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ENTERTAINMENT TECHNOLOGY



Nr. 114XL · Mai 2025 · 6,50 € · H 14450



## MAC Aura Raven MP



## GEBALLTE KREATIVITÄT. DEZENTE ERSCHEINUNG.

Der MAC Aura Raven XIP ergänzt die Aura-Familie um das leistungsstärkste Beam-Washlight für den temporären Outdoor-Einsatz. Ohne Kompromisse bei Größe, Gewicht und Betriebslautstärke ist er ideal für große Open-Air-Shows, als Key-Light für Corporate Events, Messen und anspruchsvolle Theaterproduktionen einsetzbar. Dank der innovativen Farbmischung mit 37x40W RGB-Lime-LEDs liefert der Scheinwerfer eine herausragende Lichtqualität. Er überzeugt durch eine absolut homogene Ausleuchtung ohne sichtbare Hotspots oder Farbsäume.





HOHER OUTPUT





**DUNKLE LINSE FÜR** EINE DISKRETE VISUELLE WIRKUNG



**PIXELGENAUE AURA-EFFEKTE** 







MIRA WÖLFEL

Director Prolight + Sound
mira.woelfel@messefrankfurt.com

## 30 years of Prolight + Sound

Making innovations tangible, sharing knowledge, and promoting networking - in an industry that thrives on creativity and continuous development, a place that combines all these aspects is of special value. A place where visions take shape, new ideas are born, and contacts are made. That is exactly what we would like to offer you from April 8 to 11 in Frankfurt.

he upcoming edition is something truly special: we are celebrating 30 years of Prolight + Sound – an anniversary that we would like to commemorate together with you and all the people who have accompanied and shaped the trade fair. In doing so, we do not only want to look back, but above all set impulses for the future.

The focus will be on key topics such as sustainability, immersive and AI-based technologies, and multifunctional solutions. Fitting for the milestone birthday, a series of new highlights await you:

making its debut will be "Music One X" - a 3,000 square meter interdisciplinary special area centered around the creative and technological aspects of music creation.

#### Editorial

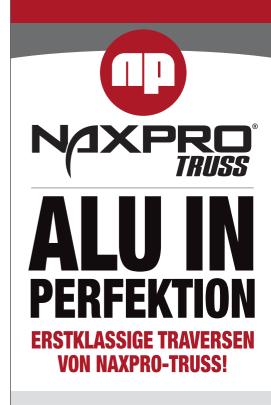
In the "Mix Lab", technology enthusiasts can immerse themselves handson in the world of modern mixing console technologies. With "Mixcon x BVD present DJ & Producer Conference", an inspiring hotspot for the DJ and music industry is being created. The newly designed theatre area integrates exhibition, education, networking, and product presentations. Insights into modern image and video technology are offered by the "Image Creation Hub". An expanded education and lecture program, a job platform for professionals and young talents, as well as a variety of networking opportunities, also await you.

I am particularly looking forward to the personal encounters: to inspiring conversations, to seeing long-standing partners again, to meeting fascinating personalities – and to celebrating together and shaping the future of our industry.

Sincerely,

Mira Wölfel

PS The title of this digital XL edition is this time a tribute to the artist depicted – David Bowie – and his brilliant photographer – Anton Corbijn, who is presenting some of his works in an exhibition in Vienna on the occasion of his 70th birthday. More about this from page 10.



- Geprüfte Sicherheit
- Riesiges Traversenlager
- Schnelle Lieferung
- Individuelle Beratung



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## MLT FOUR. BUILT FOR MORE.



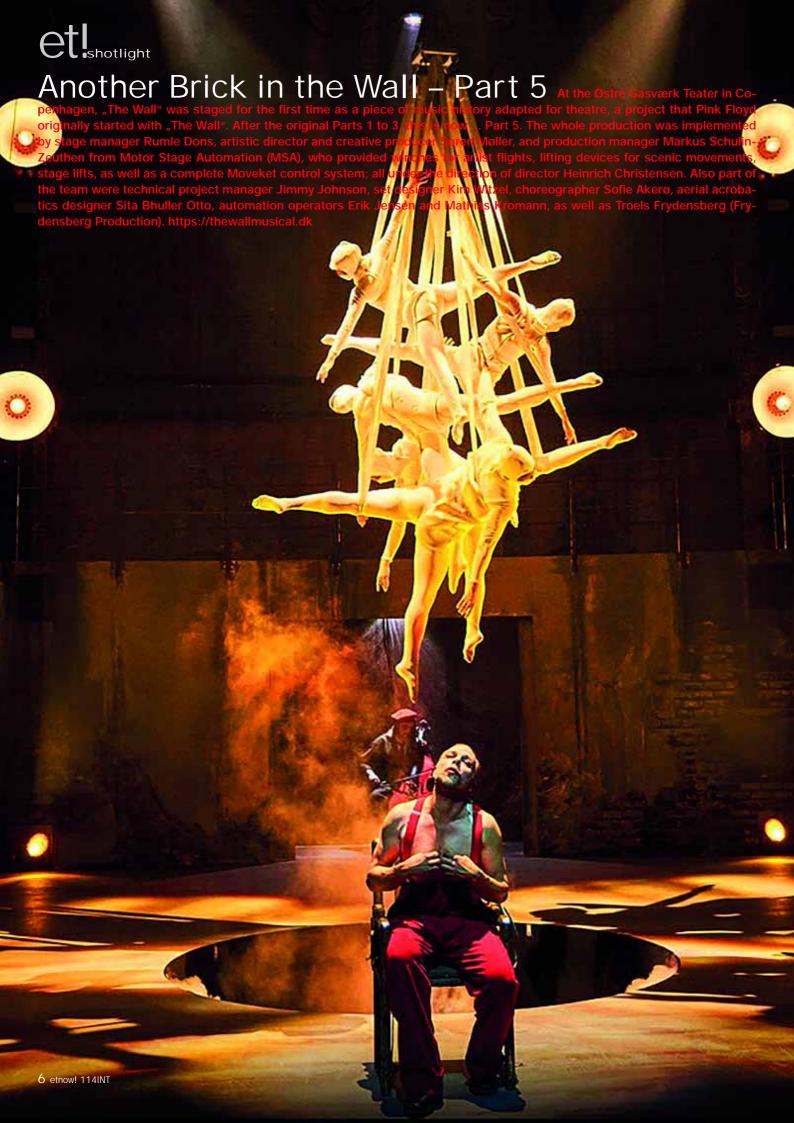
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**MORE INFO** 







## ... mit leistungsstarken Industriesteuerungen

- durchgängige Steuerung für alle Anwendungen in der Entertainment-Industrie
- Offenheit und flexible Schnittstellen der Steuerung ermöglichen Umsetzung kreativer Ideen
- 24/7: maximale Verfügbarkeit der Steuerung sorgt für reibungslosen (Show-)Ablauf
- gute Service- und Wartungsmöglichkeiten
- optimales Preis-Leistungs-Verhältnis
- Investititionsschutz durch eine industrieerprobte Steuerung made in Germany
- globale Verfügbarkeit mit Vertrieb und Service in über 75 Ländern weltweit













■ The Digital Signage Summit Europe 2025 with a focus on Al & Managed Services is the leading specialist conference for the Digital Signage and DooH industry and will be held for the first time as a three-day event from May 21 to 23, 2025, at the Hilton Munich Airport. For the first time as a three-day event, the conference offers even more opportunities to explore key challenges, technologies, and trends shaping the industry.

The focus is on two transformative topics: Artificial Intelligence (AI) and Managed Services. Over three days, participants can expect inspiring keynotes, dynamic panel discussions, and hands-on workshops with leading experts from around the world.

Speakers will highlight how AI is revolutionizing content creation, audience engagement, and data-driven decision-making processes, while Managed Services are redefining operational efficiency and scalability.

On the first day, the new "Digital Signage Tech Forum" celebrates its premiere - a format specifically tailored to technical professionals. On the following days (May 22-23), the "Managed Signage" strategy conference will take place, where international industry leaders and end users will address the central challenges of the Digital Signage and DooH world. These include upheavals due to geopolitical uncertainties, disruptive effects of AI, growth simulations with new business models in the area of Managed Services, changes in the competitive landscape, and sustainability transformations. Around 100 speakers, over 40 presentations, panels, and fireside chats will be featured. In addition to numerous networking opportunities, participants can draw inspiration from the technology showcase, where leading brands present their latest products and technologies.

https://digitalsignagesummit.org

On September 24, 2025, Huss Licht & Ton invites trade visitors and industry experts to the Huss Expo trade show day in Langenau. At this year's event, more than 50 manufacturers and distributors will



present the latest products and trends from the world of event technology.

With the successful events of recent years, the Huss Expo has established itself as a well-known meeting point in the industry. Last year, the small trade show attracted over 400 trade visitors and received positive feedback from both exhibitors and participants.

This year too, visitors can expect an exciting program with an atmospheric after-show party.

■ Accompanied by the Association of the German Trade Fair Industry AUMA, there is a new event format: the M1 – Future Congress for Trade Fairs. The congress is primarily aimed at exhibiting companies that use trade fairs as a strategic marketing tool and want to further develop in this area.

The event, which will premiere in Frankfurt am Main from September 30 to October 1, 2025, is intended to take place annually in a different German trade fair city.

In this way, regional markets are included and the diversity of the German trade fair industry is emphasized.

With a mix of keynotes, hands-on workshops, and networking formats, the M1 Future Congress aims to position itself as the new flagship event of the trade fair industry.

■ The Helsinki Music Week (HMW) celebrates its premiere this May and brings a fresh perspective to the festival scene. By combining historic venues with state-of-the-art loca-

tions, the first edition explores the ever-changing landscape of contemporary sounds.

With a diverse line-up and a unique event format, HMW has the potential to establish itself as a new hotspot for musical innovation in the Finnish capital.

Helsinki has made a name for itself as the Nordic center for alternative rock and electronic music and has been shaping global music trends for years, with artists such as Darude, Nightwish, and HIM. Thus, the organizers said: "So why not discover the future of sound here?" This led to the creation of Helsinki Music Week (HMW), a brand-new festival taking place from May 8 to 10, 2025, dedicated entirely to exploring contemporary sounds. With an innovative, open festival format, HMW unfolds across various events in historic landmarks, ultra-modern venues, exhibition halls, and bars throughout Helsinki. The line-up of musicians, bands, producers, and DJs reflects today's diverse yet interconnected musical

While algorithms fragment the listening experience into countless niches and scenes, HMW leaves behind traditional festival models and offers music lovers, artists, industry professionals, and cultural creators a new platform to dive deep into the details of contemporary music. The first edition of HMW is divided into two segments – HMW City and HMW Finale – and highlights the current music world in various concerts and parties before culminating in a major main event that brings together the musical explorations of

HMW City begins on Thursday, May 8, with a concert by multi-platinum artist Aino Morko, who will present her new project. She will be accompanied by the Finnish ambient duo Shepherds Call.

the previous days.

The opening concert will take place in the legendary Rock Church (Temppeliaukio Church). Later in the evening, the event continues at Club Kuudes Linja, where the Norwegian-American witch house artist Elusin will perform.

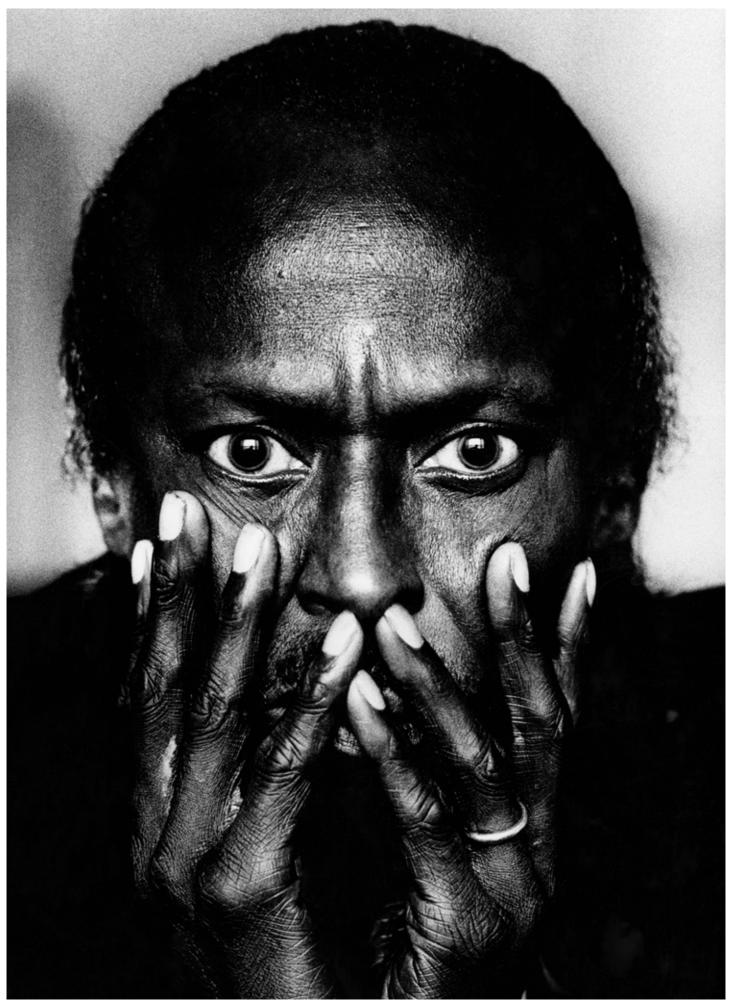
The HMW Finale will take place at Dance House Helsinki, Northern Europe's largest venue for dance. On several stages and dance floors, a wide variety of local artists will perform.

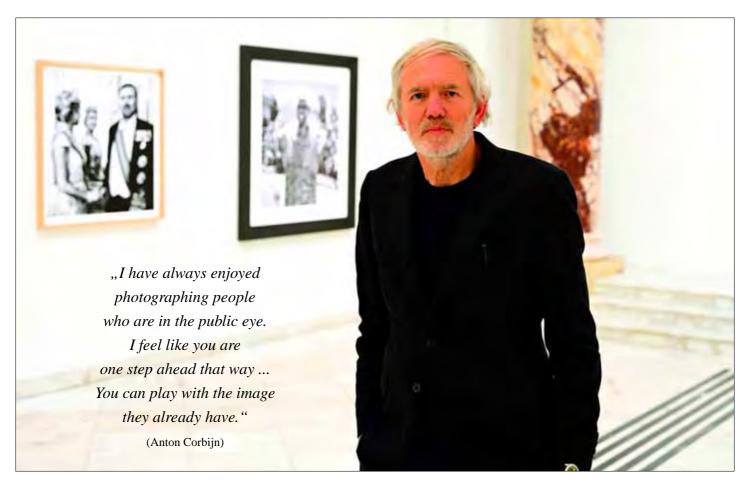
The Helsinki Music Week is made possible through partnerships with Battery, Helsinki Partners, the City of Helsinki, and Music Finland.











#### "Favourite Darkness"

An exhibition curated by Lisa Ortner-Kreil can be seen until June 29, 2025, at the exhibition house on the Wiener Freyung and is dedicated to the work of star photographer Anton Corbijn, who celebrates his 70th birthday in May 2025.

Anton Corbijn (born 1955 in Strijen, Netherlands) is a photographer, director, and designer living in Amsterdam. Since the 1970s, his images have decisively shaped the way we perceive pop culture. The exhibition "Anton Corbijn - Favourite Darkness" at the Bank Austria Kunstforum, Vienna, brings together around 200 works from five decades, including Corbijn's most famous photographs and a selection of his music videos created since 1983, which often resemble short auteur films. Furthermore, the artist has opened his archive and, for the first time, shows sketches for stage designs and album covers. Corbijn made history as art director

for Depeche Mode and essentially created the visual identity of the band, with whom he has worked regularly since 1986.

## Celebrities as people full of melancholy

Countless artists from the fields of music, art, literature, and fashion have stood in front of Corbijn's camera. Many shots have become true icons - a term Corbijn, the son of a Protestant pastor and a nurse, regards

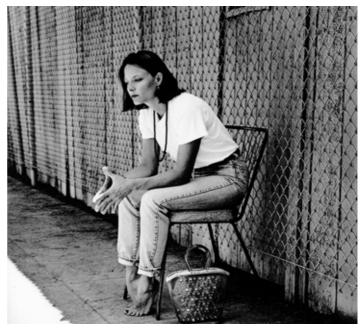


## etidates













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critically. Nevertheless, Corbijn's upbringing and the associated honest and enduring interest in people who achieve great things artistically are the key to understanding his visual language. His portraits always show the person behind the celebrity. He places his protagonists in unorthodox settings, photographs them at close range, creating moments full of intimacy, trust, and surprise. Typical of his often unconventionally composed black-and-white portraits is the graininess and deliberate underexposure. Also in a metaphorical sense, many of his pictures are dark, melancholic.

#### Jesus and pop culture

The exhibition is divided into seven chapters and begins with a room for which the artist himself selected favorite works. This is followed by a section with shots from his early years when he worked as chief photographer at "New Musical Express" (NME), a London music magazine. In the central room of the Bank Austria Kunstforum, the "Cemeteries" series from 1982/83 is on display, for which he photographed religious sculptures for commemorating the dead at various Catholic cemeteries in Milan and Vienna. These images are juxtaposed with portraits of musicians that display a similar iconography: the halo as well as representations of Christ and the cross are motifs that Corbijn repeatedly alludes to in his portraits.

#### Corbijn's work with Depeche Mode

Passing through a room dedicated to music videos, including those of Nirvana, U2, and Coldplay, and a room documenting Corbijn's work with Depeche Mode, visitors reach the penultimate room of the exhibition, where only portraits of actresses and female musicians are shown. Corbijn himself admits self-critically that he was of course guided by his "male gaze", but the portraits of these female artists speak a different language: confident, curious, sometimes lonely and introspective, but always very human and far from perfect, his protagonists face the camera.

For instance, the shot of Nina Hagen and Ari Up, taken by Corbijn in 1980, shows a fully clothed Nina Hagen dominating most of the frame,

while Ari Up, the singer of the feminist punk band The Slits, stands naked with a towel turban in the right third of the image, looking directly and confidently into the camera.

The final room of the exhibition is dedicated to Corbijn's "Inwards and Onwards" series, for which he has photographed visual artists, mostly in their studios, since the 1990s. These images are not only portraits of artists but also reveal each artist's individual approach - such as the photo of Gerhard Richter, showing the painter from behind.

#### Photography and music

The exhibition seeks to make clear that it is too narrow to perceive Corbijn merely as a rock star or celebrity photographer. For the first time, his work is shown in its full breadth. In fact, Corbijn pursues a long-term artistic project. His work is an amalgam of photography and music; his photographs seem to suspend time: Corbijn's images of Ian Curtis, Kurt Cobain, or David Bowie are made for eternity and defy the flood of images to which we are exposed daily.

"Anton Corbijn – Favourite Darkness" is Anton Corbijn's first solo exhibition in Vienna and is held on the occasion of his 70th birthday. The Bank Austria Kunstforum has worked closely with the artist and his studio for the exhibition and, for the first time worldwide, attempts to shed art historical light on Corbijn's work and examine the strategies of his visual representation.

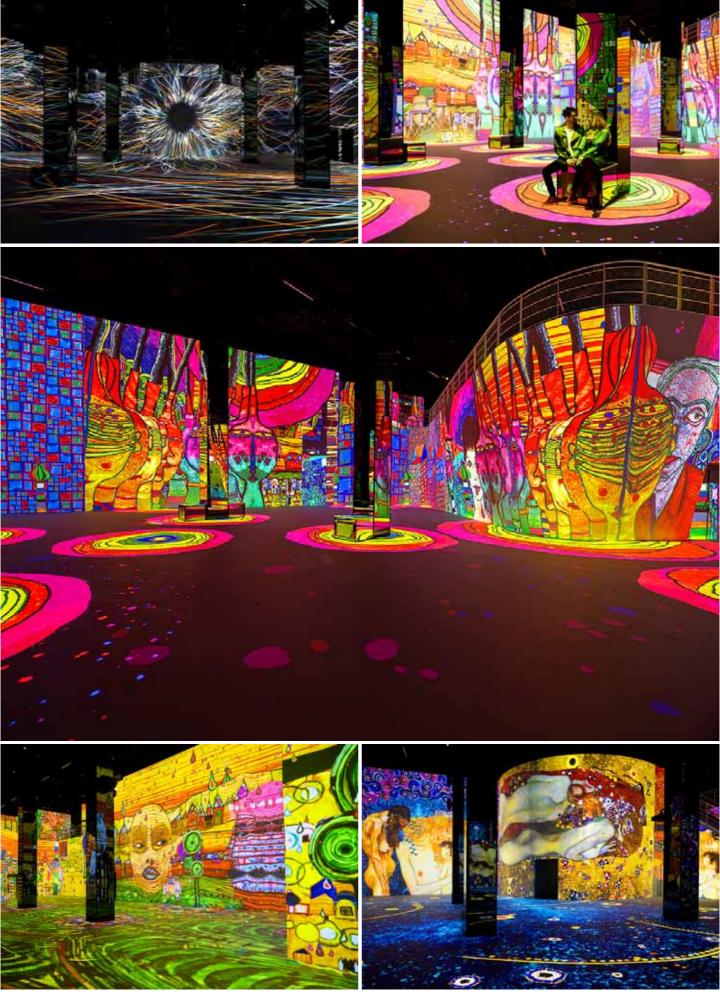
Corbijn stands for images that have inscribed themselves into public memory - the exhibition seeks to trace the reasons for this.

#### A retrospective of cinematic work

Parallel to the exhibition, a retrospective of Corbijn's cinematic work is taking place at the Wiener Gartenbaukino. Simultaneously, an exhibition catalog with texts by Ingried Brugger, Taous Dahmani, Sebastian Fasthuber, and Lisa Ortner-Kreil has been published.

www.kunstforumwien.at





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### Immersive harbor of lights

Port des Lumières, Hamburg's new exhibition center for immersive art, is the first permanent offering for immersive digital art in the Hanseatic city – and the largest in all of northern Germany. Monumental immersive exhibitions are presented, dedicated not only to major artists of art history but also to contemporary art, music, science, and much more.

Spectacular exhibitions are planned for the new spaces in the Westfield Hamburg-Überseequartier, beginning with works and the history of Gustav Klimt and Friedensreich Hundertwasser. As at all its other locations, the operator of Port des Lumières, the French cultural enterprise Culturespaces, has also sought and found in Hamburg a site that embodies the DNA and history of the city: with its proximity to the harbor and to water, the quarter represents the maritime identity of the city like hardly any other. The wave-shaped design of the facade and the reconstruction of a ship's bow in the main hall of the building architecturally reference maritime themes and invite visitors to immerse themselves in the history of Hamburg's transatlantic cruise tradition. The facade clad with clinker bricks elegantly blends into the surrounding architecture; golden design elements set special accents. And last but not least, the name of the new art center is also a homage to the special location at Hamburg's harbor: Port des Lumières, the "Harbor of Lights".

The opening at Port des Lumières features three exhibitions: the atmospheric main exhibition "Gold and Color" with works by Gustav Klimt (1862-1918), which has already celebrated great success at the Atelier des Lumières in Paris, the accompanying exhibition "In the Footsteps of the Vienna Secession", a tribute to the Austrian artist and architect Friedensreich Hundertwasser (1928-2000), and the contemporary, experimental work "Journey" by the Turkish production studio Nohlab. All three exhibitions are accompanied by individually tailored or specially composed music – a combination designed to evoke special emotions.

The combination of longer and shorter exhibitions, supplemented by

special formats, creates an art experience lasting about one hour. All three exhibitions are included in the admission price. "Art in a new dimension" is what Port des Lumières promises its guests. The numbers support this promise: an exhibition area of 1700 sqm with a room height of ten meters, a total projection surface of 3200 sqm, 250 different audiovisual media, including 80 next-generation video projectors, 50 audio distribution points, and 30 servers.

The imposing main hall is characterized by the ship's bow with a viewing platform five meters high; in addition, visitors can look forward to a mirrored Infinity Room. Children have their own area as well: in the Kids' Atelier they can discover their very own magical world and express their creativity at various stations – thus gaining an easy and playful access to art.

Culturespaces, based in Paris, has specialized for over 30 years in the global management of European monuments, museums, and art centers. Culturespaces is one of the world's leading private operators in the cultural sector with five million visitors per year.

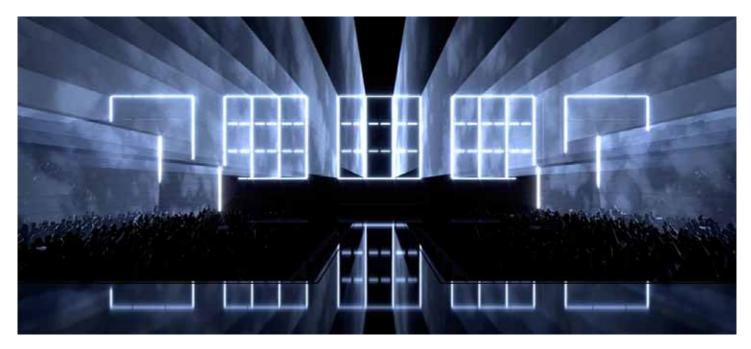
Since 2012, Culturespaces has also been offering digital art centers worldwide, currently eight in total, including in Paris, Amsterdam, New York, Seoul, and since January 2023, in Dortmund. The concept: to stage immersive art and digital exhibitions of works by famous, also contemporary international artists at unusual and historical locations, technically elaborate and as an emotional experience.

www.culturespaces.com









## "Unity Shapes Love"

The Eurovision Song Contest will take place in Basel in 2025. The stage and visual concept have now been presented.

The 69th edition of the Eurovision Song Contest is taking concrete shape: the first visual impressions of the event in Basel show a stage inspired by mountains, diversity, and the power of music. The project team of SRG SSR has now presented the visual concept, designed by Art Director Artur Deyneuve. At the center is the theme of "Listening" - inspired by Switzerland's tradition of direct democracy. The concept is named "Unity Shapes Love" - a homage to the unifying power of togetherness.

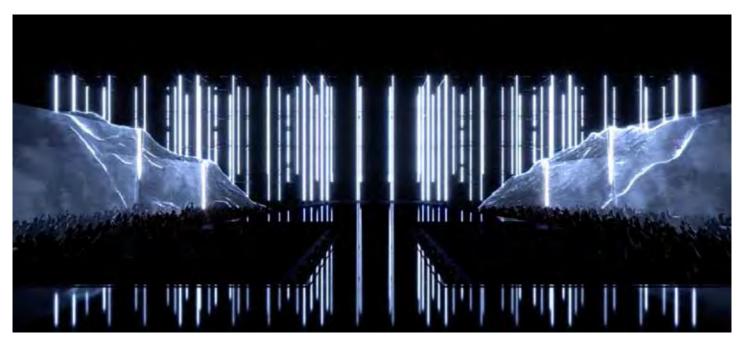
The Eurovision hearts become the central design element - they pulse in rhythm and symbolize global cohesion through music. Acoustically, modern beats are mixed with traditional Swiss sounds - including yodeling, the characteristic drumming of a Basel drum corps, hammered dulcimer, and alphorns: "We have created a powerful, energetic track that prepares the audience for an unforgettable experience", says the creative team.

The stage design is once again the work of Florian Wieder. It is his eighth Eurovision stage. Wieder, who has Swiss roots, was inspired by

the alpine panorama and the linguistic diversity of the country. "Our goal was a revolutionary stage concept - an experience that has never existed before at the ESC", he says. The immersive stage is intended to make the audience part of the show.

Co-Executive Producer Moritz Stadler adds: "Florian Wieder has created a signature stage that will forever be associated with the ESC in Switzerland." Martin Österdahl, Executive Supervisor of the ESC, is also enthusiastic: "From the breathtaking stage to the emotional brand identity to the powerful music: Basel 2025 will be a modern, original, and unifying Eurovision Song Contest. I thank SRG SSR and all the creatives for their exceptional commitment."

In addition to the Grand Final in the St. Jakobshalle, there will be an additional public viewing event on May 17, 2025, at St. Jakob-Park - Basel's legendary football stadium "Joggeli". The "Arena Plus" event will include a live broadcast as well as an extensive entertainment program.





### Bildkraft expands

The Pro AV technology rental company Bildkraft from Dresden is starting the season with a new location and investments in high-end LED systems.

The rental company Bildkraft, specialized in high-quality video and projection technology, has moved into a new location in Dresden. With significantly enlarged storage space and improved logistical capabilities, the company is responding to the growing volume of orders. In particular, demand in the area of LED systems has increased significantly. This is where the rental company is also placing its current investment focus: with new systems from the manufacturers Infiled and Absen.

"The new location in Dresden offers us many new possibilities", says Bildkraft owner Jörg Heinze. "The storage capacity has quadrupled, and we can now simultaneously handle four trucks and articulated lorries around the clock." New employees have been hired to coordinate the logistics. The new location in Dresden offers 2000 square meters of storage space, 400 square meters of workshop space, and 400 square meters of office and training space. Large-scale test setups of LED walls are now also possible.

In larger electrical and metal workshops, Bildkraft develops and builds prototypes for the in-house brand Panzerkabel. The company's own training and education center for media and AV technology has also expanded. In cooperation with Panasonic, the first official Panasonic training center in Germany outside the manufacturer's own Panasonic Experience Center in Wiesbaden is being established here.

With investments in high-end LED systems, Bildkraft continues to upgrade its core business. On the shopping list were new indoor high-performance modules from Infiled and Absen. From the Infiled DB1.5 series with a 1.5-millimeter pixel pitch, which is considered the benchmark for ultra-black LED displays and has already proven itself at Bildkraft for over a year, the rental company is adding panels with a brightness of 1200 nits and GOB coating as well as powerful Brompton processing.

Even brighter, with up to 1800 nits, are the new Absen panels from the Saturn series with a pixel pitch of 2.6 millimeters and a refresh rate of 7680 Hertz. Bildkraft is the first rental company in the DACH region to have this system in its portfolio. A special feature is the lightweight construction with carbon. Brompton processing is also used here in signal processing. "Brompton Processing is unmatched in terms of image quality, color accuracy, and performance", says Jörg Heinze.

www.bildkraft.tv





## Claypaky establishes German subsidiary

Claypaky announces the establishment of a direct presence in Germany effective April 1, 2025, to intensify its commitment in one of its most important markets.

Claypaky, a leading provider of professional lighting solutions for the entertainment industry, announces the establishment of "Clay Paky Deutschland GmbH". This strategic realignment will become effective on April 1, 2025, and underscores the company's long-term commitment to the German market. Clay Paky Deutschland is based near Paderborn (Schlangen) and has a service center near Stuttgart (Fellbach) and will serve as the central point of contact for all German customers and partners.

With this strategic move, the company aims to invest specifically in the German market, build closer customer relationships, and ensure optimized service as well as even more comprehensive support than before. For this purpose, the company has assembled a specialized team for sales, marketing, product management, customer support, and on-site technical service. Vision Two, Claypaky's long-time distribution partner, will continue to operate as the exclusive partner for the German theater market.

Claypaky CEO Marcus Graser: "Germany is one of our most important markets, and the establishment of Clay Paky Deutschland underscores our long-term commitment to this region. The new structure brings us even closer to our customers and underlines our strategy to drive all business areas forward. We greatly value the contribution of Vision Two over the years and look forward to continuing our collaboration in the theater segment."



The team of Claypaky Deutschland consists of (in the picture, top from left): Massimo Bolanrina (Sales Director), Alena Turiakova (Head of Marketing), Marcus Graser, Jens Konstantini (Business Development Manager Northern Germany), Thomas Kammerer (Service), Fabian Komninos (Service) as well as (bottom from left): Sebastian Weikamp (Marketing Germany), Boris Galamic (Service), Manuel Hahn (Technical Sales), Andreas Kammerer (Technical Manager), Marcel Mothes (Business Development Manager Southern Germany), and Tim Ehrenfried (Technical Sales).

"We will immediately begin an extensive program for brand and product promotion. This will include product demonstrations and roadshows throughout Germany as well as presence at German trade fairs and industry events such as Prolight + Sound and Leatcon", says Graser.

#### "Just the Tonic!"

Feiner Lichttechnik GmbH celebrates its 40th anniversary with a big stand party at Prolight + Sound 2025 in Frankfurt.

Feiner Lichttechnik GmbH is looking back on 40 successful years this year. Since its founding in 1985, the company has established itself as a leading provider of innovative lighting solutions, convincing with high-quality standards, sustainable concepts, and forward-looking technologies.

Over the past four decades, Feiner has continuously captured the spirit of the times and helped shape the transformation of the industry. Starting with classic lighting for stage and studio, the company today additionally specializes in customized energy-efficient concepts for halls, theaters, hotels, exhibitions, and other commercial applica-

tions. Numerous product innovations and the consistent focus on customer needs have made the company a well-known and reliable partner.

"To celebrate our 40th anniversary, we invite all customers and partners to our stand party at Prolight + Sound", says Managing Director Gerhard Feiner. "Here, we can celebrate in an appropriate setting at one of the leading trade fairs. The stand party under the motto 'Just the Tonic' will take place on Wednesday, April 9, starting at 5 p.m. at Stand 12.0 C95. Registration is available via our website. We are also providing free tikkets for Prolight + Sound."

## Layher 🖾

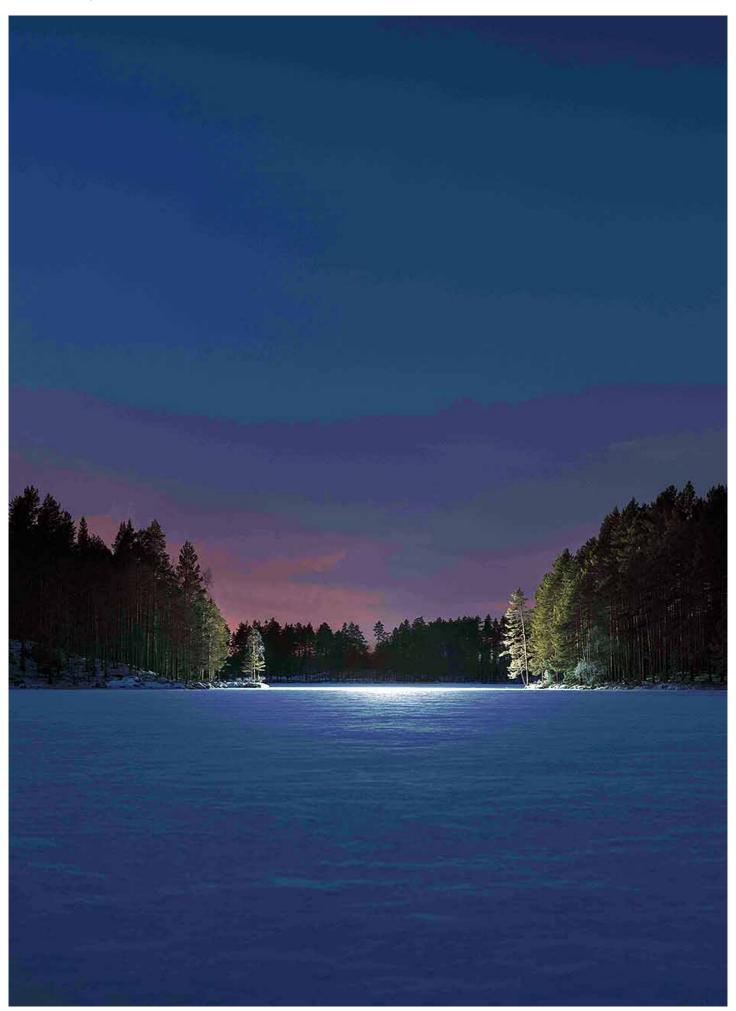
Mehr möglich. Das Gerüst System.

Entdecken Sie neue Innovationen für die Veranstaltungstechnik vom 8. - 11. April 2025 in Frankfurt: Halle 12.0, Stand C96

## prolight+sound

Mehr Infos über Layher unter layher.com

FÜR EUCH DAS MEHR. VON UNS DAS MÖGLICH.





## Swedish light quality for German offices

The Swedish premium lighting manufacturer Fagerhult announces its official market entry into Germany. From now on, the Scandinavian market leader for innovative and sustainable lighting solutions offers its comprehensive portfolio for the office sector in Germany as well.

With pendant lights, ceiling-mounted, track, and spotlight fixtures, Fagerhult presents a range that takes professional lighting planning to a new level.

For almost 80 years, Fagerhult has stood for lighting solutions that place people at the center – a tradition that began with the founder's first light: a Christmas gift for his mother, who needed better light for knitting

during the dark Swedish winters. Founded in the forests near the border to Småland, the company has since developed lighting that enhances well-being and the perception of light.

In times of rising energy costs and growing environmental responsibility, the demand for intelligent and resource-saving lighting solutions is increasing. "The demand from lighting and electrical planners as well as





## Companies & Markets



architects for sustainable and human-centered lighting is growing in Germany as well", explains Henrik Clausen, responsible for lighting research at Fagerhult and associate professor of lighting design at Aalborg University in Copenhagen. "Especially for the large number of existing buildings in Germany, reducing energy consumption through smart, energy-efficient lighting solutions is crucial."

Fagerhult follows a comprehensive sustainability strategy with the goal of achieving net-zero emissions by 2045. The necessary measures are reflected in the innovative product range, which focuses on energy efficiency and resource conservation. A central lever for sustainability is energy efficiency: A life cycle analysis conducted by Fagerhult shows that, depending on the energy mix, the majority of CO2e emissions of a light fixture occur during its use phase.

While this proportion is about 75% in Sweden, it is around 95% in the German energy mix. To reduce the effect of the life cycle on the ecological footprint, Fagerhult develops modern solutions such as the Pleiad G4 series – a downlight with high lighting comfort and up to 170 lumens per watt. Due to their energy efficiency, Fagerhult's broad product range is used in numerous large projects worldwide.

In addition to reducing energy consumption, Fagerhult places great emphasis on using sustainable materials. By 2030, all newly developed light fixtures will consist of 80% renewable or recycled materials. An example of this is the Multilume "Rethink", which is made from recycled cardboard and represents an eco-friendly alternative for modern office lighting. The entire Notor lighting family is also made from 75% recycled aluminum, reducing the ecological footprint of the material by 71% compared to conventional aluminum. The precise Beta Opti Nano tech-





nology ensures high efficiency and uniform, glare-free illumination without multiple shadows. This is particularly relevant for concentrated work in office buildings. All fixtures are produced with 100% renewable energy at the factory in Habo.

