 1986 to 1991, he was co-editor of the architectural journal ARQUITECTURA of the Colegio Oficial de Arquitectos de Madrid. Nieto Sobejano Arquitectos was founded in 1985 by Fuensanta Nieto and Enrique Sobejano and is based in Madrid and Berlin.

## **Wireless technologies for audio production**

The influence of standardisation and regulation

The demand for wireless audio production tools such as wireless microphones and in-ear monitoring is increasing at the same rate as the number, size and complexity of event productions grow. There is no one-size-fits-all solution, and vendor-specific solutions will continue to lead and challenge the development, standardisation and regulation of wireless technologies, not just in wireless audio production.

## Dr. Andreas Wilzeck

Sennheiser electronic GmbH & Co. KG



Dr Andreas Wilzeck has been the Head of “Frequency Policy and Standardisation” at Sennheiser electronic GmbH & Co. KG since 2018. He holds a PhD in wireless communication technology from the Faculty of Electrical Engineering and Computer Science at the Gottfried Wilhelm Leibniz University of Hanover and has been active in the standardisation and regulation of radio solutions for more than 10 years – including in committees of ETSI, 3GPP, CEPT and ITU-R. In ETSI, he is vice-chairman of ETSI TC DECT and was involved in the technical evaluations on IMT-2020 (5G).

## Tanssin Talo

Dance House Helsinki



Tanssin Talo (Dance House Helsinki) is the first event and performance venue in Finland dedicated solely to dance. It opened in February 2022 and is located in the Cable Factory, a cultural hub in the Ruoholahti district of central Helsinki. A space dedicated to dance is a dream that has lived in the hearts of Finnish dancers for decades. The idea was first expressed in 1932, in a newspaper article by Maggie Gripenberg, a pioneer of modern dance in Finland, but it took 90 years for this dream to become a reality.



## Petteri Laukkanen

Dance House Helsinki



Petteri Laukkanen (Bachelor of Arts, Live Performance Technology) has been Technical Director since August 2020. Previously, Laukkanen worked as an assistant stage manager at the Finnish National Opera and the Finnish National Ballet. In addition to numerous dance and performing arts productions, Laukkanen has also worked on renewal projects in the field of performance technology. Laukkanen has also been an entrepreneur in the fields of performing arts, music and media technology.

## **New standard for stage technology: DIN EN 17736:2023-02**

Requirements for the design and production of aluminium platforms and frames

The European standard EN 17736 “Entertainment technology – Requirements for the design and production of aluminium stage decks and frames” specifies the requirements for the design and production of aluminium stage decks and frames used in the entertainment industry. It was developed on the basis of the previous requirements of DIN 15921:2015-09 and will replace this national standard no later than after the DOW phase in August 2023.

## Dipl.-Ing. Matthias Moeller

SIXTY82 BV



Matthias Moeller is Senior Technical Officer of the Dutch truss and stage manufacturer SIXTY82 B.V. and authorised expert for the testing of mechanical work equipment in event technology. Since 2006, he has been the DTHG board representative for rigging and flying constructions and has represented DTHG in the IGWV since its constitution in 2007, currently as chairman of the IGWV expert committee for quality standards FAQs. He is chairman of WG2 “Work Equipment and Installations” in CEN TC433 “Entertainment Technology” and an expert in the associated national mirror committee DIN NA 149-00-06 AA “Work Equipment and Installations” as well as DIN NA 149-00-05 AA “Machinery” and DIN NA 005-11-15 AA “Flying Structures”. Since 2021, he has been the provisional head of the IGWV specialist groups SQP1 and SQP2.

## Volkstheater Rostock

A new building for a four-section house

The new theatre in the Hanseatic and University City of Rostock will be a four-section theatre with state-of-the-art stage technology and versatile performance possibilities. It will enter into a dialogue with the historical buildings on Lange Straße, but at the same time set a self-confident architectural accent that befits the significance of the new building.

