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OLA MELZIG
 Technical Director ESC 2024
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„We fulfilled the creative vision!“

The Eurovision Song Contest is a passion – my passion: I absolutely love what I do. And for me it's as much a job as it is a lifestyle. What I loved the most about this year's Eurovision was the way we managed to fulfill the creative vision of an extremely versatile stage that could just transform into endless looks. And the fact that it was an in-the-round stage (first time for Eurovision) was very scary and challenging, but it worked so well. The way we got all those elements to work together just turned out amazing.

Most challenging was the 210 tons rig! 199 of the hoists had variable speed and came a load factor with times 1.8 because of the dynamic load. So it was an enormous pressure on the roof construction when we started moving stuff. The whole rigging logistic was quite insane and sometimes nerve-wrecking. I started pre-production in the beginning of August last year. Production and technical planning was running all the way up to March 31 2024, when we started moving to Malmö Arena. We were on site in the arena for a month and a half. My technical core team consists of around eight people, but then you have all the key accountants and on-site managers and the crews from the suppliers, so my overall team is about 350. I try to keep the core the same because what saves money the most on Eurovision is time and experience. If you have people in key positions with experience, you don't have to educate them on the specifics with these shows.

Editorial

We did some world premieres: We had Ayrton Kyalami, which is easiest to describe as a laser-driven Magic-Dot on steroids. We were also one of the first shows in the world using the new Martin Mac One as well as the new GLP JDC2 strobes. Kyalami and Mac One are great examples of future lighting: small fixtures, low weight, with an insane output! And I'm confident that we will continue going down that road with lighting. The times, they are a-changing: When I did my first Eurovision back in 2000, we had sixteen DMX universes - and that was an unbelievable big show at that time. This year marked my 16th Eurovision and we had 708 active DMX universes plus another 700 universes that were pixel-mapped. That means you went from sixteen universes to 1400 – how the f**k did that happen? My last Eurovision before this one was in 2019 in Tel Aviv, after which we focused on America. There we were working hard on establishing the brand-new „American Song Contest“, which we produced with NBC. The first season was in spring of 2022. It was a fantastic product, but for various reasons that were out of our control, it didn't become a hit. So I was very, very happy to be involved in 2024, and I'll do my best to get involved in 2025 as well. But it is the decision of the host broadcaster - every year you start from scratch, so we'll see. Fingers crossed...

For now, here comes the longest story ever written in a magazine on the Eurovision Song Contest – thanks to my team, all suppliers and of course Ralph Larmann for his incredible photos.

Have fun,

Ola Melzig



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Leadership transition

On the occasion of his 70th birthday, the founder and CEO of Deutsche Entertainment AG (DEAG), Prof. Peter Schwenkow, announced the handover of operational leadership to his co-CEO Detlef Kornett. „This step, coinciding with my 70th birthday, was long planned and carefully prepared. The captain leaves the bridge but not the ship. I will continue to play an active role as an advisor to the company and, together with my son Moritz Schwenkow, as a major private shareholder of DEAG, to contribute to the further growth of the company in the interest of all shareholders. Since 1978, we have continuously and successfully developed new products and markets with dedicated, loyal, and creative partners and employees, without whom this growth would not have been possible“, said Schwenkow. Today, DE-AG, with over 600 employees in 7 countries at 22 locations,

is one of the world's leading live entertainment companies, with consistent revenues of over 300 million euros. „Our permanent focus on our customers, artists, and guests will continue to be the standard of our work.“ Annually, over 10 million tickets are sold for around 6,000 events featuring DEAG-owned and third-party content - a continuously growing share of which is sold through DEAG Group's ticketing platforms such as myticket.de, myticket.at, myticket.co.uk, gigantic.com, and tickets.ie. This positions DEAG excellently for further growth. Detlef Kornett will assume the role of CEO from April 1, alongside board members Moritz Schwenkow, Christian Diekmann, and David Reinicke, as well as division heads Stuart Galbraith, Benedikt Alder, Jacqueline Zich, and Oliver Hoppe, ensuring the successful continuation of the dedicated growth trajectory.

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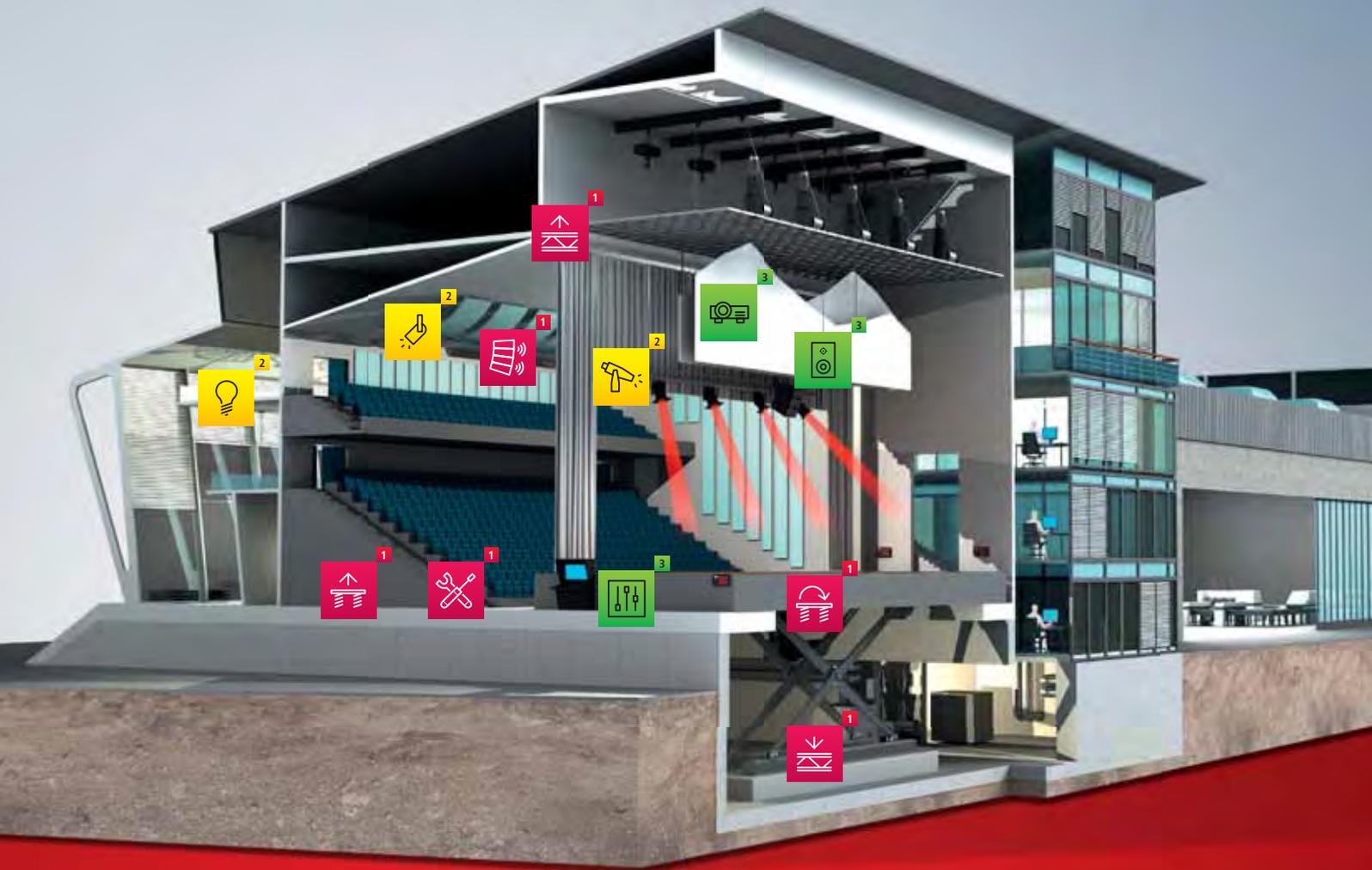
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„The AVcon“ is the new brand name for the accompanying AV exhibition at Leatcon in Hamburg. „The name change from Human X Work to AVcon is a logical consequence of market demands and the continuous convergence between ProAV and the IT world. Its focus: hardware and software solutions in modern work environments and media installations for companies, institutions, public buildings, and the education sector. The entire spectrum of AV system integration will be represented“, says Leat Project Manager Duc Nguyen. The exhibition will be accompanied by an extensive lecture program that closely examines current and significant aspects of modern media usage.



Leatcon will take place from October 22 to 24, 2024, in Hall B6 at Hamburg Messe. For more information, visit www.leadcon.com/av.

■ From August 21 to 22, 2024, the summer festival of the fwd association will be held at Grand Hall Zollverein in Essen - an event format where actors from the entire event industry meet for cross-trade dialogue to exchange the latest trends and topics in the event industry. The festival is aimed not only at association members but also at all interested market participants who want to learn about the association's activities and seek interdisciplinary dialogue between customers and service providers. Additionally, the Grand Hall Zollverein offers the opportunity to get to know both the event location and the Zollverein World Heritage Site better during an Open Day.

■ The lineup for the second DACH trade fair conference by the Swiss Livecom Association Expo Event, the Arbeitsgemeinschaft Messen Austria, and the Fachverband Messen und Ausstellungen is set: digital customer engagement, resilience as a creative force, and future talents are the highlights of the attractive summer event, which will take place from June 24 to 25, 2024, at Messe Dornbirn. Both days will conclude with inspiring speakers: Wolf Lotter, the tireless and pointed transformer towards a knowledge society, will make a plea for the genuine and unique, and at the very end of the conference, Colin Fernando, a partner at the brand strategists Brand Trust, will explain why not every trade fair should be an OMR.

■ The INTHEGA Congress 2024 will take place from June 24 to 26, 2024, in the Stadthalle Bielefeld. The theater market (June 24/25, 2024) with over 180 exhibitors is the leading trade fair for the touring industry. The focus of the conference (June 26, 2024) will be lectures,

discussions, and workshops on current topics. The event will be rounded off by the presentation of the INTHEGA Awards 2024 and short presentations by touring providers. Another highlight will be two expert lectures at the conference on June 26, 2024: Markus Wörl, dramaturge and cultural manager, will discuss measures and possibilities for sustainable planning in the cultural sector. In her lecture, Franziska Pierwoss will ask important questions: If there is a technical rider, why not an ecological rider as well? What is more sustainable, a trip or twenty hours of Zoom? How do you justify expensive purchases within the framework of a grant?

■ This year's Huss Expo will take place on September 25, 2024. Once again, renowned manufacturers and distributors from the industry will gather at over 50 trade fair stands at the location in Langenau to present their products and innovations. The trade fair day will start this year on Wednesday, September 25 at 10 a.m. and will seamlessly transition into the after-show party at 6 p.m. In addition to various exhibitors and brands, there will be a variety of hands-on activities, practical short seminars, and a sound demo area.

■ The Next Conference brings together the European digital industry on the Reeperbahn in Hamburg under this year's theme „New Energy - Recharging our Systems“. The focus is on AI innovation, new interfaces, creativity, and transformation, as well as our personal energy levels. The conference will take place on September 19 as part of the Reeperbahn Festival. The one-day event will be complemented by pre-events and selected workshops. Participants can also attend the conference and concert program of the Reeperbahn Festival with their ticket. Speakers include Timmy Ghirau, Innovation Leader at Volvo and Co-Founder of The Point Labs, and Maryam Alimardani, Professor of Brain-Computer Interfaces at Tilburg University.

■ Mutec, the international trade fair for museum and exhibition technology, is gearing up for the future and repositioning itself. To account for the growth of past editions and to drive further development, Mutec

will no longer share a hall with the European leading trade fair Denkmal, but will move to the neighboring exhibition hall. Additionally, in response to the industry's frequent requests, the duration of the event will be shortened from three days to two and will take place this year on November 7 and 8 in Leipzig. The core content will continue to focus on the preservation and communication of cultural heritage - from exciting technologies and products to innovative concepts and professional exchange between international experts. At the last event in 2022, over 120 exhibitors from 13 countries presented at Mutec, which, together with Denkmal, attracted around 13,000 visitors.

■ Showtech 2025 will take place from May 20 to 22, 2025, in the Arena Berlin. „The location is right on the Spree and, with its industrial charm and ample space, offers a great atmosphere for our theater technology trade fair“, say the organizers.



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What a bombshell!

The EU Commission wants to bring national frequency policies under its control. „This is not a good idea“, says Dr. Jochen Zenthöfer of the European initiative Save Our Spectrum (SOS).

What a bombshell! Just weeks before the European elections, the European Commission published a new white paper titled „How to master Europe’s digital infrastructure needs?“. Among other things, it plans to place the frequency policies, which have so far been primarily national, entirely under the EU’s control.

Until now, frequency policy, frequency allocations, and frequency planning have been the primary responsibility of the member states. There is one exception: for cross-border issues, the CEPT (Conférence Européenne des Administrations des Postes et des Télécommunications) in Europe and the ITU (International Telecommunication Union) internationally are responsible.

Every four years, the ITU holds World Radiocommunication Conferences, the most recent of which was held in November and December 2023 in Dubai. Here, nearly 200 countries negotiate the allocation of frequencies that do not stop at national borders. This allows for interference-free national usage rules. It works excellently, even in times of war.

At these World Radiocommunication Conferences, all countries are represented individually. The EU only observes. Although the EU countries had agreed on common lines beforehand, states still have the possibility to make their own deals. This was recently achieved by Spain and Italy, who wanted to protect their TV UHF band from any burdens by commercial mobile communications.

Such actions bother the EU. Hence, Brussels is now striking back. If the white paper’s plans become a reality, national parliaments will have little say in frequency matters. Agencies such as the Federal Network Agency would also lose significance. On page 13 of the EU Commission’s white paper, it states: „Frequency policy is an area where the EU and the member states share responsibility. The EU issues regulations, particularly for the EU-wide allocation of frequency bands under harmonized technical conditions. The measures of the member states focus on the implementation of frequency licensing, management, and usage. However, the way frequencies are managed and used in a member state affects the entire internal market, e.g., through different start times in the development of new wireless technologies or new services or through harmful cross-border interferences, which in turn can affect the competitiveness, resilience, and technological leadership of the EU. Therefore, frequencies must be managed more coordinated in all member states to maximize their social and economic value and to improve terrestrial and satellite-based connectivity across the EU.“

In many areas, such as standards or consumer rights, unified European rules are welcome. No one should want to give up the valuable achievements of the internal market - as we can see from the example of Great Britain. At the same time, the EU Commission’s white paper fails to convince. It appears neither balanced nor fair. It is heavily influenced by the needs of the mobile communications industry.

This is evident, for instance, from the mention of „low profitability“ while the term „culture“ does not appear even once. The white paper even quotes mobile network operators and adopts their arguments; for example, on page 14, it states, „that there are no other obstacles to the cross-border provision of networks and services than the negative net efficiencies and synergies resulting from fragmented legal conditions“. It then says: „However, as long as the benefits of cross-border consolidation are limited by the persistence of national regulatory frameworks and the absence of a genuine internal market, it cannot overcome the above disadvantages.“

Thus, the internal market in the white paper is primarily defined by the needs of commercial mobile communications. The fact that there also needs to be an internal market for „program making and special events“ (PMSE), i.e., wireless microphones, in-ear systems,



etc., is overlooked. Yet, frequency policy always involves weighing the interests and challenges of various stakeholders. Such a weighing is not seriously suggested in the paper, leading to concerns that the EU wants to take over these competences mainly to strengthen mobile communications.

Nevertheless, the EU’s plans would not be a minor change; they would mean a systemic shift and permanently weaken the CEPT. This would likely fit well into the EU’s concept. Besides the 27 EU states, the CEPT also includes other countries that one might want to disadvantage (Russia) or punish for Brexit (UK). If everything were decided at the EU level in the future, non-EU countries could no longer form meaningful majority alliances. In effect, Brussels would decide the course from Dublin to Moscow.

One might argue: In the USA, this is exactly how it works. There, the independent Federal Communications Commission (FCC) decides what applies. In Europe, there are countless authorities for this. Manufacturers and cross-border PMSE users would probably welcome a unified European regulation.

However, these groups could also be the big losers. The white paper seems to have been written by telecommunications industry lobbyists who blame all their self-inflicted problems on the existence of national regulatory initiatives.

When the call for more internal market is made, it is worth remembering the last World Radiocommunication Conference when telecommunications companies still upheld the mantra of „flexibility“ to access the TV UHF band between 470 and 694 (or 698) MHz in individual states like Finland. This path was fundamentally closed to them because Europe sided with the common good (media and culture) and against commerce. Now it becomes clear that those who sang the praises of „flexibility“ in December have simultaneously lobbied the EU Commission to advocate for uniformity and against flexibility. Quelle honte!

And concerning the FCC: There, the importance of PMSE is appropriately recognized. FCC Chairwoman Jessica Rosenworcel said in February 2024: „If you are not involved in video and audio production, you probably haven’t thought much about wireless microphones. But they are everywhere. Start with last weekend’s Super Bowl. Wireless microphones were needed for the commentary on and off the field, as well as for the halftime show. You find them in big Broadway productions and small theaters. They are everywhere on film sets. And they are frequently used in houses of worship, stadiums, and schools. These ubiquitous devices operate in a mix of licensed and unlicensed frequency bands such as the 600 MHz and

900 MHz bands as well as the 1.4 GHz and 7 GHz bands. These frequencies are shared with a range of other wireless services, including broadcasting, aviation, WiFi, and other unlicensed technologies. It is a significant task to ensure that all these services can operate simultaneously and without interference.“ Such a statement has not been heard from the President of the EU Commission, and such clarity is also missing in the white paper.

Despite all sympathy for the EU and certain harmonizations - for example, in satellites - the line must be drawn where national media legislation is threatened. After all, the broadcasting exception will continue to exist in the internal market process. In Germany, even the 16 states have a say. The EU's plans would amount to a silent expropriation of state competences.

Coordination between levels and finding compromises would become even more difficult. The subsidiarity principle would be trampled upon. The problems of mobile communications cannot be solved with new legislation but with sustainable and better business models.

An EU-wide frequency regulation that also determines specific uses would mean that artists and event productions would have to turn to a super-authority in Brussels (or wherever). Currently, national authorities are the first point of contact. The advantages are obvious: a Pole can contact his Polish authority in Polish; a Portuguese can do this in Portuguese.

Moreover, the authorities know the situation in their regions very well - in large Germany, the Federal Network Agency even has branch offices across the country for this purpose. Should this citizen-friendly service be terminated? Does the end of meaningful national regulations threaten?

However, nothing will change quickly. It is open how and if the new EU Commission after the election will pursue the recent proposals further. It is likely, though, as no European politician will reject an apparent strengthening of the internal market. If the white paper clearly recognized the needs and concerns of media and culture, one could be less nervous. Unfortunately, it is more about the financial consolidation of the mobile communications industry.

Should frequency uses one day be decided in Brussels, it is clear which lobbying power will stand there to get the best for itself. It is also clear that the many millions of PMSE users will have no chance to be heard sufficiently.

Competence decisions are therefore also political decisions. The EU must be very careful not to lose the support of artists, musicians, as well as TV viewers and all concertgoers or festival visitors. Politics must stay close to the people and not be made for international corporations.

Dr. Jochen Zenthöfer is a spokesperson for the European initiative „SOS - Save Our Spectrum“ based in Luxembourg. The group advocates for sufficient interference-free frequencies for PMSE users and manufacturers. In Germany, Zenthöfer was a member of the National Preparatory Group and Working Group 6 on the TV UHF band before the World Radiocommunication Conference last year.

EVVC reorganizes

During the annual general meeting held at Prolight+Sound in Darmstadtium, the European Association of Event Centers (EVVC) elected a new board, led by the re-elected chairwoman Ilona Jarabek.



After the previous board elections in 2021 were held entirely digitally due to the pandemic, the EVVC returned to the traditional live format this time. For an association that stands for live events and experiences like no other, this was a given: „The personal exchange - completely live and in person - is irreplaceable for us. This coming together, the conversations, and networking are the basis for cohesion and trust within the EVVC“, said the re-elected EVVC president Ilona Jarabek.

The new board consists of Ilona Jarabek (President, Lübeck Music and Congress Hall), Stephan Lemke (Vice President, Stadthalle Braunschweig), Marion Schöne (Treasurer, Olympiapark Munich), Carsten Müller (Board Member - Public Relations/Marketing, Jena Kultur), Lars Wöhler (Board Member - CSR - Training/Education/Sustainability, Science and Congress Center Darmstadt), Frank Kowalski (Board Member - International Affairs, Bruchsal Tourism, Marketing & Event), Sebastian Kirchner (Working Group Leader, Event Venues Wolfenbüttel), Ralph Fritzsche (Deputy Working Group Leader, Cultural Spaces Gütersloh), Markus Demuth (Working Group II Leader, Düsseldorf Congress), Sabine Arnegger (Deputy Working Group II Leader, Cultural Office Ravensburg), Jürgen Fottner (Working Group III Leader, Arena Nuremberg), Sybil Franke (Deputy Working Group III Leader, Velomax Berlin), Christian Müller (Working Group IV - Technology Leader, Messe Munich), Felix Scharff (Deputy Working Group IV - Technology Leader, Rostock Fairs, Congresses & Events), Philip Belz (Working Group V - Partner Leader, Neumann & Müller), and Sabine Reise (Deputy Working Group V - Partner Leader, Prismm).

In addition to the main AGM, the EVVC offered its members a supporting program, starting with a keynote by Frank Astor on the topic of „Artificial Intelligence“. The EVVC Community Evening provided space for informal networking, delicious food, and a relaxed gathering, where participants concluded the assembly in a casual atmosphere, and keynote rapper Rico Montero musically summarized the contents of the AGM.

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Lock It! Your job has a catch!

Under the title „Rigging High Five“, VBG has developed five rules for safe working at heights. An overview.



Riggers are the invisible heroes of an event - hence the importance of preventative measures to protect them during their work. As part of the Lock It! campaign, the statutory accident insurance VBG has developed five rigging rules to ensure safety at heights and on the ground:

Rule One: THINK! Careful planning of personnel and responsibilities is essential. An execution plan can gather all job-related information and make it accessible to the team. Risk assessment ensures early detection and elimination of hazards.

Rule Two: CHECK! A rescue plan is created before the start of every production. It is essential for freeing oneself or being freed from difficult situations. Qualified personnel undergo regular rescue training. Quick and correct action prevents suspension trauma after a fall into the ropes.

Rule Three: REFLECT! Working on the rig requires foresight: Personnel must quickly recognize risks and know how to respond. Relevant qualifications are essential for riggers, including choosing and securing their anchor points correctly.

Rule Four: WATCH! Safety is teamwork! The organizer must ensure there are no mutual dangers. Working at heights always carries the risk of falling and falling objects. Suitable structural and technical measures minimize risks.

Rule Five: LOCK! To work safely on the rig, good equipment is necessary. Personal protective equipment against falls must be checked for its proper condition. And then: Lock It! Your job has a catch!

www.vbg.de/rigging

Help with the „Whistleblower Protection Act“

As a reporting office under the Whistleblower Protection Act, BDKV offers the live industry a unique service with bureaucracy reduction, cost benefits, and responsibility.

On July 2, 2023, the new Whistleblower Protection Act (HinSchG) came into force based on a European legislative framework. Also referred to as the „Whistleblower Protection Act“, it protects those who report grievances in organizations or companies from reprisals and requires German companies to create infrastructure for this purpose.

The BDKV relieves small and medium-sized enterprises of this bureaucratic burden and the associated costs and, as the first association for its member companies, sets up a reporting office with its partner Legal Tegrity. This promotes transparency and trust within the music industry. Companies meet their legal obligations at no cost and with minimal effort, providing all stakeholders, from employees to artists, with a point of contact.

The law requires companies of a certain size to set up suitable reporting offices. It protects observers or directly affected individuals from unlawful behavior, provides them with legal security, and prevents nega-

tive consequences of reporting, such as the dangerous reversal of the victim and perpetrator. Since December 17, 2023, companies with over 250 employees and medium-sized companies (50-249 employees) are required to set up an internal reporting office under HinSchG. However, the law allows medium-sized companies to share resources and jointly set up and operate a „joint reporting office“.

The BDKV fulfills this function free of charge for its members. „On the BDKV website and the individual websites of the participating member companies, individuals wishing to make reports under HinSchG will find interfaces to the secure platform of our partner Legal Tegrity. Here, the report can be submitted anonymously. Our confidentiality-bound legal counsels, Götz Schneider-Rothhaar and Dr. Johannes Ulbricht, then review the report, determine the necessary next steps while strictly maintaining confidentiality, and contact the designated individuals within the respective company“, explains BDKV Managing Director Johannes Everke.

With their own powder

Truss specialist Hof has made an investment and now has its own powder coating facility.

Hof is known for offering and delivering everything from design to manufacturing all in one place. In line with this approach, the company based near Osnabrück has made further investments and now has its own powder coating facility.

This development allows Hof to be faster and more flexible in the coating of trusses. The powder coating facility consists of fully and partially automated coating lines that are used depending on the component to achieve the best possible results. The centerpiece of the new powder coating facility is the 2.7-meter-wide, 3-meter-high, and 10-meter-long ovens, which are unparalleled in the region. This allows compo-

nents weighing over two tons to be moved and coated.

A special highlight is the new Heavy Duty coating developed by Hof, which provides the trusses with an extremely robust and durable HD coating. Hof offers the HD coating in black, as well as in all other RAL colors. This means the company can now coat its trusses in-house.

There are also additional benefits: the powder coating is not only used for their own trusses; Hof also offers the coating of trusses from other manufacturers. It doesn't matter whether these are new or have been in use for a long time and need a new coating.

For more information, visit www.hof.de/produkte/pulverbeschichtung.

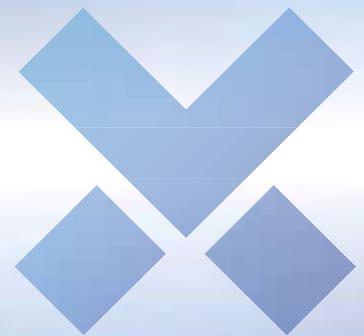


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Moving into the Future of Audio

The Sennheiser Group continues to invest in its German production sites to increase its manufacturing capacities.

The Sennheiser Group is significantly investing in its own facilities. This family-owned company is strengthening the independence of its production and laying the foundation for successfully shaping the future of the audio world. At its headquarters in Wedemark near Hannover, state-of-the-art manufacturing technologies are currently being implemented, particularly in PCB assembly. Under the motto „Moving into the Future“, a series of expansion and restructuring measures are underway. The first step involved relocating an existing production facility to create space. Following this, two new reflow ovens were lifted through the roof of the production hall by crane (see photo). The goal is to accommodate four assembly lines instead of the current two in the production halls, thereby further increasing PCB production capacity.

However, relocating the Surface Mounted Device (SMD) Line 1 within the manufacturing site to make room for additional PCB assembly lines was just the beginning. „Moving the equipment and installing new systems are two of many measures to strengthen our own production. By continuously investing in production capacities at our Wedemark site, we are becoming less reliant on supply chains. Last year, we invested approximately 5 million euros locally. This year, the investment exceeds 14 million euros“, explained Dr. Andreas Fischer, Chief Operating Officer (COO) and member of the Executive Management Board.

„We have continually developed our supply chains and expanded our own production capacities. This not only ensures our long-term future but also makes us a reliable partner for our customers“, added Co-CEO Daniel Sennheiser.

The first SMD production line has been operational at the Wedemark site since 2017. In 2022, another facility with double the production capacity was commissioned. Together, they reliably produce printed circuit boards. Using eight placement heads, SMD 1 mounts components on PCBs at an average speed of 25,000 elements per hour. With the equipment relocation, there are now four instead of the previous two SMD assembly lines on the production floor.

Recently, the reflow ovens for the new lines have arrived, allowing the company to significantly increase PCB production capacity and accommodate technological advancements. Moreover, the new setup optimizes material flow. Managing logistics for such changes is challenging. For the first machine relocation, a special construction was necessary to transport the massive machine components. Opening the roof of the production hall facilitated crane placement of the reflow ovens from above into production. Fischer attributes the smooth operation to extensive preparatory work. „Since the beginning of the year, we have prefabricated approximately 10,000 PCBs to compensate for production downtime during the relocation. Without the passionate commitment of the entire team, the relocation would not have been possible.“



The Wennebostel site specializes in high-precision, automated processes and the artisanal production of high-end products, including microphone capsule manufacturing in its own cleanroom. To sharpen this focus, investments were made in a new SMD line in 2022, a digital tool management system in 2023, and ten additional production units for microphone components. Planned future measures include expanding to an automated SMD storage facility.

Conversely, the Brasov, Romania facility focuses on manual assembly, final testing, and product packaging. As part of the audio specialist's sustainable growth strategy, substantial investments were made, tripling available production space last year. Overall, nearly 13 million euros were invested in expanding the company's manufacturing sites in 2023.





„Advancing network know-how“

Recently, Riedel Networks celebrated the opening of the Riedel Networks Media House in Cologne-Lövenich. Since the beginning of the season, they have been producing the UEFA Champions League highlights there on behalf of Sunset+Vine, which are broadcast on Amazon Prime Video.



The RN Media House recently hosted an official opening event together with its partners BMS Productions, Team Kaprese, and Wige Solutions, inviting friends and partners from the media industry, including representatives from DFL, DYN Media, RTL, Sportcast, Sporttotal, WDR, ZDF, and ZDF Digital. The most prominent guest was former professional footballer Felix Kroos, now active as a football expert and podcaster.

In a cheerful atmosphere, the successful application of the latest technological trends in streaming and remote production was presented. The concept of remote production allows audiovisual content to be produced from remo-

te locations at the Media House, without the need for OB vans and the entire production team to be present at the venue. This significantly reduces personnel travel costs and eliminates immense logistical effort. This approach not only contributes to environmental friendliness but also allows the team to return home promptly after completing production work. Cologne was chosen as the location due to its status as a hub for the German media landscape, with numerous production companies based there.

What sets the Media House apart is its internal management of video, streaming, and intercom services. Productions benefit from extensive expertise and a reliable, globally connected network. With over 20 years of experience in the media and events industry, Riedel understands the crucial role seamless connectivity plays in (large-scale) event productions. Additionally, Justus Rogmann, an SRT expert within the team, brings extensive knowledge in Secure Reliable Transport (SRT) and holds a leading role in the SRT Alliance, focusing on the latest technologies and standards in real-time video content transmission.

„At the Cologne location, our focus is on advancing our network know-how with a broadcast frontend for our customers“, stated Christian Haberer, Senior Technical Manager at Riedel Networks.



**TRUSSING
COUPLERS
STAGE DECKS
EVENT STRUCTURES**

The foot in the door

The LD Talent Club provides opportunities for young professionals in the events industry to network, participate in workshops, and further their education, supported by a number of reputable companies.



In July 2020, lighting designers Flo Erdman and Dominik Döhler, with support from Niclen, founded the LD (Light Designer) Talent Club. The goal then, as it is now, was to promote young talent in the industry by providing them with a network and access to technical resources. „Due to the pandemic, which freed up many resources - both personnel and technical - we launched a talent competition for lighting designers (‘Warehouse Competition’, <https://ldtalent-club.de/warehouse-competition-2020/>)“, Nico Valasik reports, who has been involved from the beginning. „This actually led to job placements and apprenticeships for several participants.“

With the pandemic’s end, those resources became less available, and the initiative quieted down. „In the summer of 2022, we considered how to move forward. The result was LD Talent Club 2.0, launched in August 2022.“ Since then, instead of a one-time talent competition, there has been a clear, sustainable concept for nurturing talent through training, backstage tours, etc., in collaboration with a stable network of sponsors. The club expanded to include other technical disciplines in event technology, with Nicolo Priolo serving as a key contact and public face. Today, LDTC has its own clubhouse in Dortmund, hosts regular events, provides opportunities for interested individuals and members, and conducts continuous marketing, „though exclusively through word-of-mouth“, as Priolo notes. „Nevertheless, this approach has been very effective.“

While the Warehouse Competition initially targeted only lighting design talents, sponsors now also support video and rigging areas, offering training in these fields. „Our goal is to cover all technical disciplines. In addition to training and workshops, we aim to expand the network through contact referrals and discussions. One must never forget how crucial such a network is - the direct exchange with industry veterans is invaluable.“

Whether one seeks an internship or is interested in job shadowing, everyone is welcome at LDTC. Once registered as a member, individuals can participate in all events. „Here, nobody needs to already possess talent. We want to discover these talents first, then develop and eventually support them - provided there is a genuine interest in pursuing a career in the events industry“, explains Nicolo Priolo.

To date, LDTC has offered approximately 30 training sessions and practical excursions, including grandMA training, Chamsys certifications, media server workshops, LED and laser safety training, and creati-

ve lighting workshops. There have been backstage tours at Lanxess Arena, various festivals, musicals, and other shows, as well as factory tours at Adam Hall in Neu-Anspach and Claypaky in Bergamo, Italy. „Our goal is to reach as many aspiring event technicians as possible and provide them with a ‘foot in the door’ through our network. We aim to establish long-term connections among them and offer free support.“

Among the many supporters is Albert Chauvet (Chauvet Professional): „I first heard about LDTC in early 2023 and immediately decided that we needed to get involved in supporting young talent.“ Chauvet’s idea was not only to donate funds but also to integrate Chamsys into the initiative as an integral part of the brand. Supporters like Chauvet benefit as well: „As a manufacturer, it’s often difficult to directly engage with our target audience. Through LDTC, our sponsors can get to know their future customers more closely“, Priolo explains. Moreover, their products are used at events and workshops, providing additional exposure. LDTC ensures a diverse mix of brands and products, and so far, all participants have been satisfied. „Without our sponsors, we wouldn’t exist in this form. Therefore, we are extremely grateful and also use their products at our own events to give something back on that level.“

For more information, visit: <https://ld-talent-club.de/>.