Additionally, Fagerhult relies on intelligent control systems such as Organic Response. This wireless light management system is based on integrated sensors that automatically capture and share presence and daylight data. As a result, the light follows the people, is only used where it is actually needed, and saves up to 70% of energy from day one. Moreover, the connected solutions can be easily integrated into building automation. Smart lighting not only creates optimal lighting for people but also provides valuable insights into building usage. It supports strategic decisions in facility management – from energy consumption to optimal space utilization in office buildings.

Henrik Clausen explains Fagerhult's deeply embedded corporate ethos: "In Sweden, light is a very emotional topic. The right light makes us happier, healthier, and more productive in our work – an experience that especially applies in the dark winter months." Fagerhult focuses on Human Centric Lighting. Clausen emphasizes, however, that this only works in a holistic interplay. "Individual light fixtures alone do not create human-centered lighting. It is only through the combination of intelligent control, visionary design, and an application tailored to the environment that light can fully unfold its potential for people", Clausen continues.

Since March 2025, Fagerhult's products have been directly available in Germany through the German sales network. A German-speaking customer service team is available for advice and support.

www.fagerhult.de



### Mission completed

Satis & Fy AG and the Live Matters Group were able to significantly exceed their annual target for 2024 in the past fiscal year. The group's revenue rose by 18 percent, from 136 million euros in the previous year to over 160 million euros in the 2024 fiscal year.

After an initially sobering start to the 2024 fiscal year, perseverance, endurance, investment courage, optimism, and team spirit paid off in this sports-driven year. The focus was on major sporting events such as the UEFA European Football Championship in Germany and the Summer Olympic Games in Paris. At the European Championship, Satis & Fy was responsible for the technical equipment in the hospitality areas of all ten stadiums. In Paris, in addition to the regular House of Innovation campaign at the Nike Flagship store on the Champs-Élysées, another 13 events were successfully implemented simultaneously in the city center.

Live entertainment has also continued to establish itself as a reliable technical partner for artists and bands, and has successfully evolved into a holistic provider in the field of set construction, which was evident during the tours of Wincent Weiss, Peter Maffay, Cro, and Luciano.

"Mission completed" is also the message for the sustainability initiative. With the Spaces GmbH, the entire Live Matters Group is now sustainably certified. All subsidiaries are validated according to EMAS (Eco Management and Audit Scheme), and Satis & Fy and Spaces are additionally certified according to ISO 14001.

In the USA, Satis & Fy made a strong comeback in the event market, making the acquisition of new office and warehouse spaces in NYC a logical next step. After already making significant investments in new

high-quality equipment in the previous fiscal year, the LED stock in the USA was further expanded with an additional investment in 800 square meters of Roe Visual Topaz for both indoor and outdoor use.

The software platform "knw", launched in the last fiscal year for performance measurement of live events, has developed very positively and is already being regularly used in the DACH region. New in the portfolio of Spaces is "Beletage" at Palais Frankfurt in the heart of the city: Here, 400 square meters of additional location space have been added.

For the current year, the first highlights have already been successfully implemented. Satis & Fy supported several projects in the USA for the Jordan All Star Week in February, including an impressive Jump-Man drone show over the San Francisco Bay Bridge. The company was also significantly involved in the implementation and opening of the Stadthof in Hanau. The Stadthof is a unique transformation project for city centers, where the vacancy of the Kaufhof building was not tolerated, but instead, the downtown area was revitalized, giving back a vital piece of quality of life.

Satis & Fy is a holistic service provider for live and brand experiences. For 30 years, the company has specialized in the technical and spatial staging of experience worlds, exhibitions, events, tours, installations, and virtual worlds.





### How safe do guests feel?

A new study by IST University shows: Awareness concepts do not increase festival guests' subjective sense of security.

Awareness concepts at music festivals play a central role when it comes to creating a safe and respectful festival environment. But how much do they influence the subjective sense of security of the guests? A study by the IST University of Management shows: Awareness teams are an essential part of the security structure at festivals, but their mere existence does not automatically lead to an increased sense of security. Rather, they must be understood as part of a comprehensive security concept that also includes security forces and medical emergency teams.

## The security triad at festivals: Awareness, security, and emergency medicine

Awareness concepts provide low-threshold support for people in stressful situations. Just this sets them apart from security and emergency services. They are especially helpful in cases where there is no immediate danger to life and limb but there is still an acute need for support - for example, in cases of sexual harassment, discrimination, or high emotional stress. "Awareness teams play an important role at festivals. They fill a gap in the security concept and help in situations where traditional security and emergency services reach the limits of their tasks", explains Prof. Dr. Matthias Johannes Bauer, professor of communication management at IST University. "Unfortunately, the mere presence of an awareness team is not enough to significantly increase the overall sense of security of festival guests." Bauer conducted the study with his research assistant Tom Naber and master's graduate Katharina Scariot last year.

#### Methodology of the study

The study is based on a quantitative online survey that analyzed the subjective sense of security of festival guests with and without awareness concepts. The survey received 211 responses from attendees of rock and pop festivals. The gender distribution between female and male guests was almost equal. A very small proportion identified as non-binary. The results show that the subjective sense of security at festivals generally does not depend on the existence of an awareness team. However, there are gender-specific differences in certain contexts: In particular, female festival guests feel safer at festivals with awareness teams under certain circumstances - for example, when there is high drug use among attendees. "Even though the majority of festival guests in our study do not subjectively feel safer when awareness teams are present, awareness concepts are undoubtedly especially valuable and meaningful for certain groups and in specific situations for



the individuals involved", says Bauer. "The study emphasizes the need for more scientific engagement with many aspects of festival management. The festival industry has been working with proven concepts for years, but scientific research can help verify and continuously develop these concepts using evidence-based approaches." Meanwhile, the third volume of the "Studies on Festival Management" has been published. It addresses two central challenges of the festival industry: security and trust.



#### "On-demand work" - Politics meets club culture

How can clubs still support young artists today while maintaining sustainable operations? During the visit of Dr. Marilena Geugjes and Erwin Köhler at Halle 02, it became clear: Cultural venues are not only investing in green technologies but also in the next generation of the club and live music scene, but they require the right political framework for this



Recently, state parliament members Erwin Köhler, cultural policy spokesperson of the state parliamentary group, and Dr. Marilena Geugjes, member of the state parliament from Heidelberg (both from the Alliance 90/The Greens party), visited Halle 02 in Heidelberg to get an impression of the current challenges, innovative concepts, and political demands of club culture. The focus was on an intensive exchange about forward-looking club work, sustainability, cultural significance, and the necessary political framework conditions.

A central topic of the discussion was the increasing difficulty of supporting young artists in today's club and concert business. The conditions for emerging talents have changed significantly: Rising costs, uncertain income, changing consumer behavior, and the dominance of large market players make it difficult for clubs like Halle 02 to properly support newcomers and offer them their first stages. These clubs have been contributing to the development of young acts for years, and, like Halle 02, mostly at their own risk.

Possible solutions such as targeted structural funding were discussed, including a model for a ticket surcharge for a nationwide Live Music Fund, inspired by models from France or the UK. The goal is to create more fairness in the music market, for example, through a ticket or streaming levy to sustainably support independent organizers in their work with emerging talent.

Another key focus of the visit was the engagement in sustainability. With the "Halle 02 plus" program, the club focuses on transparent CO2 and common-good balances, publicly accessible under www.halle02.de/plus, as well as energy-saving measures such as automated

In front of the Nightliner (I-r): Felix Grädler (CEO Halle 02), Erwin Köhler (State Parliament), Dr. Marilena Geugjes (State Parliament), Nora Straßer (Chairwoman Eventkultur Rhein-Neckar) Sophie Lauth, Levi Ambs (both Dual Students Halle 02)

cooling systems and heat recovery. Sustainability is seen here as a cultural task. However, political funding for investments is necessary so that smaller venues can also pursue this path.

As one of the largest event venues in the region, the company presented its holistic work concept. Topics such as awareness, a transparent wage model, accessibility, and social responsibility were addressed, as well as the question of how clubs can develop into fair, inclusive, and safe spaces in the long term.

In discussions with the parliament members, central political demands of club culture were discussed: A "round table" and a "parliamentary forum for club culture" should strengthen the dialogue with state politics. Clubs should be recognized as cultural venues in the building usage ordinance to provide planning security. For sustainable development, targeted structural funding is needed, for example, for work with emerging talents, digitalization, and fair wages. A nationwide "Live Music Fund" as well as fair contribution models, such as a streaming levy, should support independent organizers. Additionally, a modern labor law for flexible forms of employment, such as "on-demand work", was discussed.

The conclusion of all participants: The visit emphasized how valuable direct exchanges between culture and politics are in preserving a future-proof club culture.



## prolight+sound

Halle **12.0** / Stand **E69** 08. - 11. April 2025 - Frankfurt



### Acoustic precipitation measurement

The Fraunhofer Institute for Integrated Media Technology (IDMT), together with Pan Acoustics from Wolfenbüttel, has launched the research project "Lokal Rain". The goal of the project is to develop an acoustic rain sensor and a cost-effective sensor network for the precise capture and transmission of precipitation data in real-time.

The project is funded by the Federal Ministry for Economic Affairs and Climate Action and runs from October 2024 to June 2026. For the field test, several photovoltaic elements are connected via sensor nodes. The data collected will then be sent to a server for further processing and analysis. A conventional rain gauge is used to compare with the acoustic precipitation measurement. In the experimental setup, photovoltaic modules are equipped with a vibration sensor to capture the impact of raindrops.

The precise capture of precipitation poses a significant challenge, which is why reliable precipitation data is only available for selected locations with weather stations. This gap in data collection leads to inaccurate weather forecasts and makes it difficult to take quick and targeted action during extreme weather events such as heavy rainfall. To prevent flood disasters caused by heavy rainfall like in 2021 in the Ahr Valley or in 2002 in Saxony and Thuringia, municipalities, urban planners, and disaster protection services need accurate and comprehensive precipitation data. This allows for targeted planning and monitoring of flood-prone areas.

The research partners in the "Lokal Rain" project aim to tackle these challenges and develop an acoustic rain measurement method for use on surfaces. The idea is to capture the acoustic vibrations created when raindrops hit surfaces with vibration sensors and to analyze these using machine learning and deep learning methods in real-time.

Based on this idea, the researchers plan to develop a new sensor system to capture and analyze spatially distributed precipitation, using a photovoltaic module as an example. In addition to technology for effi-

cient machine learning, cost- and energy-optimized computing hardware for use in the sensors will also be developed.

Reliable transmission of the collected precipitation data from the individual sensor nodes through networked infrastructures to the server is also important. On the server, the data will be consolidated regarding precipitation parameters such as quantity, drop size, and spatial distribution and analyzed in real-time for predictions.

Jakob Bergner, project manager at Fraunhofer IDMT, explains some of the concrete applications: "By capturing precipitation data across large areas, not only can weather services develop more accurate forecasting models, but local rainfall amounts can also be represented in real-time during heavy rain events, allowing for targeted planning of disaster protection measures. Insurance companies will receive detailed information for risk assessment, and agricultural operations can optimize their irrigation strategies, contributing to efficiency and resource conservation."

Fraunhofer IDMT is responsible for the acoustic detection of precipitation events in the project. Using signal processing and machine learning methods, the interaction between vibrations triggered by raindrops and the amount, intensity, and composition of precipitation is examined. Suitable acoustic sensor concepts will also be developed to enable integrated processing and analysis of the captured acoustic signals. By networking individual sensor nodes, precise statements about local precipitation data in real-time will be made possible. Pan Acoustics is responsible for the hardware development of the sensor nodes and the wireless data transmission.

## Popakademie-Professor publishes PRIhME

Prof. Dr. David-Emil Wickström, program director of the Bachelor's degree in Pop Music Design and Global Music, is a co-editor of the anthology "Music, Power Relations, and Beyond: Critical Positions in Higher Music Education" (Musikene). The anthology presents the results of the European research project "Power Relations In Higher Music Education" (PRIhME).

"'Music, Power Relations, and Beyond' is the final scientific documentation of PRIh-ME. Together with my colleagues Christa Brüstle, Lucia Di Cecca, Itziar Larrinaga, Mojca Piskor, and Eva Sæther, we have brought together current academic contributions and reflections on power and power relations at music conservatories in Europe. The book is unique because it addresses the topic from the perspective of music conservatories on a European level. We hope that through reading, many of these institutions will critically question their processes", says Prof. Dr. David-Emil Wickström.

The project was funded by Erasmus+ and ran from 2020 to 2023. A 50-member PRIh-ME stakeholder assembly met in four sessions to address various topics related to power relations at music conservatories. The project was hosted by the Association Européenne des Conservatoires, Académies de Musique et Musikhochschulen (AEC). The AEC is the European network working to create a secure and sustainable area in which creative and socially engaged artists can be trained.

PRIhME focused on the following areas: power relations in music education, sexual orientation and gender, socioeconomic bakkground and disability, as well as artistic standards. The structure of the book reflects the overarching topics discussed in the four assemblies. In addition to expert reports on each of the assemblies, each section of the

anthology includes contributions that explore various aspects of power relations from the perspectives of students, faculty, musicians, and leaders.

By combining different perspectives, each section can be used not only for teaching and academic research but also for contextualizing discussions between faculty and staff - and thus influencing political decisions within individual institutions and professional associations at the national or even international level. The anthology aims to stimulate discussions and empower all participants to critically reflect and engage with issues of power within their institutions.

Prof. Dr. David-Emil Wickström studied musicology, ethnomusicology, and Scandinavian studies at Humboldt University in Berlin and the University of Bergen (Norway). After field research in St. Petersburg, he was employed at the University of Copenhagen, where he received his doctorate in 2009 on popular music in St. Petersburg and the German-Austrian Russian disco scene. His current research interests include topics related to music and conflict in the context of the Russia-Ukraine war, music and protest in Belarus, and power relations at music conservatories.

For the book, free download: https://musikene.eus/wp-content/uploads/2024/11/MU-SIC-POWER-RELATIONS-AND-BE-YOND.pdf



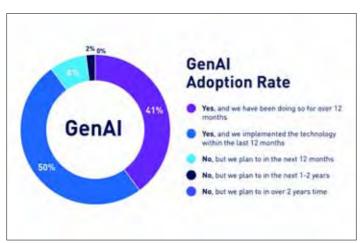




## Revenue growth through generative Al

A new study by Panasonic Connect Europe shows that generative Al is expected to generate an average revenue increase of 38 percent by 2025.

Preface: Two types of Artificial Intelligence (AI) are distinguished: Generative AI creates new content, including texts, images, videos, code, and music. Predictive AI, on the other hand, is used to forecast future events. Both of these technologies are based on Machine Learning (ML). Generative AI is the "creative" head of the team. This technology uses Deep Learning to generate new content based on the data it has been trained with. Predictive AI is the team member with the "business sense" and uses historical and current data to identify patterns and draw conclu-



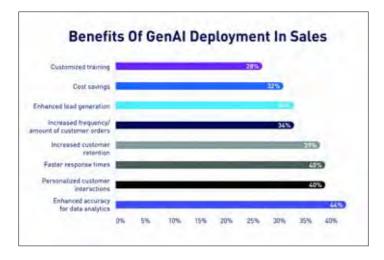
sions based on this information. It relies on statistical algorithms and ML. More on this topic can be found on page 82 of this issue.

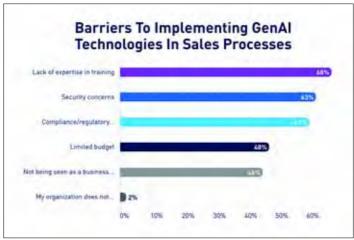
Panasonic Connect Europe recently presented a new study which shows that 91 percent of sales experts use generative AI (Gen AI) for competitive advantages. The respondents expect an average revenue increase of 38 percent through generative AI. This is explained by improved accuracy in data analysis, more personalized customer interaction, and faster response times.

## Challenges in internal collaboration

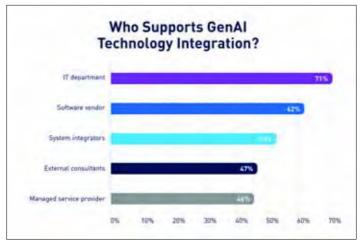
A central topic of the study was the question of which department will take the lead in generative AI. Ninety percent of respondents expect support in integrating it into their processes, and 68 percent are convinced that this support will primarily come from their company's IT department. While the IT department has the necessary expertise on the functional aspects of the technology, companies should consider more comprehensive support when implementing generative AI-supported sales processes.

The implementation of generative AI appears to present a significant challenge: 92 percent of respondents anticipate obstacles. Accordingly,









training (68 percent), security (63 percent), and compliance with regulations (61 percent) are listed as three of the biggest obstacles.

#### Different perspectives by age group

The assessment of the central and potential use cases of AI varied significantly between age groups. Senior salespeople report more frequent use of generative AI and see it as a time-saving advantage, while younger respondents view it more skeptically.

Margarita Lindahl, Head of AI at Panasonic Connect Europe, says: "Our study shows that generative AI is transforming sales, enabling significant growth, and raising high expectations among professionals."

However, implementation alone does not guarantee success. "Companies must overcome knowledge gaps and integration hurdles by driving the transformation with forward-looking strategies, clear guidelines, and comprehensive support. Only then can sustainable impact and real competitive advantages be secured", says Lindahl.

For companies that want to further educate their employees in using generative AI and improve their performance, Panasonic has launched a new consulting and training program for B2B sales. It aims to enable targeted customer engagement and customized communication.

Further information on the program is available for download here: https://eu.connect.panasonic.com/de/de/ai-training-sales.

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## Disruption and crisis management at events

Events are usually meant to do one thing above all: entertain and bring joy – ideally not just for the attendees, but also for the organizers themselves. However, events always carry the risk of unforeseen incidents that could endanger the well-being of participants and disrupt the course of the event.

Through proactive planning and clear responsibilities, organizers can ensure they are adequately prepared for emergencies and can respond quickly. Comprehensive disruption and crisis management not only ensures the safety of participants but also preserves public trust and significantly contributes to the success of the event.

#### Possible disruptions and crisis situations

Disruption and crisis situations arise when unforeseen events occur, triggering the need for action. These events can take various forms - ranging from sudden technical failures to unexpected weather-related conditions to medical emergencies. Weather plays a particularly central role in outdoor events, as extreme weather conditions like thunderstorms or storms can lead to situations requiring action. Such events, as well as technical malfunctions in stage elements or overloading of supply structures, can pose risks.

The associated risks can generally be analyzed in advance through a professional risk analysis and usually minimized through measures derived from it, though they cannot be entirely excluded. If such disruptions and crises occur, they require action, and risks may arise that necessitate evacuation or the involvement of rescue teams. A coordinated and well-prepared disruption and crisis management plan ensures that organizers are well-prepared and can act quickly and appropriately in an emergency.

#### Preventive disruption and crisis planning

The foundation of successful disruption and crisis management is a detailed disruption and crisis concept that defines clear role assignments and ensures the availability of important resources. Such a concept is recommended for every event team and should include all measures that are relevant in case of a crisis. An essential part of this is the security concept, which includes, among other things, an overview of emergency exits, the positioning of medical personnel, the exact location of technical resources, and evacuation and clearance plans.

Another key element of disruption and crisis management is coordination bodies such as the security circle, the coordination circle, or a crisis circle, which are set up before the event. These bodies consist of members with different responsibilities, who monitor and coordinate the entire process during a disruption or crisis. Clear competence distributions help keep decision-making processes short and implement measures immediately. This ensures that in the event of a disruption or crisis, all necessary steps - from requesting medical services to coordinating an evacuation - can be initiated right away. This proactive and precise preparation allows for a quick response and plays a crucial role in ensuring the safety of the event and thus its success.

#### Rapid information dissemination

A particularly critical factor in disruption and crisis management is the rapid and structured dissemination of information. Without a clear and reliable communication structure, even a well-organized disruption and crisis concept can be difficult to implement. Therefore, special emergen-

cy channels should be established within the coordination bodies to allow direct and unobstructed communication. This can be done through radios, emergency phone numbers, other technical messaging systems, or direct channels that significantly increase the speed of response. A central coordination office serves as the primary point of contact for all incoming emergency reports, evaluates them, and distributes the information to the relevant parties.

Efficient internal security communication also means role-based information distribution. Specific contacts for different areas - such as technology, security, or medical care - should be defined in the disruption and crisis concept. With a clear division of roles, the transmission of critical information is accelerated, and the likelihood of misunderstandings is reduced.

Emergency communication, especially with attendees and/or the public, is also essential during a crisis. Attendees must be informed as quikkly and precisely as possible during crises to encourage calm and targeted responses. Pre-planned and tested communication tools such as public announcements, digital displays, and social media channels are especially suitable for this. Through these channels, attendees receive clear instructions, which helps with orientation and increases safety.

For external crisis communication with the media, a comprehensive crisis communication plan is recommended. This plan may include standardized press releases and prepared statements to enable a quick and factual response in a crisis. The plan also includes a strategy for regular coordination with relevant partners and authorities that can provide additional support during a crisis.

## Decision-making processes and action security

To ensure that security bodies can act in a structured manner in any situation, escalation levels and decision-making processes must be defined in advance. These escalation levels allow different measures and decision-making paths to be activated depending on the severity and nature of the incident. For example, a weather-related incident such as a sudden thunderstorm requires a different reaction than a medical emergency or a technical failure. Each escalation level is associated with clearly defined steps that make it easier for the security bodies to respond promptly to the respective crisis situation.

A central component of crisis management are the Standard Operating Procedures (SOPs). SOPs are standardized procedures that describe in detail how the individual members of the crisis team should act in specific crisis situations. These instructions reduce the risk of human error, and team members can rely on established procedures. SOPs thus create a structured basis for quick action in emergencies and help save valuable time.

To prepare the crisis team for real-life situations, simulated emergency scenarios and training can also be conducted regularly. Realistic simulations ensure that all participants are familiar with their roles and the associated processes. Through these exercises, the confidence of the participants in their abilities is strengthened, which in turn increases the responsance of the participants in their abilities is strengthened, which in turn increases the responsance of the participants in their abilities is strengthened.

se security and composure of the entire team in an emergency.

As crisis situations are often dynamic, the ability to quickly evaluate and adapt measures is also important. Checklists and flexible decision-making guidelines allow priorities to be dynamically adjusted, and decisions to be finetuned as the situation develops. This flexibility is particularly important, as it allows the security bodies to respond flexibly to unforeseen developments and ensure the best possible safety for the event.

#### Conclusion

Successful disruption and crisis management is characterized by good preparation. The establishment and setup of a crisis team, role-based task assignments and competence allocations, a comprehensive risk analysis as a foundation, the definition of communication channels, and the establishment of standardized procedures, as well as the rehearsal of crisis scenarios, are the central elements of disruption and crisis management. A holistic and well-ordered disruption and crisis management system can significantly contribute to the successful handling of crisis situations, thereby contributing to the safety and success of the event.

The author, Jens Groskopf, and his company, Groskopf Consulting, are happy to support the development and implementation of professional disruption and crisis management - from preventive planning to structured crisis and communication concepts to simulating emergency scenarios. Contact via phone at 030/513 00 80 00 or by email at mail@groskopf-consulting.de.

#### The Milan Manager 2.0

L-Acoustics and d&b Audiotechnik introduce a new central platform that simplifies access to brand-independent network management software.



Following the successful launch of Milan Manager at InfoComm 2024, d&b Audiotechnik and L-Acoustics announce the launch of milanmanager.com, a dedicated website for accessing this innovative network management solution. The platform serves as a unified resource for professional users and manufacturers who wish to implement Milan-AVB networks in various applications. The website provides a central, manufacturer-neutral location where all users can download the Milan Manager software for free. Simultaneously with the launch of the Milan Manager website, version 2.0 of Milan Manager is released. The upgrade includes many new features, most notably the enhanced offline mode, which allows for the pre-configuration of Milan-AVB networks using an integrated library of certified products. Configurations can be saved as files for later use or applied directly to the devices once they are connected to the network.

With the introduction of milanmanager.com and Milan Manager V2.0, the goal is to promote the widespread adoption of Milan-AVB technology. The Milan Converged Media Network highlights its value to the professional audio community with its specification and certification. This initiative underscores the commitment of both companies to build an open ecosystem that benefits the entire professional audio industry.

"The launch of milanmanager.com marks a milestone in simplified network management", says Genio Kronauer, Executive Director R&D, Technologies and Platforms at L-Acoustics. "This dedicated platform demonstrates how committed we are to making Milan-AVB technology accessible to the entire professional audio community."

"By providing a neutral, central resource for Milan Manager, we are promoting the broader acceptance of Milan-AVB networks throughout the industry", says Matthias Christner, Head of R&D Systems & Technologies at d&b Audiotechnik. "This platform will serve as the foundation for continuous collaboration and innovation."

d&b Audiotechnik and L-Acoustics are actively committed to regularly receiving feedback from the industry, especially from members of the Avnu Alliance. This ongoing dialogue ensures that Milan Manager continues to evolve to meet the needs of the professional audio community.

The Milan Manager remains free and offers essential features such as automatic device detection, easy network configuration, and real-time status monitoring. The intuitive user interface of the software allows users to efficiently manage Milan-AVB networks of any size while ensuring optimal performance.

www.milanmanager.com







### 2.426.510 guests in 2024

The Lanxess Arena in Cologne has set a personal all-time record and surpassed the previous "milestone" of around 2.17 million guests in 2017. This places it in third place in the European concert and entertainment comparison (excluding sports) by the US industry magazine Pollstar.

Since its opening in 1998, the Lanxess Arena has been one of the most popular event venues in Europe and has continuously established itself as one of the most significant and versatile locations. In 2024, the arena achieved a new attendance record with 2,426,510 guests and 193 events, surpassing its own record of 2.17 million visitors from 2017. This outstanding number of visitors secured the arena the top spot, ahead of the Uber Arena in Berlin, which with about 1.7 million guests holds second place, and the Barclays Arena in Hamburg, which with around 1.1 million visitors takes third place. Particularly impressive were the audience numbers for the home games of the Cologne Sharks in Cologne-Deutz, with an average of nearly 17,000 fans per game in the past season and almost 18,000 in the current season, setting two European ice hockey au-

dience records, further contributing to the immense success. Even compared to football stadiums, the Lanxess Arena outperforms established venues like the Signal Iduna Park in Dortmund or the Allianz Arena in Munich. Here, the Cologne arena only loses out to the Schalke Veltins Arena.

In the European concert and entertainment ranking of the US industry magazine Pollstar, the Lanxess Arena is also the most successful venue in Germany and ranks third in Europe. This success is all the more remarkable, as Pollstar only considers non-sporting events, leaving out high-traffic events such as the "EHF Euro 2024" and the audience records of the Cologne Sharks.



Mayor Henriette Reker emphasizes: "The arena is a magnet for music fans and sports enthusiasts from all over the world. This was impressively demonstrated, especially in the major Euro 2024 year. The arena is regularly the venue for international top events, radiating far beyond the city's borders. I congratulate Managing Director Stefan Löcher and his team on this special attendance record and am confident that this Cologne success story will continue in the future."

#### "One of the most successful event venues in Europe"

Klaus-Peter Schulenberg, CEO of CTS Eventim, says: "Since we have been responsible for its operation, the Lanxess Arena has developed into one of the most successful event venues in Europe. The current visitor record and the top positions in the national and international rankings are impressive proof of the arena's magnetic appeal today for Cologne, the region, and far beyond. At the same time, it has become an integral part of Cologne's culture and a modern landmark of the city. As an important part of our growing venue business, it is a place where artists, organizers, and fans experience unforgettable moments together."

The record numbers are also an important boost for tourism in Cologne. Dr. Jürgen Amann, Managing Director of Köln Tourismus, underscores: "We also warmly congratulate on this outstanding achievement. Cologne is a destination that continues to inspire, which is highlighted by the high number of repeat visitors who are inspired by the existing and always new cultural offerings. The Lanxess Arena plays a central role in the cultural and event landscape. Our record visitor numbers confirm that this success is a team effort, to which the most successful event venue in Germany has made a significant contribution."

#### "This record is an outstanding milestone for us"

Stefan Löcher, Managing Director of the Lanxess Arena, comments on the success: "This record is an outstanding milestone for us, and I would like to sincerely thank all our guests, partners, and especially our fantastic team. We are pleased that our hard work has been rewarded, and we were able to generate an important economic boost for the city. At the same time, the city as a whole should not lose sight of the fact that the competition is strong, and we must work hand in hand to maintain our status as a sports and event city."





Wir bieten das Komplettpaket für Events jeder Größe - von Design und Logistik bis zur Produktion - sowie modernste Licht-, Ton-, Video- und Riggingtechnik zur Miete.





## Network as a gamechanger

ET.Now spoke with Korbinian Lauxen, guitarist, sound technician, and producer, and since 2023, after several years of freelancing in the events industry, working in sales at Cordial.

Lauxen's employer, Cordial, is a German cable manufacturer with a wide product portfolio - ranging from instrument, microphone, and speaker cables to multicore systems and adapters, as well as DMX, MIDI, and application-specific digital cable solutions. The company is celebrating its 30th anniversary this year.

#### What is the current status in the event industry?

Ethernet, as a digital transmission protocol, offers a variety of advantages over analog signal routing. The persistent argument of latency in digital signal processing is increasingly being countered by the powerful processors and computing power of digital systems. In an industry that is constantly under time pressure, efficiency in handling large amounts of data, coupled with reduced cabling effort, is a significant advantage.

Sound and lighting consoles have long been switched to Ethernet transmission. There is hardly a venue left that still has an analog house setup. In touring, digital consoles are also standard thanks to the memory and retrieval options for various settings. Control and connection of multiple devices via network have become a firm standard in the events industry, via Dante, whether in the field of sound technology with a digital FOH and monitor split or the organization of many universes in lighting technology. Frequency coordination for wireless systems is also efficiently solved via network.

In short: Digitalization is already well advanced in the industry, and what will be possible via network control in the future is exciting.

#### What are the potential areas where digital signal transmission and network control could still develop?

Video signals are still predominantly sent via SDI or HDMI cables, so this is an area that uses very little Ethernet. There is also potential in sound and lighting. The control of individual lights is still mainly done via DMX cables in practice, and the shift to Ethernet is inevitable, as the individual lights are requiring more and more channels, which causes the capacity of a DMX line to reach its limits.

Most major manufacturers are already using both connections for their new devices for this reason. In sound technology, there is potential in the area of stage distribution, i.e., multi-channel feeders that can then be managed via network. There is already a way to send four audio signals analog over an Ethernet line. More is unfortunately not possible analog, but if digital converters were cheaper to install, there would be great potential.

The current solutions for digitally managing such distribution with more than four channels are only possible via additional stageboxes from the respective console manufacturer. What will also be exciting is the development coming more and more from the open protocol "Milan". Developed by companies in the industry for the needs of the industry, a network has been created here that aims to be as simple as analog, i.e., plug and play. You can clearly see here too: The future is based on networks.

All possibilities have one thing in common: they require suitable Ethernet cables. What do these cables need to be able to do, and how do they differ from regular DIY store network cables?

They definitely need to be of high quality. When it comes to the range of data transmission alone, the shielding and the structure of the cable core – the type of conductor and insulator – are crucial. Other features, such as Power over Ethernet (PoE), will also become increasingly important in the future.

PoE means that connected devices can be powered directly through the data cable, simplifying installation and reducing costs. However, it's not just about data transmission. The external conditions in which the cable is used are also crucial for its lifespan. Therefore, a cable in event technology must be much more robust than a network cable in an office. The connectors used also play a significant role in quality. There are large price differences here, as cheap connectors are often ten times cheaper than high-quality, robust connectors.

The biggest challenge in handling is finding a good compromise between performance, stability, and flexibility. Ethernet cables are inherently much less flexible than microphone or instrument cables due to their construction. When laying cables on stage, you want them to unroll smoothly and sit well on the ground and in cable bridges. But the more flexible you make an Ethernet cable, the more stability and performance suffer. So, the goal is to achieve a good ba-



lance between each of these requirements, or to divide the cables into application areas and weigh the properties against each other, which requires a considerable amount of engineering effort. All these factors inevitably affect the price, which must be justified but still competitive. We are, of course, convinced that with our new portfolio, we have managed to bring all these aspects together well - always tailored to the respective area of application.

With the variety of Ethernet cables with different specifications, the question arises: Is there a simple overview of which cable is suitable for which application?

That would be nice and would indeed simplify the sales of these products, but it's wishful thinking. There have been attempts to make the application regarding the performance and transmission of various protocols of Ethernet cables transparent, but it is not easy to implement this. Creating a simple graphic with cable type, possible protocols, and lengths is difficult for several reasons. Even with a single manufacturer, different series are equipped with different protocols that vary in possible transmission lengths.

You would have to test each protocol on every console from every manufacturer with each cable for transmission and stability, and that in a lab-like testing environment. In our case, if we only consider coiled cables and the most relevant manufacturers with their most important series, it would involve 38 different CAT reels x 6 relevant manufacturers x on average 3-4 different console types in the portfolio = almost 1000 possible combinations - if each console had only one stagebox option.



### Different classes

Ethernet cables come in different categories, abbreviated as CAT, such as 5e, 6A, and 7A. These differ primarily in bandwidth (MHz) and speed (Mbit/s) during transmission. "We like to use a highway as a metaphor: the bandwidth is the number of lanes, and the speed is the allowed maximum speed", says Korbinian Lauxen. So, if we represent the different classes using this metaphor, it would look something like this:

**CAT 5e:** 100 MHz/1000 Mbit/s corresponds to 2 lanes/max. 80 km/h

**CAT 6A:** 500 MHz/10000 Mbit/s corresponds to 3 lanes/max. 200 km/h

CAT 7A: 1000 MHz/10000 Mbit/s corresponds to 6 lanes/max. 200 km/h

A major advantage is that the cables are backward compatible. So, you can use a CAT 7A cable for applications that require CAT 5e or CAT 6A.



# Companies & Markets







# The Seven Sonic Wonders

Dolby recently released seven sonic wonders in Dolby Atmos on Apple Music: "The first album in the world to honor the most wondrous and endangered sounds from around the world", as stated...

Dolby Laboratories, a leading company in immersive entertainment experiences, has released "The Seven Sonic Wonders" - the world's first album mixed in Dolby Atmos, celebrating the most wondrous and endangered sounds of the world. Dolby and award-winning nature sound designer and wildlife film expert Chris Watson, whose work is featured in the David Attenborough series "Life" and the BBC series "Frozen Planet", reveal the seven most impressive sounds of nature. The album was scored by the also award-winning composer Nainita Desai. "The Seven Sonic Wonders" was mixed by Kurt Martinez at Dean Street Studios to create the ultimate listening experience in Dolby Atmos, aiming to forge a deeper connection between listeners and Mother Nature. The royalties from the album go to Earth Percent, a charity providing an easy way to support diverse organizations dedicated to fighting climate change.

To open the eyes and ears of everyone to what the world has to offer, Dolby takes listeners on an audio journey to discover the sounds of nature. With the enveloping sound of Dolby Atmos, listeners are fully immersed in the iconic sounds of the world, from the roaring of the Vatnajökull Glacier to the song of humpback whales in the Caribbean.

The seven sonic wonders were selected according to the same criteria as the seven natural wonders: epic natural beauty, the most endangered natural sounds, diversity and distribution, ecological significance, historical heritage, geographical location, and embodiment of a sense of mystery.



### The Seven Sonic Wonders

**Vatnajökull Glacier**, **Iceland**: One follows the millennia-long journey of Iceland's largest glacier from the peak to the shore before it breaks apart and releases air bubbles that have been frozen for 10,000 years.

**Dawn Chorus at Lake Suvasvesi, Finland:** In the Taiga or snow forests of the Arctic Circle, the summer sun never sets, creating an endless chorus of black-throated divers at dawn.

**Laughing Hippopotamus**, **Kenya**: According to Maasai folklore, the hippos pass the day telling jokes in the Mara River before laughing their way into the sunset.

**Frog Song in Gamboa**, **Panama**: On pitch-black nights beneath the canopies of the rainforest, the quiet frog song hides the venomous predators lurking beneath the feet.

**Starling Murmuration, United Kingdom:** Tens of thousands of starlings gather in a shimmering flock, a phenomenon so loud it flashed on the radar screens of the UK during World War II.

Whisper of a Coral Reef, Sulu Sea: The crackling and popping of a healthy coral reef is an acoustic signpost for life in the water - unlike a reef silenced by coral bleaching.

The Song of Humpback Whales, Caribbean Sea: The song of the humpback whales is also their way home, as the whales follow their "hearing" over thousands of kilometers to the warm winter waters.

Chris Watson: "I have been lucky enough to travel around the world and experience nature at its best. We often neglect the joys that the sounds of the Earth bring us in favor of the sights it offers, but they truly go hand in hand. It is a great pleasure for me to work with Dolby on this project to reveal some of the most inspiring sounds I have heard on my travels. I hope these tracks transport the listeners to the heart of these natural wonders, to where I originally placed my microphones - Dolby Atmos helps to bring them there."

Joel Gardner, Co-Executive Director at EarthPercent: "We work with some of the most well-known artists in the industry to raise funds for the climate and biodiversity crisis, and we are thrilled that Dolby has decided to support us in such an inspiring and emotional way. The album will help raise vital funds for our incredible funding partners, some of the most effective climate organizations selected by our expert advisory bo-







ard of leading climate scientists, researchers, and activists worldwide. A huge thank you to Dolby, Chris, and Nainita!" All tracks are exclusively available in Dolby Atmos on Apple Music.

Dolby Laboratories, headquartered in San Francisco, has branches worldwide. From films and series to apps, music, sports, and gaming - at Dolby, the science of seeing and hearing transforms into spectacular experiences for billions of people worldwide. Dolby works with artists, storytellers, developers, and companies to revolutionize entertainment and communication through Dolby Atmos, Dolby Vision, Dolby Cinema, and Dolby.io.

Dolby Atmos is an entirely new way to create and experience music that fully highlights artistic expression and creates a deeper connection between artists and their fans. Music in Dolby Atmos goes beyond the ordinary listening experience, immersing you in the song and revealing details with unparalleled clarity and depth. Dolby Atmos gives artists more space and freedom to realize their vision and opens up new emotional layers in their fans' favorite music. Whether you hear the details of the instruments surrounding you, catch the subtle breath of a singer between verses, or feel the melodies enveloping you - nothing transports you into the music like Dolby Atmos.