The following short presentations will provide an insight into the development of the new building:

- History of the competition for a new theatre building in the Hanseatic City of Rostock (Olaf Grambow)
- Presentation of the planned project from an architectural point of view by the architects (Hascher Jehle Architektur Berlin)
- Presentation of the spatial structure, special features of the main stage, rehearsal stages and logistics (Olaf Grambow)
- Acoustics, lines of sight, orchestra pit (Michael Prüfer, Müller-BBM Building Solutions GmbH)
- Approaches to the fire protection concept (Sachverständigenbüro Arnhold)

## **Olaf Grambow**

Deutsches Theater Berlin



Olaf Grambow was born in Rostock in 1965 and worked as a journeyman after training as a carpenter. He was a prop master and technician at the Landesbühnen Sachsen Dresden from 1986 to 1987; stage technician at the Deutsches Theater Berlin from 1987 to 1992 and trained as a stage manager. From 1992 to 1996, he was Head of the Stage Technology Department and Deputy Technical Director at the Volksbühne Berlin and from 1992 to 2003 Technical Director at the Maxim Gorki Theatre. Since 2003, he has been Technical Director at Deutsches Theater Berlin.

## **Why we should use BIM for designing theatres**

### Building Information Management (BIM) Technology

This presentation explores the use of Building Information Management (BIM) technology by the theatre consultant, contractor and integrator and why it should be used in the theatrical design process. BIM technology, particularly Autodesk Revit, is becoming the standard method for documenting construction project design, from the initial concept through to the handover to the client and end user. The ability to share 3D designs through a shared platform opens up new opportunities for the theatre consultant to guide a project in the right direction and ensure that the client's theatrical requirements are understood and implemented by the rest of the project team. This presentation will show how key theatrical design concepts are communicated early in the project and how the BIM environment is used to delineate scope and design responsibilities between project team members. It also will also demonstrate how space is maintained within the geometric building model for key theatrical systems to avoid overlap and ensure the correct relationship between theatrical and other building systems.

**Chris Dales**

Charcoalblue



Chris Dales has a degree in aerospace engineering. He has extensive experience in theatre consulting and specialises in the design of lighting, seating and staging systems. His consultancy work with Charcoalblue includes clients such as the Royal Liverpool Philharmonic, the Royal Birmingham Conservatoire and the Linbury Theatre at the Royal Opera House.

**Paul Halter**

Charcoalblue



Paul Halter has worked in theatre technology for over 30 years, initially as a stage carpenter and engineer before moving into construction management, project planning and structural design. Paul joins Charcoalblue from the National Theatre where he was a project sketcher for five years, drawing mainly for the Olivier Theatre.

## **panthea.live**

Innovative approaches to theatre, opera & performances

The art of building individual bridges and establishing accessibility as a standard by using modern technology.

Imagine you are sitting in the theatre and you do not understand the language spoken on stage. Beside you in a row sits a deaf person, a blind person, a person with learning difficulties and a person with low literacy skills, a child for example. And each of these people, by using individual devices, can choose a medium through which they can follow, understand and feel involved in what is happening on stage. In addition to the already established surtitles that we know from international festivals or from the repertoire of major theatres and opera houses, panthea.live offers the possibility of playing different language tracks simultaneously with precision. This even applies to pre-produced sign language interpretation and audio description. All content is driven by a single person. This finally facilitates regular and sustainable access to cultural events for a wide variety of visitors. We look forward to diving deeper with you and building a bridge for you too!



## David Maß

PANTHEA



David Maß grew up in a multilingual theatre family. So he had almost no other chance than to take up the profession of surtitled. Until the late 1990s, the field was still very poorly professionalised, and many a guest performance had a hard time trying to make itself understandable to a foreign-language audience. For more than 20 years now, he has been campaigning for surtitling to be recognised as a serious trade in the theatre world. He pursues this cause together with a team of experts at PANTHEA in Berlin, of which he is the managing director together with Anna Kasten. Another office is based in Paris. Together with their partners, they want to advance accessibility in the performing arts for people with and without disabilities in order to attract new audiences – in harmony with existing ones.