„Tour Talks“ continue

Following the initial glimpse into the „Tour Talks“ by podcaster Markus Vieweg, here comes another brief preview, this time featuring Joe Crawford and Tobi Hoff.



All conversations take place on tour - hence the name. „This could be backstage, in a café, or wherever fits“, explains Markus Vieweg. As a touring musician himself, he finds that respondents are more than willing to share insights into their lives, their jobs, and anything else of interest. Part 2 of our „Tour Talks“ series.

Tobi Hoff (Deep Purple, Lilac)

On choosing mixing consoles: „In my current projects, I have some freedom to say I'd prefer this or that console. I have a few consoles that I work very well with because I feel comfortable. However, there have been times in my life when I could handle even more consoles well. It's also a matter of personal taste.“

Regarding the sound team: „When traveling with the band, there are only two of us - FOH and monitor engineers. On our last tour, we also had a sound assistant who helped with microphone setup and sidefills. If we're running a full production, two more people join us - a system engineer and a flight technician. They handle PA setup.“

Regarding influence with musicians: „We're definitely in constant communication! Many things with Deep Purple have evolved over the decades and have remained consistent. I've been with them since 2013, and since then, the input list has remained the same because the instrumentation hasn't changed. With the new guitarist, we did a lot of experimenting initially, as he had a new amp, new microphones, and different positions. If I notice anything isn't right, I talk to the backline crew or di-

rectly with the band. The guys are very open because they want the show to be great.“

Joe Crawford (Bassist for Pur)

On life off stage: „I love being on stage, but I don't need anything else outside the spotlight. When our singer Hartmut Engler went through a life crisis in the late 2000s, there were OB vans and TV cameras outside his door. No one needs that kind of thing - especially not him. When you're already feeling bad, and then something like that happens (...)“

On tour preparation: „Our FOH, Pat, records every show and then gives us the files. Matze (MD) pieces them together in his studio. This way, we have the entire program as an audio file. Each of us prepares using this, and then we meet at Rudi's studio, but with minimal equipment. There, we rehearse for about a week without Hartmut, just to see who plays what when and where. Hartmut joins us when we focus on breaks or passages where people sing. In the second phase, we rehearse with all the equipment, including monitors and FOH, at Bauer Studios. This makes our rehearsals very effective. Pat records the rehearsals so that we can listen back and make adjustments.“

The complete podcast episodes of „Tour Talks“ can be found at www.tourgespraech.de. To get in touch directly with Markus Vieweg, email info@tourgespraech.de.

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25 years of good vibes

This year, Sommer Cable is celebrating the first quarter-century of successful cable production. „We don't just solder connections; we also make connections“, says Rainer Blanck, who founded the company in 1999 with Friedhelm Sommer. A brief look back.

Despite ongoing digitalization and technological advancements, cables and signal connectors remain essential for the reliable transmission of analog and digital signals. „Cables still offer the best transmission guarantee, signal quality, and (eavesdropping) security“, says Blanck.

Sommer Cable GmbH was founded in 1999 by Rainer Blanck and Friedhelm Sommer. Together with a team of tinkerers led by cable specialist Pascal Miguet, musicians, sound engineers, electronics experts, and event technicians, they began developing cables and connectors that not only provided the highest sound quality but were also user-friendly.

Today, Sommer Cable is one of the leading cable manufacturers, offering a comprehensive range for audio, video, multimedia, broadcast, and HiFi sectors. In addition to top quality and reliability, the company is known for its ability to anticipate trends early and, with numerous suggestions from customers and partners, consistently develop future-proof solutions.

„The foundation of our solution competence lies in our attitude: the passion for what we do. It is in every employee and thus in every aspect of Sommer Cable“, explains Rainer Blanck, CEO and company founder. „How do we do it? By forming a team with our employees and our customers. We make the talents of our people the talents of our company and the needs of our customers our own. This is exactly what makes the difference in the industry today. And this is exactly what defines us.“

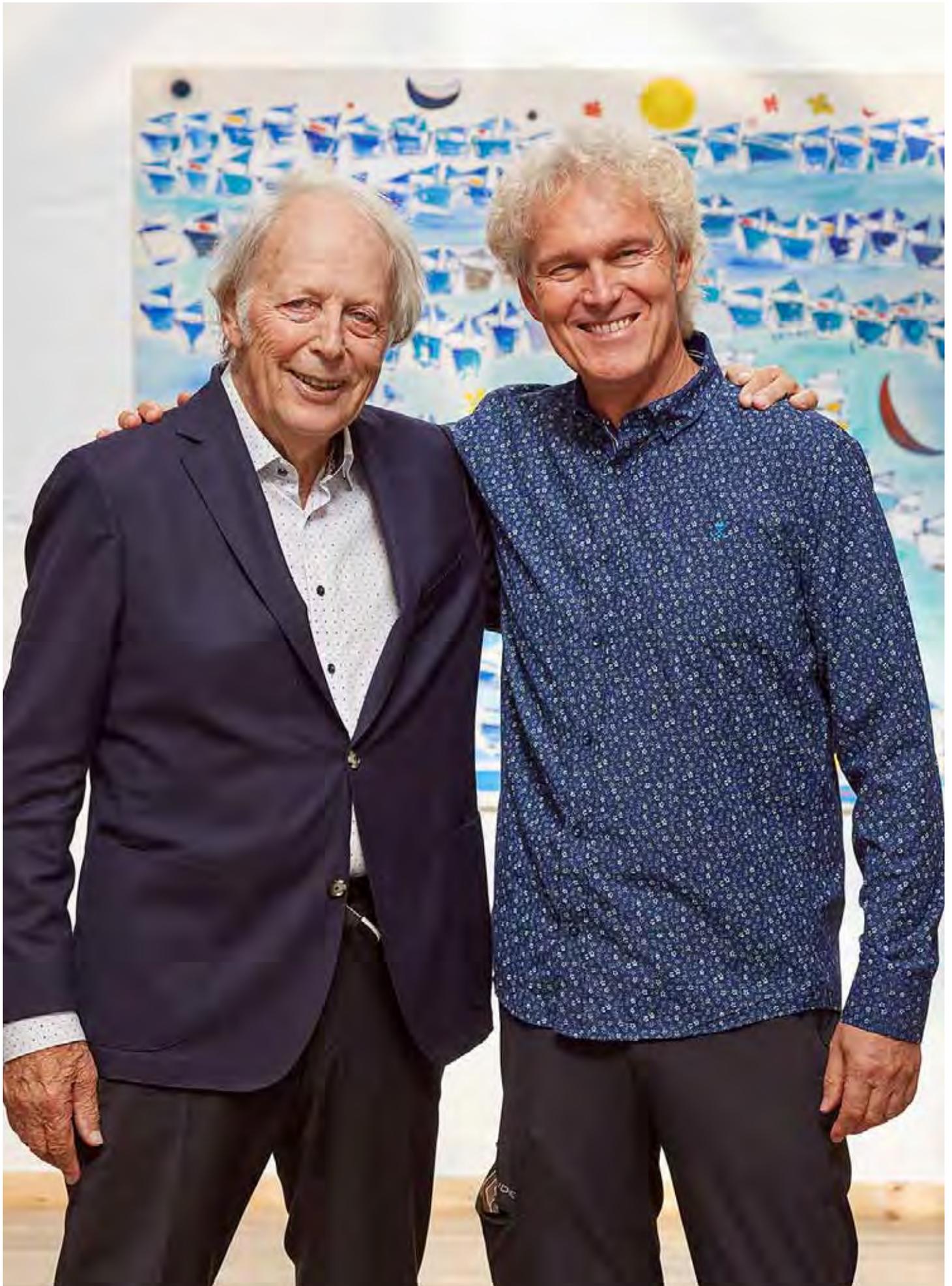
With this personality, customer proximity, and qualified advice, Sommer Cable today excites customers from the entire pro-audio sector: architects and planners, studio, media, and event technicians - and, of course, musicians. Starting in a small office, back then with just a handful of people, the Sommer family, including all branches, subsidiaries, and locations in France, the USA, and most recently Spain, has now grown to nearly 90 employees.



„We look back on numerous milestones in the company's history, smaller and larger projects such as the move to the current buildings on Humboldtstraße in 2004 or the restructuring of the small parts warehouse into an automatic Autostore in 2017. Another major project this year is the relaunch of our online shop. This way, we stay up to date not only with innovations in our product range, such as Hicon (2002) and Sysboxx (2005), but also as a company.“

As a provider of professional, high-quality cable and connection technology focusing on audio, video, broadcast, studio, and media technology, the range includes, in addition to these house brands, cable by the meter, connectors, connection cables, customizable distribution systems, and electronic components. A B2B shop with over 25,000 products is available around the clock.

The company founders [Friedhelm Sommer](#) (on the left) and [Rainer Blanck](#) (2024).





Audio engineering studies in Vienna

In addition to programs in music with various instruments, conducting, music education, and performing arts, the mdw also offers a program for audio engineers – with new technology from Lawo.

The University of Music and Performing Arts Vienna (mdw), whose history dates back to 1817, is considered one of the largest music universities worldwide. With more than nine locations spread throughout Vienna, mdw collaboratively installed an mc_56 MkIII audio production console from Lawo in „Tonregie 1“. This console is now used for student training and various productions. The new infrastructure at mdw utilizes a Ravenna network that supports digital formats such as MADI and AES/EBU. Dante devices are integrated via an expansion card of the Lawo Power Core. The installation facilitates productions across a wide range of genres, supported by the inclusion of a Waves server.

The studio at „Tonregie 1“ is one of the largest at the university and is

available for training in the audio engineering program, alongside numerous others located in the new „Future Art Lab“ at mdw. It is also used for other study programs at mdw, such as regular studio productions required for master's or diploma studies.

Another unique aspect is the cooperation with other universities, offering bidirectional remote teaching and collaborative remote music performance. The very low-latency transmission allows for mixing performances of instrumentalists at different locations via the Lawo console. Individual tracks transmitted from other locations are also processed through this console, enabling music students to participate live remotely or receive instruction.

Partnering arrangement

The British Association for Event Management Education (AEME) and the Event Education Symposium at the Hannover University of Applied Sciences have entered into a partnership.

The esteemed British Association for Event Management Education (AEME) is partnering with this year's Event Education Symposium of the Bachelor's program in Event Management (BVM) at Hannover University of Applied Sciences. This year, Tim Brown from Chester Business School will open the congress program with a keynote address, focusing on „Teaching Events in the Metaverse“, highlighting an area that challenges the event industry as well as teaching and research in the field.

Brown serves as Program Leader for Event Management and Senior University Teaching Fellow at the University of Chester. He is a member of the Executive Committee of the Association for Events Management Education (AEME).

„For AEME, collaborating with a German university and the Event Symposium is a great opportunity to strengthen our international partnerships. Event management faces significant challenges both as an industry and as an academic discipline. These challenges are more easily addressed through international exchanges“, says Tim Brown.

„The goals of AEME align perfectly with the Event Education Symposium. Like AEME, the symposium aims to promote the development and dissemination of knowledge in event management, with an international perspective“, add Prof. Dr. Isabelle Thilo and Prof. Dr. Gernot Gehrke, instructors in event management at Hannover University of Applied Sciences, who initiated the Event Education Symposium.

Pioneering work

The quality standard SQQ7 celebrates its debut in Germany and is incorporated into the training of audio specialists. In autumn 2024, the first candidates will complete their studies at the SAE Institute according to the new standard.

SQQ7 is the specialization qualification for „Professional Sound Technicians“ and establishes further education in the field of sound engineering on a professional and standardized foundation. The standard was developed by IGWV, the association of event industry associations in Germany, Austria, and Switzerland. Since the fall of 2022, the SQQ7 standard has been embedded in the curriculum of the Event Engineering program at the SAE Institute and is also offered as part-time further education. The SAE In-

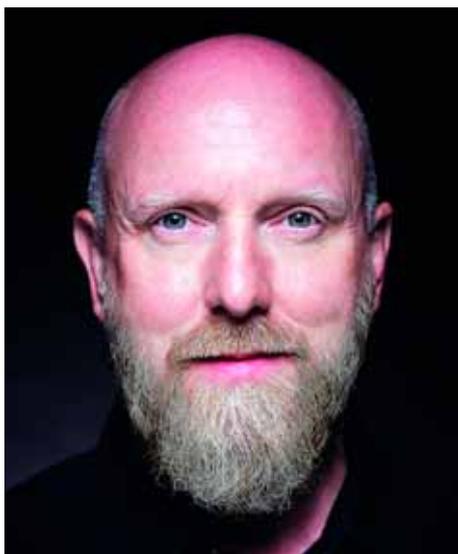
stitute itself was involved in the development of SQQ7.

In September, the first candidates for the new SQQ7 standard will be expected at the SAE Institute, making it the first educational institution to conduct the examination. SQQ7 is further education for event technology specialists as well as career changers, and trains them to become „Professional Sound Technicians“. The goal of the standard is to increase the quality of the audio trade uniformly and nationwide.



„A fascinating industry with a future“

In its 75th anniversary year, VTFF launches a job initiative. A new promotional film showcases the diversity of career opportunities.



The Association of Technical Services for Film and Television (VTFF) is launching an initiative against skilled labor shortages in its 75th anniversary year with a promotional film and job fair titled „VTFF - Experience Diversity“. The association aims to highlight the diversity and myriad career opportunities within the

film and television industry. For communication, the organizers emphasize an authentic recruiting film featured on VTFF's own media platforms such as the VTFF website and social media. Stefan Hoff, Chairman of the VTFF Board, is the patron of this initiative.

Mostly affected by the widespread skilled labor shortages are small and medium-sized service providers in the film and TV industry. The focus of VTFF's communication is an image film produced by apprentices (directed by Emilian Grimm, Jannik Wohlers), featuring testimonials from OB van directors, virtual production designers, fashion designers, sound engineers, and other professionals in the film and television industry about their daily work and diverse roles. The video aims to illustrate that the film and TV industry offers a broad spectrum of careers ranging from craftsmen to highly specialized VFX artists. It targets not only apprentices but also college dropouts and career changers seeking new challenges.

The promotional clip is available on all major social media platforms and professional networks. Additionally, the association has established its own online job portal at www.vtff.de/aktuelle-jobangebote/.

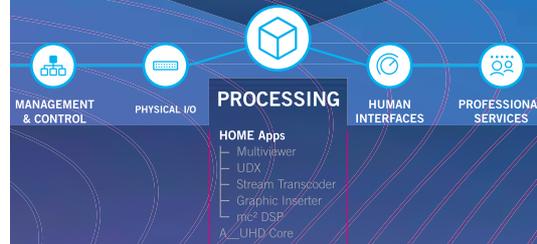


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„Engineers must save the world!“

Technological innovations, high reliability, and excellent support – these are the success factors of Beckhoff Automation. Ronald Heinze (Editor-in-Chief of Open Automation) spoke with Hans Beckhoff, managing owner of the company, about current economic developments, products, and advancements. Here's a summary.

In today's era of technological innovation and digital transformation, companies specializing in automation and innovative solutions have become true pioneers in the industry. One of these leading companies, distinguished by its outstanding achievements and sustainable success, is Beckhoff Automation. With a remarkable history dating back to 1980, Beckhoff has revolutionized how we perceive automation and control systems.

Since its founding in 1980, Beckhoff has experienced continuous growth. From 2000 onward, the company has achieved an average annual revenue growth of 15 percent. In 2022, it reached 1.515 billion euros in revenue with approximately 6,000 employees worldwide. „Predicting revenue in these times is challenging“, says Managing Director Hans Beckhoff. While he forecasts strong double-digit revenue growth, he also notes a significant decrease in order intake and expects a substantially weakened development for the next year. Beckhoff observes this trend globally, emphasizing it's not specific to Germany.

Beckhoff further explains that the previously high order intake led to a typical backlog bubble that is now declining this year. Various factors influence this decline, including shortened delivery times and reduced inventory levels due to customers stocking up reserves amid parts shortages - a worldwide effect, according to Hans Beckhoff.

Regarding industries, the managing director states that most customers in mechanical engineering are optimistic about the future. The process

industry also shows positive signs for Beckhoff, particularly in new areas like the hydrogen economy, where the company is involved in numerous projects. However, Beckhoff notes investment restraint in the building sector.

The Chinese market, significant for Beckhoff, showed slower growth in 2023 compared to previous years. „We believe in China and aim to continue investing there“, he continues. „So far, we've manufactured all products for the Chinese market in Germany. Now, we plan to establish local production in China.“ Hans Beckhoff believes in the concept of „change through trade“ and sees China as an industrialized country with a vast domestic market. The company is preparing for intensified competition in China and has initiated special development projects tailored to the Chinese market. Hans Beckhoff anticipates an exciting competition and remains optimistic about future prospects in China.

Rarely does one find an automation company that has sustained success like Beckhoff Automation. But what is the secret to this success? Hans Beckhoff, a diploma physicist and founder of the company, provides a fascinating answer: „We are a technology company, and our technical 'revolutions' have brought us to where we are today. Moreover, automation is a captivating matter - highly technical yet profoundly human. Effective collaboration between suppliers and users is also crucial to jointly driving cutting-edge technology forward.“ For Beckhoff, long-term

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relationships with many customers are another key to mutual market success.

Over the years, Beckhoff Automation has introduced an impressive series of technological revolutions to the market, occurring every five to seven years. These milestones include PC-based control itself, TwinCAT, bus terminals, EtherCAT, embedded PCs, XTS, XPlanar, and the current MX system. Beckhoff enthusiastically explains, „Each of these technological innovations has brought us new customers. Our customers appreciate that they can rely on innovations from our company continuously. An electronics supplier that fails to innovate stifles the innovation and hinders the customer’s market success! We aim to drive our customers to push the technological frontier together with us and thereby succeed in the market!“

The managing director emphasizes that offering excellent technology alone is not sufficient; it must also be successfully marketed. Therefore, Beckhoff Automation has developed a global customer-focused sales network supported by engineers on-site. Currently, about 2,200 of the company’s more than 6,000 employees work in sales or sales-related areas.

In summary, the key factors for Beckhoff Automation’s success are the combination of technological innovations, high reliability, and excellent customer support. „In essence, we combine traditional family values with openness. We stand for an open and fair way of working together.“

Moreover, the entire company is committed to making the world more livable through technology. Beckhoff underscores, „Our motto is: Engineers must save the world!“ This principle is taken very seriously because only through technological innovations will it be possible to create a sustainable world where prosperity is guaranteed for all people.

Beckhoff Automation’s international sales network is continuously expanding. Recently, new sales offices were opened in Lithuania and Estonia to strengthen presence in these regions. However, due to political de-

velopments, the branch in Russia had to be closed. The next expansion plans are now focused on the African continent. So far, Beckhoff is represented only in Egypt and South Africa, both of which have relevant mechanical engineering industries. The commitment to advancing automation technology is particularly evident at major trade shows where numerous innovations from all product areas of the company are showcased.

Undoubtedly, a highlight was the numerous TwinCAT innovations. Hans Beckhoff states, „We presented a new generation of our motion control software, offering multicore and multitasking support and delivering a 30% performance boost“. He continues, „The performance limits are once again being pushed forward. Applications involving 100 axes or more can be effortlessly coordinated and hard-synchronized. The central mathematical computation of all motion sequences thus demonstrates its full strength!“

This new performance package can naturally be used in parallel with existing TwinCAT motion solutions. „TwinCAT CNC is also developing very well, increasingly used in machine tools“, emphasizes Hans Beckhoff. TwinCAT serves as the universal platform for all segments of automation technology at Beckhoff.

Hans Beckhoff reports on the ongoing improvement of integrating Large Language Models (LLMs) like ChatGPT into TwinCAT. This opens up new application areas; for instance, TwinCAT HMI projects can now be automated. User-friendliness and features for programmers have been significantly enhanced. „We have optimized and refined the integration of ChatGPT into engineering“, he says.

He emphasizes that the result of a ChatGPT response significantly depends on the formulation of the question, known as „Prompt Engineering“. „It’s about incorporating targeted information into the question. To facilitate this for our users, we have integrated pre-formulated commands and questions into ChatGPT.“ This approach is continuously evolving.

Specifically for machine learning, the Ultra-Compact Industrial PC C6043 is equipped with state-of-the-art Intel Core processors and an externally factory-installed GPU/graphics card with highly parallel GPU/graphics chips. Hans Beckhoff underscores, „This enables very complex AI tasks; our GPU solution is about 18 times faster than a conventional Windows computer“.

Industrial PCs in various form factors, together with the software used, serve as the core of diverse automation tasks such as controlling machines, processes, and logistics systems, networking plant components, data acquisition, and image processing. The IPC company Beckhoff provides industrial PCs and panel PCs for all application areas. Probably no other company consistently launches innovations for industrial computers to the extent Beckhoff does.

A particular highlight is the Speed Shift technology, available for all IPCs with Intel Core i CPUs from the 11th to 13th generation. „Speed Shift enables real-time switching of one or even two processor cores from their base clock to the so-called turbo clock frequency“, reports the studied physicist. „This is a really good feature of our products. The result is the ability to execute individual fast programs on the respective core.“

Further focuses of the company lie in expanding signal diversity in the I/O area. Beckhoff’s extensive I/O portfolio includes products for all application areas and environmental conditions. „We continuously expand our range of EtherCAT plug-in modules and terminals, particularly in the TwinSAFE-SC portfolio“, says Hans Beckhoff. „With this TwinSAFE Single-Channel technology, standard signals can be made usable for safety-related tasks.“

Among the newer IP67 products is the EtherCAT P-Box EPP6224-0522, a 4-channel IO-Link master with timestamp and eight digital

I/Os. Hans Beckhoff emphasizes, „For synchronizing sensors via IO-Link, the precise timestamp of EtherCAT can be used“. The digital I/O box EP3751-0260 features an integrated gyroscope. In addition to the low-noise 3-axis accelerometer, its additional sensor (acceleration, direction of rotation) enables the detection of complex movements, such as those used for AGVs, cranes, and robotics. „This is another step towards integrating modern sensors into the industrial environment“, adds the diploma physicist. The current I/O box EP9320-0022 serves as a gateway to Profinet networks, supporting the openness of PC-based control.

„With the introduction of IoT (Internet of Things) and Industry 4.0, a groundbreaking decision was made“, emphasizes Hans Beckhoff. These activities, partly supported by the government, have significantly advanced the integration of IT and automation technology. Beckhoff Automation feels at home here, having offered PC-based control technology since 1986. „For us, this development was not necessarily new“, he adds. „The integration of IT and automation has long been practiced here. Nevertheless, this development has shown good effects.“ Today, the seamless integration of IT and automation is state of the art.

IoT has undoubtedly also made a positive contribution to business development at Beckhoff. „In particular, our smaller IPCs are often used as IoT gateways“, says Hans Beckhoff. He sees great potential for IoT applications in actual production logic: „Providing macroscopic modeling data for optimization is a promising approach. However, these data are usually derived as aggregated data from the control system and are not directly derived from individual sensors, in our case from the PC, which can easily take on the edge function.“



„Sustainability doesn't have to be expensive“

Circular economy, sustainability, or „Remanufacturing“, as it's called at d&b Audiotechnik, makes sense - that's something almost everyone knows by now. The specialist in high-quality sound solutions breathes new life into speaker systems through its Certified Pre-Owned (CPO) program.



„Our products have a long lifespan, but nevertheless, we must consider what happens at the end of their lifecycle. We've thoroughly explored the possibilities and decided to apply the remanufacturing process to our used products. This means we disassemble them, refurbish them, and transform used products into new ones“, explains Robert Trebus, Director of Sustainability at the d&b Group. The used systems undergo careful inspection, and the refurbished CPO products undergo rigorous testing to ensure they meet all quality standards. Trebus elaborates further in the interview:

Who had the idea, and how was it implemented?

When you've been successful in the live event market for over 43 years, you inevitably start asking what happens to our products at the end of their lifecycle. As a premium manufacturer, it's difficult for us to accept that our products might end up in landfills someday. This drove us to deeply investigate the entire lifecycle of our products. Our speaker systems are highly durable and robust - even after years of touring. That was the catalyst for our remanufacturing project. As the first company in the live event industry worldwide to address remanufacturing, we had to develop processes in collaboration with our service team. Concurrently, the European Union communicated through the Green Deal that circular economy and remanufacturing are the business models of the future. This further motivated us. Now, through professional refurbishment, we extend the lifespan of J-Series speakers and significantly contribute to the resource efficiency of energy and raw materials. Remanufacturing is a core element of the circular economy.

Is there a dedicated remanufacturing department?

We initially developed the remanufacturing process in close coordination with our service team and tested it. Later, however, we established

our own remanufacturing department with specialists who delved into the quality concept and individual processes. This garnered considerable media attention. I now regularly give expert talks on the topic.

Baden-Württemberg states its intention to become more sustainable. Is there political support for companies like d&b?

As a „hidden champion“ from Baden-Württemberg, we consistently receive direct support from the state. Our CPO project is one of the flagship projects under „100 Companies for Resource Efficiency in Baden-Württemberg“. We conducted a Product Carbon Footprint analysis in collaboration with Pforzheim University, highlighting significant savings.

Who is the main target group?

The d&b J-Series CPO systems are suitable for venues with approximately 900 spectators and above. In practice, these include festival stages, clubs, or multifunctional halls. In the future, we aim to offer additional product lines under the CPO program. I believe it's important to convince our customers that even our old products have value at the end of their lifecycle. Circular economy thrives on manufacturers receiving more returns in the future.

Is remanufacturing global, or is it limited to the DACH region, for example? Does the model pay off in terms of transportation costs?

Many of our systems are used in touring, meaning they are transported continuously. The typical d&b J-Series systems are quite large and come in containers to us. Therefore, transport costs and emissions are manageable. Additionally, we have a remanufacturing department in North America. With a specialized remanufacturing team, we were able to optimize

the efficiency of refurbishment quickly. Our customers confirm that our CPO offering is perceived as attractive.

What is the exact process in practice? Does the customer receive their old speakers back with new content?

Our customers sell us their speakers. They do not get them back. Minimum criteria for the purchase of old J-Series speakers are verified upon receipt. Generally, the old devices must still be usable. Usually, the old systems are configured for a specific location or purpose. The new CPO systems are then reconfigured according to current needs. This means that an old festival system as a CPO can subsequently be used in a smaller club - a significant difference from the typical second-hand market.

What are the costs of CPO products compared to new (or used) speakers?

Since the new CPO systems are configured according to the new venue, it's not directly comparable in terms of price. Just to clarify: Our offer is generally considered attractive. Moreover, we provide full legal warranty on the new d&b J-Series CPO. The system is also delivered in its original packaging. Our new CPO customers are always surprised.

A deliberately provocative question to conclude: Why does d&b use this elaborate model rather than simply offering a buyback/trade-in of old devices and subsequently reselling them as second-hand?

The J-Series has been heard at top events for over a decade. Many musicians still love it - even today. There are increasingly more artists and venues concerned about the sustainability of their events. Many bands advocate for making their performances more sustainable. I'm confident this number will grow in the future. That's precisely why our circular

A J-Series speaker, weighing approximately 60 kg, consists of the housing and several electronic components. These components of such a speaker system emit 0.265 tons of CO₂e. About 250 units are refurbished annually. The components replaced during the refurbishment process emit an average of about 0.008 tons of CO₂e. In addition, refurbishment requires about 145 kWh less electricity than producing a new speaker, which equals 0.08 tons of CO₂e. In relation to 250 units, this results in an annual saving of 85.4 tons of CO₂e.

(Prof. Dr. Mario Schmidt, Dr. Christian Haubach, Marlene Preiß, Alexandra Vogt, Dr.-Ing. Hannes Spieth, Dr. Joa Bauer)

economy offering strikes a chord with the current times. Here, we combine the high quality for which our products are known with the demand for sustainability. That's also why we don't offer products as second-hand: Our customers must be able to rely on our products in the tough daily operations of live events. And we guarantee this with our CPO products. Therefore, we also obtained certification from BSI as a remanufacturing operation. In the context of the circular economy, remanufacturing is the process with the highest quality level for refurbished products - even above „refurbished products“. It must be as good as new at the end. A CPO speaker is in no way inferior to a new one. Guaranteed.

As part of Baden-Württemberg's sustainability strategy, an in-depth video was produced that provides insight into the d&b CPO program, its background, and processes, available here: www.youtube.com/watch?v=Fztw3_RdcCU.



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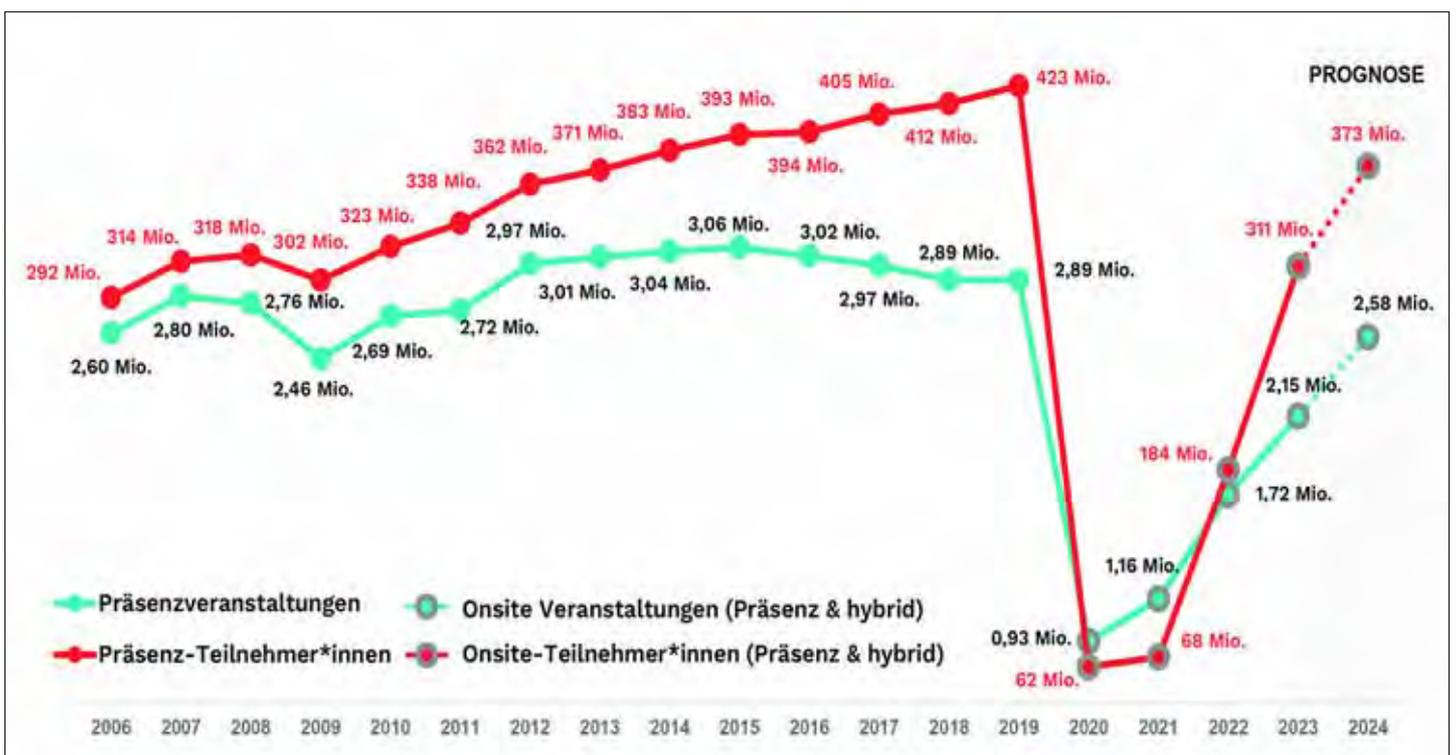
Meeting- & E 20

Pre-corona levels in sight

The results of the Meeting & Event Barometer 2023/24 show that the upward trend in the German event market continues, and the sustainable transformation of the industry is taking shape. A summary of the results.