Earth Percent is the climate foundation of the music industry, co-founded by Brian Eno. Earth Percent works with an expert advisory board of leading climate scientists, researchers, and activists worldwide to identify some of the most effective organizations at the forefront of fighting the climate and biodiversity crisis. The foundation then funds these organizations through collective commitments that are embedded within the music industry - through live shows, record sales, publishing, and brand deals. This seamlessly integrates climate change funding into the industry while harnessing the cultural power of music in service of the planet.



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# "The party is still going on!"

60 years of innovation and sound for everyone: From a one-man workshop to a global audio giant—reason enough to look back on six decades of Peavey.

Peavey Electronics is celebrating its 60th anniversary - an impressive milestone that is unmatched in the world of musical instruments and audio technology. Under the continuous leadership of founder Hartley Peavey, the company has evolved from a small workshop above an old music store in Meridian, Mississippi, into one of the largest independent manufacturers in the industry.

The foundation was laid in 1964 with Hartley's first patent for a speaker cabinet. A year later, in 1965, he founded Peavey Electronics Corporation. Since then, his philosophy has been clear: "To be better, you have to be different" - a guiding principle that has led to over 180 international patents.

Peavey's goal has always been to offer high-quality equipment at fair prices. This made it possible for musicians with limited budgets to afford professional gear. For many, a Peavey amp was the first step onto the stage - in garages, clubs, or even stadiums.

Some of the company's milestones include:

**TransTube (1982):** This groundbreaking technology continues to shape the sound of solid-state guitar amplifiers to this day.

Josh Homme (Queens of the Stone Age): Swears by the small Peavey Decade from the `80s-a student amp that is now being reissued.

**CNC manufacturing (from the mid-'70s):** Peavey was the first manufacturer to produce guitars with computer-controlled machines - now standard in the industry.

**Power amps with record values:** With the CS 800, Peavey was the first to break the "1-dollar-per-watt" barrier.

**IPR power amps (from 2010):** Ultra-light, high-performance Class-D amps with up to 2000 watts at under 3.5 kg weight.

**Black Widow & Scorpion speakers:** Featuring replaceable baskets - eliminating costly reconings.

**Media Matrix (since 1993):** The first digital audio network system - now in use worldwide in over 10,000 major installations (e.g., airports, casinos, cruise ships).

Peavey's philosophy was never elitist: the company has reached countless musicians of all kinds worldwide - from beginners and club guitarists to touring professionals. Today, more than 2000 products are exported to 136 countries, including many top acts across all genres.

"We are proud of our history and grateful for the trust of our artists, dealers, and users," the company says. Peavey, even after 60 years, continues to stand for affordable quality and remains true to the core values on which everything was built. Or as Hartley Peavey himself puts it: "The party is still going on!"





Die Zukunft der professionellen drahtlosen Audioübertragung liegt...



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1 Rack-Höheneinheit = bis zu
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# "Technology should serve a purpose and simplify things"

The news about artificial intelligence (AI) has been overflowing for weeks. Recently, AI projects have been winning Nobel Prizes in both chemistry and physics, because they have led to groundbreaking discoveries in a very short time - discoveries that would have required many more years of research and analysis without AI. Maurice Camplair, a media technology expert at Crestron, has thoroughly studied the topic.



In industry, autonomous mobile robots (AMRs) have long been operating thanks to AI. There are cobots - this is what we call the direct collaboration between AI robots and humans. Since December 2024, Open AI Sora (part of ChatGPT) can generate photorealistic videos based on text input, images, or video material. It is now even assumed that in just a few years we will have the first artificial general intelligence (AGI), capable of solving any logical task better than any human. Previously, this was only expected to happen in 100 years. Once AGI exists, we will no longer be the smartest entities on the planet. It will be interesting to see how AI will handle morality and ethics. AI is progressing rapidly. Many governments are investing billions in AI development. That can be good or bad. Good and bad are, after all, merely subjective assessments based on each person's experiences. I have studied the subject intensively and have already given two lectures on the topic at "Hamburg Open" and "Leatcon" of course focused on my area of expertise: conference technology.

Most people are familiar with conference rooms that only have one camera in the room, often installed under the display or in the video bar at the front. During a meeting on your own laptop or phone, you also only ever have one camera. That's the norm. You might not even notice a camera in the room. But you can be sure that the camera technology during hybrid meetings is noticed immediately by the external participants.

So, in any room where you want to present yourself and your company well, you should ask yourself what the person on the other side of the meeting should see. You want to offer all external participants the opportunity to feel equally involved, just like the participants present on site. Feelings are important for successful communication. Communication is not only spoken words, facial expressions, tone, and intensity of speech, but the entire process of mutual engagement during a conversation. The back-and-forth in discussions is more important than pure information. Mutual engagement works best when people feel equal. And this is only possible for external participants if they can perceive as much information from the conference room as possible (audio and video, the higher the resolution, the better) and feel involved.

The most important aspect is the sound. If necessary, you can even communicate without a picture, like on the phone. As long as the audio transmission is uninterrupted. The room's acoustics are crucial for this. Without proper acoustic treatment, even the best technology is of little use. Furthermore, facial and body language are decisive. A sentence like "You did a great job again" can have completely different conscious and unconscious meanings: sarcastic with raised eyebrows or genuinely grateful. To distinguish between them, you must be able to clearly see the other person's facial expression.

Ideally, as an external participant, you would always see every face not just when someone is speaking. In the best-case scenario, there would be as many cameras as people in the room. But we humans have to focus in many ways and automatically do so in real-life situations. Our gaze can only focus on one thing at a time, so today's expectations are met if at least the currently active speaker is displayed prominently on the screen with clearly visible facial expressions.

As soon as more than one or two people are in the conference room, a single camera is not enough, because then the participants are only shown very small and emotions are missed. Whenever someone speaks, their facial expressions should be clearly visible, and ideally, as an external participant, you want to see a wide shot of the entire room at the same time. This requires multiple cameras - the more, the better - so that the best viewing angle on the speaker can always be found. You need good cameras and must know who is speaking. Ideally, you could even determine where the person is looking while speaking so the system can automatically select the camera that captures the person from the front. More on that later.

Today, when choosing a new multi-camera system, you face a variety of providers: Crestron, QSC, Yealink, Tracking Master, Stack Control, Panasonic, and many more. Crestron is taking a new approach. The company offers the right media technology solution for every type of room. Here I primarily focus on the multi-camera solution and the use of artifi-

cial intelligence or smart applications. If the budget for equipping a conference room only initially allows for one camera, you should choose a high-quality and potentially scalable solution.

Crestron offers the "1 Beyond" series cameras, which come from the broadcast sector and are of high quality: These are PTZ cameras with 12x or 20x optical zoom. There is a basic PTZ version (p12 and p20) and a version with additional intelligence (i12 and i20). They are powered via PoE or power supply. The intelligent versions i12 and i20 are recognizable by the extra lens at the bottom of the base. This lens is part of an additional wide-angle camera used for room and motion detection.

These cameras have intelligent additional functions:

- Group Framing (i12, the camera automatically zooms to include all people in the room),
- Presenter Tracking (i20, tracking a person in a specific zone),
- Group Tracking (i20, a group of people is automatically tracked)

The camera signal can be simultaneously tapped at the back of the camera as USB 3.0, HDMI, and SDI signal. All cameras, except the i12, support the NDI standard.

So, if you want to stream or record a presentation simultaneously, you can easily tap a second or third output from the camera. Crestron offers the HD Streaming Transmitter/Receiver DM-TXRX-100-STR for this. Two of these intelligent cameras can be combined into a dual-camera system. It's quick and easy. I personally set up this solution in many customer events last year within minutes. Both cameras must be on the same IP network. The front camera connects to the computer via USB. The IP address of the second camera is entered into the first camera. They then communicate and switch automatically. The front camera usually performs group framing and captures everyone in the room. The rear camera takes over when someone enters a pre-defined zone to present. The presenter is either tracked (Presenter and Group Tracking with the i20) or displayed without tracking (e.g. at a whiteboard). For this setup, you only need the two cameras and a 1Gbit switch. No control system is needed. Everything is configured using the included Camera Manager.

The Crestron all-in-one video conferencing bar B70 goes several steps further with its functions. It comes with a tabletop touch panel to control the video conference. Nothing else is required. You get a complete Teams or Zoom system; the video bar includes a built-in Android mini-PC. Four high-quality 4K cameras ensure good image quality, while an array of 24 microphones and 10-watt dual speakers handle audio.

The four cameras are especially valuable when multiple participants are in the room. The video bar can analyze its camera and microphone signals to determine where the speaker is in the room, zoom in on them automatically, and display them prominently so that facial expressions are clearly visible. If two people are talking, they can be shown side by side or individually, and a room view can be added.

But what if two or four cameras aren't enough? How many do you actually need? Maybe the room is too important or too large, and more cameras and logic or intelligence are needed? At some board meetings, video technicians are on-site just to operate the cameras. All decisions made by a video technician must now be made by a system.

The number of cameras needed in a room can only be determined on a case-by-case basis and depends on many factors. Ultimately, every person should be captured from the front. Ideally, even two people sitting side by side should be captured individually; for this, you need at least two cameras per "table side" to individually display each speaking neighbor. If only one camera captures two people, emotional cues are lost because faces become less than half as visible due to zooming out. Panning between two speakers is not recommended - it quickly causes dizziness. Therefore, solutions without visible pans and zooms are preferred.

A multi-camera system brings many tasks and pitfalls. You have to evaluate many microphone and camera signals and trigger actions based on events, such as switching to the camera that shows the speaker best (i.e., front-facing and



# Companies & Markets

zoomed-in). With most known systems, these solutions are programmed manually and can take significant time.

At Crestron, systems are configured, not programmed - visually and easily based on a floor plan. There is no long "blind" programming without visual confirmation. The Crestron Automate VX system can even be fine-tuned and configured live without programming.

To do this, simply upload the floor plan into the freely available online software "Room Designer" and define microphone, seating, and camera positions with just a few clicks. The program immediately shows whether the microphone coverage is sufficient for the room size and whether all seating positions are clearly distinguishable. The system must know which seating position is currently speaking to make decisions. If chairs are too close together, this can lead to unclear results. Setup and troubleshooting are especially complex during programming.

Crestron's "Automate VX" is audio-based and determines the current speaker's seating position using microphone signals. This distinction is important: The system initially locates the speaker using only the audio signal; only afterward does the visual AI in the cameras or system take over to track individuals. Therefore, clear acoustic separation of all seats is essential. Visual AI is not used for initial localization.

Microphones can either be dedicated speaking units per seat - where it is already clear who is speaking because they have to press a button to activate - or ceiling microphones that output the position of a speaking person relative to the microphone. Ceiling microphones have the great advantage of being almost invisible. Participants can talk naturally without turning their heads to a visible mic or pressing a button. Only then are fluent conversations possible, because people don't speak into a microphone – they speak to each other. And this interaction is crucial - not just for equality but for human interaction. Technology should serve a purpose and simplify things.

Crestron's system comes with a full license of the professional broadcast streaming software Wirecast, which includes a wealth of tools to make any Automate VX video conference look exactly how you want. With Automate VX, all camera signals are collected, and the software decides how to mix them into a final image. This result is always a single video signal, which can contain a mix of many camera feeds.

You can create any layout, e.g. a conversation mode that shows the last two speakers in large view with a full room view below or as picture-inpicture. You can insert GIFs or videos, add lower-thirds, logos, text, transparency, and more.

What hardware is needed for this system? Up to 40 cameras are connected via LAN (NDI) to an Automate VX server. You also need microphones and good room acoustics. That's it. A touch panel is recommended for switching between scenarios or seating configurations. From the touch panel, you can also integrate a Crestron control system to manage the room or building (lights, shades, climate, etc.). The system can also record all camera signals simultaneously, which can be useful for court hearings or hospital operations.

Regular firmware updates are free and often include interesting new features. One such recent feature allows you to draw furniture outlines over the camera image within the software, making it easier to reposition tables or chairs after a layout change without relying on tape markings that quickly wear off.

A future free update will enable the system to automatically select the camera that shows the current speaker best from the front. Currently, you pre-assign cameras to seats. But if the speaker is looking at a neighbor rather than the camera, you might only see half their face and miss key cues like raised eyebrows or a smirk. So, the person is still located via audio/microphone, but the system will then autonomously decide the best camera position.

For many applications, artificial intelligence is not even necessary. Often, the connected use of smart applications is enough to create intelligent solutions. Crestron has many tools to implement complex and security-relevant projects within its own ecosystem. Systems often become vulnerable at their interfaces - especially with third-party vendors.

So what distinguishes AI from smart applications? The differences are often hard to spot. By "smart application", we mean a typical if-then logic found in computer programs, e.g., "If window open, then error message". Programs only execute predefined commands, while AI may continuously learn from past inputs and outputs or be pre-trained to make decisions, such as "Face or no face". Good sensors are needed for the "if" (is the window open?), and executable processes for the "then" (trigger error message).

One example is a presence detector that automatically shuts down unused rooms. If no one is in the room, the display is at least turned off. The logic is implemented, for example, on a Crestron control system. Such a system is essentially just a computer. A hardware control unit like the Crestron CP4 already includes some hardware interfaces (COM, RS232, etc.). But the Crestron control system is also available as a software license (VC4) that can run on standard computers.

In principle, artificial intelligence could also be used or trained on standard computers, but training capabilities and running large AI models like ChatGPT or DeepSeek require enormous computing power. Compared to powerful laptops, GPU computer processors from nVidia, AMD, Intel, etc., are much faster - and more expensive.

AI models are trained to independently perform specific tasks. The GPT-4 model (March 2023) was reportedly trained on around ten thousand Nvidia GPUs, each worth 20,000 to 40,000 Euro (totaling 200 to 400 million Euro in hardware). Companies either buy or rent such server farms. Buying is expensive but keeps all data securely in-house. Renting from large providers like Amazon or Microsoft is more affordable for a limited time. GPT-4 was trained continuously for three months on such a setup. The estimated cost of this training time is 78 million Euro. However, when renting, sensitive company data might be exposed – it's always a trade-off.



Author Maurice Camplair is 47 years old, lives in Hamburg, studied social insurance in Berlin and media technology in Hamburg, and has worked for media technology integrators, distributors, and manufacturers. Crestron is an American, family-owned provider of solutions for connection, collaboration, and control. The range extends from signal distribution and switchers for audio, video, and USB to control systems, video conferencing systems, cameras, touch panels, door signs, wireless systems, and occupancy sensors, all the way to a free management platform, XiO, for monitoring and managing all devices.





In 2010, today's Crewbrain CEO Sven Schlotthauer was working a part-time job at a company for event technology. In addition to earning some extra pocket money, it quickly became clear that there was also a lot of room for organizational improvement. This led the former Gig Planer startup to evolve into today's company Crewbrain.





Gigplaner 2010

Staff schedules in Word or Excel, typically sent out midweek for the upcoming weekend, were the norm back then. However, these were usually already outdated by the time the dispatcher clicked "Send", as shortly afterward the phone would typically ring and the first employees or freelancers would request changes and adjustments. The final version of the plan often ended up looking quite chaotic as a result. Various solutions to this problem were proposed: along with the use of tools like Google Calendar, the idea of developing proprietary software was also considered. And so, within a quarter of a year, the first version of the "Gig Planer" was created. This version primarily allowed for assigning personnel to different jobs and sending out requests and booking emails. Very quickly, however, functions for payroll and time tracking for part-time workers were added, gradually digitalizing the planning and many other processes.

The custom-developed Gig Planer proved itself in daily use. As a result, other companies soon became aware of the solution. For this reason, Sven Schlotthauer began offering the tool in 2011 as cloud software for other companies, step by step gaining additional clients and reaching new prospects. These helped the system achieve increasing popularity in the following years, leading to the logical consequence in 2016 of transitioning from a sole proprietorship to the foundation of a limited liability company, Gig Planer UG.

In 2017, Gig Planer was represented for the first time at trade fairs such as Prolight + Sound in Frankfurt, increasing its international visibility. From 2018 onward, versions in French and Spanish were available in addition to German and English. At the same time, however, a major problem became evident: the company and product name "Gig Planer" was difficult or even impossible to understand in



Sequency States in 2011

Sequency States in 20

Gigplaner 2014

an international context and therefore urgently needed to be changed. Preparations for the necessary renaming and rebranding began at the start of 2019. This included a complete visual redesign of the system. These efforts were to culminate in the presentation of the new brand "Crewbrain" at Prolight + Sound 2020. And then came COVID...

Due to the pandemic, the trade fair, which was supposed to be the big "kickoff" for Crewbrain, was first postponed and then ultimately canceled. A major setback for the team around Sven Schlotthauer, as all the preparation suddenly seemed in vain and, most importantly, the large international audience for the rebranding launch could no longer be reached.

In the end, necessity became the mother of invention, and the release of the new name took place - quite fittingly for the COVID era - in both digital and printed form. On April 3, 2020, the new name was introduced via a press release and detailed coverage in various online and print media. At the same time, a completely redesigned user interface in the new Crewbrain look became available, which customers could initially use alongside the still-existing "Gig Planer".

The months that followed were a major challenge for Crewbrain and nearly all customers in the event and entertainment industry. The further development was fraught with great uncertainty. However, thanks to extensive support measures from the German government, it was still often possible to invest.

A positive side effect: there was finally the necessary time to implement such a complex system as Crewbrain in businesses. This al-









Crewbrain 2020

lowed Schlotthauer and his team to even use the time together with customers to grow further, which already led on October 10, 2020, to the renaming and transformation of Gig Planer UG into Crewbrain GmbH.

Since then, the team has steadily grown to the current number of ten employees. In addition to software and product development for the desktop version and the native smartphone app for Android and iOS, a sales and support team was also formed to best support customers in implementing Crewbrain and, of course, during ongoing operations. "To name just one example: last year, 2024, we logged about 3,000 support tickets and conducted more than 2,800 support calls. That corresponds to more than 10 calls per day across 250 working days - and usually only calls longer than 15 minutes are recorded", says Sven Schlotthauer.

And the numbers from recent years are indeed impressive. Last year, all Crewbrain customers together successfully planned more than 40,000 projects in the system. These 40,000 projects included nearly 600,000 specific jobs (events or shifts) scheduled for employees. In total, almost 30,000 travel expense reports were created and approved in 2024. The top customer alone accounted for more than 4,000 travel expense reports for their employees.

However, the area of time tracking offers perhaps the most extensive number of data entries. Over 1.8 million working hours were recorded by Crewbrain customers in 2024. And even here, the top performer surprises: more than 84,000 recorded working times are attributed to a single company, closely followed by two customers with slightly more than 66,000 working times.

For Crewbrain, remote work is one of the keys to success. When the COVID-19 pandemic made remote work inevitable due to circumstances, employees from all over Germany joined the team. Today, employees work not only at the company headquarters in Baden-Baden but also in Berlin, Ingolstadt, and the Ruhr region - primarily from home. To maintain team spirit, annual team events with workshops and, of course, evening activities take place.

Looking ahead, the focus is primarily on the systematic further development of the entire system and the overhaul of existing system components. "Since the core of the system is now nearly 15 years old and the interface, although redesigned in 2020, still runs on the same technology for over 10 years, it's time for us to gradually rebuild the system and continue developing it with current technologies", says Schlotthauer.

Crewbrain is aided in this by the recently introduced product roadmap, which is directly visible to customers and thus enables co-determination in the system's further development. This way, Crewbrain will continue to evolve steadily over the coming years and become even better tailored to the needs of the event and entertainment industry.

"However, customers outside the classic event industry also use the system. This includes, for example, the company 'Travel Connect' from Iceland, which organizes tours for cruise guests on the volcanic island and uses Crewbrain to schedule the guides for these tours", says the managing director. "In the future, we want to attract more 'non-traditional' companies to use Crewbrain to digitalize and optimize their personnel planning and many of their subsequent processes."











As the new branch manager at the Cologne location of Kuchem Konferenz Technik, Gabriel Böttcher succeeds Detlef Fonfara, who is currently increasingly involved in various largescale projects. "Gabriel has already been practically in charge of operations at the Cologne location for some time as a project manager and has mastered the daily major and minor challenges perfectly."

### Sarah Cox

The founder of "Neutral Human", Sarah Cox, becomes Chief Commercial Officer (CCO) of Stage Precision, initiating the next phase of the company's growth. With her many years of experience in the fields of commercial strategy and marketing, Cox is ideally positioned to drive the expansion of SP Grid, the next generation of experience control platforms.

### Jon Hole

The Avolites team in London is growing with the appointment of Jon Hole as Product Manager, who brings 15 years of industry experience. Hole discovered his passion for the industry as role, Takizawa will align Christie's a teenager while working at the Northcott Theatre in Exeter, United Kingdom. This inspired him to study stage management and technical theatre production at the Royal Welsh College of Music & Drama.



d&b is pleased to welcome Jaakko Kaivonen as the new CRO on the management team. In his management roles at previous companies, Kaivonen held full P&L responsibility, including global leadership of the Industrial Segment for the Entrance Systems Division at the Assa Abloy Group. He was also active in various management positions at the Kone Corporation.

### Malte Polli-Holstein

Perfect Media Solutions (PMS) strengthens its management: with Malte Polli-Holstein, the company gains an experienced expert who will be jointly responsible as Co-Managing Director for the areas of sales, operational processes, and internal structures. Polli-Holstein brings over 25 years of experience, most recently in system integration in responsible positions at ASC, Adunas, and Innovaze Media.

### Patrick Schröder

The digital signage software provider Connect Signage expands its management team: Patrick Schröder takes over the newly created position of Chief Growth Officer (CGO) as of April 1, 2025. For almost 12 years, he led the development and management of the Digital Signage and Retail sectors, most recently as Director Retail, Digital Signage & Sales at Dimedis.

### Hideaki Takizawa

Hideaki Takizawa is the new Chief Financial Officer (CFO) of Christie Digital Systems and its subsidiaries. In his new financial strategy with the company's overarching goals and ensure internal control and reporting systems to support the company's ongoing growth and innovative strength.

### Nicola Wagener

On March 17, 2025, Nicola Wagener joins the d&b Group as CPSO. She brings more than two decades of experience in driving performance across various industries, beginning with her position as a top management consultant at McKinsey & Company, followed by her role as Head of Corporate Strategy & Portfolio at Thyssen Krupp AG, and most recently as a leadership advisor at GH Smart.















# Change in management at MA Lighting Technology

Effective March 1, 2025, Stephanie Waldorf and Rene Berhorst have been appointed managing directors of MA Lighting Technology. Waldorf has been with MA Lighting Technology for six years and was most recently team leader for finance, human resources, and administration. Berhorst previously worked for over 16 years at MA Lighting International, most recently as head of product management, and transferred to MA Lighting Technology in 2022.

After 15 years of outstanding service as head of software development and since 2012 as managing director, Gerhard Krude is transitioning into

an advisory role. Over the next two years, Gerhard will support MA Lighting Technology in this advisory capacity.

Stephanie Waldorf and Rene Berhorst will join Alexander Schneider as managing directors of the company. Waldorf will assume responsibility for human resources, finance, and digitalization. Berhorst will focus on research and development. Alexander Schneider will take on the role of spokesperson for the management and will remain responsible for production, service, and purchasing. In addition, he will increasingly address strategic, company-wide topics.



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# Employee No. 1000

To conclude the anniversary year marking its 40th anniversary, L-Acoustics announces another significant milestone: the company welcomes its 1000th employee. Kevin Gouriou joins the company as a prototype developer in the research and development department. This milestone comes during a remarkable growth phase for the company, during which the workforce has grown by 40 percent over the past two years. With global locations in Paris, Los Angeles, London, and Singapore, L-Acoustics has strategically expanded its presence to support the worldwide network of partners and customers while remaining true to its commitment to innova-

tion: 20% of the workforce is employed in design and research & development.

L-Acoustics responded to the rapid growth with a strategic restructuring, creating specialized teams for key market segments and strengthening support for its network of certified providers in over 80 countries. The extensive expansion in 2024 included more than 200 new positions, 20% of which were filled internally - a clear indication of the company's commitment to employee development.





# Arri expands management team

The management of Arnold & Richter Cine Technik GmbH is being expanded alongside Walter Trauninger to include industry experts David Bermbach and Christian Richter. The new managing director roles underscore a strengthened commitment to innovation and new markets.



Arri is strengthening the management of Arnold & Richter Cine Technik GmbH with two new managing director positions: "Strategy & Innovation" and "Sales & Rental". In addition to the long-standing and industry-experienced Walter Trauninger, David Bermbach will in the future be responsible for innovation and Christian Richter for sales within the management team. Both have had successful careers in the media & entertainment industry and have already contributed significantly to Arri's success in leading positions in recent years.

"With David Bermbach and Christian Richter, we have been able to bring two proven industry experts and long-time insiders of our company into Arri's management. Together with Walter Trauninger, they will consistently align Arri with the future of the media & entertainment sector with the aim of continuing to position the company as a preferred partner for creatives worldwide: through technological innovation, customer proximity, and new business ideas. They have our full support on this path to the future", says Dr. Walter Stahl, Managing Director of Arri GmbH and member of the founding family.

As a family-owned company with a solid capital base, Arri continuously drives the development of its portfolio of high-quality products and services in order to shape the industry's transformation together with its customers from media & entertainment. "We will continue to invest in our core competencies – camera, sensor, and lighting technology – while

Arri's managing directors (from left): David Bermbach, Walter Trauninger and Christian Richter.

simultaneously expanding our portfolio to include new areas such as cloud solutions, digital twins, and AI. In doing so, we provide the industry with state-of-the-art integrated solutions", says David Bermbach, Managing Director Strategy & Innovation.

Arri is currently expanding its motion picture product range with innovations such as the new Alexa 265, which is significantly smaller and lighter than its predecessor, as well as the Alexa 35 Base, a more budget-friendly model for everyday needs. Live entertainment and corporate clients benefit from the cinematic quality of the Alexa 35 Live and an expanded lighting portfolio.

"In addition to our technological advancements and our moves into the fields of sports, concerts, and corporate applications, we are also focusing on new markets such as Saudi Arabia and Latin America to tap into their great potential and be at our customers' side as a preferred partner there as well", explains Christian Richter, Managing Director Sales & Rental.

# L-Acoustics awarded for the 3rd time



L-Acoustics has been included for the third time in the annual list of the .. World's Most Innovative Companies 2025". Ranked second in the category "Events, Concerts, and Live Experiences", the company was particularly recognized for its groundbreaking developments in the field of Broadway sound design. The list honors companies that shape their industries through continuous innovation. L-Acoustics' innovations began over 30 years ago with the invention of the modern line array system V-Dosc. With its immersive L-ISA technology, the company is setting new standards in spatial sound experiences - a development that was employed in the Broadway production The Outsiders.

# Igus wins German Design Award



For the solution "Office Chain OCO" - a compact and stylish energy chain for cable management - the manufacturer Igus has now been honored in the category "Excellent Product Design - Office Furniture" with the German Design Award 2025. The user attaches the chain to the underside of the tabletop with a magnetic mount. The lower end is connected to a fixed point - such as the table leg or a cable duct. Then, the user presses the cables for computer, monitor, and telephone through tabs into the individual segments of the energy chain. When the user adjusts the desk, the energy chain folds and stretches while remaining upright thanks to the

# IP44.DE wins iF Design Award



The luminaire "Luci Control" was awarded the iF Design Award 2025. The award recognizes outstanding design and the highest design quality. Luci Control impressed the jury with its minimalist, timeless design and innovative technology. The award-winning luminaire is equipped with an integrated motion sensor and stands out due to its characteristically contoured shape and glass lenses. The lamp is an evolution of a proven classic and combines cutting-edge LED technology with intelligent sensor technology. Thanks to the integrated motion sensor, the luminaire provides light precisely when needed, in warm white (2700 Kelvin).







# Anatomy for all

The "Virtual 3D Lecture Hall", a groundbreaking project from Austria, was awarded at the Inavation Awards in Barcelona as part of the Integrated Systems Europe (ISE). In the category "Healthcare", the virtual 3D lecture hall - an innovation by Johannes Kepler University Linz, Med Uni Graz, Ars Electronica Futurelab, and PKE Electronics – triumphed over three other nominations.

The project enables live streaming of anatomy lectures in stereoscopic 3D - a technological premiere that has connected the Medical Faculty of JKU Linz and Med Uni Graz since September 2024. The virtual 3D lecture hall links in real-time the 3D training hall JKU Medspace at Johannes Kepler University Linz with the large lecture hall of anatomy at Med Uni Graz. Under the leadership of Prof. Franz Fellner, virtual anatomy is taught in Linz, while Prof. Niels Hammer and his team present physical specimens in Graz. By using 3D glasses, students can now attend the lectures live on large projection surfaces, even when

they are 200 km away - for a deeper understanding of the anatomical connections of the human body.

Ars Electronica Futurelab developed the necessary technology, overcoming the challenge of transmitting the vast amounts of data required for high-resolution 3D streaming in the best possible quality with minimal latency. "That virtual and classical anatomy are now taught together in a shared virtual 3D lecture hall is a significant added value for the students", says JKU Rector Stefan Koch. "For us at Ars Electronica Futurelab, this project







shows how interdisciplinary collaboration creates innovation that benefits society. Continuous research and the commitment of many individuals and institutions, such as the entire Ars Electronica team, are the key to this successful cooperation, which is reaching ever greater circles: from the first 'Anatomy for All' demonstrations in 2015 at the Ars Electronica Center to medical education across Austria. We look forward to exploring where this shared journey will take us", says Roland Haring, Managing Director of Ars Electronica Futurelab.

"Technologically, the connected 3D teaching, synchronized across two university locations, is a high-tech pioneering effort and enables the education of students using the most modern available tools", says Herwig Rehatschek, Project Manager for Virtual Anatomy at Med Uni Graz. The underlying infrastructure - the software Cinematic Anatomy x Deep Space and the 3D lecture hall JKU Medspace - has already won numerous international innovation awards. The software enables a deep look into the human body, allowing organs, blood vessels, and muscles to be viewed as life-sized, razor-sharp 3D objects from any angle. In JKU Medspace, up to 100 students follow lectures on Virtual Anatomy - in stereoscopic 3D on a 14 x 7 meter screen with 8K resolution.

For the anatomy lecture hall in Graz, new technical infrastructure was created: up to 500 students can now follow the course content in stereoscopic 3D and 4K resolution on a 7 x 4 meter LED wall. The technical planning for the infrastructure of the lecture hall was carried out by the planning office Outstanding Media and implemented by PKE Electronics. Anatomical specimens are filmed in Graz in 3D with a special 4K-Mirror-Rig camera, and the video is presented live both in the lecture hall and in JKU Medspace in Linz.

The 3D camera images are transmitted as stereoscopic UltraHD video with 7680 x 2160/60 Hz. The display requires maintaining resolution and brightness with lossless, synchronized transmission and the lowest latency from the 3D camera. To display Cinematic Anatomy x Deep Space, which is controlled in JKU Medspace, simultaneously in Graz, the software is also rendered in real-time there.

The Inavation Awards are presented as part of Integrated Systems Europe (ISE) in Barcelona. In several categories, innovations and outstanding achievements in the audiovisual industry are honored, including projects, products, and personalities from the industry.





### Ferrofish

### Pulse 8 AE

Ferrofish expands its portfolio with the Pulse 8 AE, a versatile and compact AD/DA converter designed for seamless integration into studio and live setups. It is based on the same conversion technology as the larger models. High-quality ESS converters and a temperature-compensated clock ensure high-quality sound. With eight balanced analog inputs and outputs, the converter provides precise and clean signal conversion and offers ADAT connectivity with up to 16 channels at 48 kHz, 8 channels at 96 kHz, and 4 channels at 192 kHz. Its sound quality and intuitive controls make the Pulse 8 AE a powerful solution for any professional setup, from home studios to live stages. The high-resolution front panel display provides immediate visual feedback for all input and output signals. Professional level meters with multi-color LEDs ensure precise signal monitoring and optimal control in any environment. Audio routing and settings can be comfortably controlled via the Remote Fish software for Mac and PC. The USB-C interface allows direct access to all parameters. The MIDI I/O interface enables easy integration into larger systems as well as firmware updates. In addition to pure signal conversion, the Pulse 8 AE functions as a versatile routing solution with comprehensive ADAT connectivity and Word Clock synchronization options. The device seamlessly connects analog and digital signal paths, becoming the central interface for studio and live applications. Thanks to its modular design, the device is equipped for future challenges. An optional DSP slot allows for future additional functions.





### Tascam/Teac

### Model 12

Under the name "Model 12", the company presents an ideal mixer/recorder solution for teaching. Its compact design and extensive features ensure mobility and various recording possibilities. For Louie Teran, Mastering Engineer and Lecturer for Commercial Music at Long Beach City College, moving between mobile classrooms during the construction of a new Performing Arts Complex presents many challenges. Since sound studios are usually stationary, it is not easy to find a suitable solution for teaching. To meet these challenges, Teran relies on the comprehensive features of the Model 12, a 12track digital recording mixer with DAW controller and audio interface. One of the outstanding features of the Model 12, according to Teran, is the insert points on channels 1 and 2: "This is an extremely important feature that is often missing from most audio interfaces or entry-level digital mixers. Most students have only worked with audio interfaces and are not familiar with insert points. I can show them how to use inserts to integrate external analog compressors or equalizers into the recording process." He is also enthusiastic about the built-in multitrack recorder: "Thanks to the integrated multitrack recorder, I don't need a computer. I can teach gain staging for digital recordings and show how to properly use level meters when recording. I can also demonstrate drum recordings with multiple microphones - all with the Model 12. Additionally, it's crucial for beginners to use physical knobs, buttons, and faders, instead of just working with a mouse and keyboard.

### Meyer Sound Astrva

At Cinema Con 2025 in Las Vegas, Meyer Sound introduces the new Astrya-140: a new loudspeaker system for the cinema industry for post-production studios and premium theaters. The Astrya-140 is the first model in a series of Astrya systems that will be introduced in the coming years. The system is based on the technology of the patented Meyer Sound Bluehorn studio speaker and offers phase linearity for precise time alignment correction. The tight, concentric arrangement of the drivers ensures clarity and coverage, and a coherent behavior across the entire frequency range from 30 Hz to 20 kHz. With the Astrya-140, cinemas with a length of up to 42 meters from the screen to the back wall can be played distortion-free. The digital input eliminates the need for an intermediate digital-to-analog converter, ensuring low baseline noise. The system uses Meyer Sound's self-powered loudspeaker innovations and DSP technologies to reproduce sound recordings faithfully - optimized with integrated processing, system monitoring, and network compatibility. Visitors to Cinema Con 2025 will have the opportunity to hear the Astrya-140 in the Augustus Ballroom in Las Vegas on April 2. The fair will take place from March 31 to April 3.



### Direct Out

### Dual Network Audio Module

Direct Out presents the latest development of its compact I/O modules: a series of Dual Network modules for Prodigy and Maven. The new modules improve the flexibility and interoperability of the host device and expand the options for audio networks and sample rate conversion. They fit into the audio network slot (Slot A) of all Prodigy and Maven devices. The new modules come standard with bidirectional sample rate conversion (HD SRC), allowing them to be connected to various audio networks independently of their respective clocks. Devices with only one A-slot, such as Maven A or Prodigy MC, particularly benefit from the dual functionality of these modules. Users can either double the channel capacity of a Dante SRC I/O or work with two different audio network protocols. The module offers two interfaces, each with 64 channels and individual SRC for each Dante network. Currently, seven modules are available, focusing on Dante solutions and fully redundant, seamless conversions between Dante, Ravenna, Milan, and Sound Grid.

## Acoustic design possibilities of a new dimension

d&b Audiotechnik presents En-Space Custom Rooms, a customization service and an extended function of En-Space, the Virtual Acoustics Engine of the immersive audio ecosystem Soundscape. Custom Rooms allows companies, creatives, and artists to create their own individual acoustics in any given environment.

"The concept of En-Space Custom Room offers our customers a powerful combination of flexibility and customization options", explains Robb Allan, Principal Product Manager, Soundscape at d&b. "Combined with our user-friendly electroacoustic approach, Custom Rooms allows users to reshape the sound in rooms using extensive impulse responses from a specific concert hall or a special, highly reverberant space."

"For customers who want to replicate the acoustic ambiance of a specific venue, such as a classical concert hall, in Soundscape, we now offer a comprehensive service for custom measurements", says Simon Heinze, Senior Product Designer Virtual Acoustics at d&b. "In this service, an En-Space measurement is carried out at the desired venue with our custom-made speakers and measuring devices. The data obtained is provided exclusively to the customer, but can be shared with other users through the d&b library by mutual agreement."

The software provided by d&b, En-Space Custom Rooms, allows for the creation of custom acoustic signatures using the comprehensive measurement process. Three additional room slots, available on every DS100 Signal Engine, expand the creative possibilities. The simple installation of custom signatures via Web Remote and operation via OSC optimizes the user experience. In addition, Custom Rooms can be applied to any environment,



enabling users to realize their sonic visions in a variety of settings and meet a range of creative and technical requirements.

To further enhance the versatility of the En-Space module, d&b is also introducing the d&b En-Space Control Plugin, which integrates seamlessly into a Digital Audio Workstation (DAW) or another plugin host environment. With this tool, sound engineers and sound designers can control all parameters of En-Space on the DS100 platform via the AES70 (OCA) protocol. This facilitates real-time parameter adjustments and precise automation workflows.





### dB Technologies

### Ingenia IG5TR

The IG5TR represents the latest innovation in the Ingenia column loudspeaker series. It is equipped with a 3"-1.4" compression driver as well as three 10" woofers. This asymmetric 2-way 4-way active configuration integrates precise beamforming and beam-steering to ensure optimal sound distribution in different environments. The heart of the IG5TR is the Asymmetric Waveguide (AWG), which optimizes the vertical radiation in the frequency range of 930 Hz to 20 kHz.

The 5-Path Waveguide technology minimizes internal turbulence, enabling even sound distribution and targeted directionality. This is particularly important in minimizing comb filter effects when two IG5TRs are stacked in a headstack arrangement. The horn provides vertical radiation of  $+20^{\circ}/-55^{\circ}$ , horizontal radiation of  $90^{\circ}$ , and can be rotated  $\pm 90^{\circ}$  within the speaker to optimally adjust to various use scenarios.