## **Saving energy and good ventilation – quick and easy to implement**

The war in Ukraine at the latest has created an urgent need to save energy, also in cultural buildings. Immediate measures are now required, as well as the acquisition of expertise among a company's own staff. Especially the people who work with these facilities on a daily basis usually have a good knowledge of how to adjust them to the needs of the events in the various rooms. But if these facilities are operated by external organisations, such as the municipal building management, it is necessary to change the structural conditions and empower the people on site to handle the facilities. To do this, they must be instructed in the complex connections and trained accordingly. Only on-site knowledge makes it possible to prevent "energy consumption without benefit". The lecturer came up in the building services industry and has also worked in education and research for many years. In doing so, he has remained close enough to the practical side to be able to give concrete recommendations for immediate measures and indications of consequences that must absolutely be observed when saving energy.

## **Prof. Dr. Rüdiger Külpmann**

Berliner Hochschule für Technik, Hochschule Luzern & DTHG



Dr.-Ing. in heating and air-conditioning technology, professor of heating and air-conditioning technology at the Berlin University of Applied Sciences and Arts. Professor at the Lucerne University of Applied Sciences and Arts – Technology & Architecture, Institute for Building and Energy Technology, R&D staff for the area of health and hygiene. R&D areas: Development and qualification of ventilation concepts for hospitals, especially operating theatres. Member of the Hospital Construction and RLT Sections of the German Society for Hospital Hygiene (DGKH), since 2006, guideline contributor: DIN 1946-4, SWKI VA 105-01, VDI 6022. For more than two years, he has been a member of DTHG's team of experts on the subject of ventilation and has been carrying out ventilation-related consultations at German theatres.

## **XR Technologies at the Theatre**

Construction rehearsal and production planning

VR, AR, XR, MR, RR – this lecture explains immersive technologies and their use in a practical manner and clears up false definitions and marketing ideas. How will digitalisation really benefit us in the theatre and where will the challenges lie in the future? What tasks need to be considered in addition to the purchasing of hardware? Technical equipment is not an obstacle – what is more exciting is the question of how to use it efficiently. The main focus will be on immersive production planning with VR and AR. Existing and completed productions will be used to illustrate the advantages and disadvantages of using immersive technologies in everyday theatre.

## Vincent Kaufmann

Specialist Consultant Digitalisation, DTHG Service GmbH



Vincent Kaufmann studied theatre technology at the Berlin University of Applied Sciences. In 2019, he completed an internship semester in technical management at the Burgtheater in Vienna. He works as a lighting designer and technical manager and has already used virtual reality in several productions. After working in the digital.DTHG team, he took over responsibility for the field of digitality and new technologies at DTHG in 2021. In the same year, he was also responsible for the immersive stage planning of the “Pandaemonium” space stage at the Staatstheater Kassel, which has been awarded the “Opus – German Stage Prize” in 2023. Since late 2022, he has been coordinating the workflows at the interface of the theatre world and immersive technology for the new production of Parsifal at the Bayreuth Festival.

## **Sustainability in the theatre**

Theatre Green Book & Best Practices from the industry

One of the most urgent issues of our time is sustainability. Legal requirements and funding criteria require the cultural sector to reflect on basic structures, existing work processes and its own actions and to change them if necessary. However, there is often (in part justified) resistance in the institutions and many do not really know how to tackle this topic. There is a great desire for guidelines that can be easily used in everyday life. The Theatre Green Book offers the ideal guidance for environmentally and socially responsible work in and around the theatre. In three volumes, it lays out the standards for environmentally compatible performances, for the construction and renovation of theatre buildings and for the improvement of operational processes. The guide, which is structured in accordance with the different areas of work, makes it easy to allocate responsibility, while the clear layout with short sections and the division into three levels of intensity make it easy to get started with the topic. Easy-to-achieve goals, a look at current ways of working and into small and big progress should motivate theatres and cultural venues and help them to empower themselves and explore new paths without blindly following rules. Wesko Rohde presents the three volumes of the handbook and clarifies urgent questions about energy saving.