The German National Tourist Board (DZT), the German Convention Bureau (GCB), and the European Association of Event Centres (EVVC) present the results of the „Meeting & Event Barometer 2023/2024“. The key figures for the event market in Germany in 2023 confirm the upward

trend of recent years: both the volume of events and the number of participants are rising and gradually approaching pre-Corona levels. According to analyses by IPK International on behalf of the DZT, the number of international business trips from Europe to Germany increased by 20



EventBarometer

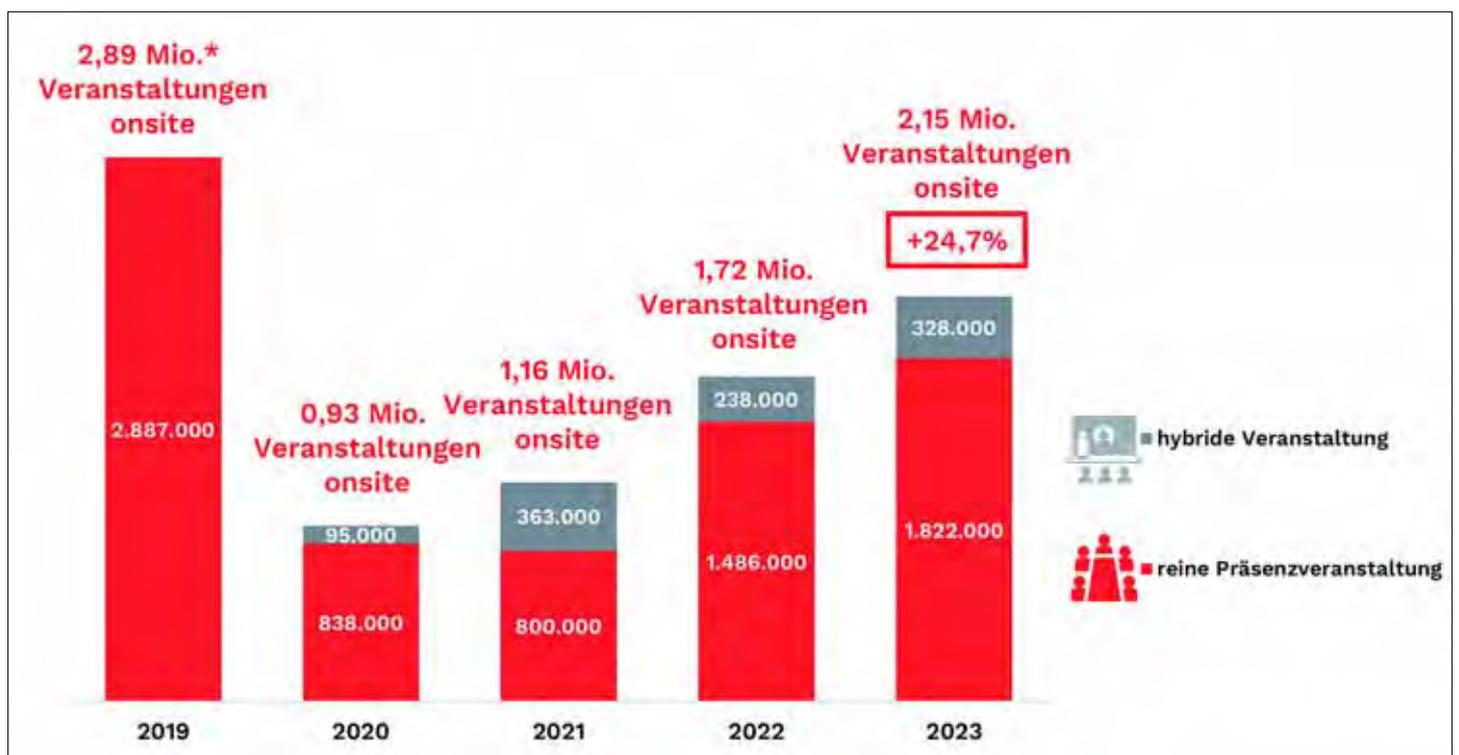
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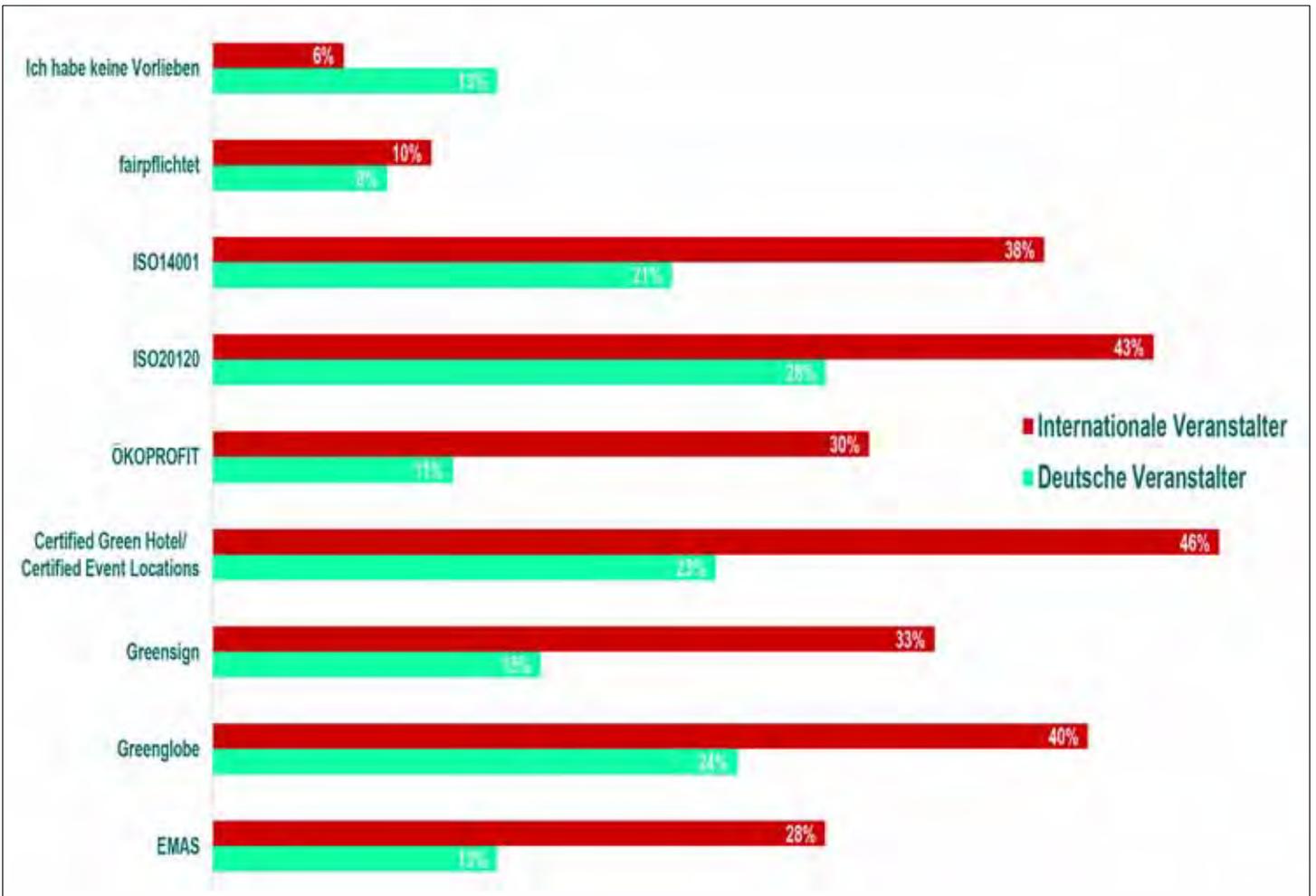
percent from 9.2 to 11.1 million in 2023 compared to the previous year, reaching 83 percent of the pre-crisis level of 2019.

Globally, including overseas markets, the business travel segment grew by 23 percent to 13.5 million trips. In European competition, Germany remained the number one business travel destination for Europeans in 2023 by a significant margin and further strengthened its top position with a 20 percent increase compared to 2022, surpassing the overall growth of European outbound business trips (plus 15 percent).

Petra Hedorfer, CEO of the DZT: „Within the market for business tra-

vel from Europe to Germany, all segments are on a growth path in 2023. The number of promotable business trips increased by 15 percent compared to 2022 to 6.3 million, reaching a market share of 57 percent. The traditional business travel sector grew above average by 28 percent to 4.7 million - a market share of 43 percent. This confirms the immense importance of communication and personal exchange in all formats of the business travel market. Within promotable business trips, congresses/conferences remain the strongest MICE segment with a seven percent increase and a market share of 37 percent. Trade fairs/exhibitions and incentives are recovering significantly after pandemic-related cancellations, reaching market shares of 13 and seven percent, respectively.“





Trend topics that also define new requirements for the MICE market of the future, according to the DZT, include „Work from anywhere“ and Bleisure. Additionally, climate- and environmentally-friendly business trips are gaining importance in the international business travel market. In the course of digital transformation, the Open Data MICE project in collaboration with the DZT Knowledge Graph is the key to mapping Germany’s meeting location offerings in the form of open and machine-readable data, providing content for all digital channels, and promoting the international marketing of Germany as a MICE location with the help of AI applications.

The upward trend in the German event market is not only continuing but is more positive than expected. With 2.15 million, the actual volume of in-person events in the past calendar year reached 74.4 percent of the 2019 level. This corresponds to an increase of 24.7 percent compared to 2022. Of these, 1.8 million events were purely in-person, while 328,000 were hybrid events with both on-site and online participation options.

The growth is even more evident in participant numbers: in 2023, there were nearly 311 million on-site participants. This corresponds to a growth of 68.5 percent (2022: 184.5 million) and 73.5 percent of the 2019 level. The positive market development is supported by the increasing demand from abroad: the share of international participants in in-person events rose from 3.9 percent in 2022 to an average of 6.2 percent in 2023. For business-motivated events, this share is highest at 9.1 percent.

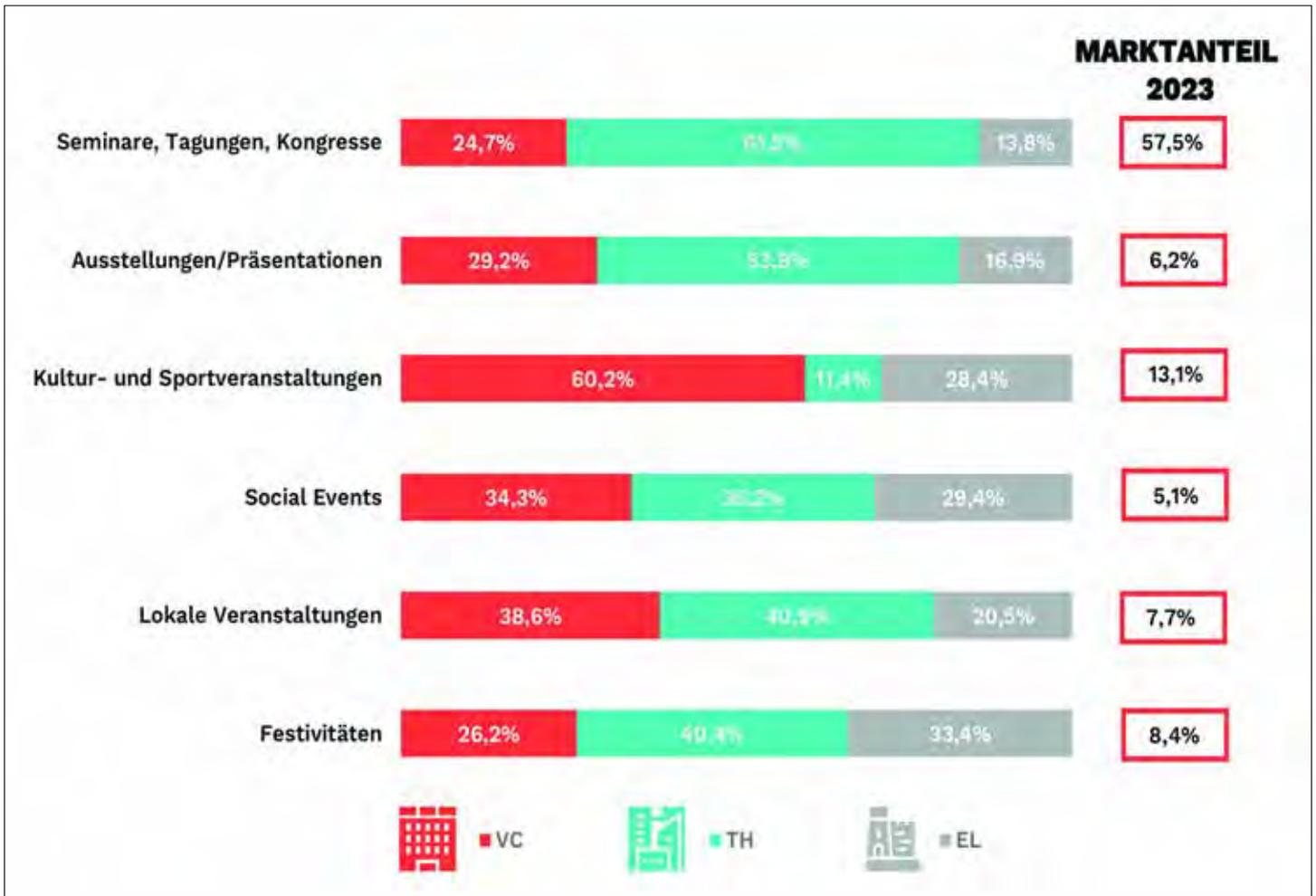
In 2023, congresses, conferences, and seminars accounted for 57.5 percent of all events held in German venues, making them by far the most important event type. The shift towards larger events with more than 101 participants and the corresponding decline in smaller events with up to 100 participants, observed in 2022, continued last year. The share of congresses, conferences, and seminars increased in all size categories

from 101 to over 5000 participants by between 3.6 and 0.2 percentage points; the share of small events with up to 50 and up to 100 participants decreased by 6.7 and 2.6 percentage points, respectively. At the same time, these two size categories still make up three-quarters of all seminars, conferences, and congresses in venues (75.3 percent).

With nearly 50 percent, companies are the most important group of business event organizers, highlighting their consistently high relevance in the communication mix of organizations. Regarding the origin of the organizers, Germany remains a solid business base for providers in the business events segment: 93.7 percent of all organizing organizations come from the country itself. Internationally, direct neighboring countries are strong source markets, but the USA, the UK, and China are also increasingly making their presence felt again.

In day-to-day operations, personnel shortages remain a central issue for industry players. For 87 percent of organizers and 80 percent of providers, personnel shortages are of (very) high importance. In conference hotels, this figure reaches even 93 percent. Additionally, 41 percent of surveyed conference hotels report that they cannot adequately meet their personnel needs. However, there is a slight improvement in this area: while in 2023, on average, 54 percent of all types of event venues (event centers, conference hotels, event locations) could not meet their personnel needs, this figure is now around one-third (34 percent). „The personnel situation in event venues varies greatly. The fact is: we must continue to actively focus on skilled labor and especially on promoting young talent. Good employer branding and high-quality training structures are essential. The EVVC offers support in this area“, says Ilona Jarabek, President of the EVVC.

Certified sustainability is on a stringent path from a „nice to have“ to a „must-have“ for business events. Between 2011 and 2023, the share of provider companies with a certified sustainability management system



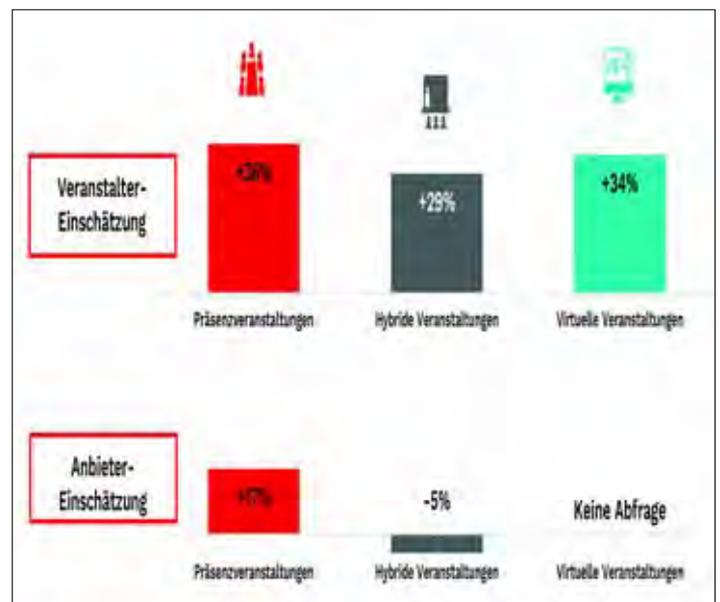
doubled from 27 percent to 54 percent. Another third is in the planning phase of implementation. In contrast, almost 90 percent of organizers now prefer providers with a sustainable certification system. This comparison shows how significant the topic has become for the industry: in the last survey of this aspect in the Meeting & Event Barometer 2019/2020, this figure was only 36 percent.

In addition to resource efficiency and image improvement, which provider companies cite as the main reasons for a sustainability management system, increasing legal requirements should further contribute to the strategic anchoring of sustainability in companies becoming even more decisive in the future. Regulations such as the European Green Deal, which bundles all measures for the sustainable transformation of the economy by the EU, create a sustainability cycle in the industry, driven not least by ESG reporting obligations on the customer side.

Regarding future topics, there are differing opinions and assessments among providers and organizers depending on the topic. For example, artificial intelligence is already part of the reality for organizers, with 80 percent agreeing that AI is increasingly used at events. In contrast, 73 percent of providers do not agree with this statement. There are also differences in the assessment of the future importance of event formats and the associated space requirements. For instance, 34 percent of organizers fully agree that agile formats with more interaction will become more important, and 38 percent state without reservation that this will change space requirements. In contrast, only 16 percent and 13 percent of provider companies fully support these statements, respectively.

There is consensus regarding growth prospects: providers and organizers are optimistic and expect further growth in 2024 due to the current situation. 89 percent of organizers anticipate a (very) good event situation. Three-quarters of providers (76 percent) also rate the booking situa-

tion for the coming months as (very) good. They especially see growth potential for pure in-person events and expect more on-site participants this year. „This market assessment shows the ongoing importance of business events as places where people come together to develop answers to the big questions of our time - especially since our work world is becoming increasingly virtual, and people long for real encounters, immediate networking, and community building“, says Matthias Schultze, Managing Director of the German Convention Bureau (GCB). „The results of the Meeting & Event Barometer 2023/2024 show that Germany as a business event location is resilient and future-proof.“





WIN
EUROVISION SON

SWITZERLAND

A4



Eurovision
UNITED BY MUSIC

A2







United by Technology

The Eurovision Song Contest 2024 was, as expected, the world's musical event of the year – especially from a technical standpoint. Set designer Florian Wieder, content designer Fredrik Stormby, and technical director Ola Melzig, who returned to ESC after five years, introduced several innovations.

Nemo from Switzerland won the Eurovision Song Contest 2024 with the song „The Code“, narrowly beating the Croatian group Baby Lasagne with „Rim Tim Tagi Dim“. Alonya Alonya & Jerry Heil from Ukraine took third place with „Theresa & Maria.“ The 68th Eurovision Song Contest, organized by the European Broadcasting Union (EBU) and the host broadcaster Sveriges Television (SVT), was held in Sweden for the seventh time. The spectacular event was themed „United by Music“, a motto that will remain from this year forward. As the official event supplier, Creative Technology provided all the audio, lighting, and video technology in Malmö.

With months of technical preparation, days of stage setup, and a week full of rehearsals and shows in the Malmö Arena culminating in an extraordinary „Grand Final“, this year's Eurovision Song Contest showcased the best event technology available on the market. The stage design, created by production designer Florian Wieder and lighting/screen content designer Fredrik Stormby of Green Wall Designs, was revealed in December 2023. This was the eighth time Wieder designed a stage for Eurovision, last doing so in 2021 in Rotterdam. The 360-degree stage in the audience's center was cross-shaped with five movable LED cubes, LED floors, and an array of lighting, video, and stage technology.

The stage featured 1,000 square meters of LED surfaces, including the cubes and floor, which were playable with video content, along with 2,168 LED or laser sources. The Malmö Arena's roof structure supported 204 tons of equipment. The stage resulted from approximately six months of design, construction, and fine-tuning

work. Four weeks of pre-programming were required to finalize the lighting.

For the three live shows, the six-person stage management team in Malmö was supported by a 36-member stage crew. The team had only 55 seconds to bring the stage into perfect position for each of the nearly 40 songs and roll on the necessary props while simultaneously removing the previous ones. This was meticulously choreographed and rehearsed.

Under the leadership of long-time Eurovision technical show director Ola Melzig, Wieder and Stormby closely collaborated with a team of programmers. This team included lead effect lighting programmer Ishai Mika, lead main lighting programmer Dom Adams, and Isak Gabre, Linus Pansell, and Leo Stenbeck. Assistant lighting designer Louisa Smurthwaite, who was a spot-caller at ESC 2023 in Liverpool, joined as well as deputy lighting designers Mike Smith and Michael Straun, who worked day and night shifts during the five-week rehearsal and development phase to create spectacular looks for ESC 2024 in Malmö Arena.

„Since Sweden is hosting the Eurovision Song Contest for the third time in the last ten years, we challenged ourselves to attempt something new and bold, respectfully questioning the traditional Eurovision concept and introducing a greater concert tour feel to the familiar ‘studio show’ concept“, explains Stormby.

Inspired by Swedish music, songwriting, and local architecture, as well as the producers' request to include the audience in every performance shot, Wieder and Stormby developed a stage without traditional scenic elements or shapes, based on an in-the-round layout and using light and

video to shape the stage. Overhead, a highly dynamic rig with nearly 200 automated hoists supported over 200 tons of equipment.

Audio

FOH Audio: The ESC was mixed using two Stagetec Avatus consoles fed by two Stagetec Nexus matrices, provided by Creative Technology (CT) with support from Stagetec. Handling nearly 100 audio channels, FOH engineers Mattias Winther and Pontus Svensson delivered a clear and precise mix for the entire arena.

Monitors: For artist monitors, CT provided dual-redundant Digico Quantum-7 consoles and SD-Racks. At the heart of the signal distribution system were several Direct Out Prodigys and M1K2s in a fully redundant setup, allowing seamless switching between consoles, IEM systems, and backrack rigs. The backrack rigs were also fully redundant, quadrupling the redundancy level for both monitors and backtracks.

PA System: CT supplied the main PA system in a collaboration between Creative Technology Sweden and Creative Technology Middle East. The L-Acoustics L2 system proved perfect for the show. PA system designer Magnus Johansson's design ensured coverage of all seating areas in the arena. The system operated on a fully redundant AVB network with analog fallback.

Wireless Systems: In a complex wireless environment, the team used Shure Axient wireless systems, including ADX1 and ADX2FD transmitters and PSM1000 in-ear systems. With over 100 wireless channels in use, the team utilized Shure AD600Ds for monitoring alongside Wireless Workbench software. The system provided stable RF connectivity during broadcasts.



Video

The highlight of the video transmission was undoubtedly the first-ever use of SMPTE 2110 Video over IP for a live event of this magnitude.

Video Playback and Processing: With the EBU's stated goal of pushing the boundaries of technology at the Eurovision Song Contest, it was decided from the outset, in collaboration with host broadcaster SVT, to provide an uncompressed end-to-end IP video solution for media servers, image processing, and LED screens - a world premiere for a live broadcast.

Two systems were set up and connected with a fully redundant network to transport ST-2110 video and control data. These networks consisted



ROE Visual is proud official event supplier for the **Eurovision Song Contest 2024**

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entirely of COTS hardware, with specialized equipment provided by CT's technology partners. For playback, Disguise GX3 media servers were used in two redundant systems, each comprising a Director for control, three Actors outputting video via Disguise IP-VFC cards, and one Actor providing pixel mapping for the lighting rig. Over 1,000 DMX universes were patched.

At its core, a redundant IT/IP platform Panasonic Kairos AT-KC2000 S1 connected the system. AT-KC2000S1 can support a flexible number of inputs and outputs to adapt to video production, ensuring ST 2022-7 redundancy crucial for event distribution over a network. At the ESC, the AT-KC2000S1 offered key functions, including multiple custom multi-viewers for operators, clean switching for all Disguise outputs for backup purposes, and ingress and egress of baseband video.

On the receiving side, 10 Helios LED processors from Megapixel natively received ST 2110 on the new 100 GB input cards, debuting worldwide at the ESC. The processors were organized in two redundant stacks of five each, with two processors powering the background LED wall Black Quartz 4 from Roe Visual, two processors powering the Roe Visual LED floor Black Marble 4, and one processor powering the cubes constructed from Roe Visual elements.

These cubes were built from 460 sqm of transparent Vanish V8T LED panels, embedded in a custom set to ensure maximum transparency and create a holographic effect. Additionally, fixtures could be placed within the cubes to produce visual effects. The rear wall was constructed from two different parts of Roe Visual BQ4 LED, allowing it to be split for the Green Room reveal. The panels also enabled the 34 x 10 meter wall to be reset with millimeter precision, making the seam invisible and ready for the next show.

Below the artists, the 186 sqm Black Marble 4 LED floor from Roe Visual, with a glass surface in the shape of a 20 x 20 meter cross, provided spectacular shots for crane cameras, spider cameras, and drop cameras. During set changes, stage plans were digitally fed to the floor, allowing precise markings and avoiding traditional tape markings.

The appearance was completed by approximately 1,300 meters of Roe Visual Strip. For the LED cubes, these strips accented the shapes by being installed on all edges in custom housings. In the Green Room, they provided a backdrop for the cameras. Additionally, several participating nations used the strips in their stage elements.

Control System

„We used the largest GrandMA3 control system for lighting, video playback, lasers, and PixMob (LED wristbands) ever deployed at a music show, with over 200,000 control parameters across 682 DMX universes and 663 universes of Art-Net input from the Disguise video servers“, reports the team from Creative Technology. „This setup included 19 consoles, 21 PU-X processors, 96 GrandMA3 8-port nodes for synchronized outputs, and another 10 Luminex Node4 for outputs from the Follow-Me system.“ The network backbone was created with 50 Luminex switches. The main fiber ring was a 10 GB ring with 20t units at three locations, and 42 16Xt switches provided the necessary number of ports. With more than 350 IP addresses in the network, including all Stage Smarts power distros, the network's complexity was significant. „We monitored the entire network with Luminex Araneo software with an MA plugin and also controlled all consoles in the network in real-time to support the programming teams.“

Early in the planning phase, it was decided that all five show programmers would work in a single session. GrandMA3 was the only option to control this many parameters in a multi-user session, minimizing bottlenecks related to programmer workload and the handling and maintenance of the infrastructure.

In this session, there were 5 GrandMA3 Full-Size consoles (main show) + 1 GrandMA3 Light (follow spots) as main show consoles (with 4 GrandMA3 Full-Size consoles as backups), another GrandMA3 Light console for monitoring at FOH, and between 2 and 3 additional GrandMA3 Full-Size consoles around the stage or the Green Room for



technical desks and monitoring and programming. These ran with a total of 16 GrandMA3 Processing Units - 12 GrandMA3 PU XL and 4 GrandMA3 PU Ls, with 5 GrandMA3 PU Ms for offline sessions, and 90 GrandMA3 8Port Nodes, all connected via a Luminex network. This configuration allowed for „intelligent“ working, avoiding being blocked by waiting for a specific programmer or fixture type while updating cues and answering notes during delegation rehearsals. When someone finished a task, they could either help another programmer or immediately continue with the next song.

The five programmers could assist each other and work globally from their own workstations. Rehearsals could also be conducted without all programmers being present, preventing possible exhaustion from long working hours since all infrastructure-related tasks only needed to be completed once in the single session.

The GrandMA3 system had to handle the control of 2,168 physical stage lighting fixtures installed around the arena and the Green Room, totaling 3,425 fixture numbers in the patch, including individual pixel mappings. These included moving lights and LED sources from multiple

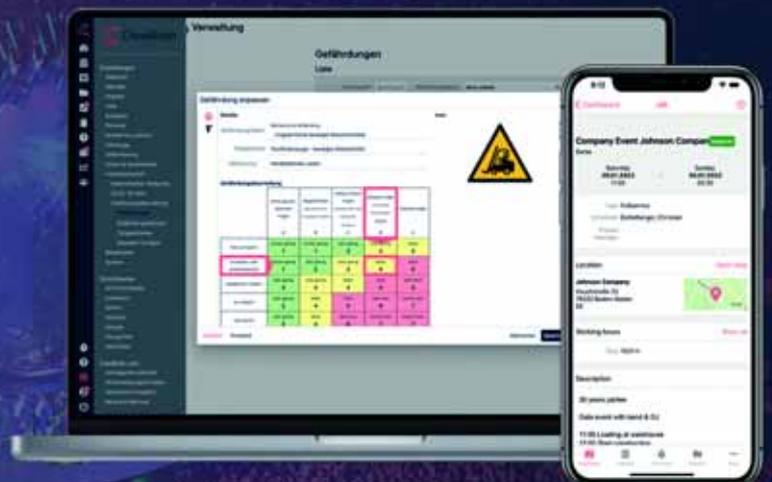


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brands, as well as video playback content stored on eight Disguise servers (1 Director, 3 Actors, and 4 Understudies for backup), all inputted through the GrandMA3 consoles, allowing relevant lighting fixtures to be pixel-mapped with the content and operated as „traditionally“ programmed fixtures during different sections of the show.

All non-primary lighting fixtures with RGB or fast dimmers were pixel-mapped in the media servers to keep creative options as open as possible, with most outgoing DMX universes merged with the 663 DMX universes of the Art-Net input. The lighting system also received triggers from the video session at specific times, and the lighting session sent simulated automation data to the media servers, mainly during pre-visualization.

Regarding the workflow, the programming team relied heavily on the powerful Selection Grid feature of GrandMA3. This provided a clear overview of fixture selection order and structure, enabling quick and logical selection techniques that could be mapped to the lighting rig, allowing various scenes with dynamic values to be built. With so many multi-instance fixtures in the rig, the Selection Grid helped create diverse looks for each delegation show, all with their unique style and aesthetics.

The ability to revise and offset timecode for each timecode object was particularly helpful. Negative offsets allowed setting up bump buttons in advance for anticipated accents, details, and punctual music-related moments, maintaining absolute timing while offsetting all timecode objects to account for system delays. The programming team utilized the „Markers“ plugin, which created a sequence to track tempo fluctuations in the timecode applied to each fixture group, as another powerful tool to support workflow and system synchronization.

Network architect Michael Nielsen and system engineer Tue Knudsen, who work for lighting supplier CT Sweden, were instrumental in setting up and maintaining the entire GrandMA3 environment. A GrandMA3 Light desk at FOH was specifically designated for network monitoring. In one of the lounges on the third tier around the arena, Michael and Tue set up their global monitoring „mission control“ center. Here, the use of

Luminex control software Araneo, combined with the new MA license and GrandMA3 architecture, allowed access to and monitoring of every command entry into the system used by the seven active GrandMA3 desks to program the show.

Lighting Technology

A key component of Stormby's exclusively LED- and laser-based design were 384 Ayrton Rivale Profiles, 146 Kyalami fixtures, and 32 Huracán Washes. „I like to design my TV setups with special keylight fixtures that possess a particular quality of light“, says Stormby. „I also like fixtures that I can use for beam effects, mid-air effects, and capturing props or dancers, as well as supporting keylight as back or sidelight. This became the task of the Rivalles.“

Automated Pods: The main element of the overhead lighting was the 20 „pods“ - constructed from a custom truss frame and a steel structure with 3 x 3 Ayrton Rivale, a GLP JDC-1, and a perimeter of three Claypaky Tambora Linear lights. In total, 179 Ayrton Rivalles, 20 JDC-1s, and 240 Tambora Linear 100s were used in these overhead elements. Overall, 396 Claypaky Tambora Linear 100s were used. „The ESC has a very long relationship with Claypaky“, says Ola Melzig. „The lights are extremely reliable, and the balance of size, weight, output, and power consumption was crucial for me. This year's design by Florian Wieder featured many lines in all directions - linear lights mounted on the overhead LED cubes were therefore very important to us to emphasize and highlight the shape of the stage design.“

Infield Pods: Another scenic lighting element was the Mac One infield pods - twelve 4x4 matrix sections with Martin Mac One and Roe Visual Strips, used as a kind of intermediate piece between the stage and the audience. Cable management was crucial as every detail was visible. All 12 infield pods were automated.



MT-Truss: The third scenic lighting element was the „MT-Trusses“ - a group of 12 linear trusses between the main LED wall and the central stage area. These trusses were fitted with Claypaky Tambora Linear 100s and Chauvet Colorado 16s and were used in various positions during the show. CT designed and manufactured custom hardware to mount all lights for these trusses, as the LED wall in the background required a clean truss look.

Also used for the show were 25 Claypaky Skylos fixtures. „Fredrik wanted a big light with real punch“, says Melzig. „He liked what he could do with the Skylos - and so did I.“ Fredrik Stormby adds, „What

impressed me most about the Skylos was the pan and tilt speed. It's super fast, almost like a Sharpy on steroids!“

Additionally, Roxx was another manufacturer in use: Over 170 Cluster S2 – a pixel-mappable strobe/wash light - lined the LED screen at the back of the stage. Before the event, a tour of the Malmö Arena was conducted for the technical partners of the event with Senior Technical Director Ola Melzig. „We were immensely impressed by the sheer size of the production as well as the extremely complex and rich stage, lighting, and video design“, says Roxx CEO Michael Herweg, who also thanked his Swedish distributor mLite.

SILENCE PLEASE, LET THE LIGHT PLAY.



RHAPSODYA

Entdecken Sie den **NEUEN** Rhapsodya, Claypaky's jüngstes Meisterwerk, welches speziell für den anspruchsvollen Theatermarkt entwickelt wurde.

- 1200W RGBAL LED
- Lüfterloser Betriebsmodus
- Präzises Blendschieber Modul
- Absolute Positionierungssensorik
- Zusätzliches Farbrad für exzellente Farbsättigung



VISION2



Keylight: A significant challenge was implementing the keylight, which for CT meant using 64 fixtures for the Follow-Me system, many of which were placed on automated trusses. This required the distribution of PSN position data used to align the lights to the Follow-Me system. The keylight was primarily realized with 52 Robe Forte HCF, 14 Robe T2 Profiles, and 61 Robe T1 Profiles in the Green Room. The Robe fixtures were chosen for their excellent CRI values, intensity, and overall light quality. „As with any TV show, white light is one of the fundamentals, so we were very pleased that Fredrik wanted to work with Robe fixtures“, commented Emil Højmark, CT’s Lighting Director for Northern Europe, who coordinated the lighting production.

The designers accentuated the lines of the stage in the Malmö Arena in bright, bold, and brilliant colors with 524 motorized Colorado PXL Bar 16 battens from Chauvet Professional. Supplied by the Swedish distributor Interlite and Niclen, the IP65-certified, pixel-mappable RGBW battens were „practically everywhere“, says Melzig. Lighting designer Frederik Stormby used the fixtures to outline the arena on three different levels, in addition to highlighting the set contours from floor to ceiling and providing backlighting for the acts. 376 Ayrton Rivalés complemented these - among many other types and models of lights. The Rivale Profiles were mounted in the audience trusses, over the stage, and around the stands. „I was looking for an LED fixture with shutters and good colors that was affordable in large numbers. I also wanted good light quality, a tight zoom, gobos, shaper blades - all the traditional stuff“, says Stormby. „We also had to consider the weight, as so much was hanging over the stage.“

The Creative Technology Group invested in 276 Rivale Profiles and worked closely with Vigsø Denmark to rent the remaining Ayrton fixtures. The selection process of the fixtures was supported by Topstage Sweden, who worked closely with the lighting designers. „We had been considering investing in the Rivale for a long time before ESC, but Eurovision sealed the deal“, says Emil Højmark, Head of Lighting for Sweden at the CT Group.