### d&b

### Array Calc V12

d&b Audiotechnik announces the release of Array Calc V12, the latest version of the system planning and simulation software. This update offers some new features, including the virtual patch plan from d&b, an advanced visualization tool for workflow optimization and more precise system infrastructure planning. Thanks to these improvements, users can plan and deploy their sound systems accurately and efficiently, reducing time and effort. The virtual patch plan is a central feature and represents a significant improvement in the professional planning of sound systems. Given the increasing complexity of audio networks, the patch plan simplifies system design through a comprehensive visual representation of the system infrastructure. By visualizing the system architecture and allowing for system racks to be planned within Array Calc, the need for third-party tools is significantly reduced.

### Dynacoro

### IX Series Leistungsverstärker

The IX Series, developed in Germany, consists of five models in two 8-channel and three 4-channel configurations, housed in a compact 1U case with industry-standard power specifications of 1500, 3000, and 6000 watts. The series meets the numerous demands that AV system integrators, installers, and consultants face on a daily basis. Additionally, these power amplifiers provide the necessary flexibility for most small to medium-sized installations in office buildings, hotels, educational institutions, event centers, churches, or stadiums, both for central and decentralized sound reinforcement concepts. IX amplifiers feature the same configuration options as Dynacord's flagship IPX Series, making them ideal for sound reinforcement applications that require comparatively lower output power. Mic/Line inputs with Dante Break-In functionality, a full DSP with matrix mixer, and Dynacord's studio-quality effects, along with internal system logic for automation and system control tasks, make the IX perfect for standalone use in smaller projects, simplifying system complexity and eliminating the need for an additional DSP matrix.



### Alcons Audio

### CRMSQ Line-Source Column Array

The CRMSQ is a modular 2-way column loudspeaker designed as a vertical array system. By combining natural and dynamic sound reproduction with a patented horizontal constant directivity, the CRMSQ provides seamless and even coverage while significantly reducing the influence of room acoustics. Its symmetrical acoustic design, powered by state-of-the-art Pro-Ribbon high-frequency drivers, extends the "stereo sweet spot" and offers a broader audience an immersive sound experience. At the center of the CRMSQ are two proprietary 12" RBN1203 drivers from Alcons, each with a peak power handling of 2000 W and nearly unlimited high-frequency reserves. In a coaxial speaker configuration, they work together with four powerful 6.5" woofers featuring Active Coil technology, resulting in exceptionally low distortion and high dynamics. The CRMSQ was developed for maximum flexibility and adaptability, enabling modular expansion to extend controlled vertical cylindrical sound projection into lower frequency ranges. In larger applications, this control can be further extended by adding separate CRMSQB subwoofer modules, effectively increasing the length of the low-frequency array. Thanks to Alcons Adjustable Azimuth, the high-frequency range can be manually adjusted in five horizontal steps of 5 degrees each, ensuring optimal sound projection in the critical listening area, all within a slim installation depth of only 10 inches (25.4 cm).

## Exceptionally flexible

Coda Audio has announced the launch of the new APS-Pro series. This includes two models: APS-Pro-D with a 10-degree enclosure angle for precise directivity and APS-Pro-S with a 30-degree enclosure angle for wide near-field coverage.



Based on the APS series, the new APS-Pro-D and APS-Pro-S models have been designed as compact, 3-way arrayable point-source loudspeakers. They are suitable for small to medium-sized venues that require a powerful and scalable solution. With these new additions, Coda Audio claims to bring "previously unmatched versatility to this market segment, with a perfect combination of precision and coverage".

Both models utilize revised versions of the Dual Diaphragm Coaxial Curved Wave Drivers (DDC) developed by Coda for the mid/high-frequency range. These new drivers generate the required 10- or 30-degree wavefronts directly at the source, without relying on waveguides or horns.

For the low-frequency range, each model is equipped with two 10-inch drivers mounted on an aluminum baffle with Dynamic Airflow Cooling (DAC). This system allows for higher power handling and more headroom in the bass range, which in turn results in higher sound pressure levels over longer periods without power compression. Each speaker has an AES power consumption of 1400 W and achieves peak levels of 144 dB SPL, with a weight of 27 kg. The low-frequency range extends to 50 Hz at -6 dB.

The directivity of the output signal is controlled via a magnetic Instafit APS-Coupler, which combines all acoustic elements into a unified, controlled wavefront. The front grills can be quickly and tool-free swapped. This allows for quick coupler replacement to achieve different dispersion angles - perfect for adapting to various room or stage situations.

By using both models (D and S) together in a system, a precise, customized coverage can be achieved while maintaining ease of handling. Seamless integration occurs without the need for additional amplifiers – up to three speakers per amplifier channel are possible. This allows up to twelve units to be operated with a single Linus DSP amplifier.





# Plug-ins in mixing and mastering

Over the past 30 years, Michael Romanowski has successfully established himself as a mixing and mastering engineer in the music industry. He is currently the owner and chief engineer of Coast Mastering. The five-time Grammy Award-winning Romanowski knows exactly which tools are essential in any professional setup, including numerous plug-ins from Nugen Audio.



"I think it's extremely important for a studio to have the right tools to make informed decisions and enable high-quality audio productions", says Romanowski. "In my mastering process, I often decide which tools to use only after consulting with my clients, but the plug-ins from Nugen Audio have long been a staple in my workflow."

For mix projects, Romanowski regularly relies on the reverb plug-in Paragon. "I would say I use Paragon pretty regularly", he says. "It has a customizable impulse response, which I think is great, and I like the ability to adjust different parameters or selectively weight or fade out certain channels. I use it, for example, to remove reverb from the center when I need more presence for the vocals. I can do that without making the mix muddy. In other cases, someone is mixing with headphones, which often creates a false sense of space - and that's when Paragon helps me balance that in the mix."

For immersive projects, Romanowski also uses Halo Vision, Halo Upmix, and Halo Downmix. "Halo Upmix is particularly helpful when I only get stems and need more control over the individual elements", he explains. "In such cases, I separate the

instruments a bit more to specifically control certain elements like bass or keyboard - rather than both together. There are also situations where I need to check my downmixes - and that's where Halo Downmix comes into play. Even outside of mastering, Halo Downmix is my standard tool for immersive mixing."

"Halo Vision is my standard tool for immersive metering", Romanowski concludes. As a long-time user of Nugen Audio, Romanowski has integrated many other plug-ins into his workflow, including Aligner, ISL, Monofilter, Seq-S, Sig Mod, Stereoizer, Stereoplacer, and Visualizer.

Based in Berkeley, California, Romanowski is considered a pioneer in the field of immersive audio. As early as 2001, he designed and built his first surround studio and released his first Atmos music albums in 2017 - before Dolby Music even existed as a standalone entity. He is therefore one of the first mastering engineers in the world in the field of immersive audio. His discography also includes work for artists such as Alicia Keys, Bonnie Raitt, Prince, Lyle Lovett, Earth, Wind & Fire, Kane Brown, Grateful Dead, Tom Petty, The Bee Gees, George Strait, and many more.

# Immersive monitoring experience in the Tyrolean Alps

High in the Tyrolean Alps lies the village of Erl, a historically significant location with roots dating back to Roman times. Known for its cultural importance, Erl provides the perfect backdrop for the High Mountain Studios, a state-of-the-art recording studio owned by Lukas Gleich.

Surrounded by nature, every detail of the studio has been thoughtfully designed: open space layout, inspiring views, and an atmosphere that fosters creativity. At the center of the monitoring setup is Klang vokal+ - the immersive in-ear system used throughout the studio. It is complemented by several Klang controllers that allow artists to individually adjust their mix without a band or additional help.

With the upgrade to Klang vokal+, the studio now has 64 channels, 12 in-ear mixes, and Klang Root EQs available. A total of six Klang controllers are in use, offering direct access for musicians. Sound engineer and producer Markus Meier, who recently installed the system, particularly praises the user-friendliness and the additional channels.

The studio's acoustics come from the renowned studio architect WSDG, whose portfolio includes the legendary Electric Lady Studios (Jimi Hendrix) and Jungle City Studios (New York).

"We wanted to create a space that feels like a cozy living room, where you can make music", explains Meier. "Our equipment is top-notch – from the microphones to the classic analog API console. Klang fits seamlessly into this concept and gives artists the feeling of being surrounded by their band – even when they are alone in the studio."

Through immersive in-ear monitoring, musicians can fully immerse themselves in their performance without affecting the actual recording. The Klang controller offers an intuitive, tactile interface that allows individual channels or groups to be adjusted directly. With the update to KOS 5.6, along with vokal+, Group Spill was introduced – a feature that provides quick access to all channels within a group. Mute and solo functions are easily accessible via the multifunctional rotary dial, keeping the user interface clean without sacrificing functionality. As a high-quality destination studio, High Mountain Studios focuses on providing a stress-free, personalized recording experience.



# equipment.av-media technology

### Lawo

### Home Video-, Audio- und UI-Lösungen

Lawo announced three new Home Apps with integrated "Lawo Workspace" user interface. The first Lawo Workspace Home Apps include three specially developed applications: Home Commentary - Probably the most flexible approach for off-tube and on-site commentary scenarios. Commentators can monitor up to two video streams, transmit their audio and video for production or monitoring, and communicate with the production team via the integrated talkback function. In its most compact version, the app requires only a mobile computer, a microphone, and headphones to provide a fully functional commentary system. Home Video Monitor - Video and audio monitoring with low latency anywhere. This app, developed for busy broadcast and AV professionals, is designed for laptops, mobile devices, and AR headsets, offering a simple solution for mobile video and audio monitoring. The Home Video Monitor can display up to nine simultaneous video streams, with or without audio level indicators. Home mc\_ Crystal Controller - The missing

link for mixing scenarios where compact crystal control panels complement the mc\_ audio mixing consoles. With this app, high-resolution audio level displays and a video feed can be shown on a tablet or laptop behind a crystal control panel or on the optional Virtual Extension Display. Additionally, the Home mc\_ Crystal Controller extends the functionality of the crystal control panel by adding additional touch controls on the screen.



# Planar® CarbonLight™ CLI Flex™ Series Curved Fine Pitch Interactive LED

### Evefactive

### Retail Signage Software

At ISE 2025 in Barcelona, Eyefactive presented its smart retail signage software for multitouch screens on an impressive 4.5-meterlong interactive curved LED video wall by Leyard and Exact Solutions. The solution allows customers to interact with shoppable videos and select products by touch. The omni-channel checkout is implemented via QR codes. Eyefactive's touchscreen software platform enables content presentation on interactive systems of any size and format. The system allowed visitors to explore interactive videos and select products within product videos by touch, as well as seamlessly integrate online stores. The convenient checkout via QR code also allows customers to directly purchase their selected items via smartphone. The foundation of this solution is the Eyefactive App Suite platform, which allows companies to display interactive content on large touch LED video walls of virtually any size. The platform supports various touchscreen technologies.

### Unilumin

### **Unatural Serie**

The Unilumin Unatural Series is a remarkable breakthrough in the world of LED displays. They were developed with the vision of designing LED displays that are not only functional but also an integral and harmonious part of the room's design. The concept is reflected in the slogan "Digital when you need it. Natural when you want it." The biggest advantage: when not in use, it becomes a stylish decorative element, and when activated, it turns into a vibrant, high-quality LED display. There are no limits to individual design: from wood and marble looks to artificial designs to custom designs, anything is possible. This versatility allows the displays to be integrated into hotel lounges, design offices, or living areas without disturbing the aesthetic overall picture. The Unatural Series combines advanced technologies that ensure exceptional image quality and energy efficiency. The Mini-LED technology combined with Chip-on-Board (COB) provides a high pixel density with brilliant brightness, resulting in sharper and more detailed images. Meanwhile, the EBL+ technology and Multi-Layer Optical Processing ensure an impressive contrast of up to 12,000:1. The Common-Cathode technology reduces power consumption, and the hydrophobic and scratch-resistant coating ensures a clean screen.



# WORLD'S LARGEST MOBILE LED SCREEN PROTORICE INFELED

### Infiled

### Jumbo 162

The lightweight, bright AR Series LED panels from Infiled power the Jumbo 162, the world's largest mobile LED screen. This 162 square meter display was first presented during ISE. Developed by the Belgian company Photonics, the Jumbo 162 measures an impressive 170 x 95 cm and consists of 374 Infiled AR3.9 LED panels. Thanks to Infiled's Infinite Colors technology, the display offers an extended color palette and maximum performance. With a pixel pitch of 3.9 mm and a peak brightness of 4500 Nits, it guarantees vibrant clarity even in the toughest outdoor conditions. The 13-meter-high Jumbo 162 can withstand wind speeds of up to 61 km/h (Wind Force 7). Additionally, the versatile display can be reconfigured into a more compact version, the Jumbo 100 HD - a 97.5 square meter HD+ resolution, ideal for applications with smaller format requirements. In 2014, Photonics presented the predecessor of the Jumbo 162, the 100-square-meter Jumbo 100. Regarding this, Photonics owner Pieter Lambert says, "Infiled never shies away from challenges - even when the product we need doesn't yet exist".



### Alfatron Electronics

### Video-Switcher VM-41 und VM-Mini

The new video switchers VM-41 and VM-Mini were developed to select between multiple incoming video signals from different sources (e.g., camera, PowerPoint feed) and forward one of these signals to a monitor or screen. The new models offer extensive features as well as excellent integrated displays for signal management. The new Alfatron VM-41 is a multifunctional HDMI video switcher with four HDMI inputs in a tabletop format. It features a 5.5-inch FHD (Full High Definition) color display, which provides excellent visual feedback during operation. To manage the various video signals, the VM-41 offers a variety of functions, including integrated video transition effects, PIP (Picture in Picture)/POP (Pop-Out), logo overlay, and keying functions with quick-access buttons - all accelerated by modern FPGA technology (Field Programmable Gate Array). The Alfatron VM-Mini was designed for easy transport and offers a wide range of functions in a compact format. Like its larger counter-

part, the VM-Mini is also an HDMI video switcher with four HDMI inputs. The device features a 5-inch FHD color display with a wide color gamut for easy management of all functions. With its T-bar switching, more than thirty transition effects can be smoothly and user-friendly controlled for professional image transitions. Additionally, transition effects, layering, PIP/POP, and keying functions are integrated. The VM-Mini is also equipped with a five-way rocker switch for PTZ camera control.







### Christie

### Sapphire 4K40-RGBH

As the world's first hybrid RGB laser projector with high light output, the Sapphire 4K40-RGBH from Christie combines RGB solid-state pure-laser illumination with a dual-laser phosphor system. The hybrid light source of the projector offers users maximum flexibility. The Sapphire is suitable for all 2D applications, front or rear projections, all active and passive 3D formats, and any type of screen. The Sapphire 4K40-RGBH delivers vibrant DCI-P3 colors, a brightness of 36,400 lumens, native 4K clarity in both 2D and 3D on all screen types, and for front and rear projections. Additionally, it offers options for high frame rates, from 4K at 120 Hz to 2K resolution at 480 Hz. Unlike traditional laser-phosphor projectors, it offers good light efficiency and a larger color gamut for brighter, more realistic 3D experiences. Thus, it is the ideal choice for 3D dark rides, other media-based attractions, and visualization power walls. "With its unique hybrid lighting architecture, the Sapphire 4K40-RGBH is a flexible solution for 2D and 3D front and rear projection applications", says Larry Paul, Executive Director of Technology and Custom Solutions at Christie.

### Leyard

### Direct Light Slim

The new Direct Light Slim Series features an ultra-thin, narrow format. The new fine-pitch micro LED video wall display is ideal for curved and space-critical applications that benefit from this unique design, including control rooms, broadcast studios, virtual productions, extended reality, simulation and training, and research. With a depth of less than two inches, the new Direct Light Slim Series is suitable for highly curved video walls. The series is also excellent for flat video walls in tight spaces as it offers minimal depth and front maintenance. The models are based on micro LED technology and are available in pixel pitches of 0.9, 1.2, 1.5, and 1.8 mm. They offer a maximum brightness of 1600 nits and a 4:9 aspect ratio for flexible applications. The Direct Light Slim Series also introduces pixel-level monitoring, providing more detailed insights into the condition and performance of the display. This allows users to detect early when maintenance or repairs are necessary. An energy-efficient model is also available, catering to energy-conscious customers or applications with low ambient lighting. It offers 500 nits brightness while consuming only 68 watts of power.





### Samsund

### Hotel TV Line-up 2025

Samsung's new hotel TV lineup brings together elegant design, modern in-room entertainment features, and a unified platform that underscores Samsung's commitment to setting a premium standard in hospitality. With "The Frame" (model name HL03F), Samsung introduces a hotel television in 2025 that brings 4K QLED picture quality into the room. At the same time, its design makes an aesthetic statement in the interior. The Art Mode allows hotel managers to personalize guest rooms by displaying modern or classic artworks as well as matching images - such as pictures of the hotel's brand - when the TV is off. The Frame offers a matte display that reduces reflections and a slim-fit wall mount that allows for a flat installation, making the TV in Art Mode appear almost like a piece of art. The 2025 hotel TV lineup from Samsung and the HBU8000 from 2024 enable exciting entertainment in the hotel room by supporting Google Cast3 for secure and seamless streaming. Guests can stream their favorite content directly from compatible Android or iOS devices to the TV - without additional dongles or complicated login procedures. The connection is fast and easy via QR codes, allowing instant pairing. For hotel operators, LYNK Cloud offers a powerful, cloud-based solution that combines individual content settings, remote device management, and over-the-top (OTT) entertainment.



### Blackmagic Design

### Ursa Cine 12K

The new Cine 12K is a version of the camera that offers the same high-quality features and specifications as the Ursa Cine 12K, but is delivered without many accessories. This model is aimed particularly at experienced camera operators and rental companies who already have the necessary accessories to customize their camera setup. The camera offers unrestricted performance and image quality, but does not include accessories such as shoulder supports, grips, certain lens mounts, battery plates, power supplies, lenses, and the high-capacity 8TB media module. Customers can purchase these components separately as needed and configure their camera setup to their preferences. Instead of the 8TB module, a new CFexpress media module with two CFexpress card slots is included. The model comes with an EF lens mount by default, but other mounts such as PL or LPL can be optionally purchased. This version also makes it easier for existing Blackmagic customers to switch to the high-quality 12K full-frame sensor, which offers outstanding features and is based on Blackmagic's experience with DaVinci Resolve. The sensor is specifically designed for high-end film productions and Blackmagic cloud workflows. A special feature of the Ursa Cine is the new full-frame 12K sensor with symmetric color filters and insensor scaling. This allows filming in 12K, 8K, or 4K over the entire sensor size.

### Canon

### CR-N700 Software

Canon's Camera Colour Matching Software is now available and simplifies the color matching workflow in the broadcast sector with its user-friendly interface. The software also allows the use of the Canon CR-N700 in conjunction with a variety of other Canon cameras as well as third-party cameras. The Camera Colour Matching Application is designed to be operated without specialized knowledge. Users simply create a color chart with the CR-N700 remote PTZ camera and the desired reference camera, and the software automatically generates a 3D LUT for color correction. The app then adds this 3D LUT to the CR-N700 remote PTZ camera or the corresponding target camera. The app is particularly targeted at the news and entertainment sectors, as well as live events and concerts, where time is a critical factor. Key features include automatic configuration according to industry-standard color charts with an additional manual control option. The software supports square color charts from 2 to 15 colors per page (e.g., a color chart with 140 colors). For fine-tuning, three areas in the image frame can be manually selected. 3D LUTs can be checked (simulated) with the image and waveform monitor and the vectorscope before import.



### Panasonio

### AG-CX370 4k Camcorder

The AG-CX370 camcorder from Panasonic Connect is the latest model in the CX series and offers 4K image quality and IP-based live production features - all in a compact and lightweight housing design, for improved mobility. The CX370 will be available in the second quarter of 2025. It achieves 4K/60p/10-bit MOV recordings with a highly efficient HEVC/H.265 codec. The camcorder features a high-resolution, highly sensitive 1.0-type 15M MOS sensor and Hybrid Log Gamma (HLG) for HDR recordings - perfect for live broadcast environments and content creation for social media platforms. With the CX370, image adjustment in broadcast quality is achieved with independent color correction in 16 axes. The high-end CX370 also features integrated NDI HX2 IP connectivity for IP-based transmissions and camera control. Combined with NDI-compatible devices, NDI HX2 enables smooth, high-quality IP-based live video production. The CX370 supports 4K direct streaming via RTMP, RTMPS, and RTSP protocols.

### Philips

### Media Suite TVs

PPDS officially enters the maritime hospitality market and presents a suitable Media Suite TV series along with a complete portfolio of experience-enhancing and sustainability-oriented display and software solutions. PPDS, the exclusive global provider of Philips Professional Displays, signals the latest business expansion of the company. As part of an ongoing global growth strategy, PPDS has decided to expand its activities in the cruise sector and now covers all areas of hospitality - on land and at sea. This move comes in response to the growing popularity of cruises, which were used by over 35 million people in 2024. Predictions suggest that the industry will reach a value of 15.1 billion US dollars by 2028 - a tremendous opportunity for maritime business models. As the world's first dedicated hotel TV fully focused on guest entertainment, Philips Media Suite is making waves both on land - in hotel chains such as Accor, IHG, Marriott, and Radisson - and at sea. Since its launch in 2019, Media Suite has led in Western Europe and is appreciated for its integrated Google Cast, Netflix support, and access to the Google Play Store. The series now also includes specially designed slim models for maritime use, such as FHD TVs in 24" and 32" for tight crew and interior cabins, as well as 4K TVs in 43", 50", 55", and 65" for suites and cabins.





# For special requirements

Digico has announced the launch of a "T" software version of its most compact Quantum console: the Quantum 225T. With powerful, advanced hardware and Quantum processor architecture, the Quantum 225T has been reconfigured to specifically meet the requirements of theater sound design, rehearsals, and live performances.

Users of the Quantum 225T will particularly appreciate the intuitive programming and workflow of the console, which expands the cue system with Digico's proven Auto Update and cue data management tools. Auto Update allows sound designers to define complex linkages between cues, with changes to channel settings automatically transferred to other related cues. Character variants, such as changes in costumes or props, can be mapped using the Alias function, while cast changes can easily be managed via the Players function.

The channel processing and mixing functions of the Quantum 225T are identical to those of the live-oriented Quantum 225,

but the crosspoint matrix now offers individual nodal delays and matrix alias names. This expanded matrix system plays a crucial role in the complex signal processing in theater and is implemented without any limitations on overall performance.

The console is equipped with 96 input channels and 48 buses, in addition to 36 Mustard and 48 Nodal processors. It also includes mix-minus functionality, as well as an expanded 24x24 matrix. The console offers four MADI ports, two DMI interfaces, 8x8 analog I/O, four AES channels, integrated UB MADI, optional Optocore connectivity, and a redundant dual power supply (dual PSU).





# Anniversary for HY B-Eye

Over ten years ago, the Claypaky B-Eye revolutionized the way we thought about LED show lighting. Its innovative optical unit improved the uniformity and efficiency of light output, while the rotating front lens and the ability to individually control each LED enabled spectacular kaleidoscopic projections and captivating eye-candy effects.

A sophisticated effect engine made it easier to use macro effects in everyday operation. These technological innovations made the B-Eye a powerful LED Washlight, a perfect Beam Light, and a spectacular effect projector all in one. The B-Eye won numerous awards and was copied by other manufacturers for years.

In April 2019, Claypaky launched the HY B-Eye to the market - twice as powerful and bright as the original B-Eye. In

mid-2019, Rammstein used the Claypaky HY B-Eye K25 on their stadium tour in Europe, selected by lighting designers Ronald Greil and Patrick Woodroffe. In 2020, Claypaky introduced the HY B-Eye K25 Teatro, a particularly quiet version of the K25, developed for theaters, opera houses, and other venues where silent operation is required without sacrificing brightness. To this day, the spotlight is in use on countless large productions.



### Chauver

### Strike V

Chauvet Professional introduces the new Strike V, the latest addition to the successful Strike series. The motorized hybrid strobewash creates multi-layered effects: With two individually controllable RGBW LED layers (24 LEDs per layer) and an intelligent frost function, the Strike V enables new creative design possibilities. The variable electronic frost plate over the dual pixel layers allows the beam angle to be changed instantly at the push of a button. At the same time, the optics of the LED diodes provide a wide spectrum of bright colors. The light can be tilted 180 degrees and offers not only strobe effects but also the ability to function as a color wash. While the upper LED layer operates at 6 W, the lower layer has a power of 50 W for maximum effect. The Strike V generates both static effects and smooth, motorized looks. With its bright output, vibrant colors, and effects, the IP65-certified spotlight ensures that even audiences in the furthest rows of arena concerts or outdoor festivals won't miss a thing.



# KL Core IP

Elation presents the KL Core IP, the latest addition to the Key Light (KL) series of LED lights. Developed for the demanding requirements of modern, light-critical production environments, the KL Core IP is a configurable, broadcast-capable LED light source that can be used as an ellipsoidal, fresnel, or monolight. Thanks to its robust, IP65-certified design, the spotlight is particularly suitable for outdoor applications. Its weatherproof construction ensures reliability under all conditions, making it ideal for outdoor film sets, TV studios, theaters, and live productions. With its precise, powerful light output, it meets the most demanding camera and stage lighting requirements both indoors and outdoors. At the heart of the KL Core IP is a 400 W RGBMA LED module that delivers 15,000 lumens of light output. As an ellipsoidal spotlight, it can be combined with an optional shutter barrel and used as a classic LED profile spotlight with IP67-sealed lens tubes. It is compatible with many shutter barrel systems from other manufacturers.

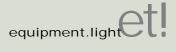
# JDC Burst 1

Inspired by the technology of the new JDC2 IP and building on the success of the JDC1, the new JDC Burst 1 from GLP delivers a mix of power, color intensity, and flexibility. The JDC Burst 1, with its segment-controllable and 10% brighter white strobe line compared to the JDC1, delivers an unmatched punch and impressive strobe effects. In addition to the white strobe line, the JDC Burst 1 features two powerful RGBW LED plates with enhanced color performance over the JDC1. As GLP's first hybrid strobe with RGBW LED plates, the Burst 1 not only enables rich, vibrant colors but also delicate pastel tones. The RGBW plates are precisely controllable in 20 x 240 RGBW pixels (divided into 12 x 4 segments with 5 x 5 pixels each), offering high dynamics and creative control. By combining the strobe line and RGBW plates, the strobe line and LED plates can flash in the same white color tone. This creates even more powerful and intense effects, making the JDC Burst 1 a valuable tool for creative lighting designs.



### Ayrton Veloce Wash

Following the launch of the Veloce Profile, Ayrton now introduces the Veloce Wash, marking the fourth light in the Ultimate family. Like all lights in the Ultimate series, the Veloce Wash is a versatile tool that is suitable for all conditions, whether indoor, outdoor, or in coastal environments. Based on the principle of perfect scalability, this ultra-compact light is designed to set new standards in integration. Its sealed 850watt high-efficiency LED module, calibrated to 6500 K, delivers powerful 40,000 lumens with perfect light neutrality. The use of lightweight aluminum reduces weight, achieving the best performance-to-weight ratio on the market without using expensive or unstable special alloys. Weighing only 39 kg, the Veloce Wash is the lightest in its category. For maximum creative freedom, it offers continuous, unlimited pan & tilt rotation. With a 190 mm front lens and a proprietary 12-lens optical system, the Veloce Wash features a 14:1 zoom range from 4 to 57 degrees. The Veloce Wash is equipped with a fast CMY color mixing system with a continuous color gradient wheel that ensures color uniformity. This technology enhances the brightness of colors and reproduces pastel tones with high precision. A progressive, extended CTO filter allows continuous adjustment of color temperature from 2700 K to 6500 K. This is complemented by a 7-position color filter wheel with special filters for more creative possibilities. Thanks to the adjustable CRI tuning function (70-86), the Veloce Wash offers additional flexibility. The framing system allows precise positioning of the shutter blades over 100% of the area with a rotation of +/- 90 degrees.



## "The P15 Profile is second to none"

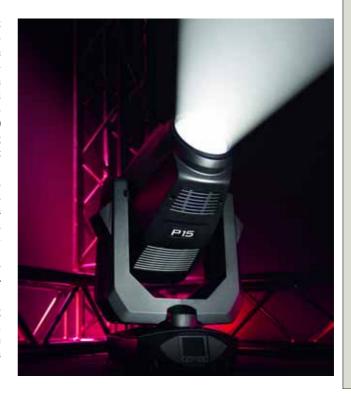
With the P15 Profile, JB-Lighting is launching the first of several new products in 2025. The P15 Profile is available in three variants: HC (High CRI), HP (High Power), and WW (Warm White).

It features a zoom range of 5.2 to 54 degrees and a 1000-watt white light LED module with a maximum output of 34,000 lumens (HP). Additionally, the highly efficient optical system with 13 coated anti-reflective lenses ensures excellent projection properties. Each of the four shutters of the P15 Profile is placed on its own level. Each shutter is freely rotatable and positionable and can be inserted almost across the entire usable range with a maximum angle of +/-30 degrees. The shutter itself can also rotate 130 degrees (+/-65 degrees). This allows for fast, precise shuttering even from extremely steep lighting angles, with minimal light loss.

The complete package of optical system, brightness, zoom, cooling, CMY color mixing, precise 4-level shutter mechanism, and effects equipment of the P15 Profile is impressive and sets a statement in its performance class, not only in terms of efficiency, light quality, and brightness. It also takes an absolute leading position in terms of nearly silent operation and is second to none. The P15 Profile is versatile and adaptable, whether permanently installed in theaters, TV studios, opera houses, exhibition halls, or on tour.

Furthermore, with the launch of the P15 Profile, JB-Lighting has also opened a new chapter with its individual shipping boxes, where not only the packaging itself but also the inlay is made from FSC-certified corrugated cardboard, fully in line with JB's ustainability philosophy.

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# Future-proof

The Accsoon Cine View Master 4K is an advanced wireless video system specifically designed to meet the high demands of filmmakers and content creators. The system provides wireless 4K 60P video transmission with a low latency of just 25 ms.



It is powered by an A/V processor that offers a 400% increased processing capacity, ensuring impressive performance. Although the system is designed for 4K, the processor is already capable of processing 8K content, highlighting the product's future-proof design. Additionally, Accsoon's integrated RTMS 4.0 technology ensures a particularly stable transmission and optimizes the entire video processing workflow.

The design of the CineView Master 4K has also been revised to provide maximum efficiency and intelligent heat management. The transmitter is equipped with HD-SDI and 4K HDMI

2.0 inputs, and also features an HDMI 2.0 loop-out. The receiver offers both 4K HDMI and HD-SDI outputs, and both devices can be powered either by NP-F batteries or via a DC connection.

The Cine View Master 4K is capable of wirelessly controlling up to four devices simultaneously, including RX units and iOS or Android devices. Additionally, an iPhone or iPad can be connected via cable to add a fifth device. "With a latency of just 25 milliseconds at 1080p and 35 milliseconds at 4K, it surpasses the competition and offers the speed and precision required by professional camera operators and directors", says the company.

# Improved planning processes

Vectorworks is exploring new ways of visual communication in 2025. Many enhanced Spotlight features are directly based on feedback from the Vectorworks community. They have been implemented into the most used tools in the event industry, allowing users to quickly navigate and get to work.

The new version enables more detailed rigging planning, giving users full control over the alignment of truss corners or the placement of rigging objects like lights. By specifically selecting the strap to which the rigging object is attached, planning can be made more efficient. This saves valuable time and ensures clear and clean documentation. Thanks to direct access to the GDTF-Share platform, GDTF files can now be downloaded, imported, and assigned in a single step. A special command allows users to save and automatically update all GDTF files, keeping them up to date. With the new real-time visualization "Showcase", shows can now be directly controlled and

visualized live within the software. This feature allows intuitive control of elements such as lights or scenery without having to leave Vectorworks. This makes it easier to review and test shows efficiently.

Other new features include a simplified cable planning process that now enables quick and intuitive editing and configuration of cables. The tools for stage, audio, video, and curtains allow for more precise planning. Additionally, lights can be focused directly from the info palette. Furthermore, the power overview feature allows the creation of a complete connection plan, including power calculation, at the click of a button.





### Relyos/Sommer Cable

### Neue Anschlusskabel

Sommer Cable partner Relyos offers an innovative solution to improve efficiency in goods and inventory management: The Relyos hand scanner or the Relyos gate counts every incoming or outgoing product in logistics. The connection cables are now available preassembled with an integrated RFID transponder, allowing them to be tracked through the Relyos system. Here's how it works: The new connection cables are equipped with durable RFID transponders that are placed at the end of the cable. For XLR cables, these transponders are typically placed on the side of the male connector to ensure that they don't interfere with installations and normal stage applications. The transponder is securely fixed using a shrink tube marked with the Relyos logo. With a lifespan of around 30 million read operations, these chips are well-suited for the demanding environment of event operations. Compared to NFC tags, the UHF tags used here offer a significantly greater range and consistent transmission power. The reading process is quick and efficient, either with a handheld scanner or the specially developed Relyos Scan-Tor. The Relyos system is fully compatible with leading rental software such as Easyjob and Rentman. Additionally, through an API interface, integration with your existing ERP system is possible.





### **Bildkraft**

### Display-Halterungen

Following the launch of its "Videokraftwagen", a mobile stand for stage preview displays, Bildkraft now introduces a range of complementary display mounts under its distribution brand Panzerkabel. The Panzerkabel Videokraftwagen offers a solution for the mobile installation of stage preview monitors up to 75 inches in screen diagonal. The stand, with four lockable wheels, weighs only twelve kilograms and can be folded down to a transport height of 21 centimeters. Power distributors or converter boxes can be stored in the lower section. The tilt of the displays can be adjusted in four stages. Thanks to the Audipack mount, monitors with the corresponding brackets can be directly hung. Surrounding the Videokraftwagen, Bildkraft now offers a small range of mounts with five-pin connectors for the ProAV sector. All of them are also compatible with the widely used Audipack and SmartMetals systems. These solutions are based on practical experience. The minimalist stainless steel video table foot solves the common problem of giving large and heavy displays a secure yet aesthetic stand on tables or consoles. It supports monitors with a maximum diagonal of 55 inches and a weight of up to 20 kg. With a new truss mount, displays up to 90 inches and a maximum weight of 85 kg can be directly mounted to trusses. Bildkraft also now offers a wall mount for screens with a maximum diagonal of 90 inches and a weight of up to 85 kg. All mounts are compatible with the five-pin standard from Audipack and Smart Metals. Bildkraft also provides suitable VESA brackets in various sizes with Audipack pins.

### Klotz

### Power Link Box

The new Power Link Box from Klotz is a robust and user-friendly power distribution system specifically developed for the demanding stage environment. Equipped with a Powercon True 1 input and five Powercon True 1 outputs, the new LV-NM5F Box offers a power capacity of up to 16 A at 250 V. This high-quality connector features an easy-to-use locking system and can be securely plugged in and unplugged even under load. The 1.5 mm thick aluminum housing is lightweight yet can withstand high mechanical stress. A matte black powder coating provides protection against external influences and is easy to clean. For secure rigging attachment, the Power Link Box is equipped with an M10 thread in the housing bottom, as well as eight holes for safety cables. The non-slip rubber feet also guarantee a secure stand, even on stage. Of course, this power distributor for live use complies with IEC 62368-1 and offers tested quality according to VDE 0701-0702







### Mott

### Ledtek Cargo Box

Mott Mobile Systems expands its portfolio with a new transport solution for LED modules: the Ledtek Cargo Box. Developed in close collaboration with Ledtek, the new system offers a space-saving, robust, and flexible alternative to traditional flight cases and touring cases. The idea for the Cargo Box came directly from the needs of event technology and was specifically designed, tested, and manufactured for the tough demands of tours, festivals, and trade shows. A series of Cargo Boxes was successfully used on the first major tour and proved itself in live operations. With its open design, the box allows for the safe transport of up to 5 square meters of LED wall per unit. Thanks to the truck-packaging-optimized width of 59.6 cm, multiple Cargo Boxes can be stacked and loaded a significant advantage for tours, festivals, and exhibition construction. In addition to smooth transport, the box also excels during setup: Two LED modules can be pre-wired and transported as a unit. This saves valuable time on-site and significantly reduces workload. The open design not only reduces the risk of moisture but also allows faster access to the modules without the need to open additional cases. Plans are already in place for complementary dollies for Ledtek Tri-Frame floor plates, as well as custom solutions for LED modules from other manufacturers. "Our goal is to offer a complete, flexible transport and storage concept for the event industry. The Cargo Box is the first step - more products will follow soon", says Mott marketing manager Martin Respondek.

# ACCESSALLAREAS

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### Record success in Barcelona

The world's leading trade fair for system integration and audiovisual technologies, ISE, far exceeded the already high expectations and provided the perfect platform for 1,600 exhibitors and 85,000 visitors.

This year's Integrated Systems Europe (ISE) concluded an extremely successful week in Barcelona, filled with innovations, industry advancements, and groundbreaking technologies, further solidifying its position as the leading event for the AV and system integration industry. With 1,605 exhibitors and a record exhibition space of 92,000 square meters, the fair reached new heights.

#### ISE 2025 grows by 15.5%

ISE 2025 welcomed 85,351 visitors from 168 countries, a 15.5% increase compared to the previous year. On the first day, 49,981 participants attended (+16.1% compared to 2024). On Wednesday, the fair reached a new record with 59,038 visitors (+14.4%). Thursday marked another milestone with 49,716 participants, making ISE 2025 the most attended edition of all time.

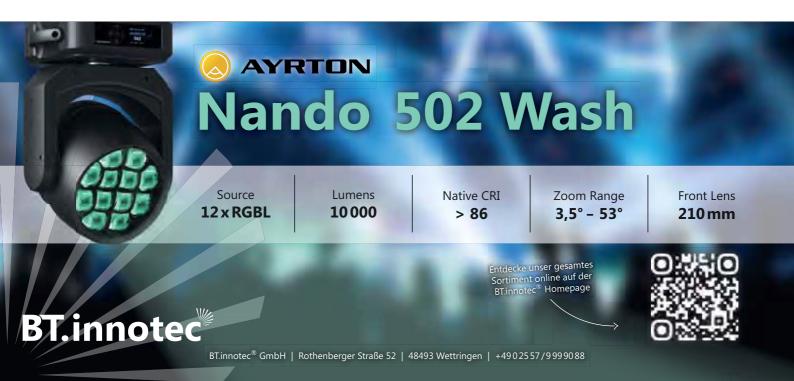
In total, 110,540 registrations and 185,700 visits were recorded over the four days of the fair. Particularly noteworthy was the 7% increase in participants from the DACH region, bringing it close to the visitor numbers from the fair's Amsterdam years and highlighting the strong engagement from this region. The fair once again proved that

it is an indispensable meeting point for the AV and system integration industry. Mike Blakkman, Managing Director of Integrated Systems Events, was accordingly enthusiastic: "ISE 2025 has exceeded all expectations and set new standards in terms of visitor numbers and innovation.