## Wesko Rohde

DTHG e.V.



Wesko Rohde looks back on more than 30 years of theatre work, is a certified stage and lighting manager and has experience in all areas of theatre work. From stage hand at the Nordhausen Theatre to stage inspector at Schauspiel Frankfurt, he has been through many stations and gained experience. Between 2002 and 2017, he worked as Technical Director in Celle and Osnabrück, where he managed refurbishments and conversions as project manager. The Osnabrück Emma Theatre has been a relevant example of good project work since its restoration in December 2015. He currently accompanies and manages refurbishment projects of (heritage-protected) event buildings as a freelance consultant. Wesko Rohde is chairman of the board of the DTHG.

## Finnish National Opera and Ballet

Enhancing safety of live performances through virtual reality



The Finnish National Opera and the Finnish National Ballet are extending the use of their XR stage to areas of workplace safety. They implement accident simulations, safety briefings for new employees and risk analyses for the production and will come to SHOWTECH to report on their experiences and projects. Following the presentation, you will have the opportunity to try out the XR use cases from 13:00 to 13:45.





## **Samuli Nuutinen**

Safety and Security Manager, Finnish National Opera and Ballet. In the area of security for 20 years, including 8 years at the Finnish National Opera. Development enthusiast.



## **Kalle Rasinkangas**

XR 3D specialist, Finnish National Opera and Ballet. Worked with Unreal Engine game engine for 7 years as an artist and developer in performing arts and media arts.



## **Hannu Järvensivu**

XR Stage Project Manager, Finnish National Opera and Ballet. More than 20 years of experience in various positions in telecommunications and information technology.

## StuFF – New material cycles for theatres

StuFF is an open source project initiated by Barbara Ehnes (stage designer and professor of stage and costume design at the HfBK Dresden) and Nadia Fistarol (stage designer and head of the practical field of scenic space at the ZHdK Zurich), with and for all committed theatre professionals and students. The core of the project is a catalogue of materials and a store of knowledge that is intended to be a reference work for sustainable stage design production for the theatre world. Theatre professionals and students are explicitly invited to help drive the process forward and share their experiences and knowledge through StuFF.

Using StuFF as an example, this panel will address the question of how theatres deal with the demand for more sustainability. What impact does this have on daily work processes, especially in the production?

Let's explore the question of whether this might not also be associated with the impetus to locate creative potential and incorporate new impulses into our work.



## **Stefanie Braun**

Head of the Decoration Workshops Staatsoper Hamburg

## **Beate Kahnert**

Technical Director Theater Freiburg

## **Konrad Walkow**

StuFF

## **Luise Weidner**

Technical Director Theater Lübeck (tbc)

## Theatre spaces of the future

BWKI speaks about technical challenges

How can art and technical requirements be combined in today's planned theatres and opera houses? In a competition, all-encompassing technical solutions for multifunctional operation are often required. This reflects the versatile usage of today's theatres and opera houses. But it also becomes clear in discussions with artists that the space should be as playable as possible across the board. This includes stage design, actors and musicians, who are not restricted to the stage area or orchestra pit, but can also be found in the auditorium or other rooms. All of this creates a multitude of technical challenges, which sometimes make it necessary to compromise in order to achieve the best result. How should musical halls be built so that they can be used for a variety of purposes? This lecture by Bühnenplanung Walter Kottke Ingenieure encourages an exchange of ideas regarding innovative spatial solutions such as live electronics, modular stage spaces and orchestra pits.