„Working with Creative Technology was great, and it was exciting to be involved in the decision-making process from the beginning“, says Linnea Ljungmark of TopStage, Ayrton’s exclusive distributor for Sweden. „It took an amazing effort to assemble so many products in one place and ensure everything ran smoothly and on time“, adds Michael Althaus, Global Sales Director of Ayrton.

32 Huracán Washes were mounted on the front house and audience trusses: „I wanted a wash with shutters that I could use for audience lighting, shielded from the stand areas to avoid light spill. It turned out that the Huracán Wash was a beautiful, powerful, traditional wash light with some extra features - exactly what I was looking for.“

Stormby also opted for Ayrton’s new laser-based Kyalami fixtures. He mounted these on Wahlberg hoists around the stage edges, where they could be raised and lowered to define the stage shape as needed. Additional Kyalamis were mounted in a long vertical line in each of the two 18 m high towers flanking the main screen. More units were used in a 32 m long truss hanging in front of the main screen, utilizing 62 universes alone, to complete a „soccer goal“ effect with the side towers. „The Kyalami was in its final development phase when it was shown to me, and we could see that it was a compact unit with a strong beam that could stand out well against all the video elements“, Stormby continues.

„It was a lot of fun working with this rig because we could position it in so many different places, giving us not only all kinds of side, back, and low lights but also really allowing us to play with the lighting and directions of the lighting“, Stormby continues. „The 360-degree stage allowed us to naturally include the audience in the shots as part of the background. Here we had to rely on our programmers’ skills. For example, if we were filming from one side of the stage, we had to block out the light hitting the stands on the other side. This is how we produced the show shot by shot to achieve the big, clean, cool rock concert looks, but we could instantly switch to the hosts and back to Eurovision mode.“



Broadcast

When producing a show viewed by hundreds of millions of people, versatility is crucial, making wireless DMX the preferred solution. Eurovision used seven Steadicams and shoulder cameras to capture the performances for broadcast. Each camera was equipped with battery-powered Aputure MC-Pro-Pocket-Lights, outfitted with Lumen Radio's TimoTwo-OEM modules for receiving DMX data.

Given the constantly changing concert-like lighting, the cameras needed an adjustable light source to maintain video quality. The wireless control allowed Steadicam operators full freedom of movement, enabling them to capture the best shots.

Using cables was not an option. Wireless DMX was also utilized by the camera crew when filming the artists in the Green Room, which was located behind an automated video wall where the light level was lower. Astera Hydra Panels were assembled into portable arrays to provide fill light, ensuring the cameras captured well-lit shots for the home audience.

While these applications might not have been obvious to viewers, other uses were more apparent. When Ireland's Bambie Thug took the stage, she was encircled by a chandelier of over fifty candles. For this prop, electronic candles were built and equipped with data from a Lumen Radio-Luna transceiver. This made the unit battery-operated and portable, reducing the time needed to switch between acts and allowing the chandelier to hover above the stage.

With constantly moving light pods featuring lighting and video elements, wireless DMX provided designers and technicians the freedom they desired. Eurovision acts from Germany and Greece used Astera Hydra Panels for fill light and effect stroboscopy. All were freed from control cables by Lumen Radio's CRMX technology. On-site support was provided by Michael Karlsson, Lumen Radio Head of R&D, and product specialist Kent Hellberg.

Conclusion

The lighting system required 2,200 power distribution channels, all implemented with Stage Smarts C72TV and C24 units. Overall, the production used: 26 camera systems on ground and aerial rails, 204 tons of technical equipment, 3,500 meters of truss, 1,000 sqm of LED screens, 196 variable speed hoists, 2,165 fixtures, 68 speakers, 56 microphones, 400 radios, 200 intercom panels, and much more. The broadcast reached over 160 million TV viewers worldwide in more than 80 countries.

By comparison, the Super Bowl, the most-watched show in the USA, had about 123 million viewers in 2024. This makes the Eurovision Song Contest the largest television broadcast in the world. All participants agreed: „Eurovision is the biggest event of the year, and failure is not an option.“

„Eurovision is a crossover between television, theater, and show lighting, and I think we managed to make the performances look like a big arena show“, concludes Stormby. „I am really pleased with the overall result. It was ten weeks of crazy production, but we are all very proud of the outcome given the challenges of the concept.“

Senior Technical Director: Ola Melzig

Production Designer: Florian Wieder

Lighting & Screen Content Designer: Fredrik Stormby

Associate Lighting Designers: Mike Smith and Michael Straun

Assistant Lighting Designer (Viewing Room): Louisa Smurthwaite

Followspot Caller: Per Hörding

LDs & Lead Programmers: Ishai Mika & Dom Adams

Lighting Programmers: Leo Stenbeck, Linus Pansell, Isak Gabre along with 1,500 other staff members (full list later in this report)

The following pages include all 37 participating countries with brief information. All photos by Ralph Larmann.



Facts 68th Eurovision Song Contest

- Sweden's 7th win = the most (tied with Ireland).
- ESC is watched by over 200 million television viewers worldwide plus millions more streaming.
- Over 1100 journalists from all over the world
- The Media Center has 800 working stations for press.
- The Media Conference has room for 300 media representatives and 60 photographers.
- This year we have 46 days from load in to load out (April 1-May 16).
- Over 450 2-way-radios
- Over 60 Radio Channels
- 160 Intercom Panels
- 90 Boleros
- Comms provided by Riedel
- 110 WIFI Access points
- 82 network switches
- Over 8.2 Kilometers of signal fiber cables for IT alone
- IT provided by TPO
- Props are changed off/on stage in 50 Seconds.
- First time in Eurovision history, the stage is an „in the round“ design.
- Audience of around 9000 from 92 countries at each of the three broadcasts.
- 210 tons equipment rigged in the ceiling.
- 510 rigging points
- 3,5 Kilometers of truss
- 308 chain hoists, of which 199 are variable speed hoists, setting a Cyberhoist world record.
- All rigging provided by Litecom
- + 2400 lighting fixtures
- 54.000 Pixmob wristbands
- Over 200,000 control parameters
- 708 active DMX universes + 700 universes pixelmapped in Disguise media server
- 19 GrandMA lighting desks, making this the biggest GrandMA system ever made.
- Worlds largest MA show file ever created.
- World premiere of Ayrton Kyalami
- One of the first shows in the world using Martin Mac One lighting fixtures
- One of the first shows in the world using JDC-2 strobes
- Over 1000 square meters of LED in and around the stage
- First show in the world using a Full IP Network in SMPTE 2110 standard for video content.
- Transmitting over 2TB content per second (1B=1000 GB)
- Lighting and video supplied by Creative Technologies.
- 68 speakers
- 56 microphones
- 6 sound desks
- Sound supplied by Creative Technologies
- 42 pyro shooting positions around the stage, 75 flame positions, a 30-meter-wide firework waterfall, every kind of smoke, fog and haze made, and lots of confetti for the winner.
- Pyro provided by Pyroman.
- 26 cameras for the Broadcast, which includes
- 8 Special Cameras supplied by Opertec
- 4 Rail Cams
- 2 Telescopic Cranes
- 2 Aerial systems (2D and Drop cam)
- 7 Wireless Cams (4 Stedicam, 3 Handheld)
- 8 cameras on stand
- 3 PTZ cameras
- 3 Multicamera Directors
- Live Edit system to control the vision mixer frame accurately during the songs.
- It takes 230 people to operate a Eurovision broadcast.
- ESC is the most rehearsed live television broadcast in the world.
- Even the broadcast itself has a recorded backup tape.
- 2 identical twin OB-trucks provided by NEP.

Sustainable Initiatives:

- Use of fossil-free electricity in the Arena, the Media Centre and the Delegation area
- Eurovision App: reduce paper, all info available, instant updates
- Electric cars for show runners, personnel encouraged to walk, bike, train
- Sustainable choices in terms of fixture selection, materials, and technical systems, for example using LED and laser light sources with a much lower power consumption
- Use of HVO which is a low-emission renewable fuel for generators.
- No disposable water bottles or catering dishes
- Almost every detail took sustainability into consideration, right down to recycled glitter!
- It took 17 days and nights to build, but only 96 hours to come down





Equipment (Auszug)

Sound

Main PA

14 L-Acoustics L2
 10 L-Acoustics L2D
 22 L-Acoustics KS-28
 14 L-Acoustics X8
 10 L-Acoustics X12
 6 L2 BUMP
 6 L2 BAR
 8 L2 Rigg bar
 6 SB28 Bump
 14 L-Acoustics X-UL8
 10 L-Acoustics X-UL12
 24 L-Acoustics LA7-16
 12 L-Acoustics LA12-X
 22 L-Acoustics LS-10
 2 L-Acoustics P1
 1 Yamaha QL1
 3 Labgruppen LM44
 6 L-Acoustics SC32-50
 20 L-Acoustics SC32-25
 11 L-Acoustics DO-25
 9 L-Acoustics DO-SUB
 4 L-Acoustics DO-Coupler

Control Sound

2 „Dallas“ Dual playback system with 2 Mac mini and Cubase
 1 „Dallas“ Single playback system for „extra“ soundcheck
 2 Stagetec Avatus
 2 Waves server including computers
 2 Wave plugins: Dugan, Superrack and Waves ultimate bundle
 3 Digico SD7 Quantum Dual Engine/Dual Optocore Waves + Optocore (Main, spare and Soundcheck)
 3 Digico SD-Rack with Optocore, 56ch analogue I/O (Main, spare and Soundcheck)
 3 Direct Out Madi Router (Main, spare and Soundcheck)
 56 ch Klark analog split
 56 ch Radial SW8 analog switch

WL

18 Shure Axient Digital AD4Q
 16 Shure ADX2FD
 30 Shure ADX2
 32 Shure ADX1
 50 Shure and DPA capsules
 50 DPA 4088
 28 Shure PSM1000 P10T
 150 Shure PSM1000 P10R
 150 Shure 535
 Shure and Wycicom combiners and splitters
 3 Direct Out Prodigy MX (Main, spare and Soundcheck)
 Shure and Sennheiser antennas
 36 Sescom AES „Y“

Rigging

210 tonnes of rigged equipment in total
 3500 meters of truss
 360 Meters of 6" Mod Truss
 510 rigging points
 175 Rigging point Cyberhoist 500 kg, 24 m chain, vario speed 0-24 m/min, on prerigg

12 Rigging point Cyberhoist 1000 kg, 24 m chain, vario speed 0-24 m/min, on prerigg
 12 Kinesys 1.25 Thoists
 2 Cyberhoist control system active
 2 Cyberhoist control system back up
 2 Kinesys control system inc back up

Light

8 Arri Skypanel S30-C BLACK, pole operated with barn doors, intensifier, eggcrate
 61 Robe T1 Profile
 52 Robe Forte HCF Engine
 14 Robe T2 Profile
 45 Ayrton Huracan Wash
 376 Ayrton Rivale Profile
 2 Ayrton Eurus-S Profile
 138 Ayrton Kyalami
 40 Astera Hyperion Tube
 32 Astera Titan Tube
 8 BB& S Reflect BI-Color 4 ft 2 bank
 16 BB& S Reflect BI-Color 4 ft 1 bank
 524 Chauvet Colorado PXL Bar 16
 25 Clay Paky Skylos
 396 Clay Paky Tambora Linear 100
 32 Elation Sixbar 1000
 169 Roxx S2 Strobe
 20 GLP JDC1
 25 GLP JDC-2
 36 Martin Mac Aura XIP, with tophat
 287 Martin Mac OneWash
 65 Wahlberg Lifting Columns
 30 Portman S-tribe
 7 Chroma-Q Color Force II 48
 3 Solaris Flare XL 120
 10 Solaris Flare Junior
 2 Follow-Me 3D SIX for 8 operators

Control Lighting & Video

19 MA 3 Desks runnings in networks making it the biggest MA Network in the world
 The largest show file ever created at 1,22 GB
 Console RAM-usage 11,8 GB of 16 GB
 16 PUs
 96 MA-Nodes
 663 Amount of used DMX-Universes
 207 283 Parameters used in total
 261 166 Total amount of patched DMX Channels

Video

340 sqm Backwall LED Screen: Roe BQ4
 186 sqm LED Floor Roe BM4 (Glass Finish)
 460 sqm LED Cubes Roe Vanish V8T
 803 LED Strips Roe Strip 1200mm, with diffuser
 92 LED Strips Roe Strip 900mm, with diffuser
 400 LED Strips Roe Strip 600mm, with diffuser
 76 LED Strips Roe Strip 300mm, with diffuser
 4 LED Processing Backwall MVR Megapixel 8K
 4 LED Processing LED Floor MVR Megapixel 8K
 6 LED Processing LED Cubes MVR Megapixel 8K
 10 Disguise d3 GX3 with Notch Playback Licenses and ST 2110 cards
 4 D3 Designer Dongle
 2 D3 Editor Computer (19" Rackchassi Formfactor)
 First show in the world using ST 2110 for video content distribution. System peaked at 2,1TB per SECOND

Albania
Besa – Titan
eliminated in semifinal 2



Armenia
Ladaniva – Jako
rank 8 – 183 points
(Jury 101 + Audience 82)



Australia
Electric Fields - One Milkali
eliminated in semifinal 1



Austria
Kaleen – We Will Rave
rank 24 – 24 points
(Jury 19 + Audience 5)



Azerbaijan
Fahree feat. Ilkin Dovlatov – Özünü Apar
eliminated in semifinal 1



Belgium
Mustii – Before The Party's Over
eliminated in semifinal 1



Croatia

Baby Lasagna – Rim Tim Tagi Dim

rank 2 – 547 points

(Jury 210 + Audience 337)



Cyprus
Silia Kapsis – Liar
rank 15 – 78 points
(Jury 34 + Audience 44)



Czechia
Aiko – Pedestal
eliminated in semifinal 2



Denmark
Saba – Sand
eliminated in semifinal 2



Estonia

5 Miinust and Puulup - (Nendest) narkootikumidest ei tea me (kül)

rank 20 - 37 points

(Jury 4 + Audience 33)



Finland
Windows95man – No Rule
rank 19 – 38 points
(Jury 7 + Audience 31)



France

Slimane – Mon amour

rank 4 – 445 points

(Jury 218 + Audience 227)



Georgia
Nutsa Buzaladze – Firefighter
rank 21 – 34 points
(Jury 15 + Audience 19)



Germany

Isaak – Always On The Run

rank 12 + 117 points

(Jury 99 + Audience 18)



Greece
Marina Satti – Zari
rank 11 – 126 points
(Jury 41 + Audience 85)



Iceland
Hera Björk – Scared Of Heights
eliminated in semifinal 1



Ireland

Bambie Thug – Doomsday Blue

rank 6 – 278 points

(Jury 142 + Audience 136)



Israel
Eden Golan – Hurricane
rank 5 – 375 points
(Jury 52 + Audience 323)



Italy
Angelina Mango – La noia
rank 7 – 268 points
(Jury 164 + Audience 104)



Latvia
Dons – Hollow
rank 16 – 64 points
(Jury 36 + Audience 28)



special · eurovision song contest 2024

et!

Lithuania
Silvester Belt – Luktelk
Rank 14 – 90 points
(Jury 32 – Audience 58)



Luxembourg
Tali – Fighter
rank 13 – 103 points
(Jury 83 + Audience 20)



Malta
Sarah Bonnici – Loop
eliminated in semifinal 2



Moldova

Natalia Barbu – In The Middle

eliminated in semifinal 1



Netherlands
Joost Klein – Europapa
disqualified

FROM: ME
TO: my parents



Norway

Gåte – Ulvehem

rank 25 – 16 points

(Jury 12 + Audience 4)



Poland
Luna – The Tower
eliminated in semifinal 1

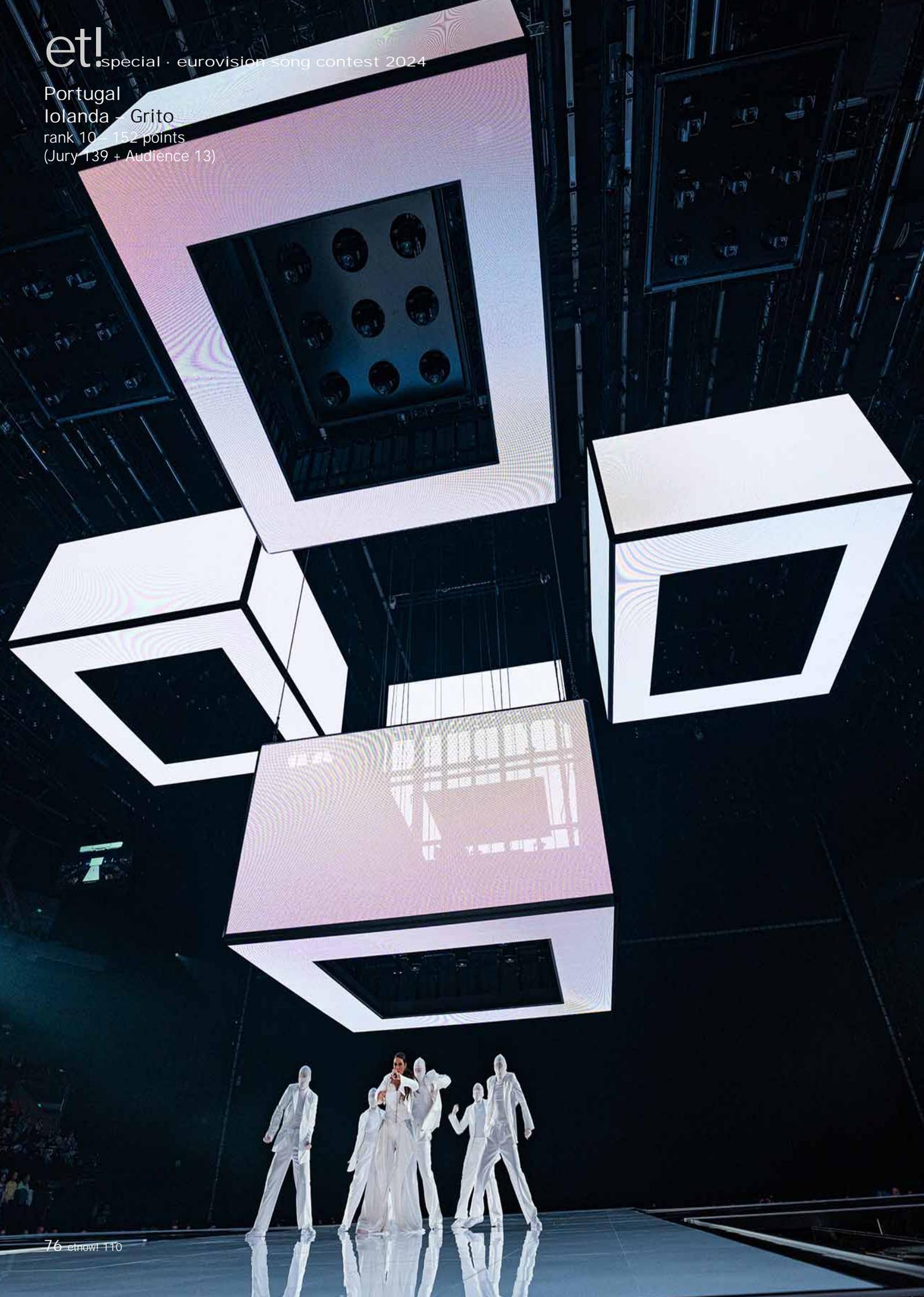


Portugal

Iolanda - Grito

rank 10 - 152 points

(Jury 139 + Audience 13)



San Marino
Megar – 11:11
eliminated in semifinal 2



Serbia
Teya Dora – Ramonda
rank 17 – 54 points
(Jury 22 + Audience 32)



Slovenia
Raiven – Veronika
rank 23 – 27 points
(Jury 15 + Audience 12)



Spain

Nebulosa – Zorra

rank 22 - 30 points

(Jury 19 + Audience 11)



Sweden

Marcus & Martinus – Unforgettable

rank 9 – 174 points

(Jury 125 + Audience 49)



Ukraine

Alyona Alyona & Jerry Heil – Teresa & Maria

rank 3 – 453 points

(Jury 146 + Audience 307)



United Kingdom
Olly Alexander – Dizzy
rank 18 – 46 points
(Jury 46 + Audience 0)



Switzerland

Nemo – The Code

rank 1 – 591 points

(Jury 365 + Audience 226)







D BY MUSIC





CREDITS

Executive Producers: Ebba Adielsson, Christel Tholse Willers Executive in Charge of Production: Tobias Aberg Executive Line Producer: Johan Bernhagen Show Producer: Per Blankens Contest Producer: Christer Björkman, Lotta Furebäck Director and Scriptwriter: Edward Af Sillen Scriptwriter: Daniel Rehn Head of Production: David Wessen Senior Multi Camera Director: Robin Hofwander Multi Camera Directors: Daniel Jelinek, Fredrik Bäcklund Associate Multi Camera Directors: Camilla Sundfeldt, Marta Farkas Senior Vision Mixer: Märk Molnár-Veress Set Designer: Florian Wieder

LIGHT AND SCREEN Senior Technical Director: Ola Melzig Content Designer: Fredrik Stormby Visual Identity Design Director: Sidney Lim Composers: Erik Roland Screen Content Designer and Producer: David Nordstrom Abelli Associate Lighting Designer: Michael Straun Senior Site Manager: Erik Blomdahl Head of Logistics: Annika Zahr Technical Director Broadcast: Pelle Hövde Senior Legal Advisor: Mats Lindgren Executive Assistant: Linnea Lopez

SHOW TEAM Deputy Producer: Linn Aubert Project Manager: David Hjertén Production Manager: Malin Dahlberg End of Show Producer: Anders Lenhoff Creative Directors: Zain Odelstäl, Emilia Sandquist Artist Coordinator: Jones Wetterberg Music Supervisor: Magnus Palmberg Musical arrangement: Emanuel Norrby Archive Researcher: Asa Lundström Costume Designers: Mary Myntti, Sebastian Löidkvist Hosts Stylist: Sebastian Hammarberg VT Coordinator: Michaela Krefre Odell Host Coordinator: Hedvig Lundström Assistant Host Coordinator: Moa Rundberg Styling Coordinator: Ann Aström Backstage Manager: Elin Olofsson Backstage Assistants: Linda Honnér, John-Wilhelm Pahlm, Ellen Särnevång, Sandra Lundin Trainee: Zeinab Taha

DANCERS INTERVAL ACT Kim Pastor, Daniel Gürow Lundkvist, Lisa Arnold, Daniel Koivunen, Liza Stokseth, Kenny Lantz, Lovisa Bengtsson, Lamin Holmen, Marlene Lindahl, Martin Jonsson, Pauline Eddebörn, Martin Wallin Andersson,

CONTEST TEAM Creative & Stage Director: Sacha Jean-Baptiste Stage Director: Martin Kagemark Viewing Room Director: Mattias Carlsson Creative Assistant: Keisha von Arnold Production Manager: Olivia Nyberg Delegation Manager: Carl-Philip Landin Backstage Manager: Christian Nielsen Viewing

Room: Viktor Fabricius, Joel Strömgren Head of Delegation: Manager Helena Brodén

PRODUCTION Deputy Head of Production: Malin Sjögren Production Manager: Victoria Pettersson Art Director Set: Per Arne Janssen Assistant Site Manager: Thomas Kruppenacher, Petter Rimfors Head Rigger: Johannes Schau Senior Floor Manager: Perilla Isedal Senior Floor Manager Show: Henric von Zweigbergk Floor Manager Backstage: Pierre Bredstenslien Greenroom assistant: Monique Rydberg Production Assistant: Joan Lyman Multi Camera Directors' Assistant: Maryana Pasalar Kyadzhu Showcaller: Julia Whittle Stage Manager: Tobbie Berg Assistant Stage Managers: Oskar Osterlie, Henrik Israellsson, Niclas Karisson

PROPS Props Manager: Alexander Ankarberg Props Team: Joakim Ekdahl, Jonas Lundin, Wilhelm Winblad, Carl Olebro, Max Gesar, Martin Brandin

BROADCAST GRAPHICS Project Manager: Mette Nordentoft Senior Technical Designer: Axel Böberg Operator Voting: Lotta Mallander Voting Graphics: Lotta Beving, Olle Soprani, Andreas Jeansson

BROADCAST CREW Steadicams: Tomas Antonsson, Tim Tönnessen, Marco Padoan, Anthony Tarente Crane Operators: Michele Giuntoli, Stefan Skimmerstrand Special Camera Operators: Axel Franzino, Tobias Jansson, Mika Salo, Niklas Östling, Mattias Rismark, Melvin Rismark Special Camera Assistants: Sebastian Jewell, Sebastian Segerstedt, Carl Vestring, Hvard Setsa Jensen Camera Operators: Andreas Hollgren, Sandra Wörding, Julia Öberg, Thomas Öhman, Samuel Weimarck, Pelle Vädel, Jenny Hellman, Anton Andersson, Camilla Nilsson, Rasmus Lindh Focus puller: Stephanie Amundsen, Tom Haudry Vision Engineers: Leonard Gren, Marie Eckerdal, Irene Wiklund, Fredrik Ekendahl EVS-Operators: Lisa Svärdendahl, Carin Holmberg, Jonas Ekberg, Magnus Andersson Prompter Operator: Björn Östlund Camera Assistants: Mike Lundahl, Samuel Garheden, Jonna Kronholm

SOUND CREW Head of Sound: Oskar Johansson Senior Sound Designer: Fredrik Stalne Sound Designers: Jonas Sjöberg, Christian Wetterlin, Ebbe Ravn Audio FOH: Mattias Winther, Pontus Svensson PA System Design: Magnus Johansson Audio Monitor: Martin Brånge, Mattias Gustavsson Audio Playback: Peter Degerfeldt, Frederick Norén Sound Engineers: Kenneth Back, Jack Helmer, Jon Norberg, Jesper Gunge, Carl Bergendahl, Kristoffer Svedberg, Abraham Kourieh Liason: Matti-





as Pousette In Ear Monitor: Robin Snarberg, Jessica Jönsson, Joel Chew, Fanny Ljungblom Wireless Coordinator: Dallas Dahl Adaptive Sound Control: Adam Beistam Sound Supplier: Fredrik Kjelin PA-Rigger: Christoffer Gustavsson, Sören Nissen

LIGHT AND VIDEO DESIGN Head of Video: Hans Cromheecke Associate Lighting Designer Viewing Room: Louisa Smurthwaite LX Director/Lead Programmer FX: Ishai Mika LX Director/Lead Programmer Key: Dom Adams LX Programmers: Isak Gabre, Linus Pansell, Leo Stenbeck Followspot Caller: Per Hörding Line and Screen Content Producer: Veronica Skogberg Associate Screen Content Producer: Leah Younesi Screens Director and Lead Video Programmer: Joe Lott Video Programmer: Glen Leyser On Site Motion Designers: Nils Westfelt, David Carvajal, Erik Hjärkéus, Olivia Ramviken Motion Designers: Viktor Rundlöf, Andreas Strömquist, Bill Magnussen, André Schultzberg, Content Supervisor Kelly Fin, Assistant Adelina Theorell

LIGHT Key Account Manager: Johan Ekblad On Site Managers: Victor Westerdahl, Emil Hoimark Master Draftsman: Peter Pihlblad System Engineer: Michael Havdrup Nielsen Assistant System Engineer: Tue Knudsen Follow spot system tech: Tim Smith, Ramon Rijdsdijk Crew Chief Night: Pontus Rydebjörk Lighting Technicians: Pontus Thorén, Rikard Broman, Erik Arvidsson, Patrik Svensson, Niels Marcussen, Per Ståhl, Jens Brixtofte, Magnus Thornquist, Marc Wilson, Liisa Ruohonen, Rasmus Nylander Regild, Henri Sareskivi, Mattias Hedberg, Petter Anderson, John Edeborg, Johan Hedin, Elof Bergqvist, Oskari Nykänen, Tobias Lindgren, Mikko Kangasniemi, Lasse Reinhardt Hansen, Robin Johansson, Mikkel Martins Pedersen, Magnus Hoff Logistics Manager: Aleksander Karlsson

LASER Creative Director: Johan Lindell Senior Programmer: Love Karlsson Laser tech: Henrik Hoffman

LED WRISTBAND Operator: Eduardo Martin Bartrina Pixel Manager: Rahel Feidier

VIDEO Key Account Manager: Niclas Ljung On site Manager: Karl Wigenius Assisting On site Manager: Lars Mossberg Media Server Specialists: Rune Rattling, Magnus Lewren, Fredrik Austrin LED Tech Lead: Ulf Nilsson LED Tech: Carl-Henrik Aleman Topi Rinne, Tilda Stenholm, Viktor Skoglund, Nora Walfridson, Wilmer Käöntä, Markus Tolin, Tilda Berghäll, Jonny Rosvall, Daniel Westblom, Niclas Harne-



randt, Misse Andersson, Hannes Lindström IP Specialists: Gustav Rahmquist, Sam Hatcher, Tom Copus Switcher Imag: Vilgot Dahl Followspot Operators: Fredrik Hill, Kevin Moorhouse, Pontus Rydén, Victor Svensson, Andreas Pedersen, Marie Stiernfeldt Trainees: Saga Würtz, Samuel Garheden

PYROTECHNICS & SPECIAL EFFECTS Pyrodesigner: Markku Aalto Pyrotechnicians: Jaska Erkinheimo, Teemu Koivistoinen, Markus Reijonen, Ari Kivelä, Kimmo Kari

RIGGING & AUTOMATION Account & Project Manager: Girls Putelis Head Riggers: Johannes Schau, Malte Jäger Head Rigger Assistant Night: Stanislaw Kusik On Site Manager: Antti Sairanen Head of Logistics Operations: Jacob Moller Crew Chief: Ervins Zgriskis Production Assistants: Pontus Andersson, Rasmus Bremer Sorensen Loadcell Technician: Florian Mett Climbing Riggers: Kay-Peter Gaafke, Andreis Voroncovs, Max Richter, Martin Rumier, Patrick Weßler, Jakub Dolezel, Jonas Bohnenberg, Dominik Hubl, Nikolaj Lambrich, Adam Hubl, Jens Böhmer, Petr Weis, Indulis Sverns, Radovan Amrich, Kaspar Biezais, Robert Vrbjar, Elvis Veverbrants, Florian Pelka Ground Riggers: Sebastian Babic, Agnis Kalnins, Christian Schenk, Miroslav Kusik, Alberts Aditajs, Roman Jakupovs, Jurgis Kalnins, Arvids Millers, Janis Balcuns, Martins Alik, Gundars Bricka, Thomas Jädicke, Didzis Vidins Automation Coordinator: John McDonough Cyberhoist Operators: Mathias Sonntag, Nataliia Beidii, Paul Hoffman, Coen Janssens Automation System Technicians: Ervins Zgriskis, Maik Grimm, Dick Gamrad, Eriks Aizpurvs, Arturs Feldmanis Automation Service Riggers: Maris Skrejans, Nauris Skadins, Florian Reinsch, Matthias Waldowski

LED CUBE CONSTRUCTION Project Managers: Jocke Lantz, David Brunander Technicians: Joakim Edelöf, Johan Pettersson

SCAFFOLDINGS Onsite Manager: Robert Roos Project Manager: Jan Pones Stage Tech Project Manager: Bo Teichert

SVT STUDIO & SET CONSTRUCTION Project Managers Set & Stage: Fredrik Cronsten, Christer Adolffsson Set & Stage Manager: Joakim Zaar 3D & CAD: Fredrik Johansson Supervisor on site installs: Håkan Rubin On site Set design carpenters: Magnus Carlsson, Joel Olsson, Leo Karlsson, Thomas Granwald, Pontus Stövander, Johan Fäldt, Mia Allansson, Peder Akerman Carpenters: Susanna Lundin, William Nilsson, Jens Enocson, Pelle Rydstern, Björn Persson, Daniel Holmlander, Wel-





ding Technicians, Anders Carlsson, Anders Bäckman, Per Walmerdahl CNC/CAD: Carl Simon Sahlin, Andreas Eriksson, Karl Tehler Painter: Elias Báth

BROADCAST FACILITIES Broadcast Project Managers: Axel Engström, Einar Widegren Technical Manager: Emil Gustafsson Engineers: Dennis den Hartog, Marcus Andersson, Alexandra Nilsson, Johan Ruthström Eurovision Services Engineer: Mattias Thorsén TOC Engineers: Rasmus Heien, Markela Deverikou Audio Guarantee: Mats Bengtsson, Daaf van Voorden, Johan Svensk EVS Guarantee: Jordi Floor RF Technicians: Tony Valentino, Simon Burley, Stijn Veeke Senior Broadcast Rigger: Anders Olsson Broadcast Riggers: Adam Karlsson, Daniel Saajakari, Henrik Conradi, Erik van Hooidonk, Khan Blomstrand, Isabel Rhea Eriksson, Ellen Beckmann, Lukas Rise Thomsen, Johan Roslund, Otto Sandstig

SPECIAL CAMERAS Project Manager: Elena Miloradova Supervisor: Oleksandr Parfeniuk 2D Cable Cam System Pilot: Serhii Sadovnikov Drop Cam System Pilot: Oleksandr Yushenko 2D Cable Cam Support Technician: Serhii Bilyi Support Technicians: Volodymyr Ignatenko, Vitalii Kruchak, Dmytro Muzyka, Oleksii Yaroshenko, Roman Andriichuk, Anton Zavalnyi Rigging Technicians: Vitalii Voloshyn, Dmytro Kalchuk, Yurii Artiukh, Taras Nedilnytskyi, Yurii Dereza, Stefan Matic 2D Cable Cam System Rigger: Oleksandr Oliynyk

AUTOMATIC CAMERA SCRIPTING CEO: Julian Gutierrez Senior Developer: Maxime Arretche EO: Kayenne Kalypso Lead Developer: Vivien Anglesio Marketing: Quantin Lamande

SIGNAL DISTRIBUTION AND INTERCOM Senior Project Manager Riedel: Yung-Min Lee Head Intercom/MN/Commentary: Larsen Rösicke Program Manager: Thurid Wagenknecht Radio Engineers: Torsten Begemann, Yosef Wake RDR Support: Bastian Kuhnhen, Emmanuel Ita Intercom Engineer: Thies Schwichtenberg Intercom Assistant: Rafael Piazzi Signal Distribution Engineer: Maurice Bolewski Commentary Manager: Siro Allegria Commentary Engineers: Christina Reher, Nico Hartmann, Balazs Kiss Commentary Support: Paula Ernst, Anastasija Bukilic, Jan-Martin Schlotterbeck, Christoph Klüver, Youssef Jemmad Executive Team: Thomas Riedel, Serkan Güner Cable Crew: Manager Matthias Wendelin, Mohammad Naacent, Kaan Emin Senoglu, Pierre Fegyvernekci

IT INFRASTRUCTURE AND SERVICES Key Account: lenny Rannemo Project Manager: Oskar Andersson Production Manager: Omid Yousefi System

Engineers: Joel Westerlund, Rickard Holm, Anton Hultberg IT Technicians: Pontus Hjalmarsson, Per Hejje, Sebastian Melzig, Kent Ternrud, Fredian Hagsjö, Mikael Andersson Contribution: Kristofer Magnusson, Joacim Sandström, Claes Nyström, Lars Thörnquist, Jonathan Thörnquist, Bas Giskes Power Team: Arno Vack, Rob Van Herk, Wouter Van Haute, Mark Rennocks, Jeroen Neekakens, Mitch Knight

LOGISTICS Project Manager Media & Delegation: Area Robert Kandell Facility Manager: Maria Boklund Safety representative: Terje Gudbrandsen International Media Service: Karin Nilsson Production Manager: Asa Wiberg Travel & Accommodation: Marit Kronholm Commentator Service: Ivor Lyttle Backstage Tour Manager: Beatrice Söderman Production Assistant: Rebecca Bromberg Runners: Karl Karlberg, Oscar Säfström Mood Manager: Sylwia Jaworska Mood Manager Team: Sara Bohlin, Monika Jaworska, Jenny Lindeborg, Linda Ekström, Helena Assarsson Accreditation Manager: Hanna Wollinger Assistant Accreditation Manager: Emma Bergström Accreditation Assistant: Malin Peck Hospitality: Frida Riklund

COMMUNICATION AND EVENT Head of Communications: Madeleine Sinding Larsen Head of Media Centre: Åsa Paues Assistant Head of Media Centre: Lisa Nilsson Corporate Communications: Camilla Hagert, Victoria Nordansjö Online Media Centre: Joakim Löfberg Moderator: Jovan Radomir Public Relations: Lili Assefa, Jonna Friberg Wennerberg Head of Marketing: Hanna Wilenius Marketing Coordinators: Antonia Conradsson, Stina Björk, Hala G Asfar Head of Engagement: Thomas Strindberg Engagement Team: Peppe Andersson, Elina Cederfeldt Vahine Official Program Project Manager: Caroline Castoriano Gade Official Program Layout: Ida Hallman Monroy Head of City Event: Urika Midunge

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dra Brenkman, Lyndsey Clark, Christina Joyce, Claire Rainford, Jo Waters IT: Amy Wong

Host & Producer: Steve Holden Filmmaker: Lucy Gallford Digital Host: Rylan Clark, Tia Kofi, Elektra

ESC DIGITAL TEAM Head of Content: Rob Holley Senior Producers: Ángela Espejo, Chris Fox, Olly Newport Production Coordinators: Johanna Person, Darren Struwig Content Team: Alejandro Navarro Bustamante, Cam Robertson, Heidi Stephens, Josefine Möllerberg, Karl Batterbee, Katie Dancey-Downs, Luke Fisher, Mikey Nissenbaum, Nick Robertson, Rémi Gautrelet, Romana Kreider, Roos Jobse Podcast

EBU CORE TEAM Event & Security Manager: Andreas Schmitz-Mensger Delegations and Event Coordinator: Michael Lowther Brand Manager: Lina Moussaoui Legal Adviser: Laetitia Gonnet Project Manager: Karen Simha Project Manager (Finance): Stephanie Cafilisch Project Manager: Gert Kark ESC Executive Supervisor: Martin Osterdahl







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VDMV



The Pension Fund of the German Media and Event Industry - abbreviated as VDMV - turns 25, marking the occasion to reflect on the history of this specialized insurer originally established for members of VPLT. Managing Director Frank Preuss provides insight.