The energy and commitment of our participants and exhibitors were extraordinary. From the vibrant exhibition hall to the inspiring talks - this fair provided an incomparable experience. We're already looking forward to 2026."

## Hall 8.1: Center for future technologies

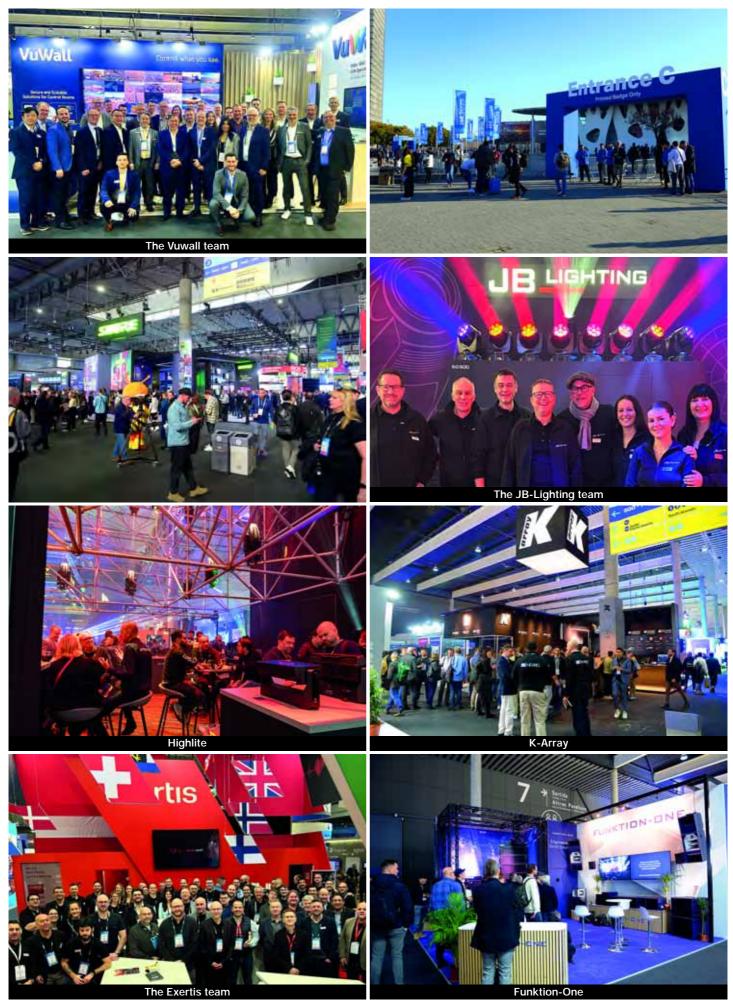
The new Hall 8.1 was an absolute highlight and reflected the forward-looking spirit of ISE. Leading industry representatives and groundbreaking innovators showcased their work in a dynamic environment that encouraged networking, learning, and discovery. Notable attractions included the "Esports Arena" with thrilling gaming competitions and state-of-the-art broadcast technology, the "Robotics & Drone Arena" with impressive demonstrations from these ra-



## et trade shows & events









pidly growing fields, the "Discovery Zone" as a springboard for startups and new companies, and the "AVIXA TV Studio" with live broadcasts and expert interviews.

#### Conferences, keynotes & guided tours at record levels

The conference program was also a great success. The newly introduced track sessions on industry trends were very well received. Highlights such as keynotes by Brian Solis and Quayola filled the halls. Additionally, there were guided showfloor tours with 222 participants who learned about the latest innovations. David Labuskes, President & CEO of AVIXA, summarized: "This week showed how important personal connections are. That's what drives our industry forward. With our summits, interactive sessions, and the broadcast technology at the AVIXA TV Studio, we put together an inspiring program." Daryl Friedman, Global President & CEO of CEDIA, added: "ISE is a highlight for CEDIA every year. The exchange with our members at the CEDIA Annual Meeting was inspiring. Experiencing the latest developments in the smart home sector firsthand shows how dynamic our industry is."

#### **Inavation Awards**

As always, the Inavation Technology Awards generated great interest among exhibitors. One overwhelming success was achieved by Unilumin: The further development of the Unilumin all-rounder "Upanel II MIP" won the award in the "Production & Broadcast" category.

The Inavation Awards recognize outstanding achievements in technology, project management, and design. "The recognition underscores our technological leadership and the diverse applications of the Upanel II MIP series, especially in the production and broadcast industry. With its outstanding

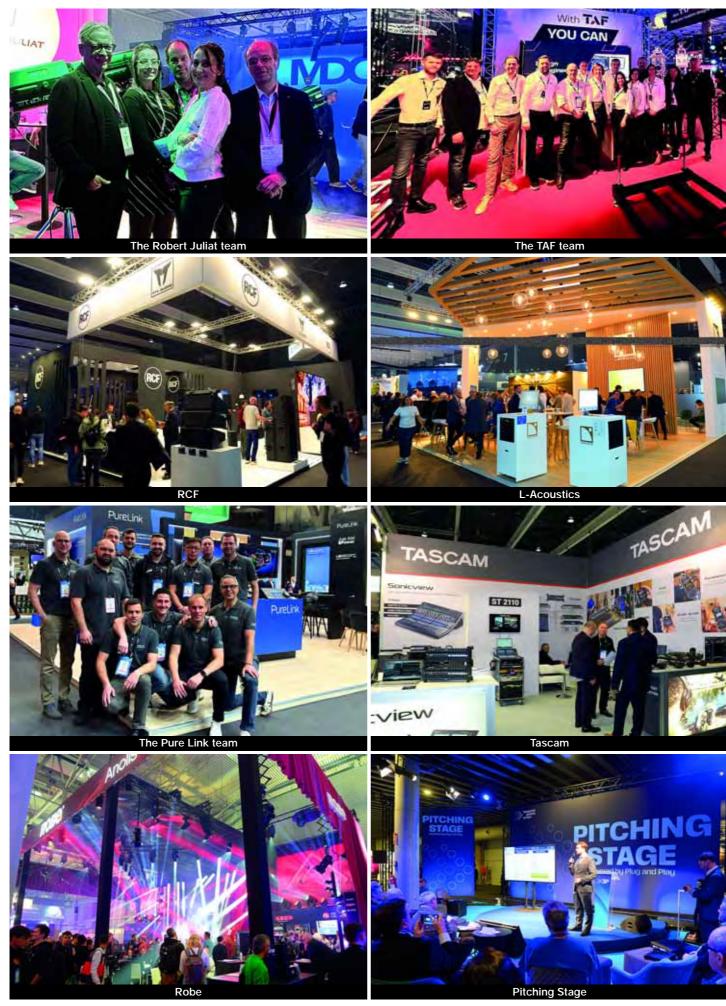
image quality, reliability, and innovative technology, the Upanel II MIP sets new standards for visual representations in professional environments", the company stated. The Upanel II MIP is the result of long-term research and development. Unilumin aimed to create an LED display that pushes the limits of what's possible and offers their customers an unmatched visual experience.

The Micro-Inverted-Pixel (MIP) technology used in the Upanel II MIP enables unprecedented image quality with deep blacks, vibrant colors, and a high contrast ratio. This technology ensures that every detail is displayed in sharp, vibrant detail, even in demanding environments. The award in the "Production & Broadcast" category highlights the specific benefits of the Upanel II MIP for this demanding sector. "This success underscores the transformative value that our product offers customers by taking production and visual transmission to a new level", said the happy winners from Unilumin.

The Upanel II MIP series enables production and broadcast companies to take visual content to the next level. The MIP technology provides unmatched image quality that is crucial in live broadcasts, studio productions, and virtual sets. The Upanel II MIP from Unilumin sets new standards in the broadcast sector with innovative Micro-in-Package (MIP) technology. With extremely small pixel pitches of up to 0.4 mm (perspectively 0.3 mm), the display delivers crystal-clear images even at close viewing distances – ideal for tight studio environments.

The specially developed LED type and EBL+technology ensure soft, eye-friendly light and a pleasant viewing experience. Thanks to its exceptional energy efficiency, the Upanel II MIP also significantly reduces operating costs and makes a positive contribution to environmental performance. With AntiCollision, Anti-Scratch, Anti-Moiré, Anti-Static, and high resistance to moisture, salt mist, and mold, it offers robust protection against external influences. The patented MIP technology allows for >99% consistent side viewing and increased contrast - features that distinguish the Upanel II MIP as















a revolutionary LED display for broadcast and digital signage. Sony also celebrated the fact that three of its products were awarded the "Best in Show" Award 2025: the Bravia BZ40L displays, the Bravia Projector 9, a home cinema laser projector with native 4K-SXRD technology (3400 lm) and XR Processor, as well as the BRC-AM7, a PTZ auto-framing camera with integrated AI analysis.

The factors considered when choosing included the variety and

scope of a product's features, ease of use, and innovation and unique-

ness in the market. The jury said: "We all experienced how busy ISE was this year; to stand out as the official Best-of-Show winner and be recognized is truly impressive and a testament to the hard work companies have put into their products and solutions. Every winner should truly be proud of their achievements - congratulations from the entire award team."

Pictured left (from left to right): Jason Huggins (Senior Key Account Manager UK, Sony Europe), Noelle Giesselbach (Trade & Segment Marketing Manager, Sony Europe), and Karl Ingham, Channel Account Manager UK, Sony Europe.



#### High-level visitors

ISE 2025 was visited by high-ranking personalities from politics and business, including Salvador Illa Roca (President of the Generalitat of Catalonia), Jaume Collboni Cuadrado (Mayor of Barcelona), David Quirós Brito (Mayor of L'Hospitalet de Llobregat), and Jordi Hereu (Minister of Industry and Tourism). The city of Barcelona, the region of Catalonia, and the Spanish government recognized the importance of ISE and underlined the success of the fair with their support.

Numerous evening events throughout Barcelona provided a vibrant networking experience. The next ISE will take place from February 3 to 6, 2026, at the Fira de Barcelona, Gran









## "See it, feel it"

Hippotizer drives Epson "Eco Sphere".

The Hippotizer Media Servers from Green Hippo were once again the first choice for an impressive projection at Epson's ISE booth. At the center of the installation was a 2.2-meter mirrored sphere, onto which AI-generated floral and kaleidoscopic content was projected using three 4K Epson EB-PQ2220B projectors, each with 20,000 lumens.

The core of the Eco Sphere system consisted of two Hippotizer Boreal+ MK2 Media Servers as the main and backup systems, delivered by Motion Mapping and Stage Sound Services (SSS). The British company Motion Mapping, a long-standing Epson partner, once again applied its expertise for this visual spectacle, which was part of Epson's "See It, Feel It" campaign. Motion Mapping worked closely with the creative agency One Thousand, which was responsible for the visual content, while Motion Mapping handled the technical implementation.

"Since this is a projection-based installation, Hippotizer's Shape software was the perfect choice, especially for the Eco Sphere. It allowed for optimal positioning, blending, and alignment of multiple projectors", says Stuart Harris, Creative Director at Motion Mapping. The Boreal+ MK2 Media Servers provided enough processing power and outputs to drive all the projectors at the Epson booth.

In addition to the Eco Sphere, several other impressive projections were realized at the Epson booth, including a 3D wall installation where fi-

ve 30,000-lumen projectors projected onto a textured leaf wall; nine 20,000-lumen projectors in a triple-stacking arrangement for the main projection wall; a 4K 20,000-lumen projector for the front stand projection; three 5,000-lumen projectors in the triple-screen area; and an ultrashort throw 5,000-lumen projector in the meeting room.

A total of two Hippotizer Karst+ MK2 and four Boreal+ MK2 Media Servers were used for these installations, along with Lightware Fibre Transmitter/Receiver and signal matrices. The control was done via a MA GrandMA3 Compact console and an Adder XDIP matrix system.

"We planned the tech racks and pre-programmed them in the UK. In Barcelona, we then worked with the Epson team on-site to install, align the projectors, and coordinate with the set builders and tech teams", explains Harris. Thanks to the powerful DMX integration for the MA console, multi-controller control, and Shape pre-visualization, the Hippotizer Media Servers were quickly programmed, saving time. The enormous pixel count in 4K resolution was processed reliably and steadily by the servers.

The creative projections showcased Epson's powerful projectors perfectly and caused a great stir. Visitors shared the spectacular installations extensively on social media, further increasing the booth's reach. "The biggest success story was certainly the huge crowd at the Epson booth and the viral spread of the installations on social media."







## Strong dynamics

The Leat X has made the Ofenwerk Nürnberg a central meeting point for the event technology industry. With over 1000 participants, more than 100 brands, and a mix of networking and inspiration, the event was a complete success.

"The response to Leat X 25 was overwhelming. The combination of an exclusive setting, a targeted professional audience, and top-tier exhibitors really struck a chord with the industry", said John Weltersbach, Head of Event Operations at Leat and a new addition to the team at the start of the year. The 38 exhibitors of Leat X 25 gave visitors the opportunity to engage directly with leading industry representatives, forge new business relationships, and discuss current market developments. The family-like atmosphere allowed for targeted networking and firsthand access to innovations.

On the evening of the first day of the event, the fair hosted a get-together in the unique industrial and vintage car setting of the Ofenwerk Nürnberg. In a relaxed atmosphere, exhibitors and visitors were able to end the day with drinks, music, and good conversations.

Next, the "big" Leatcon will take place from October 14 to 16, 2025, in halls A1 and A4 of Messe Hamburg. With the expanded space, additional opportunities for exhibitors will be created, offering a broader range of training programs and new synergies between the ProAV and event technology markets.







## History meets the future

The in-house event "Wir treffen uns" has long established itself as a key industry meeting point in the Ortenau region. For the 30th anniversary of Stage Concept, guests were treated to an extraordinary event that united the past, present, and future of the event industry.

Managing Director Maik Förster invited around 300 guests - long-time customers, loyal partners, and industry experts - to the company's own warehouses to celebrate, exchange ideas, and build new connections. The event space was divided into three thematic areas, each reflecting a decade of the company's history. Technology, decorations, and speeches were tailored to the respective era. Maik Förster took the guests on a journey through the milestones of Stage Concept, accompanied by guest speakers who had shaped the company over the years.

A creative highlight of the evening was the collaboration with Enno Il-ka Uhde from the Industrial Theater, who created a unique atmosphere with his expertise. Culinary delights were provided by Rizzi & Co Fine

Food Affairs, which treated the guests to excellent catering: Managing Director Peter Schreck and Event Manager Franziska Schönhaar focused on high quality and innovative culinary concepts. Among the guests were numerous partners from the beverage, electricity, electrical, and entertainment sectors.

Stage Concept has been a full-service provider in the media and events industry for 30 years. The company offers tailored solutions for lighting, sound, video, and stage technology, and professionally implements events of all sizes - from concept to final execution. As a closely associated sister company, MA Projekt GmbH handles the creative concept, detailed planning, and execution of innovative event ideas.





## Olaf Scholz tests Al engineering

As part of the traditional opening tour at Hannover Messe, the acting Federal Chancellor Olaf Scholz visited the Verler company Beckhoff Automation on March 31, 2025. He was accompanied by Stéphane Dion, Canada's Special Envoy for Europe and the European Union.

Canada is this year's partner country at Hannover Messe. Managing Director Hans Beckhoff presented his company and its extensive expertise in software and artificial intelligence. This year's Hannover Messe was, among other things, themed "Shaping the future with technology". Beckhoff Automation has been a pioneer in PC-based control technology for 45 years. The company regularly pushes the performance limits of automation with its revolutionary future technologies and thereby contributes to social progress. In order to gain an impression of current applications of artificial intelligence in industrial environments, Chancellor Olaf Scholz also visited the high-tech company at its booth in Hannover this year.

The Chancellor was accompanied by a delegation of around 50 other guests, including Lower Saxony's Prime Minister Stephan Weil, Hannover's Lord Mayor Belit Onay, and about 100 journalists. Hans Beckhoff warmly welcomed the prominent delegation on behalf of all employees. He then explained the wide range of PC-based control and drive technology. Hans Beckhoff said: "We manufacture complex high-tech products, which are developed by many brilliant minds together in our company. It is our task to develop products and automate production processes so that they consume less raw material and energy than before."

A key role in such high-performance automation solutions is played by Beckhoff's control software TwinCAT. It transforms nearly any PC-based system into a real-time controller and integrates - modularly - all the necessary control functions, from PLC and motion control to machine safety, measurement technology, image processing, and artificial intelligen-

ce. Artificial intelligence, in particular, opens up immense potential to develop machines and systems faster and more efficiently.

A crucial component here is TwinCAT CoAgent, Beckhoff's powerful tool for AI-supported engineering. As a personal digital assistant for engineers, it revolutionizes the entire engineering workflow, which Chancellor Scholz was able to experience firsthand: By entering a simple prompt in TwinCAT CoAgent, he initiated the creation of a control program that then made a mover of Beckhoff's product transport system XPlanar float in a circle. The Chancellor and the Canadian delegation were impressed, and Hans Beckhoff is convinced: "The clever use of artificial intelligence will give our customers and us decisive competitive advantages. We are already seeing a 10 to 30% increase in engineering efficiency in various projects!"

Beckhoff's New Automation Technology includes product segments such as industrial PCs, I/O and fieldbus components, drive technology, automation software, panel-less automation (MX system), and industrial image processing. Beckhoff employs 5,300 people worldwide, including 2,000 engineers.

Hans Beckhoff (center), managing owner, presented Chancellor Olaf Scholz (left) and Stéphane Dion (right), Canada's Special Envoy for Europe and the European Union, the Al-supported control engineering with TwinCAT CoAgent.









### General renovation and modernization

Demolition and dismantling work, structural work, foundation work in the orchestra pit, drainage measures, renewal of all technical trades from lighting to sound to video: the work in and on the Theater an der Wien was a mammoth project.

The Theater an der Wien of the Vereinigte Bühnen Wien (VBW), a company of Wien Holding, is one of the most beautiful and traditional stages of the city. Since 2006 it has been run as an innovative stagione opera house with international appeal. In spring 2022, the starting signal was given for the urgently needed general renovation and modernization. The last time the Theater an der Wien was completely renovated was in 1962.

Now the building, including its structure, is being comprehensively and sustainably renovated, in order to preserve the traditional opera house for the next generations, to meet the requirements of safety and comfort for visitors, artists and staff of the theater, and to ensure a contemporary operation in the long term. The work is carried out in accordance with the requirements of monument protection, under which parts of the theater, such as the so-called "Papagenotor" on Millöckergasse and the auditorium, are listed.

City Councillor for Economic Affairs and Finance, Peter Hanke, said: "Vienna's reputation as one of the great cultural cities of Europe is, among other things, underpinned nationally and internationally by the Vereinigte Bühnen Wien with its four venues. Most recently, Artistic Director Stefan Herheim received the International Opera Award as the world's best director. That is why we are committed to investing in the future of our theaters. After the Ronacher and the Raimund Theater, which has been shining in new splendor since 2021, the Theater an der Wien is now being completely renovated and modernized. Smaller but urgently needed renovation works are also being carried out in the Kammeroper

during the summer months. These investments strengthen the position of Vienna as a cultural and tourism metropolis, create added value and secure jobs."

"It was high time to renovate the Theater an der Wien comprehensively and sustainably, and thus to preserve this historic theater of the city for the coming decades and to offer our visitors a contemporary opera experience. We thank the City of Vienna for allowing us to perform music theater productions at the highest level according to the stagione principle in an essential cultural monument of the city", said Franz Patay, Managing Director of the Vereinigte Bühnen Wien.

With the general renovation of the Theater an der Wien, once the workplace of great minds such as Schikaneder, Beethoven, Offenbach, Nestroy, Strauß and Lehár, not only is a cultural heritage preserved, but also the vitality of a music theater that artistically unites past and future in the present.

#### Companies involved

The general renovation of the historically significant theater building and the oldest opera house in the city took about two years. The house was therefore closed for two seasons. During this time, the internationally award-winning artistic director Stefan Herheim staged productions in Halle E in the MuseumsQuartier. The reopening of the house in new splendor took place in autumn 2024.







The main contractors were the construction company Bauunternehmung Granit, the building services company Ing. Georg Wiesenthaler (responsible for heating, air conditioning, ventilation, sanitary, measurement, control and electrical engineering) and the electrical engineering company EAG Elektroanlagenbau, who carried out the demolition and dismantling work.

Already at this early construction stage, PKE Electronics GmbH from Vienna was fully involved in the project preparations. The company thus laid the foundation for the implementation of the "heart" of the house. As the responsible partner for the entire event technology equipment, PKE Electronics GmbH was in charge of supplying, installing and commissioning the audio, video and lighting technology as well as the stage management and communication technology. In addition, the company took over the planning and implementation of the energy distribution for these technologies in order to ensure smooth operation.

The event technology trades for stage machinery, audio, video, media and stage management technology and stage lighting were selected through the usual tendering procedures or in the preparation of the procedure - more on this later

The planning and execution of the construction project was the responsibility of the ARGE L-Bau-Engineering and Riepl Kaufmann Bammer Architektur. The GbR is a joint venture of architects and engineers with offices in Vienna and Linz, which already has experience and expertise in the construction of music theaters (Baden-Baden, Salzburg Festival, Landestheater Linz) as well as the renovation of listed buildings and public buildings (University of Applied Arts, Austrian Academy of Sciences).

#### Event technology

The technical requirements were, as always with listed buildings, higher than usual. In the field of lighting technology, it was about the complete renewal of the cabling. Dimmers had to be replaced, but old dimmer cabinets were to remain. The auditorium lighting was converted to LED, as well as the work and blue light.





#newhog



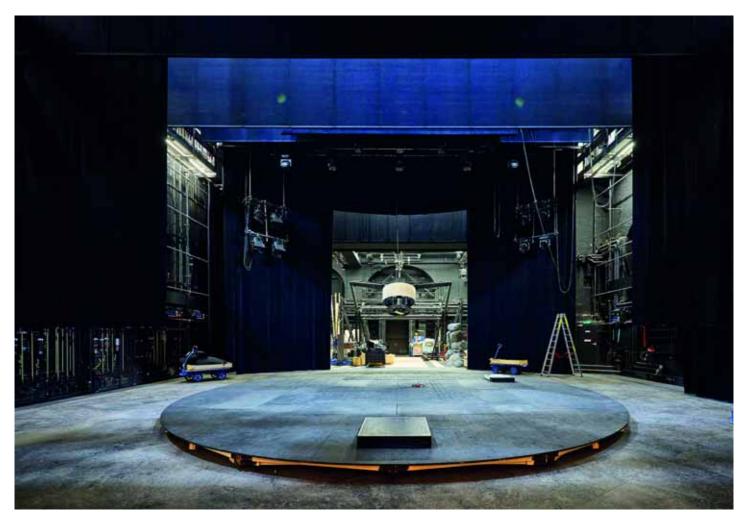
**Prolight + Sound** 

vom 08. - 11. April 2025 Halle 12, Stand C33 + C39 Happy Hour ab 17 Uhr



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In the field of sound technology, a completely new room acoustics system by Amadeus Acoustics with Coda speakers and room microphones including completely new cabling was installed. The sound studio in the break room on the first balcony was converted into a modern recording studio with the latest technology, including new mixing consoles from Stagetec. This work was also carried out by the general contractor for event technology, PKE Electronics GmbH.

In the field of video, a new surtitling system is now in use. In addition, new projectors were installed in new soundproof boxes under the first balcony with completely new cabling. Moreover, a "video control room" was created and brought up to the latest state of the art.

In addition, the entire stage management technology, including all communication systems throughout the building, was renewed. Newly created rooms were equipped with event technology, including the "Hölle" - a grid ceiling with connections for light, sound and video - and the "Himmel" = the sound system. Finally, the salon was converted and made usable as an event venue - including a modern media trolley.



#### Technical planning

BWKI was commissioned with the technical planning for service phases 1 to 7. Project management was carried out by WIP (Wiener Infrastruktur Projekte). The main tasks included planning the renovation measures of the TAW in the areas of stage technology (upper and lower machinery, control), stage floor, textiles, scenic stage lighting, audio/video/stage management systems. The area of "scenic stage lighting" included in detail:

- Taking over some existing dimmers, renewal of the entire network of power distribution (effect circuits, direct circuits), DMX/Ethernet network, work and blue light
- Lighting control desks: taking over a GrandMA2 from the existing stock
- Network nodes MA Lighting 8Port Node, MA Lighting 2Port Nodes integrated in distribution boxes



## Unser Know-How, Ihre Inszenierung!

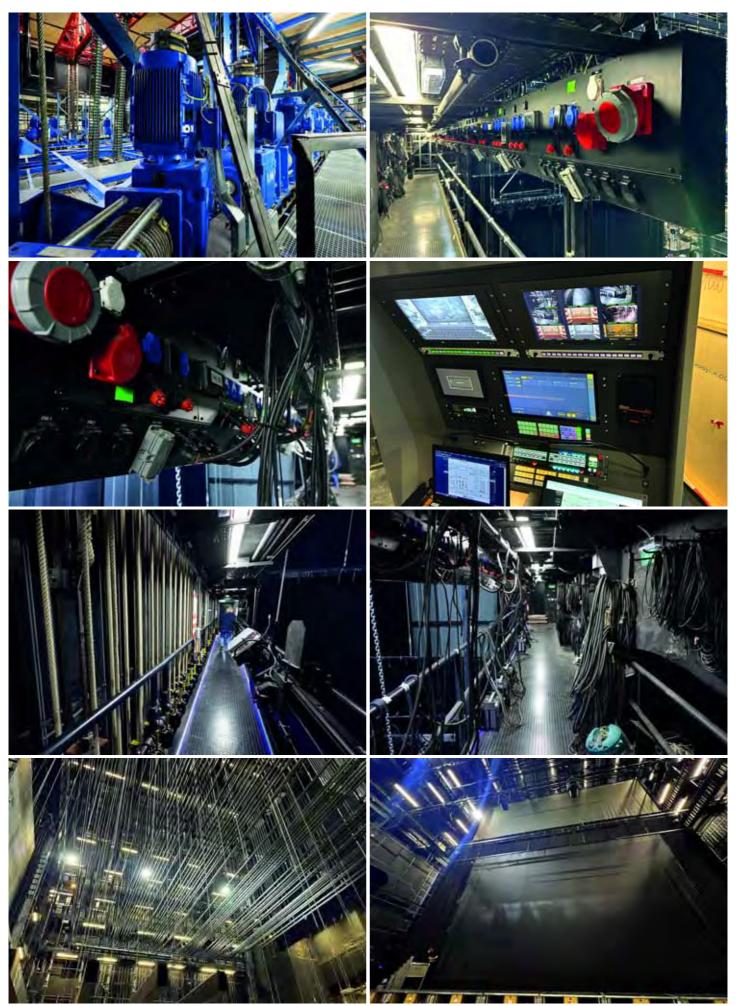




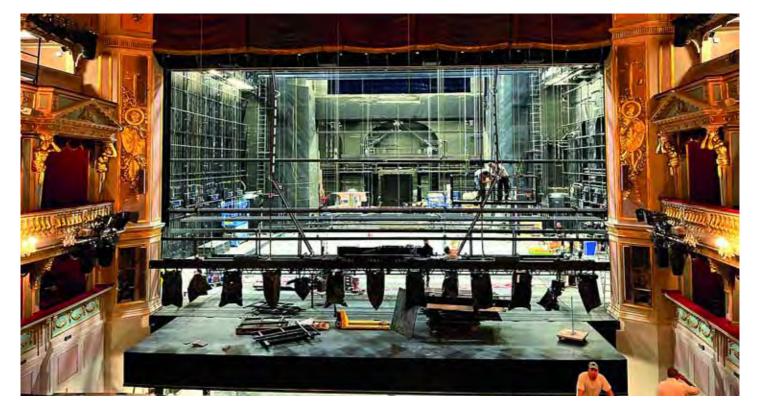
- Mediennetzwerke
- Lichttechniksysteme
- Automatisierungstechnik
- Stagedirector- und Inspizientensysteme
- Intercom- Systeme
- Vernetzte Mischpultsysteme und Regieplätze
- Video-, Projektions- und LED-Wall-Technik
- Immersive 3D-Akustik-Lösungen
- Versatzkästen
- Zeitgemäße Infrastruktur
- Unified Communications

PKE Projektmanagement –
Ihre Gesamtlösung aus einer Hand:
Ausführungsplanung & Lieferung, Installation
& Inbetriebnahme, Wartung & Gewährleistung
Support & Betriebsführung





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- Switch actuators, mobile dimmers SRS Lighting Similarly comprehensive was the audio sector, which included the renewal of the entire audio and sound reinforcement system including mixing console, sound reinforcement and audio network. The main requirements
- Mixing console system with at least 160 input channels, distributable to at least 96 busses in 96kHz; each loudspeaker should be able to be directly driven from the console
- Sound reinforcement system designed for speech up to rock/pop musical, delay loudspeakers to fill the balconies, electronic room acoustics, immersive audio, stage monitoring. Here, after a shoot-out conducted in the TADW, which was carried out as a blind test with different listeners and evaluation sheets, the decision was made in favor of Coda Audio.

With exceptional care and attention to detail, the internal PKE planning team took on the demanding task of integrating modern technology into a listed building. The workshop and installation planning as well as the cabling were carefully thought out to preserve the historical charm of the building without compromising functionality.

Particular challenges arose in the production of special paint finishes for the loudspeakers, which were perfectly matched to the architecture. In addition, custom-made suspension systems were developed to meet the specific requirements of monument protection. The result is a harmonious fusion of technology and tradition.

- Mixing console system: decision in favor of Stagetec, Avatus as console and Nexus as matrix system. Since Nexus was already in use in many VBW houses, it was also desired here)
- Sound studio with 7.1+4H loudspeaker setup for recording concert recordings, post-production, but also preparation of productions
- Monitoring speakers at the control room and in the sound studio from Geithain

After the renovation, the following mixing consoles are in use in the audio network: three Stagetec Avatus (sound control room, sound studio, mobile) as well as 25 Stagetec Nexus base devices distributed throughout the building. A so-called fourfold summation was also implemented, meaning that up to four different input signals can be routed to one output (sound system): processor electronic room acoustics/ immersive audio/mixing console sound control room/mixing console mobile/sound studio/external mixing console (third-party provider).

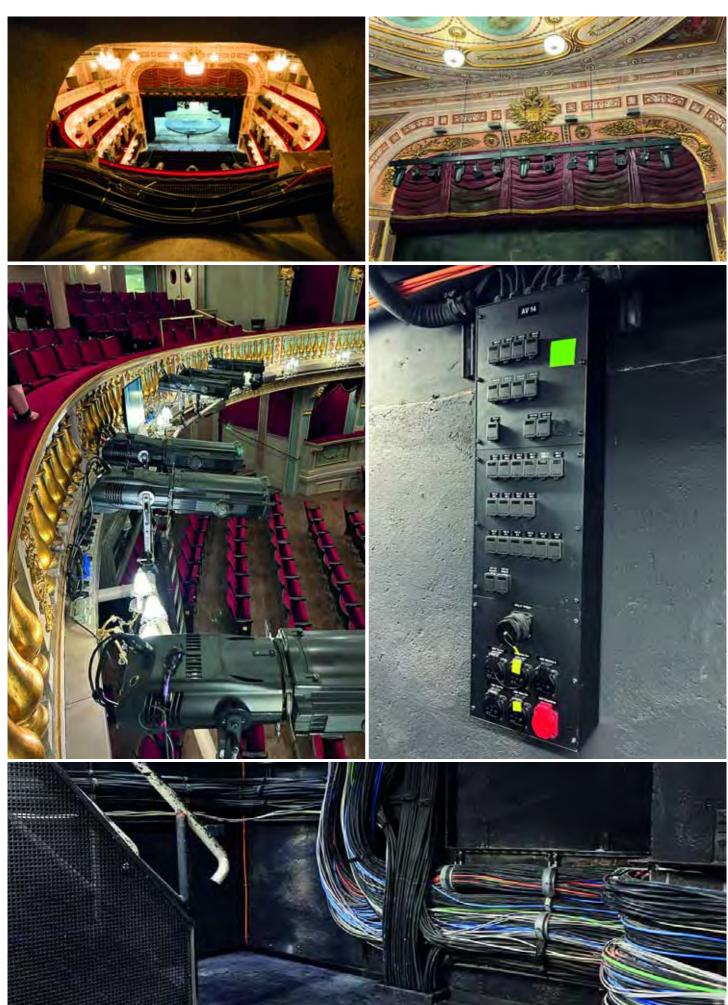
The sound system is connected to Nexus via a Dante network. In the auditorium, there is a microphone array for recording above the orchestra pit, consisting of Decca Tree, two surround microphones, plus additional surround and support microphones in the hall. 57 microphones are used for the reverberation system and are integrated into the system via Nexus and routed via Dante to Amadeus.

The sound system includes 180 loudspeakers in the auditorium, others in the rehearsal rooms, the foyer and the "Hölle."









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The main sound reinforcement in the proscenium left and right consists of 12 Coda CoRay. The proscenium bridge is equipped with five arrays of three Coda N-APS each and four Coda SCN-F subwoofers in a tooth-gap arrangement. Above the proscenium, there are four Coda Hops8 point sources for coverage in the third balcony when mixing based on scenes.

In the boxes, Coda D5-Cubes were installed at the rear (reverberation system, effect sound reinforcement), the delay in the boxes and the effect sound reinforcement at the balcony fronts was realized with Coda Hops 5. Stage monitoring was done via Coda Hops 8, Coda G712-Pro, Coda G715-Pro. For the main sound reinforcement, Coda Linus 14D system amplifiers were used.

The effect sound reinforcement runs via digital multichannel amplifiers Innosonix MA32D2. The special feature here: 32 loudspeakers/32 Dante channels take up only 2 rack units (RU). Thus, by using the Innosonix amplifiers, a lot of rack space could be saved.

In addition, two new Panasonic PT-RQ25K projectors were architecturally integrated into the underside of the first balcony. These are housed in soundproof enclosures that provide all necessary connections and an integration with HVAC for waste heat, and can be opened forward for servicing. A PTZ camera (Panasonic AW-UE160) for wide shots was integrated into the housing.

The video distribution is done via Analog Way Aquilon in 4K. The media server used is Pandoras Box. In the area of the monitoring system (working video), distribution is via Riedel MediorNet, playback of the monitoring signal via gaming monitors with a low-latency transmission of under two frames.

The overall solution for audio/video/stage management system as well as scenic stage lighting was implemented by PKE Electronics, Vienna, together with the sub-partner Zeiler-Technik for lighting and stage management system, under the leadership of PKE project managers Martin Nikendei and Bernhard Bauer.

The construction of the stage technology was carried out by Waagner-Biro, Vienna, under the project management of Norbert Reichardt.

In the field of electronic room acoustics/immersive audio, BWKI planned with Amadeus Active Acoustics:

"After the theater had already worked with the Amadeus system in the alternative venue, 'Halle G' in the MuseumsQuartier, during the renovation, the wish arose to use it also for the renovated house. Together with the responsible sound engineers, BWKI designed the loudspeaker and microphone setup. The detailed planning was then carried out by the re-

sponsible integrator PKE Electronics GmbH. The tuning was then carried out on behalf of PKE by Amadeus Acoustics in close cooperation with the theater", explains Thorsten Rohde, Managing Director of Amadeus Acoustics, and continues:

"The room acoustics should be able to adapt to the respective needs depending on the production, e.g. little reverberation but good speech intelligibility in spoken theater, more reverberation and strong room response in opera and music theater. The musicians should have pleasant playing conditions. In addition, the variable acoustics should also be used scenically/dramaturgically, i.e. spatial changes in the staging should be perceptible to the audience, for example 'narrowness' through few reflections from the walls or 'church' during the appearance of a choir."

In order to change the acoustics in the room at the touch of a button, more than 200 loudspeakers were evenly distributed throughout the auditorium. Over 50 microphones in the audience area and on stage capture the sound field, and the processor "Amadeus Core 128" with a 96-channel extension processes the signals and sends them back into the room. In this case, two processors were used to handle the large number of output channels.

Since the building is listed, variable acoustics with mechanical elements could not be installed – or would have entailed enormous planning effort. The decision was made in favor of Amadeus Acoustics because the company calculates the reflections from a geometric model that represents the actual room, i.e. the new, controlled reflections have a similar pattern to the reflections of the natural room. This allows the sound field to be controlled without creating an additional "virtual" second room.

In addition, Amadeus can modify the room acoustics and simultaneously (in parallel) play 3D audio sources. Immersive playback thus sounds within the set room acoustics. The audience interacts with the surrounding acoustics. Sound engineers can also control certain room acoustic effects during the performance via a QSC interface. "Our CTO Volker Werner and Bennedikt Roß were the sound engineers on site, who calibrated and tuned the system in about eight days", said Rohde.

What proved particularly successful in this project was that one single company was responsible for all major trades - audio, video, lighting, stage management and communication technology as well as their cabling and power supply. This clear responsibility contributed to making decisions quickly and optimizing cooperation between the parties involved, which supported the efficient implementation of the project.





## A new home for artists

The Soundfabrik Berlin, in collaboration with WSDG, is taking the next step in its dev elopment, bringing impressive Dolby Atmos audio features and precise acoustics to the Berlin creative scene.



Soundfabrik Berlin, a recording studio located in Berlin-Charlottenburg, has long been a hub for musicians, producers, and audio engineers. The 400-square-meter studio, located on the top floor of a historic factory building, underwent an expansion with the help of the architectural and acoustic firm WSDG. The renovation also includes the state-of-theart Studio B, a compact yet sophisticated space optimized for immersive Dolby Atmos audio production.