## Andreas von Graffenried

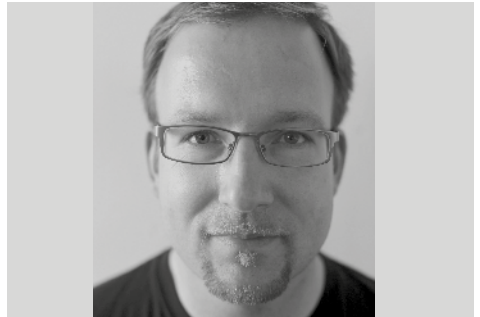
Bühnenplanung Walter Kottke  
Ingenieure GmbH



Dipl.-Ing. (UAS) Andreas von Graffenried has been working at BWKI since 2014 in the fields of project development and management as well as a specialist engineer for theatre and event technology. Previously, he has worked as Deputy Technical Director at the Deutsche Oper Berlin, the Théâtre du Châtelet in Paris and at the Bayreuth Festival.

## Benjamin Neuen

Bühnenplanung Walter Kottke  
Ingenieure GmbH



Benjamin Neuen worked at Kultur am Schloss Ansbach and Theater Heidelberg as a stage manager before joining Studio Hamburg in 2006 as a project manager for theatre and musicals. In 2011/12 he was responsible for set construction management at the ESC in Düsseldorf and Baku and then worked at Stage Entertainment as Technical Production Manager. He has been working at BWKI since 2023.

## **“Every day, there is one more day of history...”**

A European collaboration on the history of theatre technology

15 teachers and 59 students from eight universities and institutions from Belgium, the Czech Republic, Germany, Italy, Spain, Sweden and the UK have developed a “canon” of the history of theatre technology. Funded by Erasmus+, a network has formed which, in addition to the database and an interactive timeline, has developed other tools and methods for teaching: [www.canon-timeline.eu](http://www.canon-timeline.eu). What is our knowledge of the history of technical theatre? Is this knowledge the same in all European countries? Or do we think differently about past inventions, events and developments? How and what do we want to teach?

## Prof. Dr. Bri Newesely

Berliner Hochschule für Technik



Studied fine arts and architecture at UdK Berlin and stage design at Kunsthochschule Weissensee. Since 1996: freelance stage designer, set designer, architect and Technical Director; 2002: licensed as stage manager; 2008: doctorate “Das Bühnenportal im Theater der Gegenwart” (The Stage Portal in Contemporary Theatre). Since 2009: professor at the BHT for Bachelor’s and Master’s degrees in scenography and theatre architecture.

## Chris van Goethem

RITCS School of Arts Brussels



Chris van Goethem is a researcher and lecturer in theatre technology and history at the Belgian Erasmus University in Brussels, RITCS School of Arts. He works in the field of knowledge management, capacity building and organisation of university education programmes on the one hand, and researches the history of technical theatre on the other.

## Training in Europe

Technical training as a continuously evolving opportunity

In which way is storytelling about technical professions and their training evolving? To what extent does digitalisation affect the younger generation's perception of technical professions in live performance? How can mobility provide a concrete response to the demands of the job market? Umberto Bellodi's lecture offers a basis for discussion about skills as well as technical education and training in Europe from a professional perspective.



## **Umberto Bellodi**

Accademia Teatro alla Scala, Milan



Umberto Bellodi was born in 1977 and has been working in the cultural sector since 1996. He heads the stage technology department at the Accademia Teatro alla Scala in Milan and is an advisor to the European Commission's Education and Culture Executive Agency in Brussels. He is also active at the regional and municipal level and manages cultural organisations in southern Lombardy.

## Using video mapping formats

in a theatre context

ReBeam GmbH, founded in Berlin in 2009, was among the first Green AV suppliers for the recycling or reuse of projectors in Europe. Specialising in large-scale and installation projectors, the ReBeam team has many years of expertise in the field of immersive spatial design and video mapping. The company mainly advises theatres, art exhibitions and renowned light festivals in Europe that also use ReBeam projectors. In this lecture, Florian Wilke will give an overview of common solutions for dealing with video as a medium on a theatre stage. The challenges faced by technicians in the development phase of theatre productions and the integration into existing systems are also highlighted and possible solutions are shown. Finally, Florian Wilke presents current software solutions for video manipulation and gives advice on how to realise video projects – from small to large-scale budgets.