No one wants them, yet everyone has them... I'm referring, of course, to insurance. The expressed reluctance towards insurance isn't limited to personal matters; it's equally prevalent in the business world. The events industry certainly doesn't exempt itself from this sentiment.

This isn't new and was already the case in the 90s, especially within the events industry, for a very particular reason. As event productions became more elaborate, shows more spectacular, and the technology used increasingly impressive, alongside the emergence of entirely new professions, the insurance industry remained largely uninterested, stubbornly ignoring this potential customer base. Whether it was due to not seeing an attractive market for industry-specific concepts or simply not having a clue how to calculate premiums for liability insurance for riggers remains the secret of various insurance companies.

However, during that time, there were already specialized offers from industry-affine insurance brokers in places like Munich and Berlin. This exclusive circle of providers of insurance services was then completed in 1999 by the establishment of the Pension Fund of the German Media and Event Industry GmbH (VDMV).

Interestingly, its founding - although hard to believe looking back on 25 years of company history - was more or less coincidental. The initial impetus for its establishment was a change in social security law that came into effect on January 1, 1999. This was the „Law on Corrections in Social Security and to Secure Employee

Rights“, better known by the term „deemed self-employment“.

Naturally, this law affected not only the events industry but especially so. After all, the typical status of an employee in event production was that of a freelancer - or self-employed. This status was now under significant threat; serious consequences, including criminal penalties, loomed for employers.

As a later founder and long-time managing director of the Pension Fund, I recognized even then in my role as advisor to several industry associations that the law provided transitional regulations allowing many freelancers to exempt themselves from mandatory pension insurance.

At the time, the associations' wish was to have an instrument for this part of their membership that could organize and ultimately succeed in these „steps to exemption“. Together with Florian von Hofen, then managing director of VPLT, the Pension Fund VDMV was founded, successfully fulfilling the aforementioned task. Around 1500 freelancers at that time achieved exemption from statutory pension insurance with the help of VDMV.

During this time, the Pension Fund established itself as a provider of retirement benefits, not just through expertise but also by negotiating special conditions with insurers tied to association memberships, including significant discounts. Today, retirement benefits, particularly occupational pension schemes, remain a crucial aspect of our business, among others.





An anniversary...



...made to measure

Already in 1999, the development of our own insurance concepts began, initially accessible only to members of associations cooperating with VDMV. This requirement of association membership for VDMV services has long since been relaxed, with a few exceptions where associations have exclusive agreements for their members with VDMV.

Today, VDMV, along with about a dozen colleagues in Hannover and Tübingen, caters to all industry-specific insurance needs. This includes, in addition to retirement benefits, liability insurance for all risks, equipment insurance, event cancellation insurance, and more. Special conditions are also offered for private insurance needs. Successfully implementing all this requires not only expertise in insurance products and their legal foundations but also a deep understanding of the specific requirements of the events industry, which has its own culture and language.

Currently, VDMV manages approximately 5500 mandates, comprising self-employed individual entrepreneurs (SEUs) as well as larger companies in rentals, agencies, specialist planners, pyrotechnics, studios, organizers, and more. For SEUs, VDMV has developed several unique brands that offer distinctive insurance packages, including the „Crew Card“ (in three variants), „ISDV Business Care“, and „DJ Card“.

Notably, VDMV acquires clients exclusively through recommendations; typical acquisition practices in the insurance industry do not apply. Contacts with potential clients are primarily made at relevant trade shows

such as Prolight + Sound in Frankfurt, BOE in Dortmund, Leatcon in Hamburg, or Future Of Festivals in Berlin.

The fact that during the COVID-19 crisis various events of the aforementioned kind did not take place, and the entire public event sector could not operate, naturally had multiple repercussions for VDMV - both positive and negative. On the one hand, new contacts couldn't be established, and some existing clients faced insolvency due to lack of business. On the other hand, many clients shifted to other professions, including outside the events industry, necessitating the development of specialized concepts for new occupations. Despite these challenges, revenue losses were kept minimal, and we are in a strong position.

VDMV is certainly not a „one-man show“. On the contrary, women outnumber men in our current core team, which includes Naomi Schilling, Kristin Heike, Katharina Peter, Heidrun Preuß, Andrea Schwarz, Lea Pelka, and Angela Brüne.

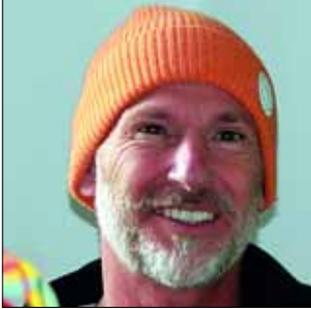
Today, VDMV is experiencing exponential growth, driven in part by the recovery of the events industry as a whole. New ventures in this sector and significant revenue growth among long-standing clients contribute positively to our expansion. Remarkable customer loyalty also provides reason for optimism regarding future competitive opportunities, as rare client defections indicate a strong sense of satisfaction and trust - thanks to our „feel-good factor“. We're ready for the next 25 years!





Rainer Brandstätter

AV Stumpfl reports that **Rainer Brandstätter**, an experienced AV professional, has returned to the company in a newly created position as Product Partnership Manager. Brandstätter studied media technology at the University of Applied Sciences in St. Pölten and originally joined AV Stumpfl as a support technician in 2015. He was later promoted to project manager and trainer.



Werner Buss

For 28 years, **Werner Buss** was the creative mind, heart, and soul of the GOP Entertainment Group - Europe's largest variety show company with 1,000 employees. Since February 2024, he has been contributing his extensive knowledge and long-standing experience as a member of the management board and artistic director to the **Tollwood Festival**. Werner Buss is now working closely with Rita Rottenwallner.



Johan de Nysschen

At the end of March 2024, **Johan de Nysschen** took over as President and CEO of **Arri Americas Inc.** In this position, he is responsible for the entire region, including all functional areas, Arri Rental North America, and Illumination Dynamics. Throughout his career, he has successfully led several transformation processes with international teams.



Stefica Divkovic

Encore has appointed **Stefica Divkovic** as Managing Director for Europe, the Middle East, and Africa (EMEA). In her new role, Divkovic will develop and implement Encore's strategic plan for the EMEA region. Previously, Divkovic was Senior Vice President EMEA at Everbridge, led the DACH and EMEA business of Verizon, and held leadership positions at companies like T-Systems.



Benjamin Göldner

The **Liftket Group** announces the appointment of **Benjamin Göldner** as Vice President Stage, effective March 1, 2024. This strategically important position within the group has been created to strengthen growth and market positioning in the „Stage“ business segment. Göldner started as purchasing manager at Liftket in 2017 and took over the management of Chainmaster in 2021.



Jochen Gotzen

dB Technologies Deutschland continues its strategic realignment and has appointed **Jochen Gotzen** as Technical Director. After more than ten years as a product manager and application engineer at dBTechnologies, Gotzen takes on his new role with a clear vision. As Technical Director, he will provide intensive support to customers in the use of dBTechnologies audio systems.

Jürgen Mehning

Steinigke Showtechnik has appointed its long-time administrative manager **Jürgen Mehning** as authorized signatory. At the official appointment, Managing Director Matthias Schwab emphasized the reliability and long-standing, trusting collaboration and looked forward to future joint tasks. Mehning expressed his confidence: „I thank you for the great trust.“



Yasmine Riechers

Yasmine Riechers will become the new CEO of **Georg Neumann**, a subsidiary of the Sennheiser Group. In her new role, she will replace Ralf Oehl and take on the task of expanding the global business and advancing the strategic direction of the company. Previously, she led the Corporate Development Office as part of the Extended Executive Management Board.



Frank Stampa

Innovaze welcomes **Frank Stampa** as Director of Innovation. Stampa brings a solid academic foundation and a professional career marked by significant positions, including a key role in a management consulting firm. He also has extensive international experience in the software industry, particularly in social media.



Melanie Stegemann

Melanie Stegemann is the new Vice President of Brand and Corporate Communications for the d&b Group. Before joining, Stegemann held various leadership positions at the Zumtobel Group for nine years - most recently as Head of Brand Marketing. She also served as Head of PR for Zumtobel and previously as PR & Marketing Manager for the Metro Group.



Joe Wilkins

Effective immediately, Joe Wilkins is the new Managing Director of Optoma EMEA. He succeeds Thierry Millet, who is retiring after a 21-year career at Optoma. Wilkins will be responsible for strategic development and revenue growth in both the B2B and B2C sectors and will lead and further develop Optoma EMEA. Joe Wilkins has been with Optoma since 2006.



Reiner Würdig

Reiner Würdig is the new General Manager of **Chainmaster**. In his new role, Würdig will lead the nearly 30-member team at the Eilenburg location and bring his extensive experience in sales and leadership know-how. Before joining Chainmaster, he successfully led teams in various industries.



Layher awarded as Top Innovator



Making scaffolding construction simpler, faster, and safer through innovations is a central focus for the system scaffolding specialist Layher.

This pertains to products, solutions, and services as well as the targeted development of processes. For this holistic approach, Layher has now been awarded the Top 100 Seal 2024 – an accolade for exceptional innovative strength and above-average innovation

successes. The award was accepted by the managing directors (from left): Tobias Dürmeier, Wolf Christian Behrbohm, and Stefan Stöcklein.

Ioan Allen receives medal in Cannes



Ioan Allen, Senior Vice President at Dolby, was honored with a medal at the 77th edition of the Festival de Cannes. Allen, who joined Dolby in 1969 and worked closely with the company's founder Ray Dolby, received the medal in recognition of Dolby's technical investments and expertise in the film industry over 50 years. He is especially known for the development of the Dolby Stereo film program. He has received five awards from the Academy of Motion Picture Arts and Sciences, including an Oscar. This honor follows an award and honorary medal given to Ray Dolby by the festival two decades ago, which is displayed in Dolby's office.

Messe Dornbirn wins gold at AEE



The special exhibition „The Forest Calls!“ at the Dornbirn Autumn Fair 2023 won gold in the Exhibition Events category at the 27th Austrian Event Award on April 16 in Linz.

This success is the result of excellent collaboration between Messe Dornbirn, the advertising agency IRR, the Chamber of Commerce, and the state of Vorarlberg.

The project manager of the autumn fair, Marion Schneider, accepted the trophy together with Ulrike Rohrer from the advertising agency IRR.

The success is the result of the collaboration of many participants.

Ralph Larmann
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Best managed company 2024

Audio specialist Sennheiser has been recognized as one of Germany's best-managed companies.

The Sennheiser Group has received the „Best Managed Company“ award for 2024. This award is presented by Deloitte Private, UBS, the Frankfurter Allgemeine Zeitung, and the Federation of German Industries to excellently managed companies. For Sennheiser, the award is not only a confirmation of their growth strategy and innovative strength but also an appreciation of their corporate culture.

„We are very pleased with the recognition as a Best Managed Company. We aim to shape the future of the audio world. To successfully pursue this goal, a clear strategy, investments in the future, and bold decisions are necessary. This is what we understand by responsible corporate management“, says Co-CEO Andreas Sennheiser. One of the major strategic decisions in recent years was the focus on the professional audio business, which involved moving away from the consumer electronics business. This decision enabled the family-owned company to further strengthen its strong position in the professional audio market.

„As an independent family business, we want to grow sustainably through our own efforts. To achieve this, we invest in our core competencies based on our strategy, thus investing in the future. Of course, we act prudently and plan long-term“, adds Co-CEO Daniel Sennheiser. Research and development have been among the company's most important investment areas for years. Strengthening their supply chain to remain as independent as possible from global supply chains, advancing digitization, and exploring new business fields are central themes of their investment strategy.

Evaluation in four areas

The „Best Managed Company“ award, presented by Deloitte Private, UBS, the Frankfurter Allge-

meine Zeitung, and the Federation of German Industries, recognizes excellently managed companies. Companies are evaluated in the four areas of strategy, productivity and innovation, culture and commitment, and finance and governance. Sennheiser's unique corporate culture also plays a significant role here. „We are very grateful for the great team we get to work with at Sennheiser every day; a globally positioned team in which everyone gives their all every day to create unique sound experiences for our customers“, explains Co-CEO Daniel Sennheiser. His brother Andreas Sennheiser adds, „All the products and services we offer our customers are based on the knowledge, experience, and passion of our employees. Therefore, it is important to preserve our unique corporate culture and to constantly question what we know, what we do, what we can do, and what new skills we need to acquire as a team“.

The award winners serve as role models for other companies to shape the future with strategic foresight, innovative strength, a sustainable management culture, and good corporate governance. „Sennheiser and the other award-winning companies form a strong foundation for our economy. They are doers, innovation leaders, and rely on sustainable corporate management. These companies look far into the future and do not just think from quarter to quarter. That is exactly why they have earned their award as Best Managed Company“, says Markus Seiz, Director at Deloitte Private and Head of the Best Managed Companies program. With this award, Sennheiser is now part of a network of best-managed mid-sized companies in more than 45 countries. The award ceremony took place on May 23 in Frankfurt.

A side note: The photo of Andreas and Daniel Sennheiser was taken by none other than Bryan Adams – THE Bryan Adams, who is currently on a major tour and does not allow photographers at his concerts, which is why a report in this issue is unfortunately missing – although it was definitely worth seeing and hearing.

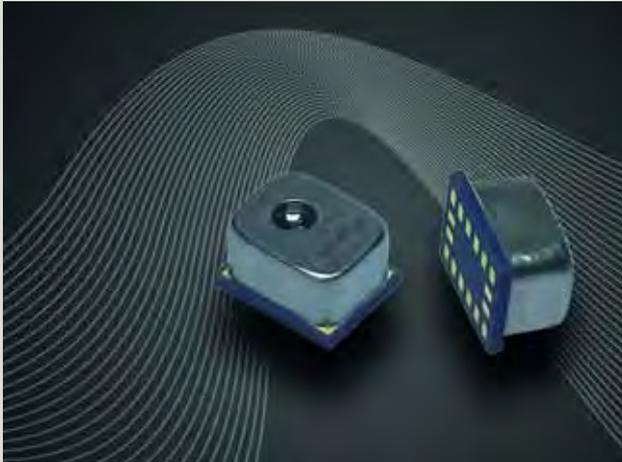


Tascam

MA-BT240

Tascam introduces the MA-BT240, a multifunctional mixer amplifier from its new Compact Commercial Series. The device is designed for background music, presentations, and announcements in commercial environments and offers a variety of features tailored for use in retail stores, restaurants, cafes, offices, educational institutions, and similar settings. With its compact half-rack format, the MA-BT240 can be placed on a table or shelf or mounted in a rack using an optional bracket. It delivers 240 watts of amplification for operating high-impedance 70 V or 100 V speaker lines in distributed sound systems and can also be used with 4- or 8-ohm speakers (2 x 120 watts, selectable between mono and stereo). Audio sources can be connected via a microphone/line input with switchable connections on the front and rear (the latter supports paging), a stereo line input via RCA jacks, and wirelessly via Bluetooth. The microphone has a ducking function that automatically lowers the background music during announcements. Separate level controls allow easy mixing of the levels of the individual

sources. Thanks to the built-in Bluetooth receiver, it is easy to supply the amplifier with background music and other sources. The Bluetooth antenna can be extended with a cable to position it optimally for the best signal reception.



Sennheiser

MEMS-Mikrofone

Sennheiser, along with other investors, is investing around seven million euros in the Norwegian scale-up company Sensibel. The company is developing optical MEMS microphones that offer excellent sound quality despite their miniature size. These mini microphones enable a completely new sound experience in applications such as consumer electronics, the automotive industry, medical technology, and conferencing solutions. Sensibel has set a milestone in the field of MEMS microphones with the development of the optical miniature microphone. The unique aspect of the technology is the use of light waves to measure the movement of the membrane. In traditional MEMS microphones, this is done by measuring an electric field between the movable membrane and a backplate. In Sensibel's optical system, however, a laser generates light beams that are projected onto the microphone membrane and reflected onto a photodetector. The reflected beams are captured and evaluated in an application-specific integrated circuit (ASIC) with a digital output data interface.

HK Audio

Contour X CX 210 LT

With the extensively and practically equipped point-source speaker series Contour X and the flexible Cosmo Line Array, HK Audio's Concert Sound product family covers a wide range of scenarios for professional event productions and demanding permanent installations. The newly developed passive point-source speaker Contour X 210 LT meets all requirements in terms of workmanship, sound quality, and sound pressure. It complements the Contour X series with a flexible and particularly powerful sound tool for rugged daily use on live stages and in long-lasting permanent installations. With it, horizontal arrays can be easily set up, allowing larger events to be sound-reinforced without much effort, cost-effectively, and powerfully. The large 60 x 25 degree horn is rotatable for cluster operation. With the powerful 1.4" driver with a 3" voice coil and the MCT (Multicell Transformer) developed by HK Audio, it offers precise dispersion and uniform and defined coverage of the sound area. The 210 stands for the two 10" mid/high-frequency drivers that form the foundation.



Monacor

PA-4125DX

PA-4125DX is the model designation of the latest multifunctional amplifier with additional features from Monacor powered by Pascal. With an amplifier power of either 4 x 125 W at 4 or 8 ohms or 2 x 250 W for 100-volt components, the PA-4125DX provides sufficient power for background music. The internal DSP module of the amplifier offers parametric equalizers, various high/low pass filters, compressor/limiter functions as well as delay and talk-over options, and separate FIR filters for the output signals and a 5-band equalizer for each input. The numerous intervention options at different points in the signal flow can be comfortably operated using a graphical HTML5 interface. The amplifier can be connected to any device (PC, Mac, IOS, Android, etc.) via LAN or WLAN. Settings can be saved and retrieved in libraries. A test signal generator with a tunable sine wave or noise with adjustable limit filters is also available. The rear connection panel includes four analog inputs and four zone outputs.

A small, affordable marvel

Optimic is a young company from Hamburg that has developed a product of the same name for fully automatic optimization of speaker microphones.



An integrated AI cleans up the speech signal. Background noise and room reverb can be continuously reduced. This happens in real-time and requires no individual calibration. The Optimic automatically adjusts the preamplification depending on the level of the incoming signal within an adjustable range. Additionally, it features an adaptive EQ that optimizes speech intelligibility. An intelligent speech recognition ensures that both functions react only to speech and not to noise. To prevent feedback, the Optimic offers a simple calibration routine where the connected microphone is automatically tested. For continuous protection during operation, there is active feedback suppression on up to six frequencies.

An adjustable hardware gain allows the use of all types of microphones, and uncompressed recordings can be started with the

push of a button via the front USB port. Various parameters can be individually adjusted and saved as presets using a computer user interface via Ethernet.

Behind Optimic are the two Hamburg residents Markus Vieweg (left) and Dominik Schäfer, who are themselves musicians, speakers, and sound technicians. „That’s why we are very familiar with the often challenging sound conditions at different performance venues. This is how the idea came about to develop a device that truly enables everyone to achieve optimized sound - simple, technically sophisticated, and at an affordable price“, says Markus Vieweg.

www.optimic.de

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Xone 92: Return of a legend

Allen & Heath is celebrating the 20th anniversary of the analog DJ mixer by launching a limited edition - a blend of classic design and modern features.

„Since its launch in 2004, the Xone 92 has established itself as the ultimate analog DJ mixer and has been a staple in DJ setups at trendy clubs and on the tech riders of top DJs worldwide“, says Al Crombie, Allen & Heath DJ Product Specialist. „To celebrate this milestone, the Xone team wanted to do something special: we took the classic design and added small extras for Xone 92 fans, analog enthusiasts, and vinyl lovers.“

Limited to only 920 units, the Limited Edition pays homage to the first series of mixers in the silver retro layout, reminiscent of the popular color scheme from the early 2000s. The design team carefully compared the Limited Edition's color with one of the first Xone 92 units to match the original hue perfectly.

Under the hood, a revised RIAA preamp with a new circuit design specifically tailored for electronic music ensures the highest fidelity in vinyl playback. Additionally, the original filter circuit has been refined for more control while maintaining the legendary sound character. Recessed filter

and XFade switches, along with the integration of a custom Innofader Pro, provide an enhanced mixing experience. The package includes an exclusive art print by The Worxlab, naturally in 12-inch format and printed on durable premium paper, numbered with the mixer's serial number, and hand-signed by the artist and founder of DJ-Worx and Skratchworx, Mark Settle.

On the back of each Xone 92 LE mixer, there is a specially designed plate with the individual and sequential serial number engraved. Also included are a matching engraved dog tag-style keychain with the mixer's serial number and a signed and hand-numbered certificate of authenticity for the 12-inch art print.

„The Xone 92 Limited Edition is more than just a tribute to a classic mixer“, says Al Crombie. „It's a homage to the passion and creativity of the DJs who have walked the same path with us and ensured that the Xone 92 has stood at the forefront of analog mixing for the past two decades and hopefully will continue to do so in the future.“



Riedel

RiCapture i8 / i44 / i84

Riedel has introduced significant expansions to its RiCapture ingest solutions with RiCapture i8, i44, and i84. These additions complement the RiCapture i4, offering higher channel density and/or UHD resolution, 8- and 10-bit support, larger internal SSD storage, and a range of advanced functionalities for the RiCapture platform. With the new SSE software for scheduling, streaming, and exporting, the RiCapture product line now provides a powerful and compact solution for multi-channel HD/UHD ingest recordings and integration into post-production. The SSE application allows flexible configurations where users can choose between high-resolution DNXHD/R, H.264, or a combination of both, and includes features for audio mapping and downmix audio monitoring. RiCapture offers maximum flexibility to transfer recorded media locally, on removable media, network-attached storage, or live streaming targets. Through SSE, the system can be expanded to a network with multiple servers for higher recording density and an unlimited number of targets. The i4 and i8 offer

four or eight HDR input channels, while the i44 and i84 feature four UHD channels with HDR capability. On the audio side, all RiCapture products provide 16 embedded audio channels per channel and 64 Dante or AES67 channels.



Direct Out

MADI4 SRC.IO und IO

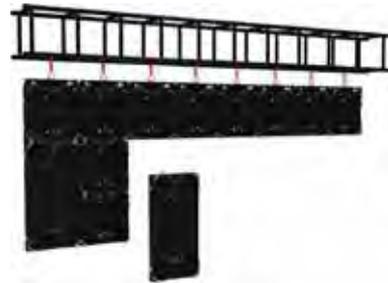
Direct Out, a German manufacturer of audio solutions for broadcast, studio, live, and installation applications, announces the availability of MADI4.SRC.IO and MADI4.IO, two new modules for the Prodigy MX system. These modules are designed to extend the audio processing and connectivity capabilities of the hardware platform. The upgrade enhances the platform's functionality with a range of new features that can be utilized with the „Advanced“ and „Unlimited“ system licenses. These include a 64x64 matrix mixer (Mat Mix), 64 flex channels with 64 IIR filters, 64 dynamics and delay plugins, and 64 input managers and EARS for all input channels, providing the system with redundancy and fault tolerance. Numerous control and monitoring protocols enhance the operational and integration convenience of the platform. These enhancements enable cost-optimized solutions as all functions can be purchased as individual software plugins or in combination as part of plugin bundles, called system licenses.

Leyard Europe

LN Serie

The new Leyard LN LED displays are designed to meet the high demands for robust and flexible content presentation at trade shows, concerts, conferences, sporting events, and other commercial activities. They deliver high-quality visual effects and information for any temporary event or occasion. The flexible LED displays of the Leyard LN Series are characterized by user-friendly design, easy maintenance, quick installation, modularity, and lightweight. The LN Series offers various sizes, shapes, and resolutions for indoor and outdoor applications. The indoor models are available in 1.9 mm, 2.6 mm, 2.9 mm, and 3.9 mm, while the outdoor panels are available in 2.9 mm and 3.9 mm. Additionally, there are two cabinets with dimensions of 500 x 500 mm and 500 x 1000 mm. Cris Tanghe, VP Product at Leyard Europe, explains, „Our new Leyard LN displays offer a wide viewing angle of 160° horizontal and 140° vertical, ensuring clear visibility of content from various angles and distances. We have also focused on energy efficiency, as the screens consume less power than

their conventional counterparts, reducing energy costs for our customers“. The outdoor LED cabinets of the LN Series, made of high-quality aluminum die-cast, offer excellent heat dissipation and protection against moisture and dust, ensuring reliability in all weather conditions. The feature set is rounded off by new angular and curved design options.



Viewsonic

LDC-Serie

Viewsonic has introduced its new LDC series. The new LDC series is designed to enable seamless installations of video wall and digital signage solutions in corporate, commercial, and public areas. The slim and bezel-free LDC series offers a wide range of sizes, aspect ratios, and formats - for example, a 414-inch display with a 21:9 aspect ratio or a 378-inch display with a 16:9 ratio. Configurations can reach a screen size of up to 760 inches. This flexibility leads to unique configurations in various environments. The new modular LED displays solve common installation problems associated with traditional LED video walls, including the limitations imposed by fixed sizes typical of standard all-in-one LED displays. The LDC series is designed for effortless installation and maintenance, leveraging an all-in-one design that integrates multiple systems and components into just one box for system control, simplifying the video wall installation process.

I'M AN ARTIST

GREGORY CHOSSON

CEO AUDIOVISTA / GRÜNDER MARCH ON MARS

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Lupo

Superpanel Pro 60 / Ultrapanel Pro 60

The new Superpanel Pro 60 and Ultrapanel Pro 60 are among the brightest 2x1 LED panels on the market: with their 17,000 lux at 1 meter for the Superpanel Pro and 140,000 lux at 1 meter for the Ultrapanel Pro, these new Pro versions are more than just a facelift of the previous Superpanel models. All Pro versions feature built-in power supplies with Powercon True1 power cable connection. Optional 14 V DC batteries can be connected via XLR 4-pin sockets. The color rendering index (CRI) of all models is CRI 95 and TLCI 96. Operation can be done directly on the back of the device, via DMX/RDM, and via Bluetooth-Long-Range through the new free Lupo app. The Superpanel Pro and Ultrapanel Pro are softlights with professional features and performance, suitable for film sets, rental, and TV studios. Both types are also available as compact 1x1 panels: Superpanel Pro 30 and Ultrapanel Pro 30. All models come in „Full Color“ (RGBWW) or „Dual Color“ (Tunable White) versions. Additionally, you can choose between „Soft“ with about 120° and „Hard“ about 40 degrees. In Germany, all models are available at Feiner Lichttechnik.



Elation

Six+ Par S / L

With the introduction of the new Six+ Par S and Six+ Par L, Elation offers an upgrade of the industry standard Six Par. The Six+ Par combines improved output, an expanded color spectrum, overall better light quality, and IP65 protection, making it suitable for both indoor and outdoor use. The Six+ Par is available with either 7 x or 14 x 20 W RGBLA+UV LEDs, offering an extremely wide color spectrum and a high CRI (93).

Additionally, the two new Six+ Par models feature the same LED engine as the new Six+ Bar series. With 3200 lumens for the Six+ Par S and over 7000 lumens for the Six+ Par L, these LED PARs are much more powerful than their predecessors. To further expand the color capabilities of the Six+ Par, precise color temperature control via a special variable CCT control channel has been integrated, allowing settings from 2400 K to 8500 K. A CMY emulation mode and an integrated library with calibrated color presets for the most common gel filters are also included.

Martin Professional

Mac Viper XIP

Its light intensity, quiet operation, and XIP protection against water and dust make the new Mac Viper XIP suitable for a variety of indoor and outdoor applications, as well as for use in noise-sensitive environments such as theaters. The LED engine developed by Martin Professional delivers a consistently high output of 28,000 lumens and ensures a high-contrast and precise beam with even brightness across the entire zoom range from 51 degrees down to the narrowest beam angle of 5 degrees. Thanks to a color temperature of 5,800 Kelvin and a white point that lies precisely on the black-body curve without green or magenta shift, the Mac Viper XIP guarantees consistent color reproduction and allows precise lighting without additional, elaborate corrections. Its light recycling when using gobos, shutters, or iris increases the light output by another 25 percent.

The fast, precise movements and high repeat accuracy also make the Mac Viper XIP an ideal spotlight for automated follow systems such as those from Zactrack. 14 rotating gobos on two wheels, a freely positionable animation wheel, four fully closing shutters, iris, and 4-way prism, as well as two linear frost filters, round out the versatile features.

The 760 W LED power of the moving light is derived from an 1100 W LED unit, avoiding full loads and ensuring the LED engine operates in an optimal load range for lifespan, guaranteeing consistently high light quality even after thousands of operating hours.



Cameo

Oron H2

With the Oron H2, Cameo presents the world's first IP65 hybrid moving head with a phosphor laser engine. With its combination of beam, spot, and wash and an unrivaled zoom range for laser moving heads, the Oron H2 is suitable for particularly flexible use on medium and large stages - indoors and outdoors. Moreover, thanks to its laser technology, the Oron H2 serves as a future-proof and sustainable alternative in light of the upcoming EU ban on discharge lamps from 2027.

The spotlight is based on a 260-watt phosphor laser engine, which acts as an energy-efficient, long-lasting replacement for discharge lamps in the 480-watt class. The laser engine has an enormous light output of 330,000 lux at a distance of 20 meters and an extremely narrow, minimum beam angle of 0.6 degrees, achieved without using a beam reducer.