Founded in 2013 as Blackbird Studios, the recording studio was acquired in 2022 by musicians and entrepreneurs Guilherme Castelhano and Julia Selbherr Castelhano. After the acquisition, both had the vision to develop the space into a creative environment for production, songwri-



Group photo of client and contractor (left to right):

Florian Strucken (CEO AVS Medientechnik),

Julia Selbherr Castelhano (Studio Owner Soundfabrik Berlin),

Guilherme Castelhano (Studio Owner Soundfabrik Berlin),

Dirk Noy (General Manager Europe WSDG)

ting, and recording. With a reputation for offering professional services in recording, mixing, and mastering, Soundfabrik has since evolved into a facility that attracts clients such as Deutsche Grammophon, Sony Music, and Universal Music, as well as artists like Snarky Puppy, Lena, and Michael Wollny.

The couple recognized the potential for further expansion and reached out to WSDG for assistance in planning Studio B, an additional production space within Soundfabrik Berlin. WSDG's responsibilities included technical planning in the areas of building acoustics, sound isolation, and room acoustics.

The newly added Studio B features a decoupled room-in-room design optimized for Dolby Atmos mixing and immersive audio production. Equipped with ATC main monitors and a Dolby Atmos system from Eve Audio, the room offers a high-fidelity audio experience, enabling producers, musicians, and engineers to work with the highest acoustic precision.

A primary goal of the design was to preserve the aesthetic integrity of the historic space. Therefore, the translucent glass walls were maintained, while advanced acoustic materials and sound isolation techniques were integrated. The compact size of the room was also taken into account during the planning process, ensuring that every detail - from the decoupled gypsum structure to the custom acoustic panels - contributed to an acoustically excellent performance.

Gui Castelhano is enthusiastic about the collaboration: "WSDG's Dirk Noy and his team immediately understood my ideas. They are not only experts in acoustics, but they also really listened to what I wanted to achieve. The acoustic design is precise, and the results speak for themselves. Studio B sounds incredible, and I couldn't be happier with how the space has turned out."

He continues, "We focused, among other things, on making every aspect of the room feel pleasant. As musicians, Julia and I know that an inspiring environment is crucial for creativity. Studio B offers an intimate, immersive space where artists can truly focus on their craft, and it was fantastic to see the reactions of those who have worked there."

Despite challenges such as material shortages and rising costs, the renovation proceeded smoothly thanks to the careful planning and collaboration of the team. In addition to the acoustic planning of the studio, WSDG also oversaw the construction work and conducted acoustic measurements. The project benefited from the expertise of system integrator Florian Strucken, owner and managing director of AVS Medientechnik, who played a significant role in setting up the studio's audio and network infrastructure.

The newly renovated Soundfabrik Berlin now features two production rooms: Studio A remains a versatile environment for live recordings, with a 100-square-meter live room, a Steinway D grand piano, and a Neve Genesys Black 32 console. The new Studio B expands the studio's capabilities.

Castelhano emphasizes the importance of creating a comfortable, inspiring environment for artists: "People often tell us that the space is cozy, and I'm very proud of that. When musicians feel at ease, they can truly be creative. That's the essence of what we wanted to achieve with Soundfabrik."

WSDG (Walters-Storyk Design Group) is a 13-time TEC Award-winning international company specializing in architectural acoustic consulting and media system engineering. The groundbreaking architect and acoustician John Storyk (AIA) founded the company in 1969 with the establishment of Electric Lady Studios for Jimi Hendrix in New York City's Greenwich Village. WSDG offers a broad range of design and consulting services that support architectural projects at all stages of development.

Their international team has provided timely, detailed, and cost-effective advice on highly sensitive and complex architectural construction and renovation projects, from small but critical retrofits to demanding new builds. WSDG has extensive experience with sensitive architectural issues, including historical renovations, expansions, and new builds in the fields of media production, corporate, government, transportation, education, broadcasting, and culture/entertainment.

Notable past clients include Jay-Z, Bruce Springsteen, Alicia Keys, J. Cole, and Jack Antonoff, as well as companies like Spotify, Sony, CBS, Novartis, and IBM, global AV installations for governments, and educational institutions like Berklee College of Music, UCLA, NYU, Drexel, and USC.

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### In the Ferrari Universe

Modern Solutions Plus and Perfect Duck provide Coda Audio solutions for prestigious Ferrari exhibition in Bangkok.

Universo Ferrari, an immersive exhibition surrounding the world of Ferrari vehicles, took place late last year in Bangkok, Thailand. The venue was the UOB Live, Emsphere. More than twenty models were presented, offering Ferrari fans in Thailand a close-up experience - among them rare special editions, legendary classics, and the brand-new F80 model, the most powerful road car ever from Maranello.

The exhibition was divided into several zones, each focusing on different aspects of Ferrari's history. For a brand with such an iconic reputation, it was crucial that the audio quality matched the visual standards and the decision was made to choose Coda Audio.

The Thai Coda distributor Modern Solutions Plus, specializing in AV rental and installation, assisted Perfect Duck, which had received appro-

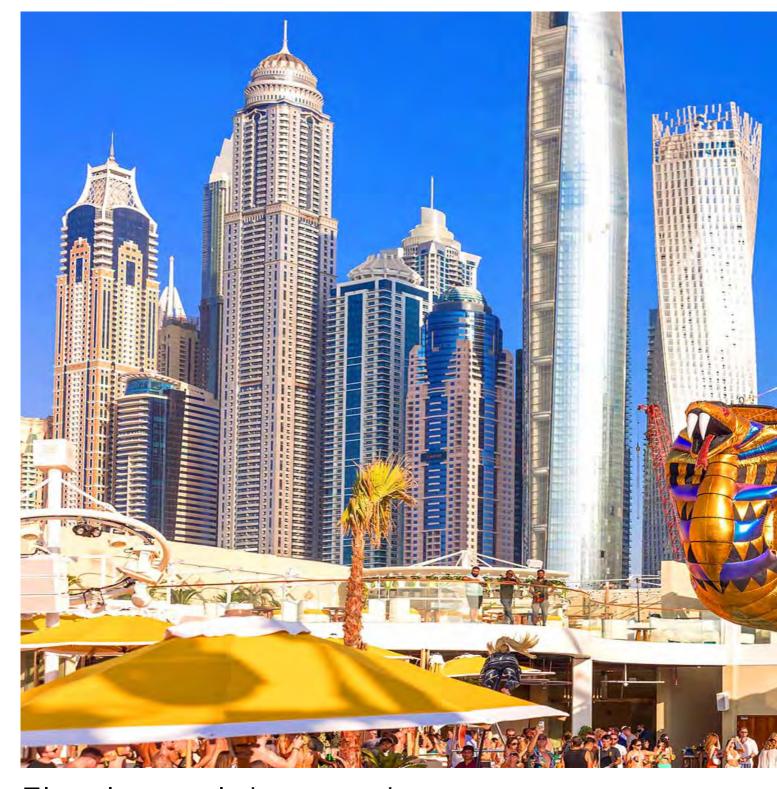
val from Ferrari HQ to switch from the originally planned speaker system to Coda Audio. Modern Solutions Plus took on the system design for the event and supplemented Perfect Duck's existing Coda equipment to ensure complete coverage of all zones.

The systems were installed within four days before the event and had to cover not only powerful background music but also live and speech presentations as well as sound effects. Depending on the zone, different speaker models from the Coda portfolio were used. The systems were powered by a combination of Coda Audio Linus amplifiers. For the festive gala dinner of the event, a separate Coda system was provided, consisting of eight Viray Line Array elements and four SC2-F subwoofers, driven by Linus 14 amplifiers.









## Flawless club sound

After establishing itself as one of the most renowned clubs in Europe, O Beach Ibiza now brings its iconic concept to Dubai. Everything that made O Beach famous in Ibiza has been transferred to the United Arab Emirates. DAS Audio provides the audio system for Dubai's new luxury venue.

Operated by the IMI Group, O Beach Dubai is open seven days a week until the early morning hours. The venue offers fully immersive entertainment shows and high-profile performances. Given the size and scope of the project, a powerful and precise sound system was essential. The IMI Group wanted to achieve the same high standard as the Ibiza location in Dubai - and once again chose DAS Audio.

The club spans over 5000 sqm, including indoor and outdoor areas, luxurious cabanas, VIP beds, a nearly 400 sqm pool, and an exclusive, elevated restaurant with a 360-degree view of the beach. The centerpiece is the central DJ booth, surrounded by LED walls.,,The experience in our beach club goes far beyond the ordinary - there are constantly shows in different areas. A huge crane hangs over the pool, lowering decora-



tions and inflatable objects. Everything is designed for the show experience."

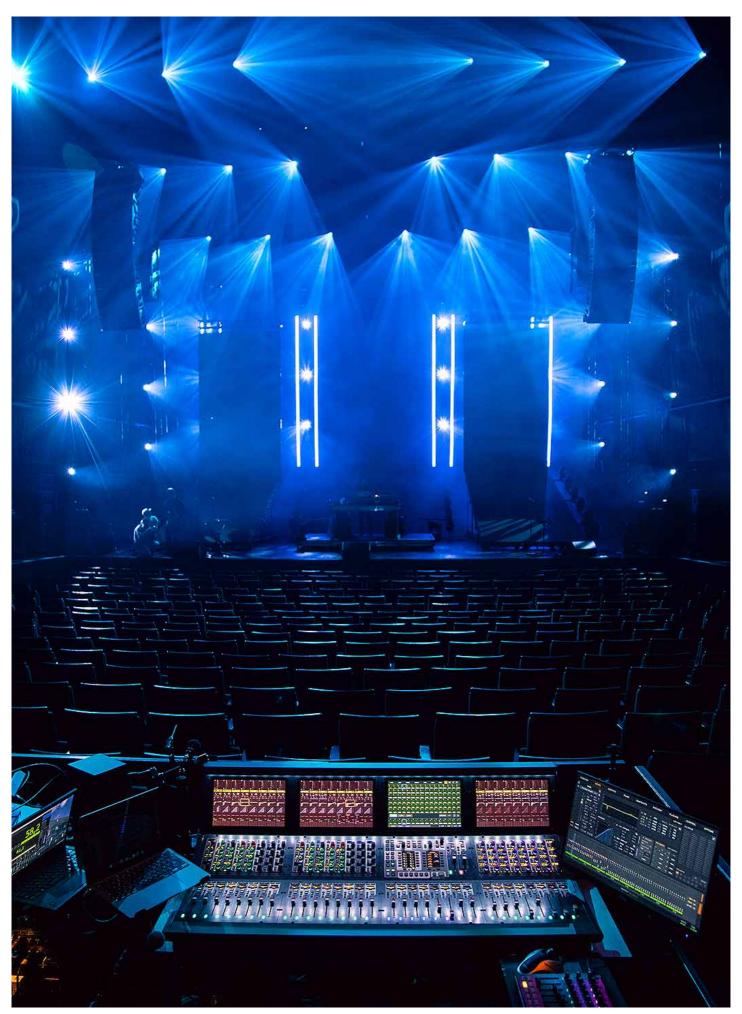
In addition to the large area, the location directly on the beach presented unique challenges: The technology had to withstand high temperatures, salty air, and humidity. At the same time, noise pollution to nearby hotels and apartment complexes had to be avoided. A well-thought-out sound design was required to ensure both an impressive audio experience and consideration for the surroundings.

The choice was the Sara system from DAS Audio, which had already proven itself in Ibiza. "The owners and guests of O Beach Ibiza were very satisfied with the DAS Audio system. When we decided to expand to Dubai, we worked with DAS again to create a similar installation."

The main sound system for the dance floor consists of 28 WR-320-DXW, 6 Sara-SUB-W, 1 WR-218S-DXW, 19 Artec-508-W, 24 Deco-8-T-W, Artec-322S-W, Artec-510-W, with 7 PA-4000, 8 PA-1500, 12 PA-2700, and 9 PA-500 amplifiers. The Sara-SUBs with cardioid technology prevent sound propagation toward the surrounding residential areas. This ensures optimal sound inside the club without disturbing the neighborhood.

19 Artec-508-W speakers provide perfect coverage for the cabanas and the panoramic restaurant. Additionally, four Artec-S15-W subwoofers are used. In the dressing rooms and toilets, 24 Deco-8-T-W speakers provide continuous background music. All speakers were delivered in pure white to seamlessly blend into the beach club's design. The entire system is networked via Dante.







## Unprecedented functionality

The Harpa Concert Hall and Conference Centre, a world-renowned venue in Reykjavik, Iceland, has recently upgraded its audio systems with live sound solutions from the US manufacturer Avid to meet the demands of international tours, large-scale symphonic concerts, and immersive audio experiences.

By integrating several Avid Venue S6L systems, the prestigious Icelandic concert hall strengthens its position as a leading provider of technical innovation and rider compliance for global productions. The audio overhaul included the installation of three Venue S6L-32D consoles, paired with E6L-192 engines, as well as several Stage-64 and Stage-32 stage racks. The systems are now used in various halls of the Harpa, including the impressive main hall "Eldborg", for front-of-house (FOH), monitor mixing, and broadcast applications. Notably, the Icelandic National Radio uses one of these consoles for the weekly broadcasts of the Iceland Symphony Orchestra's performances.

The investment in Avid's live sound solutions replaced the venue's previous setup and marked a significant leap forward in terms of scalability and technical capabilities. "We were looking for a solution that could handle the complexity of large orchestra productions combined with pop and rock bands", explains Andri Gudmundsson, head of events and technical management at Harpa. "The flexibility and routing capabilities of the Venue S6L were key factors." The modernization project at the Harpa Concert Hall and Conference Centre was completed in mid-2024 with partners Thomann and Atendi ehf. SEA from Emsbüren ensured a smooth transition to the new systems with consulting on system configuration and several days of in-house operator training in Reykjavik.











## Highlight in the nightlife

KV2 Audio has created the sophisticated sound profile for "Mr Panther", an upscale club in Lagos: with a luxurious sound design for the high-energy resto-lounge with a view over the city.

With "Mr. Panther", the Standalone Group has created a new highlight in Lagos' nightlife: a stylish resto-lounge on the 7th floor of the Avenue Suites Hotel. Here, the finest culinary offerings are combined with an energy-charged club experience. Golden accents, elegant glass facades, and an opulent interior shape the design - the goal: to leave a lasting impression on every guest. For the auditory counterpart to the visual concept, the choice fell on a high-quality audio system from KV2 Audio.

The collaboration with Freehand Acoustics began during the concept phase, allowing the audio, lighting, and interior to be perfectly coordinated. "We were involved from the outset in the planning and implementation of the audio system. This allowed us to cooperate smoothly with the design team to bring all elements together harmoniously", explains Rayan Wehbe, Principal Consultant at Freehand Acoustics.

The goal: a system that could serve both a refined dining experience and an intense club atmosphere. Based on previous experiences with KV2 Audio in similar environments, Wehbe was convinced of its performance. "The acoustic performance of KV2 is consistently impressive especially the deep bass of the subwoofers. So, the decision was clear."

KV2's ESD series proved to be the perfect solution: compact, powerful, and ideal for the design and acoustic requirements of the project. To ensure even sound distribution throughout all areas, the sound system was precisely configured. Already in the hotel elevator areas, gold-painted ESD Cube speakers greet guests with full-range sound. The champagne bar at the entrance is equipped with four specially painted ESD5

speakers on the ceiling, providing stylish background music while guests wait for their table.

The main area features a robust LCR system: ESD10 (left and right), an ESD12 as the center speaker, and three ESD1.18 subwoofers integrated into the furniture to create an immersive yet elegant soundscape. Below the gallery, ESD Cubes provide sound coverage for the lounge areas that would otherwise be acoustically disadvantaged.

The VIP mezzanine is equipped with an L-R setup of ESD8 speakers and two ESD1.15 subwoofers to deliver a bass-intensive sound experience for discerning guests. Even in the restroom areas, ultra-compact ESD Cubes are used to maintain the sound character of the entire venue consistently.

"A critical aspect was the precise directional control of the speakers to minimize reflections in an acoustically challenging space", says Wehbe. "The combination of hard flooring, glass facades, and thick textile surfaces posed high demands on the system. The controlled radiation of the KV2 components was ideal here, allowing energy to be directed precisely and unwanted reflections to be avoided."

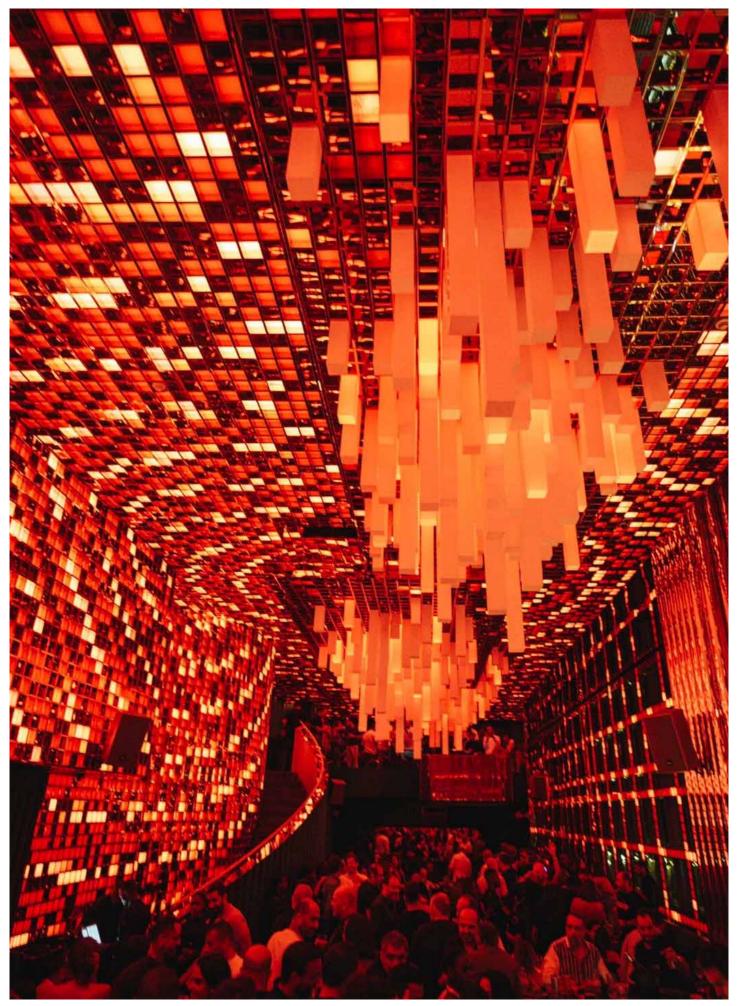
For system control, a Xilica Solaro QR1 processor with a custom-designed user interface is used. The venue team can adjust levels, load presets, and monitor system performance via tablet or PC - an important function for the smooth transition from fine dining to club mode. Despite architectural challenges - such as limited placement options along the glass façade and staircase - the audio concept was successfully implemented.



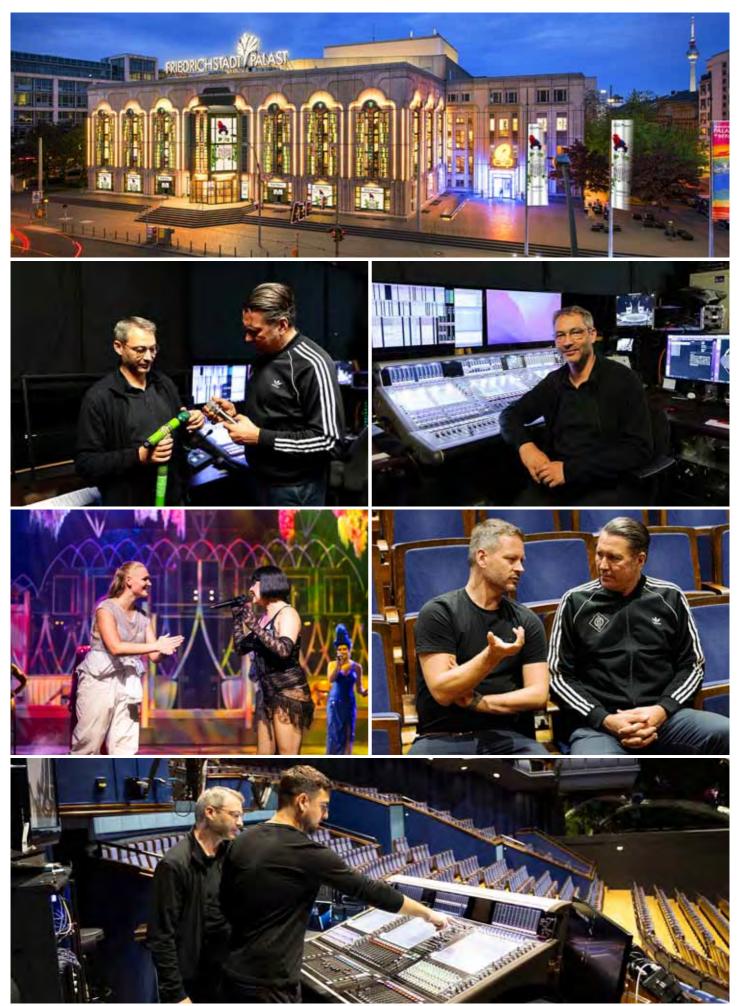


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#### Good neighbors

The Friedrichstadt-Palast in Berlin-Mitte is considered the largest theater stage in the world. To fill the 2,854 square meters with life, every two years a completely new, visually stunning Grand Show is developed with singing, live music, dance choreography, and breathtaking acrobatics, which is unparalleled in Europe. This requires not only passionate people but also a lot of state-of-the-art technology, which led to a collaboration with Neumann.

The Friedrichstadt-Palast is one of those institutions that give Berlin the shine and glamour of a world city. And it has been doing so for over 100 years. The Große Schauspielhaus opened in 1919, which was renamed Friedrichstadt-Palast in 1947. When the building had to be closed in 1980 due to sinking foundation pillars, a decision was made in the same year to construct a new, no less magnificent theater. Completed in 1984, the new Friedrichstadt-Palast was one of the last prestige buildings of the former GDR. Large Saturday night TV shows were also recorded here, where many artists from the West performed.

Today, the Friedrichstadt-Palast (once again) is a revue theater with spectacular shows that can't be seen anywhere else. The Grand Shows of the past 10 years have each attracted over 700,000 visitors. And they were treated to quite a lot: singing, dancing, acrobatics, accompanied by magnificent stage designs, an extremely elaborate light show, and even fragrances. Two hours during which the audience forgets all their worries and immerses themselves in a magical world.

Each Grand Show runs for two years with up to eight performances per week. Three to five singers perform on stage every evening, supported by ballet and breathtaking acrobatics. Much of this would be unthinkable elsewhere, as the Friedrichstadt-Palast's unique features include a massive stage area, very high ceilings, and well-utilized airspace that enables aerial acrobatics, as well as a huge, retractable water basin. The 40-year-old building, however, also brings particular challenges, such as small stage entrances. All the technology and large sets must be delivered in parts and assembled on-site.

A 15-piece band provides the live music. And they don't just play in the background; they are part of the current Grand Show on a movable cart. "If you're going to have a band of this size, it would be a shame to hide them. So, we let them perform in various scenes and make them visible. For that, you need the right technical tools. Because, of course, everything is played live", says Thomas Herda, Technical Director of the Friedrichstadt-Palast.

#### The right tools

These tools include an elaborate immersive sound system with over 150 speakers. For the performers, there is an optical tracking system specifically developed for the Friedrichstadt-Palast, so that the panning moves with them - even when the singer or performer moves around in the almost 2,000-seat auditorium. The in-ear monitoring system is also immersive. It has been shown that musicians are much more relaxed when they hear the events as naturally as they would with their own ears.

A technical challenge in terms of feedback and crosstalk is that the performers usually act on the apron. "We don't perform behind the PA, but always directly in front of it, where the audience sits. At some points, we were previously at the limit, where we had to be very careful. With the Neumann KK 105 U capsules, we now have significantly more headroom", reports Thomas Milde, Head of the Sound Department. "We no longer have to turn the music down as much."

But even in terms of sound, the Neumann capsules for the wireless system represent a significant improvement: "Our show is multilingual. Speech intelligibility is therefore very important. The technology has to



support that, even in terms of dynamics", comments Thomas Herda. And Thomas Milde adds: "The Neumann KK 105 U capsules are more dynamic than our previous ones. These used to start limiting very early, even at relatively low volumes. The Neumann KK 105 U can handle much more. And we need much less EQ adjustment."

"Previously, we had extreme EQ curves on the vocal microphones. With the Neumann KK 105 U, that is no longer necessary. The sound that comes through is already natural", confirms FOH technician János Linde.

The same applies to the Neumann MCM system, which is now used for instrument miking. "We first tested the MCMs with brass instruments. Here, we could remove the EQ because they sounded much softer than the previous clip microphones. They no longer had that harshness that could hurt the guests in the auditorium. The musicians are also thrilled", explains Thomas Milde. The same goes for the string instruments: "Previously, we needed a dynamic EQ so that the cello would still sound present in quiet passages, but not uncomfortably scratchy when it played loudly. With the MCM, this is no longer necessary."

"The sound must not be annoying, and it must have the right volume", confirms Thomas Herda. "It must not be too loud, but it must convey the emotion. And that must be the case in all seats, from the front rows to the back."

#### After the show is before the show

While the current production is running, work is already underway behind the scenes for the next Grand Show. Because at the end of the two-year run of the current show, there is only a short four-week reconstruction period during which the successor show, which has already been prepared, is finalized for the stage. This is a time when the technical director and the 85 technicians work intensively. Every delay could disrupt the schedule and lead to lost revenue.



#### Brand experience for the ears

Genelec combines cycling culture with impressive sound at Maap Berlin and elevates the retail experience through sound, cycling, and style to a new level.

In the heart of Berlin, the new Maap LaB store merges striking design with urban cycling culture. As a premium brand for performance-oriented cycling apparel, Maap is known for combining aesthetics and performance - not only in clothing but also in the design of physical spaces. At the new Berlin location, sound was understood from the beginning as a central element of brand perception and was realized using Genelec Smart IP loudspeakers.

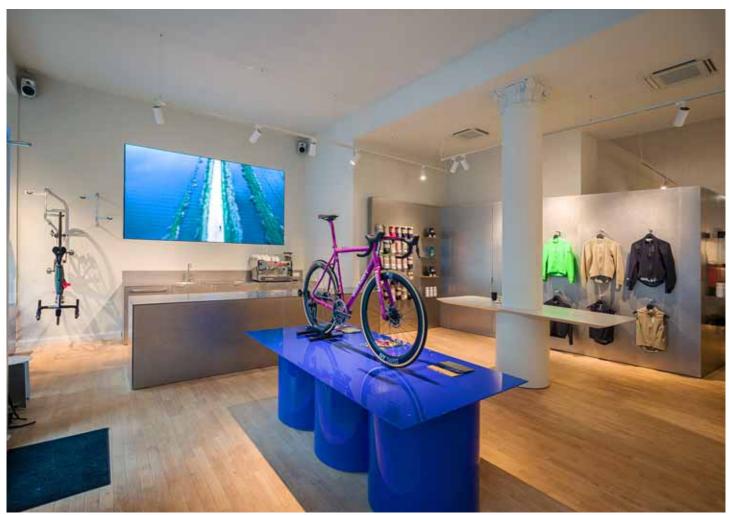
The Maap Berlin LaB stands for a new form of retail, far from classic sales floors - here, it's about community and cultural exchange. "Our LaB is a cultural meeting point for the cycling community, a place that is connected with the dynamic spirit of Berlin", says Matt Ward, manager of the Maap LaB in Amsterdam, who was closely involved in the Berlin project. Ward, himself a longtime music professional, made it his mission to establish sound as an essential component of the brand experience - in close collaboration with Genelec and integration partner Binss Medientechnik.

"Sound is not an accessory for us – it is part of the DNA of the space", explains Ward. "We wanted to create an environment where sound feels organic, is immersive, and invites customers to connect with the cycling culture we embody."

Maap's requirement was clear, high-quality sound reproduction at low levels — with the option to increase the volume for events without any loss in quality. As a passionate audiophile, Ward chose Genelec: "I've been working with Genelec in production since 2008. Their precision in



sound reproduction makes them the logical choice." At the Berlin LaB, seven Genelec 4430 Smart IP loudspeakers were used. Thanks to network connectivity, a single CAT cable transmits power, audio, and control data - ideal for minimalist integration. "The simplicity of installation was a game-changer", says Christoph Schlenther, Sales Manager at Binss. "Genelec integrated seamlessly into the store's minimal design." The open room structure, which naturally absorbs sound, made additional acoustic measures unnecessary. Instead, the loudspeakers were precisely tuned to the space to achieve balanced levels without dead zones or disturbing hotspots.







# "Sustainability and performance are not mutually exclusive"

Fabric London has modernized its Bodykinetic dancefloor with Powersoft Mover: Room 1 receives an update for a haptic, energy-efficient club experience of the next generation.

The legendary London club Fabric has officially completed the long-awaited renewal of its Bodykinetic dancefloor in Room 1 - thus concluding the final chapter of the comprehensive sound system renovation as part of the anniversary project "Fabric 25". The new floor, the first modernization since the club's opening in 1999, uses 36 Powersoft Movers - innovative magnetic resonance transducers that translate sound into tangible vibrations, enabling an immersive connection between music and body.

"The original sound design for Room 1 was revolutionary and included a dancefloor with Bodysonic transducers that generated silent subharmonics traveling through the body", recalls Matt Smith, Technical Director of Fabric London. "Together with a quadraphonic speaker system and precise sound processing from the DJ booth, the entire system was far ahead of its time. Keith Reilly and Dave Parry set standards with their club design 25 years ago. We remain true to that vision: that's why we didn't replace the existing system, but specifically modernized and improved it."

"We knew: the renovation of Room 1 would not be complete without an update to the dancefloor. After months of planning, the installation began directly after our New Year's show - with full involvement of the technical team." Compared to the old system with 450 tactile transducers, the new floor with Powersoft now requires only 36 Movers, drastically reducing energy consumption.

In contrast to conventional voice coil transducers, where a copper coil moves in a magnetic field, Mover reverses the principle: the magnet moves within the coil. This design offers crucial advantages: greater reliability, more robust construction without delicate copper components, im-

proved haptic feedback through inertial drive, and significantly higher energy efficiency. Compared to traditional subwoofers, Mover also reduces acoustic environmental impact by up to 50 percent.

The result is a more powerful and immersive experience that transmits bass noticeably more directly. The dancefloor responds more evenly and precisely; this not only improves the feeling of dancing but also allows for a deeper, more physical immersion in the music.

Another important aspect: the new technology makes the club experience more inclusive - especially for people with hearing impairments. Through the tangible vibrations, music can now also be perceived physically. Fabric is working with Deaf Rave to tailor the Powersoft solution to the needs of the deaf community.

"With the use of Powersoft's Mover technology, Fabric is taking a major step toward an energy-efficient club future, without sacrificing immersion and inclusion", says Cristiano Traferri, House Account Professional Leader at Powersoft. "The significantly reduced power consumption perfectly matches the forward-thinking philosophy of the club and proves that sustainability and performance are not mutually exclusive."

The new Bodykinetic dancefloor with Mover technology is fully operational in Room 1. In cooperation with Mastery Quantum Sound, an event concept that experiments with sound as meditation and live electronics, Quantum has become Fabric's official sound meditation partner. The launch took place on February 25, with free tickets for deaf visitors. The Quantum residency runs until June 2025.





#### Classic rock meets AV expertise

The newest Rock & Brews diner, an American bar concept focused on classic rock, recently opened at the Potawatomi Casino Hotel in Carter, Wisconsin. The success of the first Rock & Brews restaurant at the Casino Hotel Milwaukee had paved the way for it. Both locations were equipped with extensive Martin Audio technology, planned and installed by CCCP (Camera Corner) from Green Bay.

CCCP worked on behalf of the main company Audiotek from Dublin, which was responsible for the visual media equipment. CCCP maintains a long-standing partnership with the Forest County Potawatomi Tribe. Project planner Scott Tomashek explains that the client deliberately relied on continuity and again trusted Martin Audio after the system in Milwaukee had proven successful - a specification originally provided by Audiotek.

In comparison to the larger Milwaukee location, the Carter project required a different approach. The area, at around 280 sqm (3000 sq. ft.), was more compact, the stage smaller, and the ceiling height limited. "That's why we decided against Torus and chose an alternative flown solution: we went with Flex Point", says Tomashek.

The main system consists of two FP15 loudspeakers, flown left and right, complemented by two SXC115 cardioid subwoofers positioned centrally in front of the stage. "The FP15 is compact but delivers plenty of output. And thanks to the cardioid design of the subs, we could keep the bass off the stage - that was essential."

The additional equipment includes two FP8s flanking two large Taylor LED walls, five FP6s, and two FP8s aimed toward the gaming floor as a delay zone - to acoustically "draw" guests into the diner. "The coverage is excellent", confirms Tomashek. The entire system is powered by Martin Audio Ikon DSP amplifiers: two iK42s supply the FP15s, SXC115s,

and FP6s, while one iK81 powers six FP8s - each speaker on its own channel.

The setup allows live bands to connect to a digital mixing console, and there is also a wireless microphone system for announcements and events. However, regular operation runs via a powerful, video-supported classic rock playlist. "That's why we needed the energy of the FP15", emphasizes Tomashek. "As far as volume goes: the system can get significantly louder than they'll ever run it."

Signal management runs over a Dante backbone, fed by the DSP core, and routed into the Ikon amps. System control is via Crestron, with central management. Alternatively, sports broadcasts or TV content from the hotel network can be fed in. The FP15 had already made an impression at the Milwaukee casino, for example in the sportsbook, where Audiotek installed a 35-meter-wide LED wall. Martin Audio systems like CDD, Blackline, and TORUS were also used there.

For both projects, the team used Martin Audio's Display3 optimization software. "Flex Point is quick to set up and tune, the presets in the Ikon amps are great. That saves a lot of time - and time is tight because we as the AV team are always last in line", says Tomashek. Display's compatibility with Sketch Up also proved beneficial: "It was great to get Sketch Up models from the architect and plan the loudspeakers directly."











#### Driving pleasure

Sennheiser equips the new Morgan Supersport with a premium audio system, thus combining tradition and innovation.



Audio specialist Sennheiser equips the new Morgan Supersport with a premium audio system, continuing the partnership begun in 2022 with the British sports car manufacturer. As Morgan's new flagship model, the Supersport is distinguished by a new level of user-friendliness, refinement, and a breathtaking driving experience, to which the Sennheiser audio system contributes.

The Sennheiser audio system offers a first-class sound experience, characterized by a high dynamic range and balanced volume levels, ensuring clear and even sound. With an almost 80-year track record in the audio industry, Sennheiser is the ideal partner for the tradition-rich Morgan Motor Company, which combines craftsmanship with modern technology.

The Sennheiser sound system is designed to deliver a precise and powerful bass experience, with the soundstage expanding with increasing

frequency. It uses lightweight and efficient actuators in the dashboard for higher frequencies, dynamic speakers in each door for midrange reproduction, and a subwoofer behind the seats for low and sub-bass components. In addition, actuators in each seat intensify the bass experience, allowing occupants to physically feel the music.

Thanks to innovative actuators, the system remains lightweight and delivers premium sound without adding extra weight to the vehicle. "With the launch of the Supersport from Morgan, Sennheiser's in-car audio solution now offers drivers and passengers of the Supersport, Plus Four, and Midsummer models an unparalleled entertainment and communication experience", says Veronique Larcher, Managing Director of Sennheiser Mobility.

www.morgan-motor.com





Cinema, concert hall, theater venue: the Parktheater Bensheim, established in 1951, looks back on a diverse history. In order to literally put the varied program in the best light, the venue regularly invests in lighting technology from ETC. In the past five years, the lighting team led by event manager Eqon

Klüss, for example, ordered various spotlights from the Source Four family. Since 2021, the lighting team has annually ordered ETC Source Four LED Series 3 with X8 array from ETC distribution

partner Trendco. An excellent investment, according to Klüss: "The LED engine

is outstanding", he says.
"And with the various
LEDs in the X8 system,
we can create really beautiful, soft colors." Further advantages, as noted
by the lighting professional, include the slim design, the ability to change
the lens tube, and the relatively
low weight. In the picture: Rainer
Weggen (Trendco, left) and Egon
Klüss.

Following the successful conversion of the Junge WLB to LED spotlights, additional stages of the

Nürttemberg State Theatre Esslingen have now also been equipped with LED spotlights. These include the venues Podium P1 and Podium P2 as well as parts of the main theatre. The theatre primarily relies on Hypeion spotlights from Spotlight. The advantage of this Italian manufacturer lies in the wide range of available spotlight types, sizes, and power levels, all

while maintaining consistently high light quality. On the smaller stages, PC lens and zoom profile spotlights with 100 W LED output were already sufficient, as their compact design made them especially suitable for the lower ceiling heights. On the medium-sized stages, the 200 W LED Fresnel and PC lens lights we-

re the better choice, which also proved advantageous for the touring activities of the State Theatre due to their low weight.

The Stefaniensaal in Graz, one of the most beautiful concert halls in the world, recently modernized its

lighting system with Fuze Pendant downlights from Elation. The historic building received a custom solution from PKE, characterized by high energy efficiency, flexibility, and aesthetic sensitivity. Located in the Congress Center Graz, the Stefaniensaal is known for its exceptional acoustics, architecture,

and magnificent organ. With a capacity of 1,100 seats and a

city of 1,100 seats and a wide variety of events, lighting was a central element in creating atmosphere. The previous 500 W halogen lighting system had become outdated for several reasons, including high energy consumption, hard-to-find replacement lamps, and insufficient light output for many events. Therefore, PKE decided to control wide variety of the clean of the control of

refore, PKE decided to convert to LED technology. The electrical installation was carried out by Elektro Friebe, with support from NFMedia. In order to make the lighting of the Large and Small Halls of the Hamburg Elbphilharmonie even more sustainable in the future, the team led by Mike Neumann (Deputy Technical Director) and Matthias Baumgartner (Technical Project Manager) began searching in 2022 for an energy-efficient, visually appealing, and at the same time extremely quiet replacement for the previously used 750 W profile spotlights. A major first step in this direction was a comprehensive shootout conducted in one of the Elbphilharmonie's Kaistudios in autumn 2022, organized by Vision Two to-

gether with Werning Theatertechnik, All relevant manufacturers were invited. Vision Two entered the competition with the LEDko Tungsten from Coemar. "The selected LEDko convinced us in terms of brightness and light quality, but it had a fan, which was not acceptable", explains Mike Neumann. Within just a few months, Coemar deve-

loped a first prototype of the LEDko SHHH, which was finally coordinated with the technical directors of the Elbphilharmonie at Prolight + Sound 2024.