## Florian Wilke

ReBeam GmbH



Florian Wilke, master craftsman for event technology, has been working with projectors and video since the turn of the millennium. His focus is on the technical realisation of theatre productions, indoor exhibitions and video mapping in public spaces. Since 2018, he has been working as a consultant for immersive shows at ReBeam GmbH in Berlin.

## **ETTE – European Theatre Technicians Education**

Every person that works on a stage should be able to do so safely and should have a critical attitude towards safety. Unlike other safety courses, ETTE is not about laws and regulations, but about diverse competence and mastering safe working practices. ETTE stands for European Theatre Technicians Education and was developed as part of a European Erasmus Plus project by German (DTHG), Dutch (OSAT, VPT), Swedish (STTF) and Belgian (STEPP, RITCS) partners. The Flemish Social Fund has developed an online course to support employees in obtaining the certificate. The presentation introduces this platform and uses the example of the Metropolia University of Applied Sciences in Helsinki to show how the basics of ETTE can be usefully taught in education and training.



## **Chris van Goethem**

Chris van Goethem is a researcher and lecturer in theatre technology and history at the Erasmus University in Brussels, RITCS School of Arts. He works in the field of knowledge management, capacity building and organisation of university education programmes on the one hand, and researches the history of technical theatre on the other.



## **Katrien De Troyer**

Katrien De Troyer works for the Social Fund for Performing Arts in Flanders. She develops learning platforms and applications and spends most of her time and commitment developing a safety passport for the performing arts and event industry in the framework of a European collaboration (ETTE & ETTEC).



## **Mikko Pirinen**

Mikko Pirinen heads the Live Performance Technology programme at Metropolia University of Applied Sciences in Helsinki. He has been developing and coordinating higher education and professional training programmes in technical theatre and event technology for fifteen years.

## **CO<sub>2</sub>e-Management in technical planning**

Comparing scenarios as a valid basis for decision-making

CO<sub>2</sub>e-balancing is an important pillar of sustainable event planning. But apart from the comprehensive accounting at the end of the project (for possible CO<sub>2</sub>e-compensation), this methodology offers us a great added value in the conception and planning phase to make fact-based decisions. In this presentation, a case study of a real event will be used to show how CO<sub>2</sub>e-balancing can support sustainable decisions in day-to-day planning. Real examples will be used to illustrate the workflow for CO<sub>2</sub>e-calculation and to show the possibilities for automation offered by modern tools. Example of a CO<sub>2</sub>e-comparison study: <https://niyu.de/sustainable-power-supply-concepts>.

## Jonas Krapf

NIYU GmbH



Jonas Krapf works as a project manager and Chief Sustainability Officer at NIYU, a planning and production office. He heads their service department, NIYU.sustainability, and is responsible for both the company's own as well as project-specific sustainability strategies. With qualifications as an engineer for event technology as well as a certified Green Consultant, he combines technical know-how with the holistic sustainable planning and implementation of events. In addition, as a lecturer for sustainability and environmental protection, he trains future master craftsmen for event technology (IHK) and certified prop masters (IHK).

## **The advantages of bipolar ionisation in indoor air**

Describing the effectiveness of a natural process

Hygiene and energy saving are among the key objectives for the future. Bioclimatic has been active in this field for over 40 years. Describing the effectiveness of a natural process: Bipolar ionisation acts directly and without alternative in the air. The risk of infection is drastically reduced. Optimisation of indoor air hygiene through: Inactivation of viruses, bacteria, germs and odours. Learn more about the benefits of this technology, including scientific evidence, practical examples and reliable references.



## **Carsten Feuerhake**

Bioclimatic GmbH



Carsten Feuerhake has been Head of Sales & Marketing at Bioclimatic GmbH in Bad Nenndorf since May 2011. He previously worked as an independent consultant for various business areas. The stations of his career include Baensch GmbH in Bad Nenndorf (Head of Sales, 1983–1996), BMW AG (1996–2007) and Oppermann Druck+Verlag GmbH & Co. KG (2007–2008).