For flexible hybrid use, the Oron H2 offers an extended zoom range up to 32 degrees, allowing gobo projections and other effects to be realized effortlessly. It offers 19 fixed and 12 rotating gobos as well as two combinable effect wheels with six prisms, ovalizer, and frost filters. With a weight of 32 kg, quick handling and setup are enabled.

Users can rely on all market-relevant technologies and protocols for control, including DMX/RDM, Artnet, sACN, W-DMX, and CRMX. For safe transport, Cameo provides the Oron H2 with a specifically adapted touring case insert that protects against shocks.

A plus for Fresnels

With the L-Series Plus, Arri announces a new generation of its LED Fresnel spotlight series, which has proven to be a reliable, professional lighting tool for more than a decade.

Up to 90 percent brighter than the original L-Series, with direct network connection and the intuitive control and user interface familiar from the classic Arri SkyPanel S60-C: the new L-Series Plus offers additional benefits while retaining valued features such as seamless focusability from spot to flood, a homogeneous light field, and full control over the color and intensity of the light.

Introduced by Arri in 2011, the LED lights of the L-Series were the first professional alternatives to popular tungsten Fresnels. They offer additional LED benefits such as independent control of color temperature and brightness, as well as immediate cost savings through significantly lower power consumption and reduced cooling requirements.

The new L-Series Plus spotlights are available in two sizes: the L5-C Plus features a five-inch, and the L7-C Plus a seven-inch Fresnel lens. Although they are roughly the same size and weight as their predecessors, the L-Series Plus products offer up to 90 percent more brightness, making them significantly more powerful and versatile lights (the average performance increase varies by model, beam angle, and color temperature by 60 percent). Existing barn doors and all other accessories of the L-Series are compatible with the new Plus series.

The L-Series Plus offers enhanced connectivity with a network connection and light control via industry standards Artnet and sACN. Workflows are simplified by the intuitive control and user



interface known from the classic SkyPanels. The light output is specially calibrated for optimal reproduction with broadcast and digital cameras to ensure pleasant skin tones and realistic colors. A combination of a passively cooled housing and a discreet, enclosed fan guarantees quiet operation even in critical environments. Three simple controls allow fine-tuning of brightness, color temperature, and green/magenta point. A focus control on the side of each spotlight allows for stepless adjustment of the light beam - just like conventional light sources.

The L5-C Plus and L7-C Plus spotlights are available in blue, silver, or black, either with a manual or PO yoke. The original L-Series (L5-C, L7-C, L10-C) will be discontinued with the introduction of the L-Series Plus.

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Sommer Cable

SC-Elephant SPM3215

The new 32-core SC-Elephant SPM3215 speaker cable promises the „power of an entire herd of elephants“. Its primary application lies in connecting line array speakers to the latest generation of 16-channel amplifiers, which address each speaker individually. The cable is perfect as a reliable connection solution for (semi)professional PA/sound reinforcement systems or large-scale sound systems such as the L-Series from L-Acoustics. Individual core bundling allows for operating smaller sound systems as well. Additionally, the SC-Elephant SPM3215 can be used as a control cable for machine and robot control systems. With its torsion-free stranding, the cable ensures reliable performance, while its compact diameter of only 20.3 mm facilitates installation. Thanks to its fine-wire construction, the speaker cable guarantees a high number of bending cycles, thus ensuring a long lifespan. The low impedance ensures loss-free transmission. Moreover, the cable is oil-resistant against standard oils and UV-resistant, and remains flexible even in sub-zero temperatu-

res, making it suitable for outdoor use. As a ready-made connection solution, Sommer Cable combines the speaker cable with its Hicon Tourlock connectors with gold-plated crimp contacts and offers two different versions, one with the proven kink protection screw or alternatively with an aluminum screw including a stainless steel strain relief mesh. Custom lengths and special configurations are easily possible.



eps

GIGS Absperrsystem

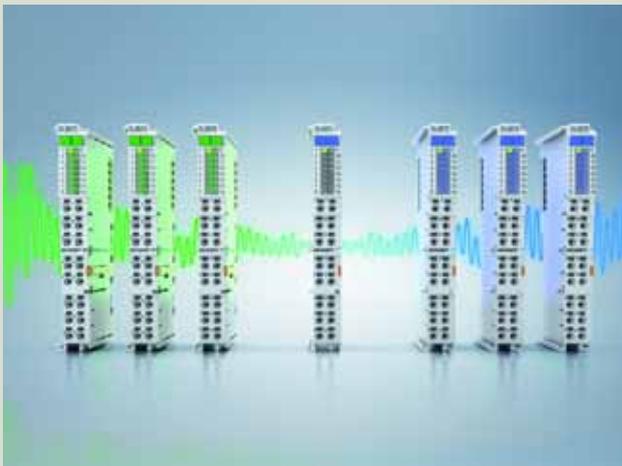
eps has further developed the GIGS Flat Footplate Stage Barricades, increasing capacity for seated shows. Seats can now be sold up to the barricade handrail. This is made possible by the particularly thin footplate, with which the GIGS Flat Footplate Stage Barricades, or simply GIGS Flat Footplate, are equipped. The trigger for the further development was Madonna's „The Celebration“ tour: Upon request from the production team, eps quickly adapted the barrier system to specific requirements and added cable passage/door, corner/curve, and T-special elements to the barricades with the extra-thin footplate. This makes it possible to be more flexible in the design of the barrier lines and to adapt them exactly to stage layouts, as in the case of Madonna. Due to their low profile, which prevents tripping hazards, the barricades are also a visual complement to the stage setup. However, one of the most important advantages is the increased event area, which provides more space for seated shows. Fans can participate even closer to the action.

Fragrance Factory

Duftmaschinen

Scent plays an important role in event technology and can significantly influence guests' experience. The new scent machines from Fragrance Factory feature state-of-the-art technology, allowing scents to be distributed at the highest level. Each machine is equipped with a fan that disperses the scent into the room. The devices can be easily controlled via a control panel or DMX, offering a variety of settings such as intensity, duration, and scheduling. With DMX 512 input and output, the machines can be programmatically controlled in professional multimedia and multi-sensory shows, with up to four scent outputs independently controlled. Adjustable timers allow for extended cartridge usage and reduce scent concentration for smaller rooms.

The light sensor ensures the machine automatically turns on and off depending on daylight. The use of cartridges without oils eliminates the need to handle liquids. An advantage of the device is that it does not require regular maintenance and refilling, and pumps cannot clog. A scent cartridge can emit its scent for up to two months. The cartridges are inserted into a special chamber and can be replaced with little effort. The Aromasphere series from Fragrance Factory offers professional scent machines in three different versions: Aromasphere 400, Aromasphere 400+, and Aromasphere 800. Each machine has 2 or 4 scent outputs equipped with heated cartridges and powerful fans. Over 70 different high-quality scents are available from stock and can be mixed or intensified as desired.



Beckhoff

EtherCAT-Analog-Klemmen

With a new generation of EtherCAT analog terminals in a compact HD (High Density) housing, Beckhoff significantly improves the performance of its previous IP20 I/Os in this area. The seven terminals cover a wide range of applications with up to eight channels and a high 16-bit resolution at a good price-performance ratio. The new generation of analog terminals includes the EL4374, the first combined Beckhoff input/output analog terminal (10 V/20 mA or -20/0/+4 to +20 mA), which allows a conversion rate of 2 kSps per channel. The two inputs and outputs can be individually parameterized for current or voltage operation via TwinCAT (using CoE). With a technical measurement range of $\pm 107\%$ of the nominal range, the terminal also supports commissioning with sensor values at the limit and evaluation according to Namur NE43. The outputs can provide up to 107% of the nominal value. The same features are offered by the analog input terminals EL3072 and EL3074, which, as 10 V/20 mA universal inputs, now have a 16-bit resolution (previously 12-bit).

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Pierre Vreuls, Danny Krichel, Daniel Danzer, Joseph Chardon (ADJ)



The team of JB Lighting



Uta Raabe (Hazebase), Sean Dane (Lumen Radio), Peter Schunke



Maximilian Hübner, Christian Gutmair (Erpam)



Dean Partleton (Disney Cruises)



Moses Sowka (ASM), Wiebke Pohl (DTHG), Andreas Knode (ASM), Viktoria Ebel (ASM)



The team of Claypaky



Yehuda Shukrun (Compulite), Matthias Kern (Kernfusion Design)



Sebastian Schmid (Kaiser Showtechnik)



The team of ADJ



Hans, Christine, Oskar und Fritz von Burkersroda (Kultour)



Arne Deterts (DAS, li.) im Gespräch



Philipp Wrede, Harald von Falkenstein (db Technologies)



Kelly de la Haije, Gianluca Martinerlli (Highlite)



The team of Highlite



Claudia Kwiecinski (etnow), Ulrike Veit (Chainmaster), Simon Kropp



Jürgen Freitag (K+F), Helge Leinemann (VPLT), Henrik Rogel (Blue)



The team of Robe



Thomas Bretgeld (Bretgeld Engineering), Michael Adenau (MA Lightin g)



Edwin Duivelaar, Isabel Inclan (Hof)



Gerd Feiner (Feiner), Markus Wilmsmann



#Colorful #Loud #Young

Around 25,000 visitors from five continents and more than 100 countries attended Prolight + Sound in Frankfurt. Over 500 exhibitors showcased their innovations and expressed satisfaction. „The fair is on the right track“ – that was the unanimous opinion.

During the four days of Prolight + Sound in Frankfurt, the event and entertainment technology industry was buzzing. Besides four outdoor stages, numerous performances, live shows, and DJ sets, the organizers primarily offered exciting panel discussions, keynotes, and presentations about the latest trends and products in light, audio, stage, media, and events. An expanded education program attracted both international event professionals and many young talents.

The fact that Prolight + Sound, as an important meeting point for the international event industry, brings together today's and tomorrow's decision-makers despite all odds was also reflected in the numbers. The proportion of executives among trade visitors was 62 percent. Moreover, 25 percent of the visitors were younger than 25 years old. This showed that the trade fair successfully addresses both current decision-makers and the younger generation with its progressive formats.

„I am very pleased that with this year's edition of Prolight + Sound, we could highlight what makes the event so special. It not only connects technical innovations, knowledge transfer, and entertainment but also brings together a multitude of top decision-makers with young industry

newcomers under one roof, thus bridging the gap between today and tomorrow“, said Wolfgang Marzin, Chairman of the Board of Management of Messe Frankfurt, also thanking the two supporting associations, EVVC and VPLT, for their active support.

Keynotes, Performances & Community Nights

Knowledge transfer in various formats was the top priority: Besides exhibitor presentations, well-known industry figures shared their knowledge and insights in panel discussions, keynotes, and live demonstrations with an interested audience. This included the award-winning creative director Geneviève Cleary, star lighting designer Mikki Kunttu, producer and DJ Gregor Tresher, label head Edgar Dirksen, guitarist Yasi Hofer, CCO of Atelier Markgraph Stefan Weil, and creative director and artist Eileen Hall.

A comprehensive lecture and conference program complemented these with current topics such as personnel development and the implementation of sustainable events. Under the umbrella of the „Prolight + Sound

Der Rivale Profile
KONKURRENZLOS
GUT.

BTinnotec

 **AYRTON**



Claudia Kwiecinski (etnow),
Jule Braungardt (JB Lighting)



The team of the „Pink Hour“



Philipp Wezorke (Lightpower),
Lee Baldock (PR), Ralph Larmann



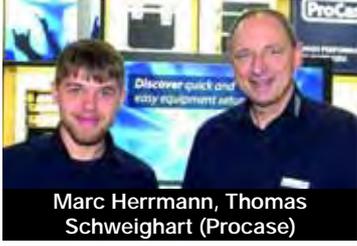
Marc und Uli Petzold (LMP)
Ralph Larmann



The team of Riedel



Adam Beaumont (Liftket),
Ulrike Veit (Chainmaster)



Marc Herrmann, Thomas
Schweighart (Procase)



The 1. Opus-Sinus winner team with Tom Becker (left)



Stephan Saremba (MA Lighting),
Ralph-Jörg Wezorke (Lightpower)



Gunnar Loose (Revolution Lights),
Henning Oeker (Chauvet)



Jury and winners Opus-Sinus-Verleihung



Indu-Electric



Jakob Frisch, Robert Schlegel,
Pedram Zolgadri (Lupax)



The 2. Opus-Sinus winner team Randell Greenlee (right)



Andreas Brandt (Martin Professional),
Carsten Pfeiffer (Lightpower)



Dietmar Rottinghaus,
Patric Keller (Neutrik)



The team of LMP



Christian Carrero (Kern+Stelly),
Christian Da Silva Santos (Blaze)



Crewbrain



Christian Jung, Laura Decker, Kevin Berlauwt,
Josephine Kuhl, Wolfgang Leute (Meyer Sound)



Marc Petzold (LMP),
Vangelis Manolis (Capture)



Alex Baumgardt (Ledtek)



30 Jahre Robe Lighting



Ingo Dombrowski (Robe),
Jürgen Freitag (Kling + Freitag)



College“, three platforms offered bilingual seminars on industry-relevant topics. These included the Camera College (in cooperation with the Federal Association of Concert and Event Business BVFK), the Pro Audio College (in cooperation with the Association of German Sound Engineers VDT), and the VPLT College. In a series of lectures, seminars, and workshops, forward-looking topics such as AI applications, immersive systems, or light as a material were also covered.

These contents were also reflected in the product presentations in the exhibition halls. Besides the IP-based networking of technical components, there was a trend towards immersive applications and interactive technologies that involve the audience directly in the product experience. Progressive solutions combining compact design with high performance were also highly popular, particularly in the pro audio sector. The industry's innovative strength was also evident in the LED segment, where a range of impressive new products were presented. The central theme of sustainability was increasingly addressed in the design of new tools. The



use of recyclable materials, high energy efficiency, and transport friendliness were key aspects here. Visitors were enthusiastic about the expanded 3000 sqm Performance + Production Hub (in collaboration with the Sample Music Festival). Although the audio sector still lacked sufficient exhibitors this year, the Prolight + Sound team, led by Mira Wölfel, did their homework well: With new attractions like the Immersive Audio Dome and the Audio Bar, the pro audio segment was significantly expanded this year and received very positive feedback from the audience.

As one of the main pillars of Prolight + Sound, the theater and stage technology sector also presented exciting new products and demonstrations. The bridge from the exhibition grounds to the city was finally built by the PLS Community Nights with popular DJs. Prolight + Sound was hosted at „Friedas Bar & Kitchen“ in the Omniturm, „Neue Kaiser“, and „Champions Frankfurt“, with these nights expected to be communicated more widely on all platforms next year. A real highlight and a significant step forward was the awarding of the „Opus - German Stage Award“ and

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Wolfgang Schöpe (VPLT)



Werner Brinkmann,
Dirk Born (Tascam)



Anja Metz (Steinigke),
Claudia Kwiecinski (etnow)



Niklas Bohr (Area 4)



Carlos Geraldos (Lawo)



VPLT's „Blue Hour“



Tim Meier (Seachefs)



Roger Wagener (United B)



Linda Residovic (VPLT),
René Tumler (EVVC)



Michael Herweg (Roxx)



André Ballweg, Seliba Neumeyer, Michael Dorner,
Mathias Schwarz, Norbert Hofer (CGS)



Naomi Schilling, Lea Pelka (VDMV)



Meint Arjen Gerding,
Marina Prak (Roe Visual)



Marcus Pohl, Marc Stähly (ISDV)



Benjamin Stocklöv,
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The team of Global Truss



Randell Greenlee (VPLT),
Kerstin Horaczek (Messe Frankfurt),
Helge Leinemann (VPLT)



Thomas Adt, Lothar Stamer



Tobias + Kaspar Haerle (Ultralite)



Larry Beck (Elation)



Engst Kabel



The team of Cast



Florian Tofahrn (Layher)



Crunch Time!

A statement by Alexander Pietschmann, CEO of Adam Hall Group, via LinkedIn.

Reflecting on this year's Prolight + Sound, we observed a continuing trend: the lights shine brightly, while the sound takes a break. This situation does not call for blame but requires collective, honest reflection within our pro audio community and strategic decisions by Messe Frankfurt to remain relevant as an international format.

This year's fair should be a turning point and a foundation for rebuilding and planning a new future for the upcoming 30-year anniversary edition next year. I am a supporter!

Why? Because people love coming to Frankfurt, the heart of Europe. The

feedback on our products was excellent, and we had valuable conversations with our customers, users, and partners both at the fairground and in the city.

Our mission is to amplify emotions and create magical memories by providing state-of-the-art event technology. In these volatile times, where the economy and various challenges test all industries and individuals, the true essence of our strength in the #LiveSector lies not only in providing entertainment; we are masters of human connection and guardians of authenticity.

A true superpower – let's use it; we are ready for the season!

the „Sinus - Systems Integration Award“ as a red-carpet event at the Steigenberger Icon Frankfurter Hof, fitting the occasion for the first time. An encouraging development was also shown by the satisfaction ratings among visitors. 86 percent stated that they were satisfied with their visit to the fair. Particularly the satis-

faction with the exhibition offerings rose to 82 percent compared to the previous year.

Prolight + Sound 2025 will take place from April 8 to 11, with the 30th anniversary of the fair also being a focus.

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Layher 

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„ We meet!“

The annual in-house event „We meet!“ takes place in the warehouse halls of Stage Concept in Rheinau. This year’s event, themed „Stage & Art with Friends“, exceeded all expectations according to the organizers.

From District Administrator Frank Scherer and local Mayor Oliver Rastetter to the „Who’s Who“ of regional small, medium, and large enterprises, everyone was represented. With over 270 guests, the 8th edition of the event marked a new record.

CEO Maik Förster invites the industry to the annual meet-up at Stage Concept’s headquarters in Rheinau. For over 25 years, Stage Concept has established itself as a leading company and full-service provider in the media and event industry. The company specializes in providing complete solutions in event technology, with a particular focus on lighting, sound, video, and stage technology. On this day, the latest event trends were also presented, accompanied by a culinary indulgence program. Delicious drinks, good music, and many technical effects rounded off the evening.

The theme of this year’s event was „Stage & Art with Friends“. The artist Enno Ilka Uhde, a friend of the company,

presented his artworks. In an exciting lecture, he discussed the connection between art and events, as well as the importance of optimal performance design. Caterer Peter Schreck delighted guests with his catering from Rizzi & Co. Fine Food Affairs. From oysters and sushi to antipasti, Chateaubriand, and pasta, nothing was lacking for the guests. DJ Martin Elble provided the right beats with relaxing house sounds that invited guests to linger.

„We were able to welcome over 270 guests this year - a record number that we were very happy about! We are already planning how we can top this next year. I will only say this much, maybe we will even need to expand“, says CEO Förster. The event once again proved its status as an indispensable event for networking and inspiration in the industry. The next edition, eagerly awaited, is scheduled for March 12, 2025. An aftermovie can be viewed here: www.youtube.com/watch?v=640bmKcnIEE.





„Lighting The Stars“

Recently, lighting designer Patrick Woodroffe conducted a workshop on lighting at Teatro Ibérico in Lisbon. Woodroffe is one of the most renowned lighting designers globally, having staged the most famous stars for many years.

In the tenth edition of the „Lighting The Stars“ seminar, Woodroffe, who has designed lighting for acts such as the Rolling Stones, AC/DC, and the London Olympics, shared his most interesting and exciting experiences - including a tribute to Michael Jackson, whom he prepared for the „This Is It“ tour just days before his passing. Additionally, Woodroffe created a lighting design for a musical piece selected without his prior knowledge during the workshop, explaining some of his techniques and technical tricks.

The event was organized by SLS, Claypaky's distributor for Portugal, with the support of Claypaky. Claypaky was present with their sales team and technical personnel. A total of 140 people attended, mainly comprising lighting designers, entertainment industry professionals, representatives from rental companies, and students from professional academies, who were taught throughout the entire day.

„Claypaky has been serving the Portuguese market for many years“, says Daniele Gamba, Claypaky's Area Manager for Portugal. „We chose Lisbon as the venue for this event not only to host Patrick Woodroffe but also to present our new product portfolio alongside our Portuguese distribution partner.“

Rui Nunes, President of SLS, adds, „We are the first in our industry to organize a workshop of this significance in Portugal. As expected, professionals from across the country participated and viewed this gathering as a major event.“

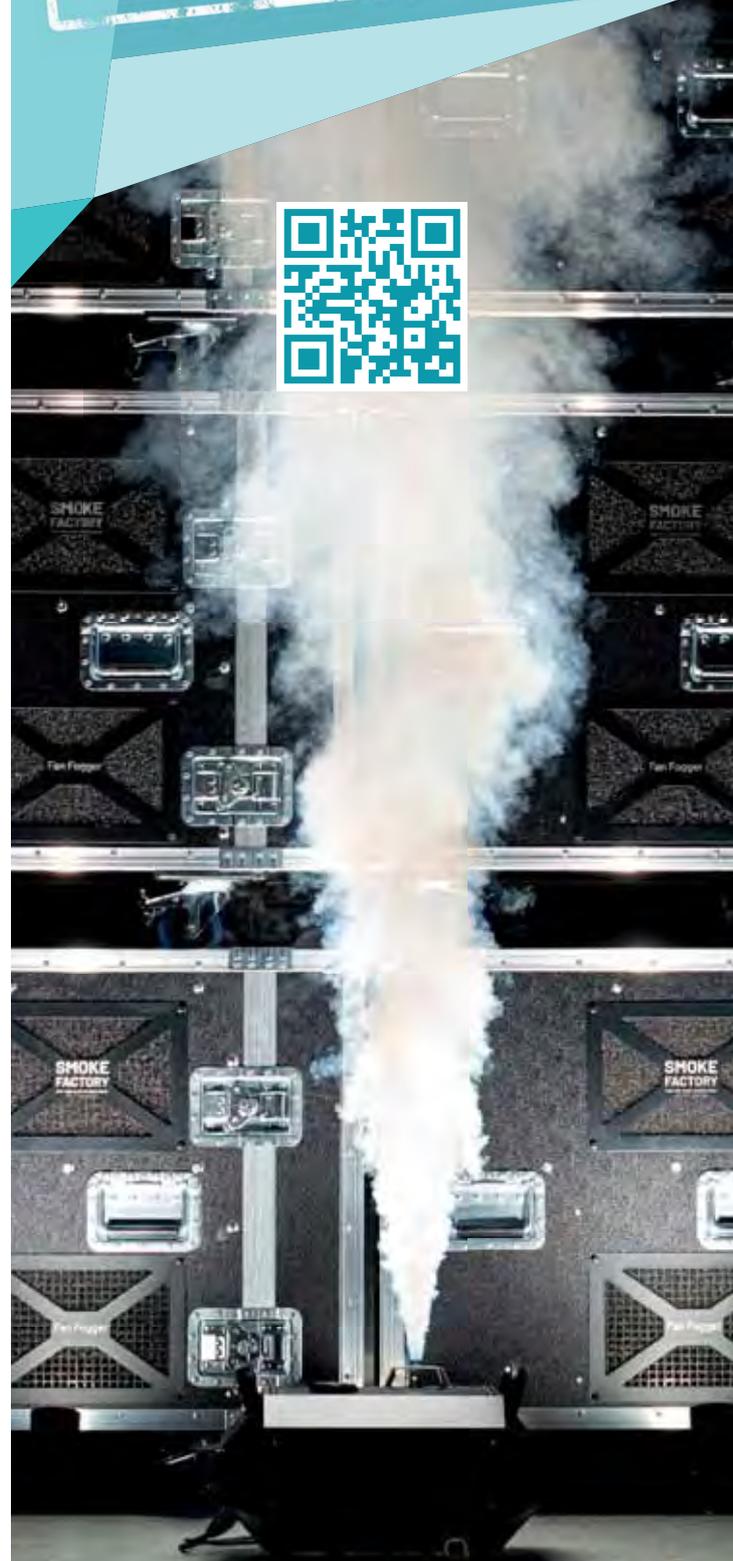
Patrick Woodroffe also expressed satisfaction, stating, „I thoroughly enjoyed my two days in Lisbon as a guest of Claypaky and SLS. I was delighted to have the opportunity to meet colleagues from various parts of the Portuguese lighting community. Teatro Ibérico was the perfect venue for my workshop, reflecting the deep culture of the country while pointing the way to the future with its contemporary reconstruction. I thank everyone involved for their warm reception, professionalism, and hospitality“.



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A spectacular innovation showcase

Satisfied exhibitors showcased the latest developments in building technology and trends in innovative lighting design at Light + Building in Frankfurt. Over 151,000 visitors attended the world's leading trade fair for lighting and building technology.

Central themes included the electrification and digitalization of homes and buildings to reduce emissions and recycle resources. At Light + Building, the industry presented digital and electrical infrastructure, showcasing solutions for dynamic power control, energy storage systems, and applications for connected security. A growing area featured offerings in e-mobility and charging infrastructure, as well as innovations and products for decentralized energy supply systems and components.

Light plays a crucial role in the architecture of tomorrow. 65 percent of exhibitors at the fair were dedicated to this field, presenting high-quality lighting solutions for indoor and outdoor spaces, along with dynamic spatial concepts. Modern LED installations ensure contemporary efficiency, seamlessly integrating into architectural designs or emphasizing their forms. The aim is to provide lighting that ensures the highest visual comfort in all living and working environments. Acoustic Lighting combines pleasant lighting ambience with sound-absorbing functionalities through the use of specific materials. Sustainability is essential in both the materials used and manufacturing processes; many manufacturers design luminaires with materials that can be recycled after their useful life.

In addition to visitors from Germany, the innovation hub attracted the most attendees from China, Italy, the Netherlands, France, Switzerland, Belgium, Austria, the UK, Spain, and Poland, totaling 146 countries. Among the 2,169 exhibitors, 76 percent were international.

The Light + Building also welcomed the social media community, hosting leading content creators in the lighting and building technology sectors during the Power Creator Days. Alongside live podcasts, expert talks, and case studies, visitors had the opportunity to pedal for a good cause, collectively working towards a high-energy goal on six fitness bikes for a total of 1,510 minutes. Sponsors converted the effort into a donation for the Leberecht Foundation, matched by Messe Frankfurt. The next Light + Building will take place from March 8 to 13, 2026.

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Strong program

This year, the Degefesfest professional association hosted its annual symposium at the Wormser Conference Center „Das Wormser“. The venue was chosen because it perfectly accommodated all the ideas for the professional congress.

The event was rebranded as „Degefesfest-Fachtag 2024 - Ihr MICE-Branchentreffpunkt“ (Degefesfest Symposium 2024 - Your MICE Industry Meeting Point). Along with the name change, the focus of the symposium broadened to cover a variety of topics, rather than being monothematic. Over a hundred members and other interested parties attended the event, which was condensed to 1.5 days for the second consecutive year.

When selecting the topics, the organizers prioritized the preferences of the member organizations. The event featured a wide range of subjects and provided ample opportunities for networking. The accompanying professional exhibition was also a central part of the MICE industry meeting point.

Strong: This year's professional lectures

Keynote: Dr. Uwe Broch (FSA): Voluntary Self-Regulation and Control of the Pharmaceutical Industry

Marcus Fränkle (Hotel Der Blaue Reiter, Karlsruhe): Customer and Employee Retention

Prof. Dr. Louise Bielzer (Scientific Advisory Board): Historical Congress and Conference Centers Between Tradition and Modernity: Operational Challenges and Potentials of Heritage Marketing

Jörn Raith (Degefesfest Chairman) and Gerhard Hötger (Degefesfest Conference Center Auditor): Update on the Sustainability Guide for Conference and Event Centers

Martin Leber (Association Lawyer): Legal Fundamentals of Artificial Intelligence

Michael Maus (Evolution 24 LCC): Opportunities and Possibilities of Artificial Intelligence

Quirin Borgogno-Weber (Meet Germany Advisory Board): Discover the Secrets of Successful Online Visibility

The program was rounded off with a panel discussion where Best Practitioners Jan von Schaper (Dekra Congress Hotel West), Markus Brandt (Tala Conference Center Landshut), Ralf Kleinheinrich (Schloss Montabaur), Philipp Flamm (Kloster Holzen), and Gerald Schölzel (Kloster Seeon) shared their preferences on the topic „Which Sales Channels and Online Platforms are Useful for Conference and Event Centers?“.

Additionally, Prof. Stefan Luppold (Duale Hochschule Ravensburg) was honored as he transitioned from the Scientific Advisory Board to the Honorary Advisory Board. He will continue to contribute his expertise to the association. New members of the Scientific Advisory Board, Prof. Dr. Olga Spomer (THM Technische Hochschule Mittelhessen) and Prof. Dr. Louise Bielzer (Hochschule Heilbronn), received their certificates in Worms.

Louisa Schlang, who also moderated the event in 2023, once again led the program. Schlang is now a lotto presenter, hosting the live lottery number draw.

Exhibitors at the accompanying professional exhibition included Bankettprofi, TG Contor, Multisenses, Blue Stewo, Hiller Objektmöbel, Voglauer Hotel Concept, Meet Germany, and Jacobs Douwe Egberts.

The next Degefesfest Symposium will take place on June 25-26, 2025, at the „Dekra Congress Hotel Wart“ in Altensteig Wart.



20 years of „Meet Hamburg“

Apprentices from the City Nord Vocational School rocked the anniversary with keynote speaker Stefan Lohmann and the topic „Sustainability in the Event Industry“.



The 20th anniversary of the two-day event „Meet Hamburg“ on June 6 and 7 was a complete success. A highlight of the event was a presentation by live entertainment and sustainability expert Stefan Lohmann on „Sustainability in the Event Industry“. Sarah-Lena Block, one of the organizers responsible for the program, was thrilled: „You can tell Stefan Lohmann is passionate about the topic both on and off the stage.“ Lohmann impressed not only with facts but also with his stage presence and humor. „Stefan Lohmann complements his sometimes shocking facts with humor. He managed to touch and excite the prospective event managers about the topic“, added Block.

Stefan Lohmann said, „I didn't know the school before, but our industry should keep an eye on these young event managers. I had respect for the extremely young target group when preparing and adjusted accordingly because it's particularly important to me to inspire this group for our industry and the topic of sustainability. 'Meet Hamburg' was implemen-

ted professionally and with dedication. Our industry should be aware of and engage with this event. After all, we also face a significant shortage of skilled workers. I can genuinely recommend anyone I met from the organizing team for our industry.“

In addition to Lohmann, other experts such as Larissa Reichelt, Steve Schwenkglens, Richard Seidel, and Thomas Waetke spoke on various topics like participant management, legal fundamentals, digitalization, safety concepts, and large events. The event was moderated by Chris Poelmann and Darius Krüger. The event was primarily organized by class VK241 of the City Nord Vocational School. Alongside around 440 visitors, numerous industry experts and emerging talents attended the lectures. „Meet Hamburg“ has been a platform for two decades that promotes expertise and innovation in the event industry and inspires young talents - not to be confused with the Austrian theater fair of the same name.

www.meet-hamburg.de



Connecting signage

With the conclusion of the 52nd Digital Signage Summit, which returned to the Hilton Munich Airport this year, the strategy conference for the digital signage and digital out-of-home (DooH) industry proved once again to be a success.

450 attendees discussed trends such as the increasing importance of software, whose contribution to projects will surpass that of hardware for the first time, the ubiquitous need to significantly reduce energy consumption, and industry challenges like the slow adoption of new technologies. This year's sponsors included Google Chrome as the main sponsor, Lenovo and Intel as premium event partners, MCube as the badge and technology sponsor, and Framen as the stage sponsor.

The DSS Europe showcased exhibitors like Dyna Scan, Sharp NEC, Sony, Samsung, Ameria, and Vanguard, featuring innovative solutions

from the digital signage industry. Given the global demand for more sustainable solutions, DSS Europe also featured a special „Green Signage Hall of Fame“ with brands like Signage OS, Absen, PPDS, LED Studio, Cingerine, First Impression Audiovisual, Visionect, and Broadsign, which presented solutions and software selected for their green credentials.

In addition to the exhibition area, the extensive conference program brought together industry professionals and emerging disruptors from the digital signage and DooH sector. The two-day program offered 49 keynote presentations, best practice sessions, workshops, panel discussions,





and networking events, where 81 speakers delved into various key industry topics around this year's summit theme, „Connecting Signage: The Shift to Software-Defined Visual Solutions“.

Focusing on software and IT security, thirteen sessions with thirty thought leaders explained what the industry needs to know about this defining component of the digital signage ecosystem. The requirements for development and service continue to rise, but standards and certifications are lacking - a particular challenge when it comes to IT security in an increasingly connected world. The potential future of digital signage software was presented with Samsung's VXT, an experiential platform that could be a game changer for the industry, though some experts questioned its approach.

The official launch of the Digital Signage Software Compass on the first day aims to address one of the major areas of uncertainty in the software market. The vendor-neutral CMS comparison tool works with an evaluation model for the most relevant topics in each category. Compass offers comparison categories such as user interface, operation, APIs, in-

novation, security, complexity, cross-platform support, sustainability, and commercialization.

For the first time, the DSS Europe agenda also included a networking event for women in technology. Hosted by Lenovo, Intel, and Google Chrome, the event sparked many discussions, including how unconscious biases can influence AI and potentially create AI bias.

To celebrate individuals and organizations for their strategic excellence in the digital signage industry over the past twelve months, the Strategy Awards also returned to DSS Europe. This year's winners included PPDS/Deutsche Telekom for introducing a „green“ ePaper DoOH display, Broadsign for adopting practices from the Green Software Foundation for greener software, Sphere Entertainment/The Sphere Las Vegas for revolutionizing how society perceives and interacts with advertising, Visual Art/Signage Player for their future-proof CMS, Trison as an industry leader, Samsung VXT as an innovative digital signage platform, Nexmosphere as a „Rising Star“ in the industry, and Andy Bohli, CEO of Imaculix/Cingerine, as a disruptor in the industry.