#### The Hungarian experience space

Ars Electronica Solutions equips the new Center of Digital Experiences in the cultural capital Veszprém-Balaton with "Deep Space".

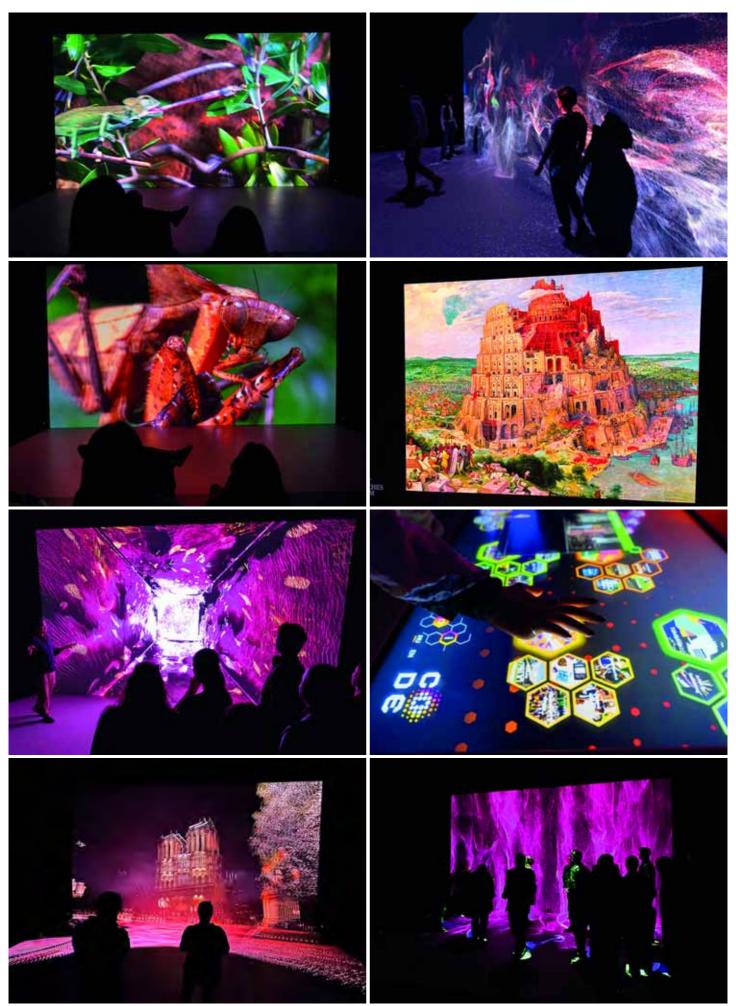
Initiated within the framework of the European Capital of Culture Veszprém-Balaton 2023 and opening in February 2025, the new Center of Digital Experiences (CODE) will in the future combine digital education with cultural heritage. The highlights of the venue were conceived and implemented by Ars Electronica Solutions: an experience space based on the Linz Deep Space as well as interactive stations that bring the history of the Bakony-Balaton region to life. The "Deep Space by Ars Electronica", already exported to China, Mexico, Switzerland, and Croatia, now also offers a unique immersive experience in Hungary.

In 2023, Veszprém-Balaton was named European Capital of Culture and established itself as a creative and cultural hub. One of the flagship

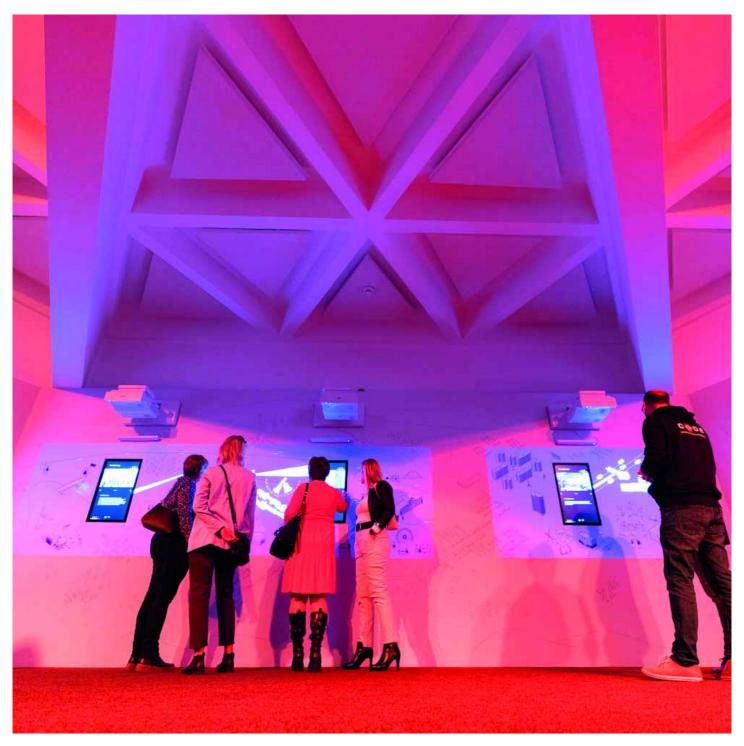
projects was the CODE - Center of Digital Experiences in Veszprém, which has now been ceremonially opened. The focus is on interactive 3D and VR experiences as well as digital educational offerings. The heart of the new center is the Studio, an immersive experience space with 3D effects implemented by Ars Electronica Solutions based on the proven Deep Space technology. Visitors can experience audiovisual, interactive presentations in the Ars Electronica style, including the Tower of Babel (Kunsthistorisches Museum Vienna; KHM-Museumsverband), Monster Tinder (Laurenz Vojka, AT), and Call to Echo (Ars Electronica, AT).

"The Deep Space implemented by Ars Electronica Solutions brings state-of-the-art immersive experiences to Hungary and opens up comple-





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tely new perspectives for education, art, and science. We are delighted that CODE now invites visitors to explore interactive worlds and experience the digital transformation up close", says Kati Romics, Project Manager, Ars Electronica Solutions.

#### Deep Space by Ars Electronica Worldwide

The Deep Space developed by the Ars Electronica Futurelab was put into operation on January 1, 2009, at the Ars Electronica Center in Linz and has since become a visitor magnet. Three visually powerful dimensions, two projection surfaces measuring 16 x 9 meters, over 50 million pixels of resolution, and a high-performance tracking system make it one of the most fascinating digital experience spaces worldwide. Since 2020, Deep Space has been adapted and marketed by Ars Electronica Solutions for clients around the world.

Today, Deep Spaces are operational at the West Bund Museum in Shanghai, China, at the M511 complex in Hangzhou, China, at the Natu-

ral History Museum in Zagreb, Croatia, at the hotel "Das Morgen" in Vitznau, Switzerland, and at the Sinaloa Science Center in Culiacán, Mexico. With the Studio at CODE, the next Deep Space outside Linz has now been opened.

Ars Electronica Solutions develops interactive experiences and innovative narratives for clients from industry, museums, and the public sector. In the form of customized brandlands, exhibitions, and events, the team led by Managing Director Michael Mondria makes complex content accessible and creates emotional connections between audiences, brands, and themes.

In addition to developing innovative strategies and concepts, Ars Electronica Solutions offers comprehensive support in implementation and operation, relying on the extensive experience of the Ars Electronica Center and the Ars Electronica Festival. With a clear commitment to sustainability, digital transformation, and immersive science experiences, Ars Electronica Solutions is setting new standards in the design of interactive spaces of the future.



#### A unique mechanism

The LED displays of the Leyard TVF Series were developed to revolutionize maximum flexibility. Their simple configuration and robust design made them ideal for the complete renovation of two studios at the headquarters of France Médias Monde (FMM) in Issy-les-Moulineaux.

France Médias Monde is a publicly funded media company that finances 95 percent of its budget through the value-added tax paid by all French citizens. This public funding guarantees its independence and underscores its socially responsible values – an ethos that aligns perfectly with the philosophy of Leyard Europe and was a decisive factor in the choice of the TVF Series video walls with a pixel pitch of 1.2 mm. Three LED video walls, installed by Kardham Digital in collaboration with Leyard Europe, complete the modular and flexible design of the first studio, which measures 7 x 4 meters and consists of 56 cabinets each. In the second studio, a single video wall consisting of 112 cabinets with a size of 14 x 3 meters was installed.

A unique mechanism enables the seamless movement of both configurations within a scalable modular structure that can be assembled into multiple video walls. The cable-free and stackable design of the TVF cabinets eliminates the need for additional space around the video wall while providing the clean lines required for this studio-ready configuration.

The ERO-LED (Extended Ruggedness and Optics) protective coating developed by Planar provides the necessary resilience to ensure trouble-free operation of the system. It also offers a matte surface that maintains the visual performance of the video wall over many years.

The studio's setup, including desks and seating, is easily modifiable and designed for the station's various formats. The interchangeable elements allow the team to make the most of the space. All furniture is movable, and the visual calibrations of the screen can be easily adjusted to ensure optimal visibility from any camera angle during broadcasts.

Leyard first conducted product demonstrations that met FMM's technical specifications. Extensive testing was carried out before the FMM team chose the TVF Series. Direct delivery from Leyard Europe's plant in Presov, Slovakia, enabled a very short delivery time while simultaneously reducing transport kilometers.

Construction work was scheduled according to studio availability and completed within an extremely short timeframe to ensure that the premises were ready for the broadcaster's relaunch.







#### Wildpark goes LED

At the BBBank Wildpark in Karlsruhe, Ledcon Systems installed two modern LED scoreboards during the 2024/2025 2nd Bundesliga winter break. The displays each measure 14 x 6 m and were equipped with Upix 10 L LED cabinets. The pixel pitch of 10 mm guarantees excellent image quality.

Close cooperation with Ledcon's business partner Unilumin Germany once again proved to be crucial in this project. Together, they ensured that the best possible product was delivered in all areas, particularly in critical aspects such as fire protection. The project posed a major structural challenge, as the overall surface area of the display was larger than originally planned. Due to the associated increase in overall weight, it was therefore necessary to develop an especially lightweight substructure. The construction height of the displays also required the structure to be integrated into the existing roof construction. For this, specially adapted trusses were developed.

In addition, the stadium control room was equipped with control technology from Nova Star. For this project, the choice fell on the Nova Star MCTRL660 in combination with the Nova Star CVT10-S. To ensure reliable transmission of the video signal, a redundant system was installed. For central control, both LED displays were fully integrated into the in-house Crestron control system. The on-site installation had to be completed within a tight timeframe of 14 days. All workflows had to be planned with precision for this purpose.



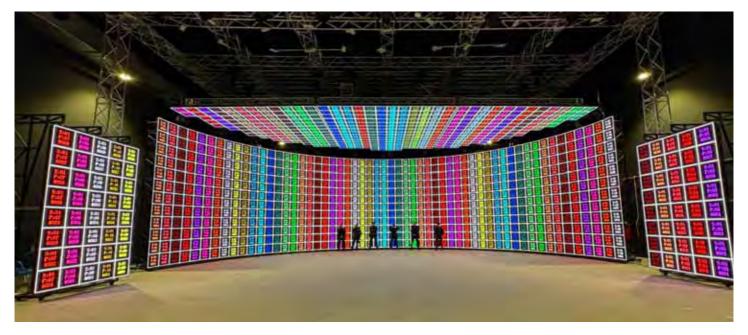




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#### Sophisticated virtuality

Alfalite's VP XR LED screens are part of Spain's largest virtual production studio: the new Coruña Immersive Studio (CEI) impresses with a 28 x 6 m LED wall and a 100 sqm LED ceiling – both featuring Alfalite's Modularpix Pro VP XR technology.

Alfalite, the only European manufacturer of LED screens, announces that its Modularpix Pro VP XR solution is the technological centerpiece of the new Coruña Immersive Studio (CEI) in A Coruña (Galicia), the largest virtual production studio in Spain. The facility features an impressive 28 x 6 meter LED wall and a 100 sqm ceiling area. In total, 1,152 Alfalite VP XR LED panels are used.

The CEI is located on a site of approximately 2,500 sqm, with around 750 sqm dedicated to the studio area. It is situated in the technology park Cidade das TIC in A Coruña. The complex consists of two interconnected buildings and is specifically designed for high-quality virtual production applications.

The project was realized in collaboration with Alfalite's partners Telefónica Servicios Audiovisuales (TSA) and Tangram Solutions, who played a major role in integrating the required technology. Funding was provided with support from the provincial administration of A Coruña and the Spanish government.

At the heart of the studio is a semicircular main LED wall made up of 672 Alfalite Modularpix Pro VP XR panels with a pixel pitch of 1.9 mm and a total resolution of 14,336 x 3,072 pixels. This is complemented by a 100 sqm ceiling area composed of Alfalite Modularpix Pro 3.9 HB VP XR panels, as well as two movable side "LED totems" (each 2.5 x 4 m) using Modularpix Pro 2.6 VP XR modules. These side screens assist in

lighting and reflections for an even more immersive production experience.

In total, the 1,152 Alfalite VP XR panels enable the creation of dynamic, immersive, and hyper-realistic environments with depth and perspective, making them ideal for film and commercial productions in which real and fictional spaces merge seamlessly with physical elements in real time.

The studio's technological setup is further enhanced by advanced components: Pixotope 3D tracking, ARRI Alexa cameras, Canon lenses, Novastar MX processors, and a Blackmagic video matrix ensure a visual experience at the highest level.

"We are proud to be part of this project, which will develop into one of Europe's leading audiovisual centers for virtual production", says Luis Garrido, Managing Director of Alfalite. "Our thanks go to our partners Telefónica Servicios Audiovisuales and Tangram Solutions, who have realized this monumental project and trust in our technology to meet the highest industry standards."

Alfalite's VP XR technology was selected for its reliability, precision, and suitability for demanding virtual production environments, where every detail matters. The panels were specially developed for real-time interaction with cameras and graphics servers and offer color reproduction that supports the creativity of filmmakers.





#### Modernization for the Berlinale

Studio Berlin has comprehensively modernized its Ü2 outside broadcast vehicle, relying on Lawo's advanced Audio-over-IP (AoIP) technology. At the heart of the upgrade is an mc\_56 MKIII console with 48 faders, replacing the previous mc\_66 mixing console.



In addition, A\_stage devices were integrated as I/O units along with the mc2 DSP App featuring 256 DSP channels. The existing VSM system from Lawo was expanded to optimize the control of the IP-based broadcast infrastructure. The implementation of these technologies was completed in time for the 75th Berlinale, which opened on February 13, 2025. Studio Berlin's Ü2 produced both the opening event and the awards ceremony on February 22. Both events were streamed live and broadcast with a delay in the evening by Rundfunk Berlin-Brandenburg (rbb) as well as by ZDF/3sat. In cooperation with X Verleih, the opening gala and the opening film were also broadcast live in seven cinemas across Germany.

A key element of the upgrade, alongside the console and stage boxes, is the integration of the Home mc2 DSP App. This software-based solution enables highly scalable, decentralized signal processing and is tailored to the demands of modern IP-based production environments. "With the Home mc2 DSP App, we can manage DSP resources as needed and efficiently – an essential improvement for our workflow. Especially with regard to further upcoming technical upgrades and expansions in our studio facilities and fixed control rooms, we will be able to get more out of our resources", explains Mathias Heinrich, Head of Audio at Studio Berlin. "Thanks to virtualization, the need for separate DSP hardware is eliminated, which not only saves space but also gives us tremendous flexibility in configuration and scaling."

During the transition, it was necessary to seamlessly integrate the new technology into Ü2's existing 3G-SDI workflow. "The challenge was to replace a well-proven infrastructure with new technology that is still in constant development", explains Leonard Weißhahn, sound engineer at Studio Berlin. "The Home mc2 DSP App proved to be a good and future-proof solution: it not only delivers the familiar performance but also of-

fers great potential for learning and experience – for both Lawo and Studio Berlin."

Due to the complete transition to IP technology, it was essential to efficiently route all relevant audio signals and ensure seamless communication between the mc256 MKIII, the A $\_$ stage devices, and the redundant DSP App. The existing VSM system from Lawo played a crucial role here, as it centralizes control of the entire infrastructure and allows for intuitive workflow optimizations.

The new IP-based structure of the  $\ddot{\text{U}}2$  also provides a significant simplification in setting up and adapting productions. "In the past, making changes in signal processing for productions of this size was a challenge. With the Home mc2 DSP App, we can make real-time adjustments as needed without having to reconfigure physical hardware. This saves a tremendous amount of time and resources", Heinrich continues.

The upgrade of the Ü2 began with the delivery of the new components in calendar week 4. Thanks to the close collaboration between the Studio Berlin and Lawo teams, installation, testing, configuration, and programming were completed swiftly, so the vehicle was ready for use in time for the Berlinale. The close cooperation, even during production days, ensured a secure live broadcast of the Berlinale's opening ceremony.

"We now have a production environment that not only meets current requirements but is also well-equipped for future developments in the broadcast sector. At the same time, we are learning a lot together with Lawo about the current and highly interesting technological transition", summarizes Weißhahn. With this investment, Studio Berlin impressively demonstrates how IP technology and virtualized signal processing can shape the future of mobile audio production.





## Stanley Kubrick's carpet

"Bloodsports" redefines the concept of the sports bar in the 21st century – with AV integration from Tateside. London's integration specialists have created a unique entertainment experience in Covent Garden.

The latest creation from the operators of Meat Liquor, Bloodsports, combines the best elements of a classic sports bar and an iconic dive bar into a one-of-a-kind nightlife experience in the heart of London's Covent Garden. With classic Meat Liquor dishes on the menu, the bar shows live sports broadcasts all day and night, followed by horror films into the early hours. The entire design is inspired by the classic horror film genreright down to the carpet, which film fans might recognize from Stanley Kubrick's The Shining.

For the planning, implementation, and maintenance of the AV systems, Bloodsports worked once again with the London-based integration specialists Tateside, who had previously worked with the Meat Liquor chain. "We've been working with Meat Liquor for about five years", says Jack Cornish, Technical Director at Tateside. "There aren't many true sports bars left these days, and with this prime location in Covent Garden, it was an exciting project that we definitely wanted to be a part of."

Since Bloodsports aims to stream all kinds of live sports, the video infrastructure was a key focus. A total of 28 screens were installed to cover every conceivable viewing angle - including the main bar area, games room, lounge, and a private room for events or groups, all without walls or partitions. Even the restrooms feature screens for continuous entertainment. Due to the open floor plan, audio zoning was crucial to allow simultaneous sports broadcasts without audio signals interfering with each other

Tateside worked closely with the client and the British distributor for Hisense to procure various screen sizes ranging from 32 to 75 inches. Behind the scenes, the video concept relies on a video-over-IP solution with the Blustream IP300 Series (transmitter & receiver), which supports

4K at 60 Hz - essential for sports broadcasts. Eight different sources are integrated, including a Sky receiver, streaming services, a DVD player for classic horror films, and a signage player for drink promotions. Video and digital signage distribution is handled via the embed platform, which allows remote management and scheduling.

"One of the most interesting and distinctive features of Bloodsports was the LED ticker above the bar", recalls Cornish. "We installed a custom 9-meter x 250-mm LED scrolling band that displays slogans, drink promotions, and sports statistics."

For the audio system, a distributed solution was required, with different zones receiving different audio channels. Martin Audio CDD speakers and XE212 subwoofers are used in the main area, Audac ceiling-mounted speakers are used throughout the space, and Void Acoustics are in the private VIP area. Signal distribution is handled by Dante-enabled Powersoft amplifiers, while Netgear POE+ switches control the AV network.

System control is managed via Q-Sys, including a touch panel and iPad, allowing control of audio sources, screen content, and even karaoke playback. The karaoke system was procured by Tateside, and its audio and video output can be flexibly distributed across different speakers and screens depending on the occupancy or concurrent events. There is also a DJ area with Pioneer CDJ and mixer for additional entertainment formats.

Despite the complex setup and tight timeline, the project ran smoothly. Tateside also handles ongoing maintenance, with a service commitment of a four-hour response time for technical issues. "Even though the project is complete and the bar is open, we continue to work with Bloodsports under a managed services agreement", says Cornish. "This high level of support is absolutely critical for a venue so reliant on its AV technology."







#### John Lennon's training bus

For the video programs of the educational project "The John Lennon Educational Tour Bus", a Blackmagic Design pipeline has recently been used.

It consists of an ATEM Television Studio HD8 ISO live production switcher, Blackmagic Studio Camera 6K Pro, and Blackmagic Pocket Cinema Camera 6K Pro digital film cameras, as well as DaVinci Resolve Studio software for editing, color correction, visual effects, and audio post-production.

In 1997, co-founder and executive director Brian Rothschild approached Yoko Ono and suggested launching a John Lennon songwriting contest to help songwriters from around the world break into the music industry. "The competition has been around for 27 years now. There are prize funds totaling \$390,000 across 12 music categories. When we were thinking of ways to promote the competition, the idea of creating a mobile music studio came to mind. So, in 1998, we took the first version of the Lennon Bus on the road", Rothschild says.

The nonprofit Lennon Bus is intended to give students the opportunity to gain experience in music and video production. "The participants in our workshops work with the best technology available today. This way, they experience what it's like to produce original digital content using the same tools and techniques they will encounter in the professional world", said Chief Technology Officer Jeff Sobel. "Additionally, they are taught about affordable tools that allow them to jump straight into their own productions."

Creative content is captured by the students of the Lennon Bus using the Pocket Cinema Camera 6K Pro. This allows them to produce video independently or in groups or capture multiple perspectives of scenes. "We worked with Westlake Pro on the integration of the ATEM Television Studio HD8 ISO, and together with the company, we also installed the camera I/O panels in each room of the studio", Sobel continues. "These panels with the Triad-Orbit quick-change connections are the perfect place to connect the three Blackmagic Studio Camera 6K Pros, which work seamlessly with the ATEM. The studio cameras allow for easy broadcast-style productions as well as livestreams. Or we can just capture additional perspectives in the studio."

"DaVinci Resolve Studio also contributes to an intuitive, powerful workflow in post-production. The Blackmagic RAW footage shot with the Pocket Cinema Camera 6K Pro delivers images with optimal fidelity, and DaVinci Resolve Studio provides the best method for project output, supporting Dolby Vision", Sobel adds.

The goal pursued by the Lennon Bus is simple: "The bus and its programs are meant to serve as inspiration for the next generation to imagine a better world", says Sobel.

Rothschild adds: "The lessons on the Lennon Bus bring young people together to create a project in a single day. They might write a song and record it, and then shoot a video. Or they team up and produce a documentary on a topic they're passionate about. The student projects are presented at final events. During these, learners, celebrated artists, and community leaders come together for panel discussions on the special interests of today's youth. It is clear that with John Lennon's name, a special focus on social justice and peace is tied to it."

www.lennonbus.org





#### Video studio for the Bundeswehr

Ovest has equipped the Association of Reservists of the German Bundeswehr with a state-of-the-art solution for mobile and stationary video transmission. With the investment in innovative streaming and video technology, the Reservists' Association strengthens its digital infrastructure and sustainably improves the efficiency of its training and educational measures.

The focus of the concept was on reducing the technical complexity for the client as well as achieving a high degree of user-friendliness, despite the varying requirements during use. The project includes the design, delivery, and commissioning of a total of 16 mobile video studio systems in suitcase size, as well as two stationary systems for the federal offices of the association in Bonn and Berlin. The new video studio systems enable the Reservists' Association to have flexible and location-independent video production for the creation and provision of training content in real time or on-demand tutorials.

With mobile deployment, realistic training situations can be documented and conveyed on-site, significantly improving training efficiency and knowledge transfer. At the same time, the new offerings are better adapted to the time availability of volunteers, allowing them to better balance their voluntary responsibilities with family and work commitments.

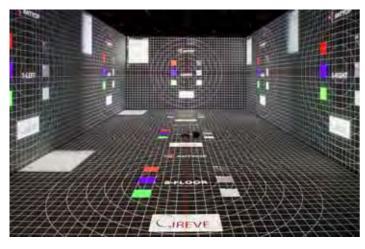
The fully equipped studio solutions contain a 4K handheld camera, a remotely controllable 4K pan-tilt camera, a gimbal camera, a preview monitor including a control case, as well as microphones, sound reinfor-

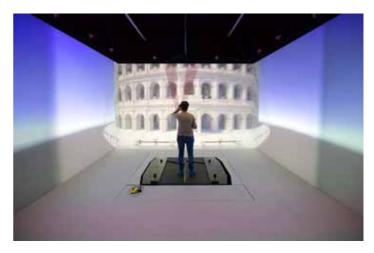
cement, and LED lighting equipment. The transmission occurs via a combined LTE, 5G, Wi-Fi, or Ethernet connection using an external dual-dome antenna.

The hardware has been specifically optimized for field use and compactly packaged in suitcase size to provide the reservists with a robust and practical solution. The design focused on ease of handling, durable design, and quick setup time for the mobile systems to meet the specific needs of the Reservists' Association.

The video studio systems are also designed for maximum scalability. Multiple mobile units can be interconnected to flexibly adjust the number of cameras and microphones according to the respective requirements. Additionally, seamless integration into Microsoft Teams is possible, ensuring remote participation in live conferences and video recordings.

The official handover of the video studio systems took place on February 20, 2025, in Bonn. After the implementation is completed, Qvest will offer further training to ensure optimal use of the systems and to sustainably improve the media work of the Reservists' Association.





#### VR for everyone!

ST Engineering Antycip recently demonstrated its expertise as an integrator when it enabled the Université de Caen Normandie to offer users with limited mobility a complete immersion experience in their virtual reality space (also called CAVE).

Since 2014, the Centre Interdisciplinaire de Réalité Virtuelle (CIRE-VE - "Interdisciplinary Centre for Virtual Reality"), which supports researchers and companies in the development, investigation, and creation of content in the field of virtual reality, has benefited from a custom-made CAVE installed by ST Engineering Antycip, which is the largest at any French university. This CAVE allows users to interact with dynamic content projected onto four screen walls to ensure complete immersion. As part of their research work, the university later set up a 3 x 2.5 m treadmill to add a motion dimension to the application. To maintain an ideal level of realism, a CAVE must allow content to be displayed at eye level. However, the treadmill caused issues regarding the accuracy of the projected information due to its size and elevation.

"The use of the treadmill significantly reduced the quality of immersion in the CAVE. For safety reasons, we were also forced to equip the treadmill with side safety rails to help users maintain their balance", explains Sophie Madeleine, Director of CIREVE. "Moreover, users with limited mobility were unable to use the motion functionality, and for us, unrestricted accessibility was a must."

"Setting up the largest virtual reality space in France within a university environment, creating a floor depression in the CAVE to install a treadmill with a force platform, designing dual-use of this space - with or without the treadmill - so that the entire projection area could be used: these are all challenges that Antycip faced to meet the needs of our researchers."

After conducting structural and feasibility studies, it was decided to integrate the treadmill into the floor and lower it with cylinders, either positioning it at floor level or retracting it under the floor when not in use.

Johan Besnainou, Director for France & Spain at ST Engineering Antycip, explains that it was necessary to understand the interaction between the device and the content. Additionally, it was essential to ensure that the structural stability of the foundation and the device was not compromised: "For this project, we were able to demonstrate all of our capabilities as project managers to turn the requirements into a realizable task, considering the needs of the end customer as well as the requirements of external parties while coordinating the teams on-site."

The company also contracted the construction specialist Spie to create a floor depression into which the automated treadmill could be embedded.





#### On the way to a green university

The lecture hall technology at the University of Siegen has been upgraded, which has led to a reduction in service calls on campus through intelligent power management by Gude Systems.







The goal was to reduce service calls by monitoring and controlling the AV installations on campus. The "Green University" motto was followed, meaning the automatic shutdown of AV installations during standby and inactivity, as well as a scheduling function to avoid continuous operation during the night.

To achieve this goal, an Expert Power Control 8031-1 Power Distribution Unit with 8 switchable IEC C13 load outputs, precise input-side power measurement, and integrated surge protection Type 3 from Gude Systems was installed. "Without Gude, we could not so easily and quickly reliably monitor and control around 270 rooms at the University of Siegen. The time-consuming service calls have significantly decreased, and we no longer have to rush across the entire campus when the technology might freeze", reports Matthias Brück, technician at the University of Siegen.

Universities and colleges are increasingly relying on visual digital media. The analog chalkboard has become obsolete, and in lecture halls, whiteboards and touch displays are now used. To ensure that AV equipment works flawlessly, service calls on-site were previously necessary. The responsible technicians had to take lengthy routes just to restart the equipment. At the same time, the electricity consumption needs to be adapted to future, environmentally friendly requirements. The CO2 footprint should be kept to a minimum to align with the motto of a green university. But how can both aspects be reconciled?

At the University of Siegen, around 17,000 students are enrolled, attending five faculties. In 2021/22, the "Unteres Schloss" campus in the city center was built to offer students additional modern teaching space. The newly created lecture hall center in the university city has the particularity of being built on the building of the now-closed Galeria Karstadt Kaufhof.

The lecture hall center consists of a large lecture hall with nearly 600 seats, two smaller lecture halls with 200 seats each, and seven seminar rooms, each accommodating 50 students. In addition to the new building, more than 200 rooms on the existing campus have been technologically modernized. To operate the media technology in the classrooms sustainably, switchable Power Distribution Units (PDUs) from Gude Systems have been used in the current AV installations.

The University of Siegen has set the goal of becoming a "green university". To achieve this goal and be prepared for future requirements, the university relies on the PDUs from Gude. The requirements include reducing power consumption and minimizing the CO2 footprint. Additionally, service calls on-site should be avoided by allowing technicians to centrally and remotely control the AV technology. 19 PDUs switch and monitor the AV installations throughout the lecture hall center. In the large Friedrich-Schadeberg lecture hall, four PDUs "Expert Power Control 8031-1" are in use around the clock. With the Expert Power Control 8031-3, up to eight circuits can be switched, each protected by surge pro-

tection Type 3. This surge protection safeguards the devices connected to the PDU from overvoltage. This protects the AV installation in the lecture hall center from frequent failure situations. Throughout the University of Siegen, more than 130 Gude PDUs ensure continuous operation in lecture halls and seminar rooms - with numbers on the rise.

In the new lecture hall center, the switchable PDUs are firmly anchored in 19-inch racks. They can be switched off via the IP network when not in use. Additionally, with the switchable PDUs, schedules can be set up to, for example, interrupt the power supply at night. This way, standby devices do not have to run continuously. This noticeably reduces power consumption.

Furthermore, by integrating environmental monitoring in the 19-inch racks in the large lecture hall of the lecture hall center, the risk of a fire is further reduced in addition to the general fire alarm system. The switchable PDUs measure temperature and humidity using sensors. When configurable thresholds are exceeded, the system sends an alarm message via email to the user. For example, an increased temperature from a cable fire can be detected early, and the device will report this to the technicians. The technicians can then determine from their central location whether a fire has occurred during operation, and if in doubt, they can restart or completely turn off the devices remotely.

Two technicians are deployed on campus. This is a manageable number, considering that they must monitor, maintain, and repair the AV technology in about 270 seminar rooms and lecture halls. For every service call they made in the past, they took the time and effort to restart the AV installations on-site and eliminate the source of the error. One can quickly imagine how time-consuming a service call was, especially if the most common cause of a failure was simply a software crash that causes the hardware to stop working. Now, the technicians no longer need to rush from lecture hall to lecture hall across campus, thanks to remote monitoring of the AV installations. The media technicians can, thanks to remote control technology, restart the hardware and check for errors reported by the sensors from a central location. This saves both time and money on an otherwise time-consuming service call.

The use of the switchable Power Distribution Units shows that service calls can be minimized with the PDUs. Not only do they require less time, but they also reduce the walking distances for the AV technicians. This not only saves the media technicians the effort, but it also prevents frustration and inconvenience for professors and students when the AV technology does not work properly. Expensive service calls can be reduced or even completely avoided thanks to remote access from anywhere. Standby devices no longer need to run 24/7 or on weekends, and electricity costs can be saved. The reduced energy consumption through the PDUs thus supports the sustainable motto of the "Green University". The fire risk is reduced through temperature and humidity measurements and alarm messages when thresholds are exceeded, so that smoldering fires can be detected early. This directly contributes to fire protection.



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#### SNL50: The Homecoming Concert

Saturday Night Live (SNL) celebrated its 50th anniversary at Radio City Music Hall in New York with four Digico Quantum mixing consoles and an L-Acoustics K2 concert sound system. Firehouse Productions provided the technology for a "Who's Who" of music stars and celebrities.

A 50-year anniversary is a unique event, but in the fast-moving world of television, even a decade on the air is a rarity. The highlight of the multi-part anniversary celebration was "SNL 50: The Homecoming Concert", which was broadcast live on NBC, SNL's longtime network, and streamed on Peacock as well as in select IMAX theaters of Regal Cinemas on February 14.

SNL has always been known for its musical performances as much as for its comedy, and for over 50 years it has served as a platform for music legends of every era as well as a springboard for new talent. Accordingly, many renowned artists performed at this special event: Bonnie Raitt, Cher, Dave Grohl, David Byrne, Jack White, Jelly Roll, Lady Gaga, Miley Cyrus, and Lauryn Hill. Former SNL comedians such as John Mulaney, Dave Chappelle, Steve Martin, Martin Short, and Robert De Niro were also part of the show, which was hosted by Jimmy Fallon. Fallon himself performed the Blues Brothers classic "Soul Man".

"All those who worked on this show knew: we won't be around for SNL's 100th anniversary", says Mark Dittmar, VP of Sales at Firehouse Productions, which was responsible for the live sound reinforcement of the three-hour event. "It was a once-in-a-lifetime opportunity to work on a show with an incredible number of musical performances as well as comedy and sketch acts."

To ensure everything was clearly audible during the event, the technical team used a combination of Digico mixing consoles for FOH and monitor sound along with a concert sound system from L-Acoustics developed specifically for the event. The high-end technical setup deployed by Firehouse Productions consisted of two Digico Quantum 338 consoles for monitor sound, two Digico Quantum 7 consoles for FOH sound, and 12 SD racks managing a total of seven 56-channel splitters between house and broadcast sound. The L-Acoustics sound system comprised two line arrays with 14 K2 speakers each, a line array with 16 Kara II speakers for the center channel, two subwoofer hangs with 9 KS28 subs each, two 3-stack KS28s as floor subwoofers, 16 Kiva for front fills, and four ARCS II for out fills. The system was designed with L-Acoustics Sound-

vision software and controlled with LA Network Manager via a Milan AVB network.

# Challenge: Multiple stages & fast transitions

The event used a rotating stage, allowing one artist to perform while the next was preparing. Additionally, there was a third stage at the front left for sketches and comedy performances. The Digico consoles were accordingly distributed across the stages: the two Quantum 7 and Quantum 338 consoles each managed one half of the rotating stage. The third stage shared the capacity of these consoles.

Thanks to the flexible workflows of the consoles, sound engineers - Jason Crystal, Jamie Pollock, and Dan Gerhart at FOH, as well as Mike Bove and César Benítez on monitors - were able to mix a wide range of musical styles and performances in real time.

"Digico is the industry standard for many artists, and the performance of these consoles is enormous", says Dittmar. "The Quantum 7 is unmatched in the number of inputs and outputs it can handle. We had seven 56-channel splitters in use, allowing a huge number of signals to be shared between FOH, monitor, and broadcast. In addition, over 40 in-ear mixes, 30 monitor wedges, and three stereo side fills had to be managed."

Another advantage was the integrated signal processing of the consoles, which minimized the need for external hardware. "The fewer external devices you have to connect, the faster patching and programming go", explains Dittmar.

#### Intensive rehearsal phase

The actual show ran smoothly, but the rehearsal phase was extremely challenging. Here, the speed and efficiency of the consoles played a decisive role. "During rehearsals, things change constantly: a band suddenly



needs a different setup, a sketch needs an extra microphone in the in-ears - and that has to be immediately implementable", says Dittmar.

The L-Acoustics speaker system was specially designed for the unique acoustics of Radio City Music Hall. "The hall is one of the best-sounding venues in the world, and the people in charge there are extremely selective about temporary sound systems", explains Dittmar. "With L-Acoustics, we were able to achieve the perfect balance between speech intelligibility for comedy sketches and crystal-clear music sound."

The audience reacted especially strongly to the comedy acts, which would not have been possible without first-class speech intelligibility. "Everyone had to understand every word to get the jokes. At the same time, the music had to be reproduced in the highest quality. L-Acoustics achieved both brilliantly."

Anyone currently in the U.S., as well as all tech-savvy users with a VPN, can watch the result here in the stream:

www.peacocktv.com/stream-tv/snl-50-the-homecoming-concert

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#### "In Da Club"

Nate Files directs the residency of global rap star 50 Cent at Planet Hollywood in Las Vegas.

When 50 Cent announced a six-day residency at the PH Live Auditorium at Planet Hollywood in Las Vegas, including a spectacular New Year's Eve show that ended promptly at midnight, he had a clear goal: He wanted to create a nostalgic party atmosphere with his show under the motto "In Da Club" and celebrate his numerous hits. He was supported by a top-tier creative team, which also included the experienced lighting designer Nate Files from DX7 Design. Files, known for his impressively versatile projects, immediately accepted the challenge when production designer Kley Tarcitano reached out to him.

Although it was the first time he had worked with the artist and the new JDC2 IP Hybrid-Strobe from GLP, he was at least familiar with the venue. With DX7 Design, he had already produced several shows there, including for Miranda Lambert. However, he knew that he not only had to work with an aging house lighting system but also with the existing lighting setup from Shania Twain, who was also performing at the venue at the same time. "In the end, we used almost 20 different types of lights. It was a real challenge to coordinate all these elements", Files recalls.

A key element of his lighting design was an energetic floor package. Instinctively, he decided on the new JDC2 IP Hybrid-Strobe, which he had previously seen both at LDI and at GLP's 30th-anniversary event in Germany. He was confident that its enormous brightness, versatility, and integrated Digi FX engine would provide everything he needed for the 50 Cent show.

The JDC2 IP is equipped with a new integrated beamline that includes 84 powerful 10-watt LEDs. The steep flash ramps create intense strobe

effects. With its twelve individually controllable segments, the beamline allows for extended effects. Overall, the production designer had access to more than 100 static and dynamic strobe patterns. The JDC2 IP seamlessly integrated into the overall concept and helped create a dynamic, theatrical production. "Although we had an overhead package that was similar to Shania's, our focus was definitely on the floor package and tailoring it perfectly to 50 Cent's show. This created a theatrical atmosphere that went beyond just the club vibe. However, the show with the dancers also had the desired club look."