## Andrea Jürges

7 JUN – MAIN STAGE



Foto by Hoffotografen

Andrea Jürges studied architecture at the TU Darmstadt. After graduating, she worked in various architectural offices and worked as a freelance editor for the digital architecture portal BauNetz from 2001 to 2003. She then spent almost 12 years at the European Central Bank (ECB), where she was responsible for all communications for the ECB's new premises, from the competition to the inauguration. Since February 2017, she has been deputy director of the Deutsches Architekturmuseum (DAM)

in Frankfurt am Main; since 2021, she has been involved in the national urban development project of the Federal Ministry of Building “Post Corona City”. Together with Yorck Förster, the architect curated the exhibition “Grand Opera – Much Theatre?”, which opened at the DAM in 2018 and has since travelled to several major cities. Jürges is also a member of the staff unit “Future of the Municipal Theatres”.

**Dorothea Doblies**

8 JUN – MAIN STAGE



Dorothea Doblies completed her Master of Arts in Social and Business Communication at the University of the Arts in Berlin. She worked for over two years at one of Germany's leading digital agencies and is currently employed as a project supervisor at DTHG. She is also a freelance speaker.

**Elena Schulze**

7+8 JUN – STUDIO STAGE



Elena Schulze was born in Berlin, but lost her heart to the Rhine metropolis of Cologne a few years ago. After studying cultural sciences, she did a traineeship as a producer for audiovisual media. After years in the film industry, her last professional station led her to DTHG in 2021, for which she worked as a project supervisor until the end of March 2023. During this employment she discovered her passion for moderating both digital and live events.



## **Exhibition: In the Spotlight**

Photographs by Jochen Quast

Jochen Quast is one of Germany's most significant theatre photographers. His pictures express the great diversity of theatre work with people and special images, light and colours. His exhibition "Im Rampenlicht" (In the Spotlight) includes selected photographs of productions from various German stages spanning more than 20 years of his work. We are very pleased to be able to show some of Jochen Quast's photos during SHOWTECH.



## **Get-together**

7 JUN | 18:30 – 20:00

On the first evening of the congress, we invite all participants to a small get-together with snacks and drinks. We will review the day and the exciting discussions in a relaxed atmosphere – an ideal opportunity for international networking



### **Theme Week HEIMAT\_KUNST THEATER IM PALAIS**

The theme week HEIMAT\_KUNST will take place from 7 – 11 JUN 2023. The focus of the theme week is on artists with exile experience.

**20% exclusive** discount for SHOWTECH visitors (info & code online)



### **Berlin, du coole Sau! Berlin-Revue TIPI AM KANZLERAMT**

From 9 – 11 JUN, The Capital Dance Orchestra feat. Sharon Brauner & Meta Hüper and Ades Zabel on Screen, a musical homage to our unique city.

**20% exclusive discount** for SHOWTECH visitors (info & code online)



### **Berlin WelcomeCard**

The Berlin WelcomeCard offers you great benefits, such as free use of public transportation and up to 50% off at many attractions and top cultural highlights during SHOWTECH and beyond.

# 62. BÜHNEN TECHNISCHE TAGUNG

19.06. – 20.06.2024  
IN BOCHUM

## See you next year in Bochum!

Look forward to seeing familiar and new faces from the industry again at the Bühnentechnische Tagung 2024 in the Jahrhunderthalle Bochum. In the heart of the Ruhr region, we welcome over 80 companies, institutions and associations and more than 1,500 visitors. Manufacturers and users of theatre technology are on site, get to know each other and exchange ideas. The BTT is always a great event with great encounters, good

conversations and an exciting programme of presentations, panel discussions, round tables, lectures and much more. The SoundLab and the Anatomical Theatre will of course not be missing! Subscribe to the BTT newsletter and receive all info on the programme and tickets automatically by email.

All information online:

**[www.buehnentechnische-tagung.de](http://www.buehnentechnische-tagung.de)**



**Thank you very much for your visit!**

We look forward to seeing you again at the  
Bühnentechnische Tagung (Stage Technology  
Conference) in Bochum in 2024.