A great success

For four days, Film & Media Exchange, or FMX 2024, illuminated its annual theme „Connecting Ideas“ and provided a protected space where ideas could converge. 271 speakers and over 3,650 participants experienced a diverse program including presentations, informative workshops, and intense networking.

FMX 2024 featured the latest in animation, visual effects, interactive, and immersive media. Many speakers reflected on the impact of Artificial Intelligence on the creative industries, drawing significant interest. Long queues formed before presentations like „The Sound Of Dune 2“. Despite the cool weather in Stuttgart, the FMX community utilized evening get-togethers to forge connections and exchange ideas.

„The return to four days of in-person events made a tremendous difference“, says FMX Project Manager Mario Müller. „True to the FMX 2024 theme ‘Connecting Ideas’, the venue came alive with so much exchange this year, more than we’ve seen in a long time, and that was the greatest gift for FMX and the community.“

Following the in-person event, „FMX On Demand“ kicked off, making most conference content available online until the end of

May. „FMX: ‘Connecting Ideas’ was a very strong edition“, says Conference Chair Jan Pinkava. „Key studios, companies, and talents converged in Stuttgart to exchange insights on the latest developments in film production and technology. Everyone is eagerly looking forward to coming back next year.“

FMX is supported by the Ministry of Science, Research, and the Arts of Baden-Württemberg, the Ministry of Economic Affairs, Labor, and Tourism of Baden-Württemberg, MFG Film Funding Baden-Württemberg, and the city of Stuttgart. Organized by Film Academy Baden-Württemberg, FMX collaborates with the Stuttgart International Festival of Animated Film (ITFS) to host the Animation Production Days (APD).

The 29th edition of FMX will take place from May 6 to 9, 2025. For more information, visit: www.fmx.de.



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Conversion in own management

LTS recently undertook the lighting refurbishment of the Zeppelin Museum in Friedrichshafen, expertly removing old conventional and power-consuming fluorescent tubes and replacing them with new energy-efficient and sustainable LED lights.

Utilizing LTS's easily adaptable „Ala“ light strip system, the museum conducted the entire conversion independently. LTS prioritized maintaining premium lighting quality at the Zeppelin Museum while offering a resource-efficient and more effective solution. Upgrading to high-quality LED lighting without altering the existing ceiling structure ensures each renovated area in the Zeppelin Museum receives adequate lighting, without compromising between visual experience and preserving art.

Located directly on the shores of Lake Constance, the Zeppelin Museum occupies the historic and listed 1933 harbor railway station. Spanning over 4,000 square meters, the museum houses the world's most extensive collection on all aspects of airship travel from its beginnings to the present day. A highlight of the museum is a 33-meter-long walkable partial reconstruction of the LZ 129 Hindenburg. The goal of meeting BEG funding criteria through the use of state-of-the-art LTS lighting





technology and sustainable luminaires has been fully achieved. Thoughtful lighting not only enhances exhibit visibility but also creates an optimal environment where visitors can experience Ferdinand von Zeppelin's pioneering achievements and the era of air travel in the best light.

With LTS luminaires capable of adjusting to various colors, the museum's entrance hall ceiling can create diverse moods and atmospheres. From inviting warmth to dynamic energy, flexible color adjustments cater to different needs and events, ensuring visitors experience an appropriate and appealing ambiance.

Behind the historic light ceiling in the entrance hall, featuring a suspended cassette glass ceiling, today hides the most advanced lighting technology. The linear Ala light inserts are deployed here, ensuring easy retrofitting since Ala adapts to all standard light strip systems and seamlessly mounts onto existing rail structures.

On the museum's first floor, approximately 500 monochrome Ala inserts were installed behind the exhibition hall's light ceiling, replacing old fluorescent tubes.

Over 700 meters of LTS Ala luminaires, with a light intensity of up to 6000 Kelvin, are integrated into the ceiling construction, resulting in a visually comprehensive brighter light pattern.

In corridors and transition areas, old fluorescent tubes were replaced with LTS light channels from the latest and most efficient generation. Individual light channel configurations considered structural conditions and exact requirements for lighting, equipment, and control, precisely meeting specifications.

All LTS luminaires suitable for such refurbishments are eligible for funding. This means that under the BEG funding program (Federal Funding for Efficient Buildings), financial assistance can be sought for energy-efficient renovation measures. BEG funding not only accelerates investment amortization but also paves the way for long-term savings and sustainable operations. LTS provides comprehensive services including personalized advice, professional savings potential assessments, precise amortization calculations, and information on government funding programs.

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Fine dining with audio excellence

The thoughtful audio concept by dB Technologies recently enabled the stylish event venue „Your Dining Salon“ in Cologne-Ehrenfeld to integrate new facets into its ambiance and usage.

Located within Ehrenfeld's Kontrastfabrik (Contrast Factory), a team of 49 employees under the direction of Jutta Landkotsch and Sepp Zimmermann has been operating a venue since 2015 that exudes a special urban flair through its architecture, style, and exceptional food concept.

Stemming from event and backstage catering for national and international top artists, Your Dining Salon aims to offer this extraordinary catering concept within its own location. The venue is versatile, suitable for weddings, corporate events, conferences, studio productions, or galas, combining outstanding catering with a blend of architecture and interior design.

Now, dBTechnologies' audio components are also in use, not only enabling flexible usage concepts but seamlessly integrating into the stylish ambiance with their discreet design. Event technology service provider Dreimeister Veranstaltungstechnik has installed 4 Vio X205 and 4 LVX8 speakers for this purpose.

The interior, spanning nearly 300 sqm, comprises an event space, welcoming area, and buffet area, accommodating up to 180 people depend-

ing on the layout. A 600 sqm outdoor area, often used for aperitifs or sundowners, complements the offering.

Within the event space, four units of the active point-source speaker Vio X205 are vertically integrated into the visible cable channels under the ceiling. Despite their compact size, these powerful speakers are capable of filling the room with clear and balanced sound, making them ideal for business events and lively celebrations.

In the welcoming and buffet area, another four units of the active multifunction speakers LVX8 in white are wall-mounted. These not only complement the interior design visually but also provide a pleasant listening experience that appropriately complements the culinary offerings of the catering.

Bastian Bahl from Dreimeister Veranstaltungstechnik, on the installation: „In comparison, the four Vio X205 units are remarkably small yet provide balanced sound for background music and speeches, while also creating atmosphere when louder volumes are needed. The same applies to the white LVX8 units, which harmoniously match the interior design and enhance the overall impression of the space.“



Föön in the Boiler Room

The Gotec Club in Karlsruhe has recently upgraded its sound system and invested in a system from Föön Audiotecture.

For 25 years, the Gotec Club in Karlsruhe has been one of the most sought-after clubs in Southern Germany. With over two decades of experience, the club is known for its high-profile line-ups and an extravagant, nationally recognized audience. Artists such as Ben Klock, Ida Engberg, Klangkünstler, Kobosil, Chris Liebing, Len Faki, Ricardo Villalobos, and DVS1 have all graced the revered halls of Gotec. This established club has long been a cornerstone of European club culture and a mecca for electronic music enthusiasts.

Following a challenging pandemic phase, the club is now investing in a new Föön system for their Boiler Room, one of the club's three floors. Gotec Club is committed to continuous improvement to offer its guests the best possible atmosphere. The new Föön system is set to ignite hot sessions in the beloved "Boiler" and promises an exclusive musical experience for all senses.

The installed Föön system features a 4-point sound system, specifically: eight E460HL (18" bass horns, 1.8/3.6/10 kW) for the bass range, four CO-2/90 (15" low-mid horn + 1" mid-high horn) in the 90-degree version. Additionally, two V460SE (1 x 18" bass) and two M3215 (12" low-mid + 1 x 1.5" mid-high with 90-degree radial horn) serve as DJ monitors. The entire system is powered by two Powersoft X4 amplifiers with a total power output of up to 40 kW.



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Foto: Friedrichstadt-Palast Berlin mit FL1200 als Saalbeleuchtung



A new AV era for the University

The Duke Kunshan University in China recently installed 116 Sennheiser TCC 2 ceiling microphones to significantly enhance the audio experience on campus.

The Duke Kunshan University, a renowned educational institution in the eastern Chinese province of Jiangsu, has installed 116 Sennheiser Team Connect Ceiling 2 (TCC 2) ceiling microphones in 50 classrooms and various other rooms on its campus. This provides students and lecturers with an immersive hybrid learning experience. The setup impresses with its sound quality and ease of use, helping to create a top-notch educational environment.

Located in Kunshan, Jiangsu Province, the Duke Kunshan University (DKU) is a prestigious, research-oriented university on an 80-hectare campus. It offers students from around the world a range of innovative study programs with an academic focus on natural sciences, social sciences, arts, and humanities. The university aims to produce well-educated and passionate global leaders of tomorrow.

The AV project, which incorporates Sennheiser's TCC 2, spans 22 buildings on the campus, including 29 lecture halls, 20 conference rooms,

and a visitor center. The university considered several leading global providers for the AV solutions. Ultimately, the Sennheiser TCC 2 ceiling microphone was chosen for its technology, brand-independent integration, and numerous successful global applications, leading to the installation of a total of 116 TCC 2 models.

The university's faculty includes professors from Duke University in the USA as well as instructors from other global locations. Hence, enabling hybrid learning in all classrooms was a central concern for this project. The audio system was particularly important to the university: they desired crystal-clear sound in a stable and reliable system that is easy to use and flexible for different room types, configurations, and learning environments.

Equipped with Sennheiser's patented adaptive beamforming, the TCC 2 automatically follows the voice of the active speaker and can switch between different speakers in real time, capturing their voices clearly.





This allows lecturers to move freely around the room and interact with students during lessons. The microphone's ceiling installation also allows for flexible furniture arrangements in seminar rooms. The TCC 2's 28 permanently polarized condenser microphone capsules, manufactured in Germany, ensure excellent speech intelligibility. Remote participants can hear speakers as if they were interacting face-to-face.

In addition to equipping lecture halls, the Duke Kunshan University also placed great importance on the AV systems in conference rooms, where virtual meetings are regularly held. In this project, the TCC 2 was integrated with Biamp DSP and Sony PTZ camera tracking functionality, synchronizing the speaker's position with the cameras. This allows the camera to pan in real-time to the speaking person, making the meeting experience more realistic, efficient, and pleasant.

To foster interaction between professors and students, the university has established a nearly five-meter high visitor center with a flexible layout on a 400 square meter area, used as an event and exhibition location. Three TCC 2s were installed here, whose Tru Voicelift function transmits sound to every corner of the room with natural, full sound, without distortion or delay.

From the initial planning to the full implementation, the project spanned three years. It is not only extensive in scope but also highly complex, integrating a variety of products from different brands, such as Biamp

DSP, Bose speakers, and a Crestron control system. Simple workflows and seamless interaction of products were crucial to the project's success. This was also the greatest challenge for the university's team.

William Wan, the chief technician of the Duke Kunshan University, was responsible for the audio system design. His team introduced a fully digital AV-over-IP architecture for the campus. Using Dante, the TCC 2 can be seamlessly integrated into the campus network along with audio products from other brands. This allows the IT manager to control various devices on the campus in real-time via tablets or PCs.

Sennheiser's Global Alliances strategic partnerships are based on a brand-independent approach, offering customers maximum flexibility. Platform certifications play a central role here, guaranteeing seamless product collaboration with the respective platform and protecting users from integration or compatibility issues. Sennheiser's TCC 2 is certified for use with popular video conferencing providers like MS Teams, Zoom, Tencent Meeting, and Ding Talk Meeting.

During the project, Sennheiser experts visited Duke Kunshan University multiple times to individually optimize the placement and alignment of the TCC 2 ceiling microphone in each room. Sennheiser will continue to monitor the trends and changing needs of the education sector and shape the future of audio technology for educational institutions with innovative solutions.





Culinary hotspot

Located in the industrial area of Vienna, Restaurant Walters is an innovative culinary oasis, illuminated by Ribag.

The headquarters of the Walter Group, which includes the transport company LKW Walter, is situated in Wiener Neudorf, within one of Austria's largest business parks. Amid rows of shipping containers, office buildings, and warehouses, Restaurant Walters emerges as a retreat, offering top-notch quality and a diverse, international culinary experience curated by renowned chefs from Vienna. Ribag lighting contributes to the harmonious, natural atmosphere of the space.

Esteemed architects were invited to present their best concepts and ideas for the restaurant project, with Dipl. Ing. Thomas Heilmit and his team from Dreiplus Architekten ZT GmbH in Graz winning the commission. Their modern design impresses with exceptionally attractive architecture, featuring a rounded, harmonious form that pleasantly contrasts with its surroundings.

At its core lies the courtyard with a 400 sqm forest atrium, providing guests with fresh, cool air and the aromatic scent of mixed woodland.

As the saying goes, the eye also eats. Therefore, it was crucial for the fresh, seasonal dishes to be presented in the best light possible. The lighting concept was crafted by Manfred Draxl (Conceptlicht, Mils near Innsbruck), who opted for the distinctive, elegant KIVO 270 pendant luminaires. These feature a black aluminum housing combined with a warm-toned, champagne-colored interchangeable lens, perfectly complementing the color and material scheme dominated by wooden elements in the interior design. Together with the wood structure on the ceiling, these luminaires convey a sense of natural lightness.

57 Kivo pendant luminaires channel the mood of the incoming daylight through large windows and skylights into the space. The luminaires also impress with their high-quality glass lens technology, offering optimal color rendering and glare control for guest comfort. The Kivo 270 expertly combines ambient indirect light with brilliant direct light.

The pleasant, warm light color and interplay of light and shadows enhance the restaurant's natural atmosphere to perfection. Thus, Restaurant Walters transforms every lunch break into a soothing, rejuvenating experience.



Since the year 2000, **Pacha**, the world's most famous club brand, has also been located in downtown Munich. For about 20 years, **Taps Media** based in Munich has been responsible for Pacha's sound technology. And for ten years now, both the Taps and Pacha teams have relied on the audio quality of the Coda Audio brand. This was also the case for the current sound upgrade in the trendy club. Over several stages, the Taps crew led by managing directors Alexander Mayr and Manfred Heilmayer installed a comprehensive sound system centered around Coda Audio Hops speakers. The ideal solution proved to be a setup consisting of, among others, six Hops 12, eight Hops 8, and three G15-Subs, powered by Coda Audio Linus system amplifiers. The new Coda Audio system has been operational at Pacha Munich for several weeks now, with success, as confirmed by Pacha's procurator Roman Lehmann: „We are very satisfied.“



After the original cinema covering had to be removed due to fire safety regulations, bare walls remained - acoustically rather disadvantageous. The Portuguese acoustic specialists from **Artnovion** were able to provide a solution here. Both acoustic and electrically amplified concerts should be possible in the jazz club. To meet these requirements, Artnovion designed



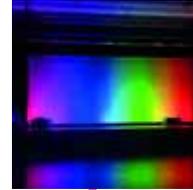
the acoustic environment around the Siena hybrid module. Siena combines a broadband absorber with an MLS diffuser for high frequencies, avoiding over-damping of highs in a room with intense absorption. The diffuse reflection of high frequencies creates a pleasant sound image. This allowed the reverberation time of the room to be reduced across the entire frequency range, and clarity values rose to over 0.75.

At **Bootshaus** in Cologne, you'll find flamethrowers, fog machines, and lasers - and recently, a new sound system by **L-Acoustics**. „Switching to L-Acoustics helps us maintain our coveted position as one of the best clubs in the world. Bootshaus has always been known for prioritizing sound over visual effects. Sound is super important to us“, emphasizes managing director Tom Thomas. L-Acoustics partner Bab-



bel & Haeger was commissioned to specify the system for the venue in consultation with production company Laserframe. The final design consists of left/right hanging two A15 Focus above an A15 Wide on each side of the DJ booth for the main dance floor. Seven KS28 subwoofers are embedded under the stage. Two additional hangs with one A15 Focus above an A15 Wide each cover the dance floor. Nine X12 coaxial enclosures are used in the remaining areas.

The **ICM Congress Center Munich** is a modern event venue located in the east of Munich. It has a total capacity of 6000 people and a usable exhibition space of 7000 square meters. Illuminating the very high halls of the ICM poses a challenge for the brightness of LED bars. At the beginning of 2024, **Feiner Lichttechnik's** DACH sales delivered 20 Chroma-Q Color Force II 48 PLUS units with cases. Marvin Maulbetsch, technical manager for lighting technology at ICM, comments on the decision: „The following aspects were important: very good light output, very good color reproduction, very good brightness even at great heights, no hotspot formation at the lower edge of the opera/screen. Additionally, the lamps should not only be used for illuminating the rear wall but also, for example, as area lighting or for parties. Therefore, they had to be angle-adjustable and mountable on trusses.“ The new models are significantly brighter than their predecessors but maintain the same color saturation, light quality, and uniformity.



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Poland's high-tech institution

The Pozna Supercomputing and Networking Center (PSNC) in Poland has selected RTS intercommunication solutions as its preferred communication technology for events and productions. RTS partner Pawlaki Pro Audio assisted in specifying and installing the system.

PSNC, a renowned flagship research facility under the auspices of the Polish Academy of Sciences, has a long history in supercomputing and networking. The center's mission revolves around research and development to meet the communication needs of the scientific community and connect institutions worldwide through advanced networks. PSNC fosters innovation in its field and serves as a crucial hub for technological excellence both nationally and internationally.

The goal was to find a user-friendly intercom system with high capacity and top-notch quality. PSNC sought an intercom system that allows communication to be easily set up via mobile devices and collaborated with Polish RTS partner Pawlaki Pro Audio in the search and installation process.

By integrating VLink Virtual Matrix software and intelligent trunking solutions, RTS seamlessly incorporated advanced technology into the center's IP workflow for events and productions, enhancing communication capabilities across diverse teams and locations.

„We opted for two Odin intercom matrices“, explains Eryk Skotarczak, PSNC's cameraman and technical solutions provider. „One is permanently installed in our studio and serves as a regular matrix. It is connected to the second Odin, which we use for live events to ensure seamless data exchange. Our mobile Odin operates in two modes: standalone or connected via RVON (RTS Voice Over

Network) to the TM-10K Trunkmaster over VPN on the open internet.“

„The audio signals follow a seamless path through the Odin matrix, then to the studio, from there to the trunked Odin with VLink, and finally over an internet connection to a mobile device“, Skotarczak continues. „This workflow establishes a coherent communication link that seamlessly blends into the event background - the system works flawlessly.“

Whether for conference productions or live streaming, RTS intercom systems have proven themselves, offering easy setup and maximum integration flexibility. The ability to participate in operations via mobile phones, tablets, and PCs has enabled dynamic communication and allowed event participants to stay connected without the need for additional hardware.

Furthermore, real-time communication facilitates uninterrupted coordination and information exchange even when teams are distributed across different locations, ensuring effective and efficient communication during our events and productions“, Skotarczak concludes. „RTS has provided us with tools that not only met but exceeded our expectations. The seamless integration of their technology into our workflow has enabled us to communicate effectively and efficiently during our events and productions.“

For more information, visit www.rtsintercoms.com.



New territory in remote production

In August 2023, Dyn Media launched a new broadcaster in European sports. Their mission is to expand the reach and viewership of sports beyond football, and the broadcaster is also pioneering new approaches in content production.



NEP Germany was appointed as the production service provider with a remote production infrastructure. Together with Dyn, they developed the technical concept, signal workflows, and operational processes. Broadcast Solutions acted as the system integrator.

At the heart of the audio workflow infrastructure lies a comprehensive solution from Direct Out Technologies, featuring multiple versatile units such as Prodigy MP, MC, and MX. This project marks the largest Prodigy installation to date for Direct Out, with a total of 1 Prodigy MX, 20 Prodigy MP, and 12 Prodigy MC units deployed for NEP Germany and Dyn. Additionally, other Direct Out audio solutions like Andiamo or Exbox MD are also in use. DirectOut developed and adapted new features and interfaces to meet the complex and entirely novel requirements and facilitate integration with other manufacturers. The installation's central hub is located at NEP in Munich, featuring a central equip-

ment room, two control rooms, and the NOC (Network Operations Center). The remaining technology is situated at Dyn in Cologne, comprising four control rooms and commentator positions. Seamless venue integration is achieved via an MPLS connection from Riedel to Munich and Cologne. Dyn in Cologne has access to all Munich resources and can control them remotely. Technicians and editors can also access technology in the venue kits.

Overall, 33 Prodigy units are integrated into the project for managing audio signals. Each of the six venue kits includes 2 Prodigy MP and 2 Prodigy MC units. Munich utilizes 7 Prodigy MP and 1 Prodigy MX, while Cologne employs 1 Prodigy MP. These devices function as audio crosspoints for streams and gateways between networks, facilitating the entire audio workflow, including I/O, processing, and audio mixing. The Prodigy units handle audio signals to and from venues, intercom signals, and commentator audio.

The entire DYN infrastructure at NEP Germany is based on SMPTE ST2110 and heavily relies on production automation. Engineers can access various auto-mixes depending on the sport using Prodigy's AutoMix function, focusing on maximum ease of handling.

Since the entire installation is based on ST2110, audio signals from venues are converted into ST2110-30 streams/AES67 using Ravenna cards in the Prodigy MPs on-site. Ravenna modules in all Prodigys have sufficient buffers to compensate for WAN fluctuations and transport a total of 30 audio signals between the venue and Munich. The Mirror Mode with a second Prodigy ensures adequate redundancy. Another security feature is the Prodigy MX's Input Manager, which automatically switches to a backup signal upon receiving a stream without audio content.



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The counterproposal

Samsung partners with charging lounge specialist BK World to enhance innovative charging lounges for electric vehicle drivers with premium entertainment, transforming wait times into quality time.

All existing and future BK World charging lounges will be equipped with two Samsung The Frame TVs and one Samsung Neo QLED 8K TV each. The goal is to transform the often wasted time spent charging electric vehicles on long-distance journeys into quality time. Users of BK World charging lounges at fast charging parks along highways can look forward to modern lounges, comfortable seating, delicious snacks, and high-quality entertainment.

The modern BK World Qubes, constructed from solid wood, ensure safe and comfortable wait times around the clock for electric vehicle drivers: modern sanitary facilities, fresh and sustainable food and beverages, completely automated dispensing, office and children's play areas, and lounge furniture inviting relaxation and leisure.

All of this is set in green surroundings near the highway - a counterproposal to the sometimes hidden charging stations, occasionally placed near trash containers, at highway rest areas. Lounges are located at Tesla Supercharger stations and are visited daily by users while their vehicles are being charged. During their average 20 to 30-minute stay, guests now have the opportunity to experience the Samsung TV experience.

The BK World lounges receive premium entertainment equipment from Samsung. With the Neo QLED 8K TV connected to gaming consoles in the gaming areas, users can immerse themselves in the gaming world and be impressed by picture quality, sound, and response time. Thanks to the integrated Samsung Gaming Hub, gaming fans can play thousands of games on the TV even without a console. Simultaneously, The Frame TVs seamlessly integrate into the modern look of the charging lounges, providing entertaining video content in high-quality display. The Frame TVs' matte displays also showcase artworks, information, and visually appealing advertisements without distracting reflections and with vibrant colors. Additionally, one of the locations will feature the second-generation Samsung The Freestyle, a smart, compact projector offering another form of entertainment.

„At BK World Lounge, we aim to create a unique experience for our customers. Waiting time here becomes quality time. It's fitting that, together with Samsung and their The Frame and Neo QLED 8K TVs, we provide a great viewing experience where top quality meets a unique environment“, says Gerold Wolfarth, founder and CEO of BK World.



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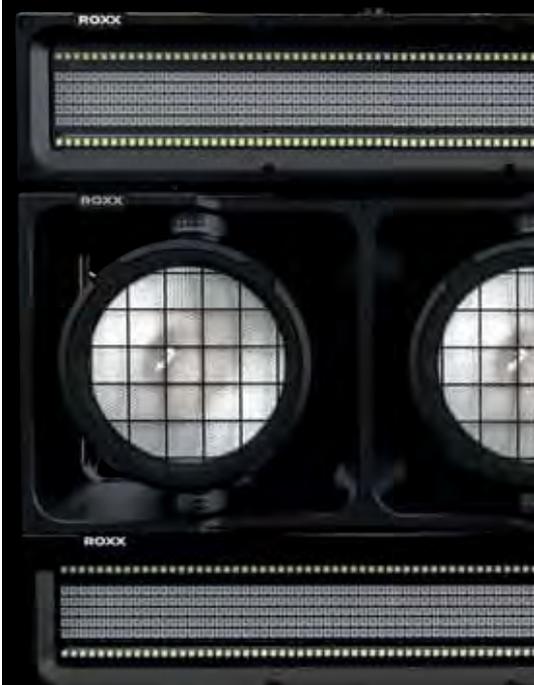
Success no one can steal

Among rappers, Kontra K is a lone wolf - and highly successful. His current „Die Hoffnung Klaut Mir Niemand“ tour took him through sold-out arenas in Germany, Austria, Switzerland, and Luxembourg. Lighting designers Marcus Herzog and Christopher Ambrosius share their insights.

Lighting designer Marcus Herzog specified 112 Ayrton Eurus Profile fixtures for his dramatic and highly dynamic lighting design on a stage designed by Kriss Hinrichsen specifically for this tour. The Eurus Profiles were provided by BBM Clair. Herzog explains why he chose the Eurus Profile for his highly unusual design, which also included a series of automated over-

head lighting pods, video walls, and more conventional fixtures: „We chose the Eurus because it offers exceptionally high light output and flexibility“, he says. „The majority of the fixtures are installed in six pods arranged in a semi-circular arc above the stage. We also have a back truss spanning the entire width of the stage to illuminate Kontra K from behind and fra-

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me the video images.“ „The ground setup includes 18 Eurux fixtures within the set, distributed across the stage to create as much dynamism as possible. We have another semi-circle of 18 Eurux Profiles in front of the stage for front lighting and grand looks. We also use additional Eurux fixtures in the audience and for special effects on our B-stage.“

Some standout features of the Eurux caught Herzog and his team’s attention: „The framing system is one of my favorite features“, he says. „The zoom range is also impressive, and we were amazed that the fixture had no issues dealing with heavy pyro and haze.“

Viewing perspectives with a twist. Christopher Ambrosius, technical director from Epicto, the tour’s video partner, shares his impressions: „Kontra K’s team had specific visions for the 15 shows of the tour. Head of Live & Artist Manager Selina Mersdorf from Kontra K’s company ‘Letzte Wölfe’ wanted elaborate video transmission and staging, and requested that we ‘rethink camera perspectives differently’. We succeeded to the full satisfaction of all involved.“

In total, Ambrosius deployed three manned UC4000 cameras (Panasonic), Videosys, Swit wireless link, a Polecam, two finger cameras, Cyanview remote control, Ross Video mixer, Aja Ki Pro Go, and Pandoras Box media server with Notch Effect.

Ambrosius explains: „We had three manned cameras in operation, two of which were positioned directly at the stage edge in the pit, one equipped with Videosys. Another camera was located to the right of the FOH at the beginning of the lower tier. The Panasonic UC4000 is a proven 4K camera model suitable for touring, consistently delivering clear image quality.“

„Videosys provides wireless video links for broadcast cameras such as the UC4000, allowing unrestricted movement on and off the stage. This is the latest technology in use - a radio transmission system ideal for touring.“

Kontra K’s content creator received a dedicated Swit wireless link from Epicto for his personal camera to capture close-up shots of the ar-





tist. „During the concerts, we could also pick up this signal, capturing a very special perspective“, explains Ambrosius. In addition, the recordings could later be used for the artist’s social media content.

Due to the significant height of the stage, a Polecam was positioned along the stage edge to create a unique perspective. „With its help, we managed to capture not only perfect views from the audience’s perspective but also from the artist’s. This allowed for dynamic visual storytelling, capturing images from different angles - above, below, behind, and in front.“

Both the DJ set and the drum kit were elevated on stage. Therefore, a finger camera was placed at each location to capture appropriate images that would not have been possible with a manned camera.

Cyanview was used as a system-independent remote control for all camera systems. Running on a network protocol, it controls color settings, brightness, etc., of different camera types. The Ross Video mixer allowed different LED walls to be played differently.

Each show was recorded with an Aja Ki Pro Go H264 for the artist. „With H264, the data volume is not as large but still of very good quality. Moreover, you can copy by drag and drop and hand over the content directly to the artist afterwards. The Ki Pro has up to four different channels, allowing us to flexibly decide which image to record“, explains Christopher Ambrosius. The Pandoras Box media server with Notch Effect was used: „The Notch capability was important as animations such as flashes and flames were to be integrated into the live image.“

In addition to Christopher Ambrosius, the Epicto team included Saskia Olma (video effects), André Stern (image mixing), Gerd Friedman (director technology), Carlos Martini (media server), as well as Jonas Harth, Christoph Bernhard, and Mario Dittmann on cameras and Bernd Kollas on the Polecam.

Kontra K will be back on the road next year with the „Augen träumen Herzen sehen“ tour starting in November 2025.

Photos: Ralph Larmann







YOLO Live

For Drake's current tour, FOH engineer Demetrius Moore is using the new Digico Quantum852 console for the first time, along with two Quantum338 consoles for the monitors.

Drake, the artist who popularized the expression „YOLO“ (You Only Live Once), has achieved enough success in his 37 years for several lifetimes. His accolades include five Grammy Awards, three Juno Awards, and Billboard Hot 100 honors for the most charted songs by an artist, the most top-10 singles, the most top-10 debuts, and the most cumulative weeks in the top 10, to name a few. Additionally, in 2021, he became the second artist after The Beatles to occupy the entire top 5 of the Hot 100 in one week.

This year, Drake kicked off his tour season with an eleven-week tour featuring J. Cole, running from February to April, spanning from Florida to Colorado. On board the „It's All A Blur Tour - Big As The What?“ is Demetrius Moore, who has been Drake's FOH manager for 14 years. Drake is the first artist to take Clair Global's new Digico Quantum852 console on tour, and Demetrius Moore is thrilled. „I spent two weeks on the Quantum852 rehearsing at Drake's estate in Toronto and then at the Izod Center in New Jersey before the first show, and I must say, the console fully convinced me“, says Moore. „It was like switching from 48k to

96k. Every instrument and voice has its own space. You hear the difference immediately, even over the talkback we send over the comms line.“

The Quantum852 offers ergonomic advantages, allowing for the management of all 30 channels used for the tour tracks. The new console is being heavily utilized on the tour, says Moore, who is supported by monitor engineer Chris Lee on two Digico Quantum338 consoles and Ryan Koolman on an SD12, mixing the tour's marching band. Since there is no tunnel under the stage, Lee may need to run between the consoles if there are issues with the rapper's IEMs.

Moore uses many features of the Quantum852, including multiband compressors and dynamic EQs, while employing a BAE 1073MPL mic preamp and an Avalon 737 tube mic preamp for Drake's Sennheiser 9000 microphone. He specifically uses the dynamic Chili-6 six-band compressor/expander for Drake's 9000. Additionally, Moore utilizes the new Fourier Audio Transform.Engine, a Dante-networked server that can run VST3-native software plugins in a live environment to handle studio software processing.





Via Operazione
arena
di Torino

The incredible Mark Forster...

...is currently on his incredible arena tour. The hall tour is already over, but now various summer open airs are ahead. LD Jerry Appelt reports.



The tour, organized by Sector 3 around Forster's energetic manager Esteban de Alcazar, is sold out everywhere and impresses especially with small, but fine and playful details such as a button - similar to Stiftung Warentest - in the corner of his homepage or live video inserts. Zooming in, it reads: „Mark Forster Tour - Will Be Top (!0.0). In test: 26 times the incredible Mark Forster Arena Tour. 200,000 tickets - wow, those must be sold first...“ Another example is the beginning of his performance, which a double completes, not immediately recognizable. Mike Foster would be another example...

Back to the technology: The stage is divided - from the FOH perspective - into four roughly equal areas on two „floors“: In the upper left is a small talk show studio with a seating area and desk, behind which Mr. Forster also occasionally takes a seat. Adjacent to the right is a small stage set up: Here, the band is placed, and Mark Forster joins part of the show. Below that, on the lower right, is a living room with a couch set and (running!) LED TV, separated toward the audience by a plexiglass pane. In this living room are influencers, specially invited to follow the show - or the TV screen - from this perspective.

Finally, in the lower left is a kind of „entrance area“ to the stage, including a side „Music is Trumpf“ show staircase. From a distance, the stage gives the impression of an open, modern doll's house. This is extraordinary and certainly worth seeing. But how do you light such a segmented stage?

„Sector 3 wanted a concert production that didn't feel like a concert, but more like a TV recording that the audience was witnessing. The result was a kind of late-night set, for which we developed various scenarios in four to five acts, played out successively. This also explains the relatively elaborate stage design“, reports Jerry Appelt.

In terms of the basic idea of the two-story stage set, the team deliberately wanted an upper and a lower playing area. This resulted in a kind of „backstage room“ in the lower area, but visible toward the front stage edge with plexiglass panels, for the mentioned meet and greet with influencer colleagues. The show starts in the upper late-night part with the typical desk and band corner. This is followed by the „garage part“, which focuses entirely on the band and transforms the late-night corner into a kind of garage rehearsal room.



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Next came an „MTV Unplugged part“: Here, the entire stage was used, but with quieter tones. „The last song of this quiet part was then performed only in the upper half, and we had time to set up for the next part in the lower half, where the entire back of the stage was separated, and Mark moved only in the front part. We enhanced the songs with video projections and quite a bit - I call it ‘fairground’ - surroundings. This allowed us to present all the new songs well, including the duet with Kontra K., who was also partially present“, explains Appelt about the further course of the show.