Additionally, a large video wall had to be integrated into the stage design. "We used Shania Twain's video portal, which was located in front of the proscenium. However, it left large gaps on the sides of the stage." This is where the JDC2 IP came into play: It filled the open spaces up to the proscenium. "With so much video in the space, I knew the JDC2 IP would stand out without any issues. Shania's rig also included JDC1, so I could compare both models directly, and that was really insightful." The difference was clearly visible, as the designer emphasizes: "The JDC2 is extremely bright but with a clean light image. Having all the devices in a straight line allowed us to create numerous linear effects. From the central rise to the outer areas in front of the proscenium, they created an impressive effect. In fact, creative director Anthony Kin said at every meeting about the light rig that the JDC2 was his absolute favorite fixture and that we should definitely use it again in the future."

In summary, the lighting designer explains: "The JDC2 IP definitely lived up to all expectations. They offer countless features, including the ability to incorporate video content, although in this case, we only used



the integrated video effects. Primarily, they served as an extremely bright strobe for us. After all, rap lives on beats and snares. With so many pixels available, it was easy to set accents."

Nate Files programmed the rig himself using GLP's Mode 3. He controlled the show with a GrandMA3. In conclusion, Nate praises the work of the lighting technology company Fuse and the support from master electrician Bob Fry. "It's always a great advantage to have someone who knows the space like the back of their hand."

Setlist: Ok, You're Right (Intro)/Wanksta/Ayo Technology/Candy Shop/Disco Inferno/21 Questions/Many Men (Wish Death)/Disco Inferno/I'm Supposed To Die Tonight/Best Friend/Hate Bein' Sober (Chief Keef)/Beep Beep/Hate It Or Love It (The Game)/How We Do (The Game)/Do You Think About Me?/P.I.M.P./Gunz N Smoke/Big Rich Town/Comfortable/Like My Style/I'm The Man/Many Men (Wish Death)/I Get It In/Blood Hound/Gotta Make It To Heaven/I Get Money/Just A Lil Bit/Magic Stick (Lil' Kim)/Window Shopper/Strong Enough/In Da Club/I'll Whip Ya Head Boy











#### Th-Th-Thriller...

Sebastian Fitzek set new standards with his Soundtrack Reading Tour 2024. With over 160,000 fans in 15 cities, the combination of the bestselling author's reading and the musical production by the a cappella group Naturally 7 in this dimension is a novelty.

Organizer and managing director of Peripherique, Fritz Krings, describes the concept as groundbreaking: "What's special is that it's not just a reading, but a soundtrack reading tour, which has never existed in this form. Sebastian Fitzek is the first author to have realized such an arena tour."

At the center of the tour was a spectacular 12-sided stage, equipped with special technical features: Two internal staircases led to a central riser, which was complemented by a turntable. On this movable platform stood an "ice block" that allowed the author to rotate 360 degrees and engage with the audience from every perspective. Many experienced stage-







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builders considered it impossible to implement such a complex design with mobile stage elements. However, Fritz Krings was determined to find a practical and efficient solution. "The original idea would only have been realizable with numerous stagehands and a huge truck space. That's why I personally looked for a solution that was rollable, flexible, and could be implemented quickly. It was important to us that the stage was not only functional but also an aesthetic highlight. It should pick up the design of the ceiling projections and integrate perfectly into the overall production", explains Krings.

The mobile stage elements from Mott, especially the Praktikus light podiums and Justo scaffold feet with wheels, were crucial to the success of the project. These components allowed for flexible adjustments to the stage height, so Fitzek could engage with fans up close while also being clearly visible from all seats in the arenas. Additionally, the construction

impressed with its mobility: "The entire stage, despite its enormous size, could be moved by only two to three people. That's a phenomenal result that dispelled many concerns typically associated with such a construction", says Krings.

Although the planning phase of the tour took 1.5 years, the final decision on the stage technology was only made a few weeks before the tour started. "The collaboration with Mott was extremely efficient. Within two weeks, we completed the special planning, the static calculations we needed for each venue, and the delivery. After a short briefing one afternoon, the stagehands were able to set up the stage at each location in just two hours", reports Krings.

What was particularly impressive was that the construction was not only tailored to the specific needs of the tour but could also be used for future







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projects: The modular elements can easily be expanded or used for other stage layouts. Another benefit of the collaboration was the quick response to feedback during the tour. "Before the show in Frankfurt, the Mott team was on site to implement some suggestions I had made to sales expert Kürsad Yildirim. After a visit from the three-person Mott team, the change parts were delivered and integrated on the same evening. This intense postshow support really impressed and pleasantly surprised me", says Krings.

Even the implementation of the static requirements in challenging locations such as the Dortmund Hall, which is considered a "nightmare" in the industry, went smoothly. "Despite the complexity of the stage design, this was ultimately implemented easily and without heavy steel elements."

Conclusion: Sebastian Fitzek's stage demonstrates how the technical expertise of Mott, the manufacturing capabilities in their in-house production for custom solutions, and thoughtful design can open new pathways in the event industry. The perspective-driven planning through reusable modules and the flexibility of the stage elements also offer great potential for future projects.

In addition to the Mott stage elements, various truss elements from Hof were also used, such as Hofbolt 200-2, Hofkon 290-4, and MLT Two

Pre Rig Truss. The trusses were integrated on site into the 360-degree stage design. The circle hovering above the stage, to which the LED screens were attached, was built with MLT Two Pre Rig trusses.

The LED screens could be moved individually. Additionally, a C1 system was integrated into the structure, which could be raised and lowered. This enabled many additional effects. The Hofbolt 200-2 and Hofkon 290-4 were also built into the circle to secure elements.

The Media Resource Group (MRG) was the technical general service provider and supplier (except for camera technology) in all 15 cities. In total, six trailers with technical equipment were on the road. Highlights included the C1 machinery with 24 Cyberhoist motors, which moved 12 impressive LED walls (In-Motion), as well as a unique Kinetic Grid with 52 winches, implemented in collaboration with the experts from Kinetic Lights. MRG provided a team of 17 people: 1 OSM, 1 UHF and FOH technician Naturally 7, 1 sound department head, 1 FOH/PA tech sound, 3 C1 technicians including operator over In-Motion, 1 kinetic/winch technician including operator over Kinetic Lights, 4 lighting technicians including department head and chief system technician, and 1 chief logistician.







## 50 temporary constructions

A sporting competition and a celebration for spectators at the same time: The Nordic Ski World Championship in Trondheim, Norway, captivated over 500,000 fans on site, according to newspaper reports. A successful "combination" in this case was the event systems and the Allround scaffolding from Layher.

Scandinavian and German event scaffolding builders erected 50 temporary constructions from 50 truckloads of scaffolding material - from staircases and scaffolding tents to press centers and the impressive main grandstand, which was 90 meters wide and 18 meters high. This could be economically adapted to the local conditions with a material-saving substructure made of Allround scaffolding - offering 12,000 spectators optimal sightlines.

The Layher event systems have successfully established themselves in both sports and cultural events. With 40 years of experience in event constructions, Layher provides system solutions tailored to the needs of clients for every event: platforms, stages, and seating grandstands, simple and economical solutions for weather protection, special load-bearing structures for lighting, sound, and video technology, or the Allround scaffolding system as a substructure for open-air stages, the construction of towers - or, as in Trondheim, as stair accesses and video wall systems. With flexible system technology and handy individual components, the products promise not only short assembly and disassembly ti-

mes but also fast delivery thanks to highly automated production and generous stockpiling. In combination with a widespread network of service hubs, customers can access Layher products even on short notice and, where necessary, develop and produce customized special solutions.

Layher stands for innovation, safety, and quality "made in Germany" and for a strong partnership with its customers. In this way, the family-owned company has developed into the leading manufacturer of system scaffolding. Tried and tested and continuously developed, Layher solutions are now the global standard in scaffolding: quick to assemble and disassemble, safe in use, and flexible in application. Assembly times can thus be significantly reduced, and work safety can be decisively increased. This is also ensured by the extensive Layher service offerings - from competent advice to training and seminars to high delivery readiness. Every day, over 2,700 employees make "more possible", whether at the highly automated headquarters in Güglingen-Eibensbach or at sales subsidiaries in more than 50 countries worldwide.











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#### "I have to give it my all"

Pearl Jam rely on Britannia Row Productions for arena sound design on their UK and European tour. An L-Acoustics system supports the "Dark Matter" World Tour.

The legendary rockers from Seattle, led by Eddie Vedder, rely on a well-coordinated FOH team and proven technology for their "Dark Matter" World Tour. For Europe and the UK, they entrusted Britannia Row Productions with implementing the audio system, based on an L-Acoustics K1/K2 setup.

The collaboration between FOH mixer Greg Nelson and system technician Andrew Gilchrest is characterized by mutual trust and a fine sense of sound. "Andrew and I have very similar hearing: he hears what I hear and vice versa", says Nelson. "I trust him completely, no matter where he is in the arena. I don't have to double-check anything."

Gilchrest adds, "I've learned from him what 'good' sound is for him. As a system engineer, I walk through the venues a lot to make sure his mix actually reaches the audience everywhere. It's sometimes challenging, but that's exactly what I love - that I can actively contribute to giving all listeners a great experience." While Pearl Jam traditionally works with Rat Sound in the USA, the band turns to their long-standing partnership with Britannia Row internationally. "When I joined Pearl Jam in 2004, the collaboration between Rat Sound and Britannia Row

was already in place", remembers Greg. "I had been working with Brit Row since the late '90s with acts like Incubus, so it only made sense to work together here too."

The sound design for the current tour was implemented under the leadership of Lez Dwight from Britannia Row. The technical execution was handled by Laurie Fradley (Event Support Engineer) and Tim Mole (Operations Manager).

"This tour is production-wise completely different from anything Pearl Jam has done before", explains Andrew. "Because of the huge new projection surface, the PA system had to be shifted 15 feet further downstage. Laurie and Tim were incredibly helpful in adapting - I just send them an L-Acoustics Soundvision file, and they build it accordingly."

Greg describes his goal as follows: "I try to ensure that even the front row is optimally covered - with a true 'wall of sound' that sounds warm and full but still lays a crystal-clear voice on top. Pearl Jam is an incredible band with incredibly passionate fans - I just want to get the best out of it. The guys give their all on stage, so I have to give my all too."







#### Bold lighting concept

Mason Felps creates impressive looks for Alan Jackson's "Last Call Tour" with Chauvet: Large-scale lighting design for the country legend's farewell tour.

Over 75 million albums sold, 35 number-1 hits, 2 Grammys, and 16 CMA Awards - these are just a few highlights from Alan Jackson's career. The country superstar, known for hits like "It's 5 o'clock somewhere" and "Don't Rock The Jukebox", is currently performing a selection of his greatest songs on his "Last Call Tour", which will conclude on May 17 at the Fiserv Forum Arena in Milwaukee (17,000 seats).

The production team and lighting design for the tour are led by Mason Felps from 46 Entertainment, and he has created a visual tribute for the artist: with a completely newly programmed and bold panoramic lighting concept that perfectly captures Jackson's timeless sound.

"We completely reprogrammed the show this year and deliberately positioned the spotlights wider to create spacious, atmospheric looks", explains Felps. "Dynamic color changes reflect the energy and progression of each song, giving the visuals depth and expression. This show is based on large-scale looks - especially the Color Strike M-Fixtures help set the right mood and provide exactly the audience lighting that Alan loves so much."

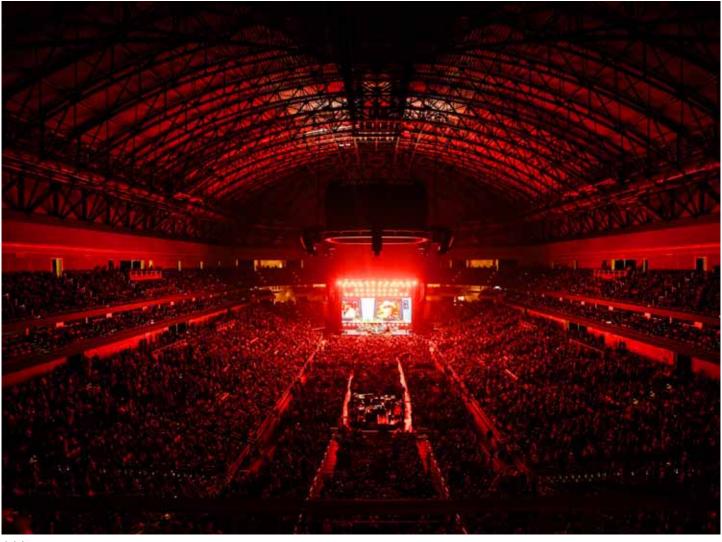
For the design, Felps used a total of 56 Color Strike M-Fixtures from Chauvet Professional, which, like the entire rig, were supplied by Backstage Productions from Cullman, Alabama. The motorized StrobeBlinders were mounted on all flown trusses, particularly on three horizontal structures above the video wall, as well as along the back stage area.

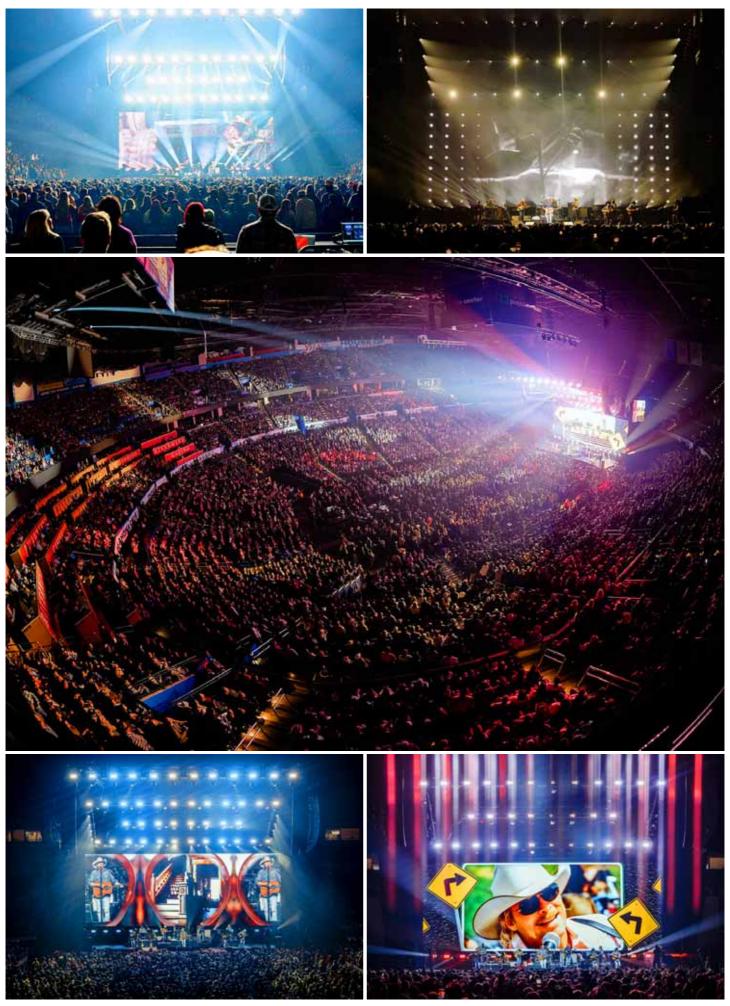
"Alan places great value on intense lighting for the audience", says Felps. "He loves seeing the fans and interacting with them. While we used to use traditional blinders, in recent tours we have increasingly relied on Color Strikes because they also impress with colored energy and still deliver powerful crowd effects."

And it really does get colorful: Felps uses a full spectrum of bold colors to underline the positive, joyful mood - just like Alan Jackson's stage persona. For additional visual highlights, 12 Colorado PXL Bar 16-Battens are placed on the left and right in the front stage area, providing both framing effects and pixel animations.

Another central element is the large video wall, which sometimes displays content that appears to be a permeable wall, even though it is a solid panel. The video elements show iconic scenes from Jackson's career or emphasize the lively atmosphere of the show. With a lighting truss at a height of 60 feet (about 18 meters) and a rear trim of 30 feet (about 9 meters), Felps creates a harmonious balance between video and lighting design.

In addition to his role as designer, Felps takes on multiple tasks on the tour, including operating the lighting console himself. At the same time, he knows whom to thank: "A big thank you to our crew chief Matt Stigile, L2 Claude Thomas, and FOH tech Miles Shelton, who ensure that our rig runs 100% reliably at every show."









# Road Diary

Bruce Springsteen and the E Street Band rely on Clair Global for audio solutions on the road and tour with Cohesion PA systems through arenas, delivering powerful sound for a legendary live show.

Bruce Springsteen and the E Street Band continue to deliver highenergy live sets decades after their formation. For their current tour, which began in 2023, fans experience the signature, powerful vocals of "The Boss", his guitar artistry, and the majestic interplay of the 19-member band through a Cohesion PA system from Clair Global.

The tour, led by Tour Director George Travis and Production Manager Sean Magovern, is accompanied by a seasoned audio team that shows the same dedication to quality that is also felt on stage. The three-hour shows take audiences on a journey through Springsteen's extensive catalog, with a central focus on the 2020 album "Letter to You". The creative process behind the production is documented in the Disney+ documentary "Road Diary: Bruce Springsteen and The E Street Band".

"His show always gives you the feeling that you're part of something special", says FOH Engineer John 'Coop' Cooper. "My goal is to give Bruce the freedom to focus entirely on his music - without having to worry about soundchecks." John works with an Avid S6L console and a Waves server, complemented by some Oxford plugins and a Rupert Neve 5045 Primary Source Enhancer for Bruce's vocals. "The key is knowing the artist and his music inside and out."

This knowledge also influenced the choice of the PA system: "I was able to hear the Cohesion system early on. We've since used it in every conceivable environment. It feels like being in the studio. And that's not just because of the technology, but especially because of our sy-

stem engineer Brandon Schuette and the fantastic sound team at Clair."

Brandon is not only the system engineer but also the crew chief: "Morale is crucial. My goal is to provide the best possible conditions for everyone. We've reached a point where load-ins and load-outs happen almost wordlessly. I'm proud of how much our team supports each other."

The Cohesion setup includes CO12 for main and side hangs, CO10 for delays and center, and CO8 and CP218 II+ subwoofers for side fills. John's mix is additionally supported by PA technicians Telvin Armour, Abi Chilton, and Bobby Taylor. "Our goal is to provide every seat in the stadium with the same sound as right at FOH", explains Brandon. "It starts with a uniform energy distribution in the room - so that the same SPL as at FOH reaches everywhere."

In the monitor area, three monitor engineers take care of the 19 musicians. All use Digico Quantum SD7 consoles with Wisycom transmitters and In-Ears from JH & 64 Audio, complemented by Cohesion CM22/CM14 wedges on stage. Matt explains: "We have 160 inputs with no playback or timecode - everything is live, raw, and unscripted. I work with reverbs, PSEs, slaps, and panning to create an individual acoustic 'world' for each singer's ear." Monty adds: "The SD7 has been our console of choice since 2012. Bruce wants to hear everything - so we also have a stereo concept with floor monitors that he can pinpoint exactly. Those who do their job get recognition - without egos."





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# Not Rapunzel...

The 40-meter-high Katharinen Tower in the heart of Zurich reminded visitors of the role of women in the Middle Ages up to the present day at the end of 2024. It was erected in honor of the last abbess of the Fraumünster Abbey, Katharina von Zimmern, who handed over the Fraumünster Abbey to the city of Zurich 500 years ago during the Reformation.





The temporary art installation recalled the former second tower of Fraumünster and proclaimed the creative power of women throughout the city. Its dress consists of green fabric ribbons, totaling 1,000 meters in length, on which the names of 500 women are printed. The tower structure honored the social, economic, and political influence of women, which has always been present in the city and canton of Zurich.

The idea for the project came from architect Debora Burri-Marci, who won the invited competition in January 2022 and accompanied the project together with the client organization "Verein Katharinen-Turm" until the building permit was submitted. The project was then further developed and adapted to the specific historical location and feasibility by Sandro Camenzind, JJAdM Architektur GmbH.

The Katharinen Tower consisted of two sections: a walkable base and a tower section. The base of the tower was reviewed, planned, and implemented for static and structural challenges by Roland Zeller of WAM



Planer und Ingenieure AG in collaboration with Nüssli. Nüssli project manager David Frei explained: "We initially built the tower in Hüttwilen and tested the fabric ribbons. A wonderful project that required a lot of care and attention to detail."

In the walkable area, various display boards explained the history and concept of the project. For the tower section, Nüssli used a proven lattice mast structure, which had already proven successful in the past and thus provided a financially attractive solution. These were pre-assembled on the ground, equipped with ribbons and technology, and then assembled on-site with a mobile crane.

The lattice mast elements were standard products from the construction industry, which were reused for other installations after dismantling. The ribbons that form the tower's dress were 30 cm high and approximately 25 meters long and were also repurposed for new uses after dismantling. A minimal lighting setup tailored to the needs of the city illuminated the Katharinen Tower, making it shine like a lantern.





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# Bertil Mark: "Everything live for Montez!"

Montez, one of Germany's most well-known rappers, presented his latest album in December 2024 during two exclusive acoustic shows. Lighting designer Bertil Mark and Lighting Director & Operator René Schönefeldt used Robe, Martin, and GLP for the lighting design.

Luca Montesinos Gargallo, the real name of Montez, has Spanish roots and, in his early 30s, has already experienced all the professional highs and lows. Mostly unknown as a songwriter for other artists, he has written over 150 songs, including for rappers Katja Krasavice and Badmómzjay, Helene Fischer, and Wincent Weiss. According to his own statements, this corresponds to well over a billion streams on Spotify. His participation in the 2023 "Sing meinen Song - Das Tauschkonzert" and his current album "Pass auf mein Herz auf" have now firmly established Montez as a rapper and singer. He presented the album at two exclusive acoustic shows at the Tempodrom in Berlin and the Beethovensaal in Stuttgart.

During the two shows, only songs from the new album were performed. There was no general ticket sale for the tickets; they could only be purchased in conjunction with the purchase of an album bundle. Montez himself acted as the organizer of the two shows with his recently founded agency, PLK (Paradyse Live Booking & Konzert GmbH). The technical service provider was Complete Audio.

## Minimalist set

Bertil Mark implemented the artist's wish for a minimalist set perfectly with his lighting design, ensuring that the music from the new album, performed by a large band with a string quartet, remained in the foreground. "I kept the entire lighting setup very small and noticeably scaled down compared to the previous tour and the following festivals", emphasizes the lighting designer and adds, "There were only band rehearsals before the shows, without the entire production, so there was no pre-programming or timecode - everything was done live!"

As expected, the stage setup was modest: On the floor area, Bertil Mark used 6 Robe Holypatt, 4 Molypatt, 11 GLP Impression X5 Bar 1000, and 8 Mac Ultra Performance. "As bakklighting, we used only 1 (!) Robe BMFL RoboSpot", adds Lighting Director/Operator René Schönefeldt. In the back truss and front truss, there were 8 Mac Ultra Performance, and in the front truss, 7 Mac Aura PXL as well. The band was positioned in a semi-circle around the artist, on risers arranged at various heights.

"The Patts were placed behind the band and were arranged like the risers in a large semicircle across the entire width of the stage. Different heights and sizes of the Patts created a well-broken look. Their main task was to give the concert a warm, living room atmosphere and this was excellently achieved", Bertil Mark is pleased to note.

"The look of the Patts is truly unique and, in my opinion, ideal for placement as an intermediate layer between the band and the stage bakkdrop. With their slim build and open construction, they covered very little of the backdrop and simultaneously created a warm look that also worked well without any ambient light", explains Schönefeldt.

## Arena Tour 2025

This year, Montez will go on a major arena tour, including several open-air shows and festivals:

June 19, 2025 – Zeltfestival Rhein-Neckar, Mannheim

June 21, 2025 – Love Music Festival, Magdeburg

July 3, 2025 – Pinot & Rock Festival, Breisach July 13, 2025 – Open Air Sommer, Friedberg

July 18, 2025 – Deichbrand Festival, Cuxhaven

July 25, 2025 – Juicy Beats, Dortmund

July 26, 2025 – IGA, Rostock

August 15, 2025 – FN Pop-Konzerte am See, Friedrichshafen

September 12, 2025 – Emsland-Arena, Lingen September 13, 2025 – OWL Arena, Halle (Westf.)

September 14, 2025 – Stars am Strand, Timmendorfer Strand

September 17, 2025 – SWT Arena, Trier

September 18, 2025 – Lanxess Arena, Cologne September 19, 2025 – Barclays Arena, Ham-

September 20, 2025 – ZAG Arena, Hannover

September 24, 2025 – Brose Arena, Bamberg

September 25, 2025 - Stadthalle, Vienna

September 26, 2025 – Olympiahalle, Munich

September 27, 2025 – Uber Arena, Berlin

October 1, 2025 – Quarterback Immobilien Arena, Leipzig

October 2, 2025 – Schleyer-Halle, Stuttgart

October 3, 2025 – The Hall, Zurich, Switzerland

October 4, 2025 - Festhalle, Frankfurt







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# A fantastic journey

Bending Light and The VJ Collective create new worlds at the Dreamstate SoCal Festival with a stage 22 meters high and 50 meters wide.



Great results require great ambitions - so said the ancient Greek philosopher Heraclitus. The creative design team of Dreamstate SoCal has taken this maxim to heart. Their vision for the main stage was to take fans on a constantly evolving journey through the universe. Designed by Erik Mahowald of Bending Light Productions with animations by Brent Bucci of The VJ Collective, the stage was far more than just gigantic. It captivated the audience with luminous colors, fascinating video animations, immersive 3D elements, inflatable sculptures by Airworks, and stage design creations by the Leisure Expert Group that conveyed the feeling of entering a breathtaking new universe.

"The stage was designed to evolve throughout the entire festival and take fans to different planets, environments, and worlds", explains Bucci. "In close collaboration with Jeff Ryan, the director of Dreamstate, our team developed a total of twenty large show designs with individual intros for each artist. The breathtaking animations from the team at Wolves Visuals contributed significantly to realizing this vision. In addition, Insomniac's stage producer Andrew Jocson, Aaron Attarzadeh from Bending Light, and Anthony Garcia from Nice Lasers enriched the concept with their creative contributions."

At the center of the stage was a 12-meter LED circle, made up of 282 LED panels from Akari Production, which rose like a mysterious celesti-

al body above the DJ booth. This imposing structure was flanked by gigantic video displays and stage elements that projected fascinating, often otherworldly images. The entire design precisely fulfilled the creative team's vision: to take fans on a fantastic journey.

A central part of this spectacular panorama was a collection of 36 Chauvet Professional Color Strike M motorized strobe washes, provided by Aspect Lighting. All lights were operated at full output (a brilliant 1432 lux at 5 meters) - hardly surprising given the intense production.

"Since we worked with extremely large-scale stage elements, high light output was essential", says Mahowald. "The Strike M gave us the flexibility to light our sculptures from a great distance while still achieving strong impact. We used them both for scenic and effect lighting during performances. They were incredibly useful, especially for large stage elements."

During the early daytime performances, an icy blue color palette dominated to maximize visibility and photo moments. Fire and steel elements were used for the late-night shows to interact with the pyrotechnic effects.

In both cases, the precisely coordinated lighting design and video-based animations created a powerful backdrop for performances by Armin van Buuren, Solarstone, John O'Callaghan, and many other artists.













# PRG invests in cutting-edge technology

The new West End production "The Devil Wears Prada" receives modern lighting design from PRG.

The new musical production of "The Devil Wears Prada" has premiered on the stage of the Dominion Theatre in London's West End - with an original score by Elton John, lyrics by Shaina Taub and Mark Sonnenblick, and directed by three-time Tony Award winner Jerry Mitchell. The lighting design comes from Bruno Poet, implemented by PRG.

Jere Harris, Executive Chairman, Chief Creative Officer, and founder of PRG, personally worked to position PRG as the lighting supplier for the production - and took the opportunity to bring the rental inventory up to the latest standards in theater technology. "This production was the ideal occasion for targeted investments in cutting-edge technology that meets today's requirements in theater", explains Jon Cadbury, longtime PRG ambassador for the West End.

The investments include, among others, Mac Ultra Performance, Colorforce II LED bars, Martin Mac One Beam Washes, GLP X5 Compact Washes, GrandMA3 Light consoles, as well as extensive networking technology. These new components complement PRG's existing equipment to provide lighting designers with the best tools of the current theater generation.

Poet specified a variable rig that responds flexibly to the musical's rapid scene changes - from office and fashion show scenery to environments such as the New York skyline or the Eiffel Tower. The modern fashion aesthetic is also reflected in the lighting.

As a design element and for performer illumination, 76 GLP X5 Compact Washes were integrated into the proscenium frame. "We now use the GLP X5 series exclusively for wash lighting - this gives us perfect color consistency", says Poet. "Thanks to Lime LEDs, more refined pastel tones can be rendered than with traditional RGBW. Many scenes are bak-

klit with two bars of ten X5 Battens each. In addition, twenty more X5 Washes are used overhead." The famous New York skyline in the bakkground of the stage is lit from above and below by four rows of Colorforce II LED bars; they create a daylight gradient over the windows of the skyscrapers. "I've enjoyed using these units for years", says Poet. "They deliver uniform area lighting even in limited space."

The heart of the rig consists of 29 Mac Ultra Performance units, including nine FOH fixtures for specials and front lighting. The remaining units provide backlight and beam effects from above. Particularly noteworthy are the 36 Martin Mac One Beam Washes, mounted on three flown frames - as decorative elements and for impressive backlighting of the staircase in Act I as well as concert-style lighting accents in the finale. "This is my first time using them here, and I'm very pleased", says Poet. "The aura looks great from a distance, and the beams are strong. Also remarkable is the decision to use GrandMA3 for lighting control – according to Cadbury, rarely used in West End musicals. "Poet works extensively with GrandMA3 in other areas. Together with programmer Max Narula, he worked closely with MA Lighting on new features."

PRG also sets another milestone with the first West End deployment of three Robe iForte LTX FS followspots with Light Master Side Control. "You have access to dimmer and iris faders with visible displays - this is how followspot operation works in a modern way", says Poet. Additionally, a PRG Ground Control system is used. A Mac Ultra at center stage serves as a remotely controlled backlight followspot, operated by a FOH operator via an onboard camera.

The lighting team was supplemented by Tamykha Patterson (Associate Lighting Designer), Ian Moulds (Production Electrician), as well as the production management by Simon Marlow, supported by Oliver Ellerton.



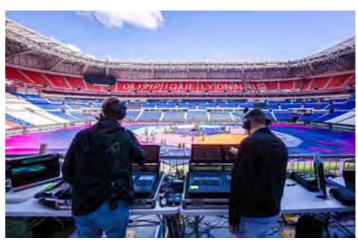












# Spectacular

Large-scale technical setup by Novelty Aura and Alabama Média for the opening and closing ceremonies of "World Skills".

The city of Lyon recently hosted the 47th edition of World Skills, an international vocational competition event where around 1,400 young talents from 66 countries competed in various disciplines. The goal: to inspire youth through craftsmanship and technical excellence. With over 140,000 visitors, the event was held at numerous iconic venues - including the spectacular opening and closing ceremonies, which were planned and technically realized by Groupe Novelty.

The opening ceremony took place in front of a sold-out crowd at the LDLC Arena - with 12,000 spectators and in the presence of French President Emmanuel Macron. Two companies from the group, Novelty Au-

vergne-Rhône-Alpes (Novelty Aura) and Alabama Média, managed all technical requirements under the technical direction of Stéphane Simmat and production director Étienne Loiseau.

Novelty AURA was responsible for all stage technology, sound, and lighting. Three stages were set up in the center of the arena, supplemented by almost 100 loudspeakers for sound distribution. In addition to the existing in-house technology, L-Acoustics systems were used for the main ceremony and d&b for the evening event in the event area. For the lighting design, over 330 fixtures from Chauvet, Claypaky, Minuit Une, and Robe were used.











The video technology was handled by Alabama Média with a team of around 30 technicians, distinguished by their familiarity with the LDLC Arena - after all, Alabama had previously integrated the entire video system of the arena, including the LED cube, LED strips, and side displays. These were populated with content from Magic Bird. Additionally, a 6 x 3.5 m semi-transparent LED screen was installed for the main stage and a 12-camera setup was arranged for recording. The production was managed by Roman Fortune.

In the fan zone, Alabama provided live broadcasting with a 63 sqm LED container as well as a 3.5 x 2 m LED wall (Absen Polaris, 3.9 mm pixel pitch). The conditions were anything but easy, as Arnaud Douchet, director of Novelty AURA, explains: "In addition to the logistical scale, the schedule was extremely tight - the evening before, a Justin Timberlake concert took place in the arena. So we were only able to begin setup the next morning." The closing ceremony took place at Groupama Stadium - with 25,000 spectators, medal awards to hundreds of participants,



and a four-hour show program produced by La Franco European Image, under the artistic direction of Concept K (led by Stéphane Simmat) and overall direction by Frédéric "Aldo" Fayard. "The choice fell on Novelty Aura and Alabama because their proposals were convincing – based on a long-standing, trust-based collaboration", says Fayard. Together with sister companies Dushow and Magnum, Groupe Novelty provided everything: audio, video, lighting, trusses, motors, rigging.

The audio system, coordinated with Bureau Fleik, included: over 70 L-Acoustics loudspeakers (including 30 SB18, Kara II, K2) for the stands, over 40 L-Syva, X8, and X15HiQ for the field. The lighting setup included, among others, 72 Robe iForte LTX on six circular trusses, 150 Robe Mega Pointe, over 140 Chauvet Color Strike, 40 SGM P6, 12 Cameo Zenit, and 18 Kolo Laser Icube. Novelty Aura handled the complete installation of sound and lighting, including six trusses over 20 meters, while Alabama Média installed four Absen Polaris 3.9 LED walls (10 x 3 m) around the stadium.



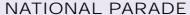


# CRO

Location: on tour Company: GLP

Specification: Roland Greil designed the lighting for the "Chronicles" tour and enabled the brandnew LED Fat Beam fixture Mad Maxx from GLP to make its touring debut. With a single unit, the designer creates impressive visual effects, such as breathtaking shadows and silhouettes that give the show a distinctive look and provide grand moments. In the Cro show, Greil uses the fixture deliberately. The unit is positioned centrally behind the stage and creates spectacular silhouettes and shadows.





Location: Padang, Singapur Company: Direct Out

Specification: Direct Out's Prodigy.MX and .MP units were selected by Showtec International, Singapore, to broadcast the celebrations for the National Day Parade. To ensure that not only the on-site audience but also those at a distance enjoyed flawless sound, a system based on ten Prodigy units was deployed. Responsible for the sound was Danial Bober, supported by patch engineer Hidayah Azman, with on-site support from sales manager Brian Ong and audio engineer Eugene Ng (Audiotonic).



# SANTIANO

Location: on tour Company: Lightpower

Specification: For Santiano's "Auf nach Doggerland" tour, Semmel Concerts and Wirklich Live commissioned Marlon Weser from Live Frame to design the stage. In collaboration with Marco Kampf as lighting designer, an impressive combination of Santiano's typical maritime atmosphere and powerful visual effects was created. In terms of lighting, the team used 39 Martin Mac Ultra Performance, 41 Martin Mac Aura PXL, 48 of the compact Martin Mac One, and 30 of the creative Portman S-Tribe.



# NATURE SOUNDS

Location: Regenwald, Amazonas Company: DPA

Specification: Conservation sound specialist Ellie Williams has found that the DPA 6060s allow her to subtly place microphones right in the action while still capturing crystal-clear audio in less conventional filming environments. She recently used the DPA 6060 lavalier microphones in the Amazon rainforest. "I was lifted to the canopy level and had to record myself for the behind-the-scenes part of the show, so I stuck a DPA microphone in my helmet."



# DENALANE/HERRE

Location: on tour Company: Sennheiser

Specification: Monitor engineer Toni Kern used a Sennheiser Spectera as the monitor system on the tour of Joy Denalane and Max Herre. And that brought a whole new feeling to in-ear monitoring for everyone involved. For the IEM, 26 Spectera SEK bodypacks, three Spectera DAD antennas, and the Spectera base station were packed. Together, they were to provide a new inear experience for Denalane, Herre, the band, and the backstage crew. Max & Joy will be touring again soon: 18 open-air dates are scheduled from June 3, 2025.



# DSDS

Location: TV-Studio, Köln Company: GLP

Specification: In the final of the 21st season of "Deutschland sucht den Superstar" (DSDS), 24 GLP Creos were used for the first time in a TV production. On behalf of David Kreileman, Sebastian Huwig designed the lighting and lighting plan for the final show. The option to seamlessly combine multiple Creos into large LED bars using the integrated connector system was not yet utilized by the team. In addition, 136 GLP Impression X5 and five Impression X4 were part of the lighting design. The service provider was Magic Light + Sound (MLS) from Cologne.



# Wie nachhaltig sind Sie?

In Zeiten steigender Ressourcenknappheit und Umweltverschmutzung ist Nachhaltigkeit das Gebot der Stunde. Die DIN ISO 20121 als "Nachhaltigkeitsnorm" für die Veranstaltungsbranche enthält die Informationen und Festlegungen zu nachhaltigem Planen und Ausführen von Veranstaltungen aller Größen. Unser neues Handbuch erleichtert die komplexen Inhalte der DIN ISO 20121 zu verstehen und anzuwenden.

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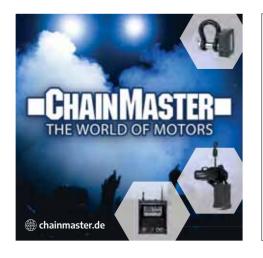
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With this guide to using generative AI, it becomes possible to immediately implement projects, improve customer interaction, and save time - whether designing websites, editing images, or conducting research.

Jeffrey Allan is Director of the Institute for Responsible Technology at Nazareth University and a leading voice for promoting responsible AI and its use in business and society. He also serves as an assistant professor in the School of Business and Leadership. Allan holds both a bachelor's and a master's degree in psychology with a focus on social cognition and intercultural interaction, as well as a doctorate in international business with research expertise in global strategy and management.

Stephanie Diamond is a thought leader, management marketing expert, and founder of Digital Media Works, Inc. - an online marketing company that helps business owners discover the profit potential in their companies. She has worked with small business owners and multibillion-dollar corporations.

The softcover book "Writing AI Prompts For Dummies" comprises 288 pages and costs 18 euros.

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