Next, there was a staged power outage with a completely dark hall. A voice from offstage announces, „We have a power outage“. Appelt continues: „After a minute, things slowly start up again, and Mark performed two songs completely alone, illuminated only by the battery light of a camera. Then, gradually, we reactivated the system, first the video walls, then the scenic areas.“ The last four songs were the artist’s most famous, and accordingly, the team pulled out all the technical stops, including lots

of pyro, confetti, flames, and CO2. „The whole thing worked great. When Mark Forster initially presented his ideas for the show’s sequence, many were skeptical. But after the first show, everyone understood: this would work. We on the production side also thought it was cool because it was different from just having a band on stage. There were even performers, some disguised as a globe or crocodile, who opened up a few side scenes on stage. Finally, there was also a rectangular screen on stage showing a completely independent kind of second-screen content. And that was the concept in a nutshell.“

For the lighting, Jerry Appelt always chose the appropriate means for the situation: „For example, at the beginning of the late-night set, we dimmed the soft lights accordingly, and in the garage situation, we let Asteras come down from the ceiling, imitating neon tubes on the garage ceiling. During the unplugged part, we placed old parabolic lamps on stage to use everything possible for the finale. We also tried not to work too much with beams at the beginning, but with surfaces and structure. We





designed the lighting architecture so that each scene looked really different.“

Jerry Appelt continues: „What comes to mind spontaneously about the lighting are, of course, the workhorses: a mix of Robe Forte in the spotlight area and GLP Highlander in the washer area. To achieve additional structure, we used Robe Tetra Bars, which illuminated the front edge of the stage, among other things. The whole setup was relatively classic: four trusses above the stage and two walkways.“

Appelt supplemented the well-known workhorses with the new Elation Proteus Max. „I had them on a tour for the first time and positioned them on both the dollies and the floor area. I must say: They served us well because they were very versatile, a fixture that can do many different things.“

The set also included some LED strip light strobe units for the large show staircase, as well as a total of five remote follows - three from the front, two from the rear, which could also illuminate any guests. The entire setup was controlled via a grandMA3 network.

The camera work was done by a relatively young team from Berlin, who usually operate more in the social media area. Together with the director, they developed a successful camera concept, which image mixer Markus Bergmann prepared in such a way that the four different chapters of the evening could be clearly distinguished from each other. Thus, the images during the garage set were rather restless and excited, while during the unplugged part, they were almost static. Jerry Appelt: „In addition, there was the almost customary large pyro package for Mark Forster with lots of confetti, fire, and CO2 for the ‘big’ songs - a proven method to engage the audience once more.“

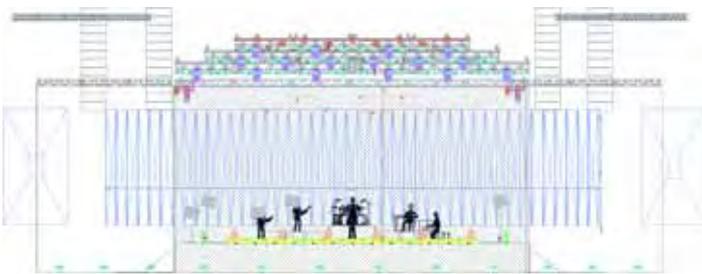
Jerry Appelt’s team of Lighting + Production Designer also included media server operators Sebastian Huwig and Frank Bungarz, LX programmers Daniel Gündner and Max Rapp, Lighting Director Mikko Rahf, Video Director Markus Bergmann, Multi Camera Director Furkan Cetin, Gaffer Jonas Horney, Head Rigger Carsten Jäckel, and Production Manager Dominik Piorr. Pre-production took place at Salty Dog Studios in Hamburg.



Biggest bang for buck

James Blunt's „Who We Used To Be“ tour achieved nearly 100,000 visitors in Germany alone. Further live shows are planned for summer 2024. A brief look at the subtle yet sophisticated technology.





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„I know you're waiting for the miserable songs. OK, so lean back, relax and feel miserable!“ His humor is simply legendary: James Blunt's 13-concert arena tour was highly successful, culminating in the sold-out ZAG Arena in Hannover. The entire „Who We Used To Be“ tour was a triumph for the Briton; all 13 arenas were sold out except for a few seats. Blunt eschewed opulent stage sets and extensive special effects, focusing entirely on the music and storytelling, often garnished with the aforementioned touch of self-irony and refined British humor.

Thanks to his voice and a perfectly coordinated band, he repeatedly conjured a club atmosphere in large halls. And Blunt loves what he does: „We are thrilled! We are a touring family of around forty people, living in two buses and five trucks, sleeping in bunks in close proximity to each other and relentlessly touring the world. The crew are the real heroes - they work till 1:30 every night taking down the stage in the last venue, sleep badly along bumpy roads and are up again at 8 am setting up the stage, lights, sounds and production. And then, after all their work, me and the band will come on and take all the applause...“

The title of the current album and tour is easily explained: „This is my eighth world tour, playing songs from seven studio albums, covering twenty years. Sometimes it's hard to remember who we used to be - till I hear the songs, and they take me right back.“

Tour Manager Robert Hayden explains the idea behind the „reduced“ tour: „James wanted a compact tour, primarily to keep the number of trucks as low as possible. Of course, he still wanted to have a new, exciting, fresh, formidable tour.“ Lighting Director Glen Johnson adds, „It's always the same: You want the newest and best equipment on the market,

simply 'the biggest bang for buck'. So, we created a stage design with a nostalgic touch that visually takes us back to the 70s without leaving out current influences. A central element were the large lampshades above the stage. James Blunt and his band wanted to feel like they were in an English pub - on a cozy stage“.

Hayden and Johnson worked closely with Paul Normandale (production + lighting design) to implement the idea. They controlled a mixed set of lamps via a grandMA3 full-size, consisting of 20 Martin Mac Aura XB, 34 Ayrton Perseo Profile, 5 2000 Watt 18" Molebeam projectors, 3 Robe iForte, 27 Flare, 43 GLP Impression X4 Bar 20, 7 Wahlberg Winch 10, and 7 lampshades. To enhance the lighting, 4 Reel EFX DF50 Diffusion Hazers and 4 Martin Jem AF1 fans were used. The placements and setup are clearly visible in the sketches.

In addition to James Blunt (vocals, guitar, piano), the band includes Chris Pemberton (piano, keyboards), Paul Sayer (guitar), John Garrison (bass), and either Karl Brazil or Asger Moller (drums). Besides Hayden, Normandale, and Johnson, the technical leadership also includes Mike Hornby (FOH sound), Gerry Wilkes (monitors, stage management), and Chris Roper (rigging, crew boss).

FKP Scorpio, the organizer, will also accompany James Blunt's 2024 summer shows: July 5 - Residenzschloss Mergentheim Open Air (Bad Mergentheim); July 12 - Junge Garde (Dresden); July 28 - Emsland Arena (Lingen); July 30 - Seebühne (Mörsbisch); August 1 - Schloss Salem Open Air (Salem); August 2 - Stimmen Festival (Weil am Rhein); August 28 - Kloster Schifflenberg (Gießen); August 29 - Wiley Sportpark (Neu-Ulm); September 1 - Zelt Festival Ruhr (Bochum).

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Christina unplugged

The grandMA3, Martin, and Prolights were used in the recording of Christina Stürmer's „MTV Unplugged“ performance. Manfred Nikitser created an intimate setting for the TV recording at the Vienna Volkstheater.

After a five-year hiatus, the Austrian pop-rock singer Christina Stürmer made a spectacular live comeback. She became the first female artist in the German-speaking world to release an „MTV Unplugged“ album, marking a historic moment. Celebrating her 20-year stage anniversary, she presented acoustic versions of her songs, recorded at the Vienna Volkstheater.

The production company „Das Rund“ team built a cool yet cozy and intimate set in the historic Volkstheater to provide a fitting backdrop for the quieter performance. Lighting designer Manfred Nikitser was brought in specifically for the lighting design by Das Rund's managing director and DOP Thomas W. Kiennast. The show was directed by Ingo Pertramer, also from Das Rund.

For the lighting of the performance, Nikitser used 33 Martin Mac Aura XIP and 29 Prolights Arena Cob 4FC. The lighting console was a grandMA3 system. The big advantage was that Nikitser had already worked at the Volkstheater for the Amadeus Austrian Music Award earlier in the same year, so he was familiar with the venue.

A large illuminated ceiling sail above the stage provided both a visual upper boundary and a soft light source for basic illumination of the set. Nikitser used the Mac Aura XIP for all audience and backlighting. The size and output of these fixtures were well-suited for this application. Nikitser explained, „The Mac Aura XIP is relatively small but still offers a lot of output and has a good zoom“.

The designer used the Prolights Arena Cob 4FC for additional accent lighting at the front edge of the stage and into the stage area up to the decorative backdrop. These fixtures provided a visual boundary and served as valuable lighting on the ground for close-up shots or wide camera angles.

„For unplugged shows, I generally try to approach the design in a more reduced way, but also somewhat abstractly. The technology should not be visible in the image. All design elements should flow harmoniously into each other and merge into a coherent whole. The ArenaCob 4FC is well-suited for this. I placed them horizontally at the edge of the stage and on the left and right of the set as front lighting. The Arena COB is one of only two LED blinders available on the market that look appealing and offer great colors and response. It's perfect for shows of this size because I cannot use lights that look too industrial. MTV Unplugged productions have a cozy living room atmosphere. The Prolights integrate well into the set, contributing to the overall design without drawing too much attention to themselves. In my opinion, a few ArenaCob 4FCs enhance the overall experience of any show.“

Nikitser has been using the grandMA3 system to control his lighting for some time. „I have done quite a few shows with this system and the new software“, he confirmed. For him, the system is the preferred choice for complex multi-user and large network environments.





Slash's got the blues

The Guns N' Roses guitarist is currently on „The River Is Rising“ tour, accompanied by Myles Kennedy and the Conspirators, with lighting by Chauvet Professional.

Slash is not only a master of guitar playing but also a true guitar connoisseur with a personal collection of over 100 instruments. Therefore, it's no surprise that he is very selective about the guitars he chooses for his current „The River Is Rising“ tour. When it comes to which fixtures are included in his lighting rig, however, the decision mainly lies in the hands of Keith Hoagland.

The designer and programmer from Nashville is accompanying Slash, Myles Kennedy & The Conspirators on their 40-city tour through 24 countries. The rental partners vary from place to place, but Hoagland insists that the Chauvet Professional Color Strike M is always included in his rig.

„I put it at the top of my list“, he says of the fixture. „The Color Strike M serves a dual purpose for me: it provides me with great colors and coverage as a wash unit. And when I want it, it's a powerful strobe - and all this without taking up much space on stage.“ Color saturation and intense strobe effects were also required when Slash and his band took the sta-

ge at Dublin's 3Arena on March 28, 2024. For almost two minutes, the stage was bathed in deep blue while „eerie“ music played in the background. Then it became extremely bright as intense beams and strobes were directed at the audience.

A dozen Color Strike M fixtures were used during the concert. Hoagland orchestrated the timed light show (with some improvised lighting) from his FOH position. „It feels like I'm playing along with Slash and the band; I always try to match the lighting to the band's playing“, he explains. The crew also included Production Manager Tim „Quake“ Mark and Tour Manager Cheryl Hall.

Setlist: The River Is Rising/Driving Rain/Halo/Too Far Gone/Back From Cali/Whatever Gets You By/The Path Less Followed/C'est la vie/Actions Speak Louder Than Words/Always On The Run (Lenny Kravitz)/Bent To Fly/Avalon/Don't Damn Me (GNR)/Starlight/Wicked Stone/April Fool/Fill My World/Doctor Alibi/You're A Lie/World On Fire - Rocket Man (Elton John)/Anastasia



An unmatched happening

The Coachella Festival has evolved from a mere musical spectacle into the „place to be“ for influencers worldwide. This didn't sit well with all headliners, and not just Blur, the heroes of the Britpop era, quickly realized that there were fewer fans and more self-promoters in the audience. From a technical perspective, however, this made no difference.

Since 1999, the Coachella Valley Music and Arts Festival has been held annually in California. It is now one of the largest festivals in the world, attracting a diverse audience to celebrate music, art, and fashion. This year, the festival once again offered a varied program over two weekends in April, featuring around 150 acts on eight stages.

The Macrodose Stage

Macrodose, the new stage from the Do Lab, marked a bold departure from the tent designs of recent years: an open-air magic forest of music and lights, nestled under a canopy of moving, mushroom-like fabric sculptures, embodied the pure Do Lab ethos of freedom, self-discovery, and expression.

Do Lab itself is a collective consisting of brothers Dede, Jesse, and Josh Flemming, who create custom architectural and art pieces. Their installation featured nine oversized, satellite-shaped sculptures scattered across a field, providing festival-goers with shade, rest, and a place to dance. Maktive supplied all the lighting and handled the programming.

In recent months, Maktive, a rental company and full production studio, has heavily invested in the new X5 IP platform from GLP. The potential for use under the challenging weather conditions of the outdoor season was decisive, as the uniform chipset guarantees consistent, homogeneous color reproduction. This came in handy for the collaboration with the friendly design company Do Lab for the unique Macrodose dance music stage at this year's Coachella Festival in Indio, California.

The task was to animate a series of mushroom-like fabric sculptures that appeared to sprout right out of the desert grass. Large quantities of the recently acquired Impression X5 IP Bar 1000, X5 IP Maxx, and JDC2 IP were used. Maktive's CEO, Bryan McClanahan, who initiated the partnership along with Patrick Randall, explained that the two companies had previously collaborated on avant-garde art projects: „For Coachella, we were asked to design various scenarios with different lighting configurations. The goal was to hide as many fixtures as possible, but naturally, some fixtures had to be visible.“

Among the devices being used for the first time were the Fusion Exo Beam 10 and JDC2 IP. Inside the mushroom-like shapes were X5 IP Bars and X5 IP Maxx, part of a growing number of new generation GLP solutions in Maktive's rental inventory. The most exciting, however, was the new JDC2 IP, which allows significantly more power and creativity than its predecessor. It also offers the ability to create unique digital effects with an individually controllable pixel matrix. A powerful built-in dual cortex CPU provides over 100 Digi FX. These were fully utilized for the first time at Coachella. The Impression X5 IP Maxx and X5 IP Bars were hidden inside each of the mushroom structures. „The bars themselves were mounted through the center of the mushrooms and shot outward. We mounted the X5 IP Maxx on the outer tips of the mushrooms, from where they shot inward. They did all the work and illuminated the mushrooms without uplighting. The mushrooms almost glowed from the inside out.“

The open design and intricate elements of the area also required a sound system that could simultaneously be low-profile but deliver the necessary power for the extended audience area, which stretched 90 meters in front of the stage - and this with the least possible weight. „We needed the best solution for positioning the PA. Weight was a crucial factor“, said Ian Ingram, head of the audio crew and system technician. „It's neither a tent nor an arena.“

Ingram, responsible for Do Lab's sound since 2008, wanted to integrate Meyer Sound's large-format Panther line array speaker into the new stage design. „Only Panther allows this performance with this type of rigging“, he said. Josh Dorn-Fehrmann, Senior Technical Support Speci-

alist at Meyer Sound, worked closely with Ingram to design a system of Panther and the 2100-LFC Low-Frequency Control Element.

Each side had ten Panther-L line array speakers flown, supplemented by four Panther-W front fills and 18 2100-LFC low-frequency control elements. These were configured so that the bass spread seamlessly across the entire interior and was simultaneously directed to avoid disturbing other stages. Additionally, Leopard line array speakers and Ultra-X40 compact speakers were used to ensure full coverage.

Artists performing on the Do Lab stage included Chase & Status, Alesso, Anna Lunoe, DJ Tennis, Kaskade, and Alison Wonderland. There was also an impromptu party hosted by Billie Eilish. „We were able to realize the entire lighting exclusively with GLP products“, confirmed Bryan McClanahan.

The Sahara Tent

Elation has also long been a staple at Coachella. This year, the redesigned Sahara tent was equipped with over 950 Elation lights. The main stage, Quasar stage, and outdoor theater also featured Elation technology.

Todd Roberts of Production Design Works led the production and lighting design for the Sahara tent, integrating a variety of Elation products provided by Aspect Lighting. Roberts, a Coachella production veteran, transitioned from the outdoor theater stage to the Sahara tent three years ago. This tent underwent a comprehensive redesign, featuring a fresh design, new infrastructure, and a new location. Goldenvoice festival organizers erected a steel-based structure that is 12 meters wider than its predecessor and now 122 meters long, 125 meters wide, and almost 30 meters high. The new design allows for greater versatility in production elements, with each of the sixteen ribs of the structure capable of bearing significant loads.

Typically, one or two headliner acts perform in the Sahara tent each day at Coachella. However, this year there were four acts each day deserving of headliner status. Roberts also had to design a rig that met the varying needs of 25 to 30 different lighting designers each weekend. „With a mix of hip-hop and EDM artists, you try to design something that works for everyone and is also creative“, he said. „The Sahara tent has never just been a performance stage but demanded a creative design with creative production elements. It's a balancing act: you have to design something that looks cool and unique but is also functional for the variety of acts and meets the festival's requirements.“

Roberts and Benjamin Van Brande developed four different designs in October 2023 for Goldenvoice management to choose from. Ultimately, a design based on a series of geodesic spheres with rings connected by finger trusses to a large central sphere, all complemented by numerous Elation fixtures, was chosen. The design resembled a solar system of dynamic planets hovering above the festival-goers.

Each node of the central sphere, outlined with linear LED battens, contained an Elation Dartz 360 narrow-beam moving head. Many of the over 500 Six Par LED par fixtures in the design were used for the smaller spheres and rings. On the connecting finger trusses, which Roberts covered with white fabric, Smarty Max were deployed, while Six Pars were placed in each finger truss to illuminate the fabric.

At the center of a large, wing-like video wall serving as the backdrop was a DJ booth framed by arched domes, a design element Roberts particularly liked. „I wanted to create a fully immersive space above the stage area, with many light fixtures encircling the space“, he said. „I've always liked arched domes, and when we equipped them with Proteus Lucius fixtures at the front and back, they really came to life and played a key role in the stage design.“





The mid-stage finger trusses housed additional Smarty Max, and the floor-mounted towers on the sides of the arches were also equipped with lights. Additional Six Pars on each side of the video walls were used as audience lighting, while Paladin Panels and Cuepix Blinder WW2 added color and punch to the design.

Roberts' design also integrated into other artistic stage sets, such as when John Summit's team added a diamond above the stage to contrast with the round spheres. Roberts praised his team at Production Design Works, with special recognition to Benjamin Van Brande for his CAD drawings, renderings, and other design elements.

In total, the Sahara tent used the following Elation products: 120 Dartz 360, 159 Smarty Max, 46 Proteus Lucius, 72 Paladin Panel, 320 Six Par 200, 180 Six Par 100, and 59 Cuepix Blinder WW2.

Elation products also played a prominent role on other Coachella stages. 4 Wall provided nearly 200 Elation fixtures for the main stage, including Fuze Max Profile, DTW Blinder, Six Par 300, and Proteus Maximus. The Quasar stage, also equipped by 4 Wall, featured 130 Elation fixtures, including Proton Eclipse, Six Bar 1000, and DTW Blinder. SLX Productions provided lighting for Jon Batiste's show at the outdoor theater: Proteus Rayzor Blade, Proteus Brutus, and Paladin Panel.

Yuma Stage

Under a large tent with wooden floors, opulent furniture, and, perhaps most importantly, air conditioning, the Yuma Stage aimed to offer a luxurious, pulsating club atmosphere in the middle of the desert. Naturally, this required an audio experience more akin to a top-tier, multi-million dollar nightclub in Ibiza or Singapore rather than a temporary music festival on the grounds of a polo club in Southern California. The organizers opted for a PK Sound-Robotic Line Source deployment.

In addition to providing excellent sound for headliners such as Gorgon City, The Blessed Madonna, and Arbat, PK Sound's patented multi-axis robotic technology allowed designers to precisely focus the system's vertical and horizontal acoustic coverage on the audience area and minimize reflections from the tent walls, delivering the clearest and cleanest sound possible.

George Stavropoulos of Sonic Lab Audio, the chief audio consultant for the Yuma Stage, commented: „The ability to remotely and in real-time robotically control the system's acoustic coverage is a major advantage in minimizing noise pollution at these shows in densely populated urban areas. The same principles apply when directing sound away from the reflective tent walls of the Yuma Stage to optimize clarity and impact for the entire audience.“

Designed by Stavropoulos' partner and PK Sound Project Support Specialist Paul Bauman from PdB Sonic Design, the main arrays consisted

of 10 PK Sound T10-Robotic Line Source elements per side. Using PK Dynamics software, which integrates every step of the live sound workflow into a single application, Bauman utilized the variable horizontal directivity of each module to precisely match the acoustic coverage to the parameters of the Yuma tent, with carefully graded arrays and a smooth transition to the delay positions.

A total of 24 PK Sound T218 intelligent subwoofers provided low-frequency reproduction and were arranged in four cardioid columns of three on each side of the stage. In a unique approach, Bauman applied a reversed electronic delay control to focus the energy and enhance the low-frequency range along the center of the long, relatively narrow tent structure.

The L-R delay towers each had five Trinity Black-Robotic Line Array elements and three T218 subwoofers in cardioid mode per side. Six PK Sound VX10s provided front fill, while four K12p Point-Source modules covered the rear VIP area. The monitoring system on stage included three T10s on a single T218 per side. The audio system was rounded off with a DigiCo SD9 near the stage for FOH and monitors.

Crew (excerpt):

Colin Johnson: Project Manager

Joel Mammen: FOH Tech

Rafa Avila: Master Electrician

Justen Laughlin: Electrician

Josh Vasquez: Electrician

David Dibb: Network

Brandon Rosales: FOH Tech Scepton Guru

Khang Nguyen: Scepton Tech

Andy Steinhauer: Head Rigger

Cody Armstrong: Assistant Rigger

Maui Sumeo: Assistant Rigger

Rob Edginton: Assistant Rigger

Hamish Dunkley: Rigging Electrician

Bryan McClanahan: Maktive Creative Director

Jeury Duran: Maktive Lighting Director

Chris Hallet: Maktive Project Manager Day

Ernesto Melendrez: Maktive Project Manager Night

Kylie Woods: Maktive Creative Manager

Nicolai Anderson: Maktive Lighting Drafter

Shane Thompson: Maktive Master Electrician

Nate Heiderer: Maktive Video Programmer

George Stavropoulos: Sonic Lab Audio, Yuma Stage

Paul Bauman: PdB Sonic Design

Ian Ingram: Leiter Meyer Sound Audio-Crew

Josh Dorn-Fehrmann: Technical Support Meyer Sound



Setting sail

Timo Martens breaks with visual conventions on Luciano's current tour, creating a stunning light and stage design with JDC Line and Impression X4 Bar for the German rapper.



The Berlin-based rapper Luciano recently toured sold-out arenas in Germany, Austria, and Switzerland with his seventh studio album „Seductive“ released in February. Timo Martens, part of the creative collective „Stop Making Sense“ with Bertil Mark, designed a production (lighting, stage, content) for one of Germany's most influential artists that breaks with traditional visuals and is therefore captivating.

The design is visually dominated by a 25-meter catwalk and two gigantic movable ceiling sails equipped with LEDs. Most of the light show is managed by 80 GLP JDC Line and Impression X4 Bar 20.

Besides a relatively small head stage, used only for a few show moments, the oversized catwalk primarily serves as the performance area for the artist. The idea behind this: „We wanted to move away from the classic head stage setup and bring the show more into the audience to create a kind of club feeling even in the largest arenas“, explains Timo Martens. „This results in entirely new and varied perspectives on the stage events. The show looks different from every angle.“

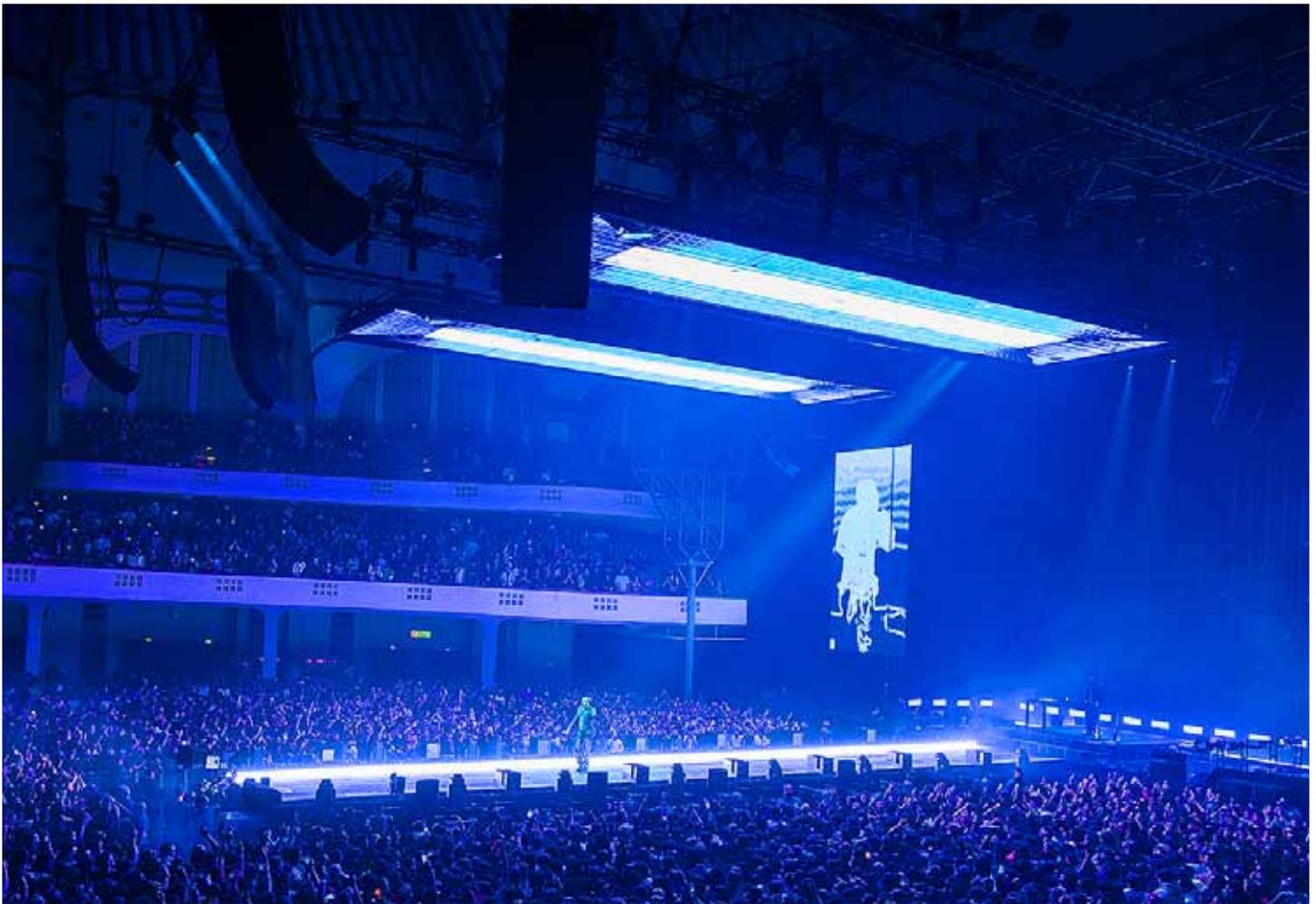
Eighty JDC Lines line both sides of the catwalk and frame the rear stage area. Often used in a relatively understated manner, the combination of high-power strobe and two RGB LED lines provides low-key lighting, as well as color and running lights on the catwalk. „I chose the JDC Line here because I wanted a linear light from below along the catwalk, which would allow me to react to the music with basic lighting and as varied and powerful a response as possible. In my opinion, the JDC Line is the ideal tool to edge a catwalk“, the designer continues.

Towards the end of the show, a 10-meter illuminated circle hovering above the head stage adds beamwork into the mix. Primarily, two movable 16 x 4 meter ceiling sails equipped with LED panels provide ever-changing visual impressions and direct the viewer's gaze. These sails are framed on all four sides by GLP Impression X4 Bar 20.

„Depending on the position of the sails, we use the X4 Bars traditionally with a tight zoom as a light curtain or to visually extend the video content on the sails. When the sails are folded towards the audience, they also serve as blinders. If the sails move in butterfly-like motions, entirely unfamiliar impressions are created. Due to the constant changes in the sails, some looks are particularly impressive from the front, others from the side. Sometimes the sails extend far into the audience or hover very low over people's heads. This creates unique, very energetic moments in a Luciano show.“

The design, crafted by Timo Martens, was subsequently brought to life in detail in collaboration with Bertil Mark and Raphaël Demonthy (Sunrise Studios GmbH). „We work very well together and can rely on a proven workflow, which allows us to achieve good results very quickly“, explains Timo Martens.

Captured Live was responsible for executing Luciano's „Seductive“ tour. Lighting and sound were provided by TDA Clair. The stage was supplied by Satis & Fy. Faber Audiovisuals delivered the LED system, and Rec Tec AG Switzerland provided the media server technology.





Strike for Morgan Wallen

Central to the lighting design of US country musician Morgan Wallen's „One Night At A Time“ tour are fixtures from Chauvet Professional.

The sub-stage on Wallen's 2024 world tour measures 46 meters wide and 22 meters deep, housing four main performance areas. Two of these areas, each approximately 15 x 15 meters and 3.7 meters above the ground, facilitate intimate moments that bring Wallen closer to the audience, including those on the sides. These areas feature scenes connected to Wallen's personal history, such as a bleacher setup representing his baseball past for the song „98 Braves“, and a replica of his grandmother's house, both harking back to his childhood. Additionally, a 33-meter stage extension reaches into the pit.

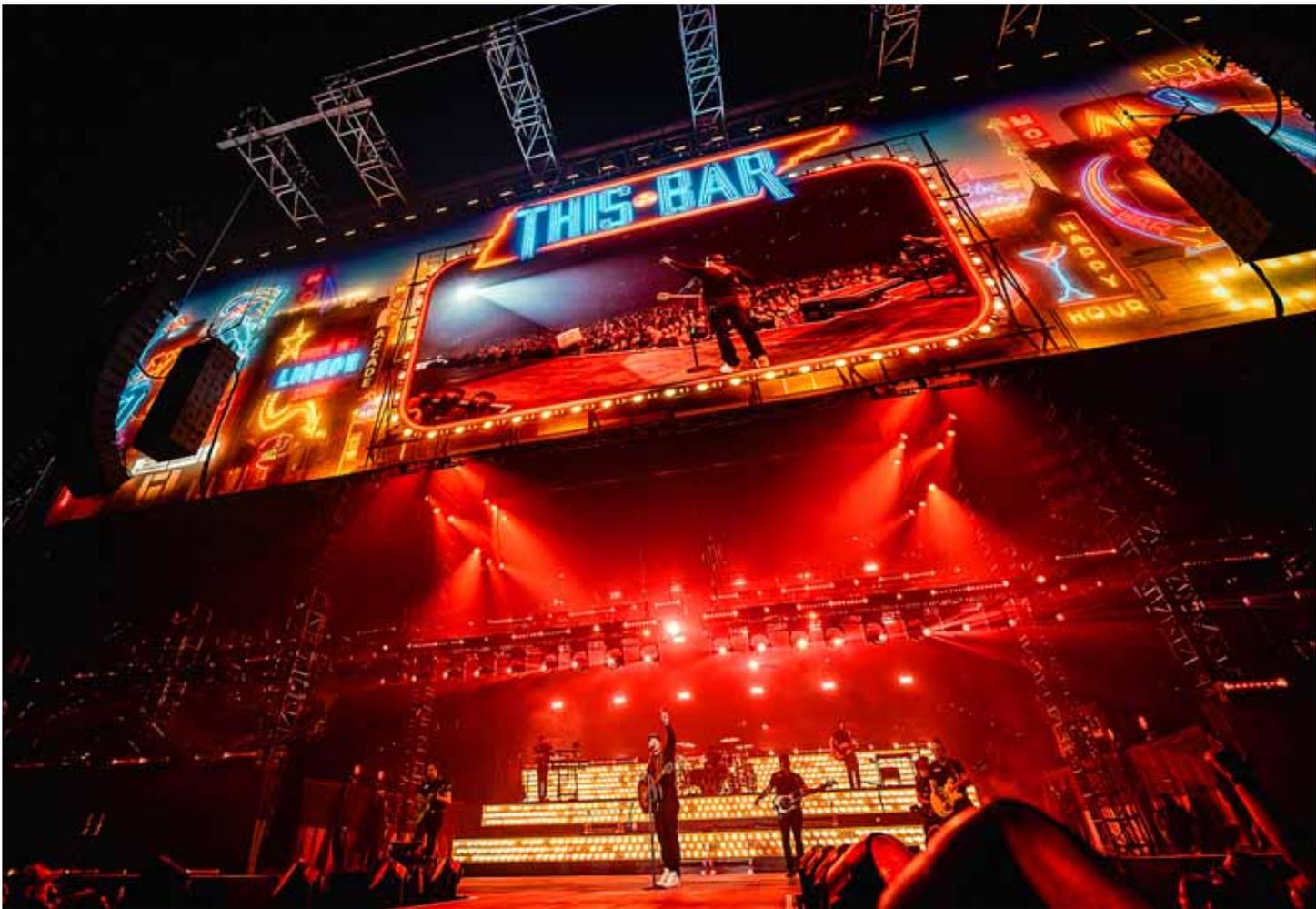
The setup is completed by a „C-stage“ positioned at the opposite end of each venue for acoustic sessions, providing fans in that area the chance to see Morgan Wallen up close. A special podium offers a platform for the musicians, including a moment where Wallen enters the stage through a door.

The stage is dominated by a 72-meter wide and 10-meter high wraparound video wall with rounded corners for smooth transitions, strategically placed high as a headpiece. This positioning ensures the visibility of video content from all angles.

One of the main challenges of this production is to reach a 270-degree audience. The high placement of the video wall and the strategic positioning of the lighting play a crucial role in this.

At the center of the lighting design are 84 Strike Bolt 1C from Chauvet Professional, which replace traditional blinders and serve as audience lights. On the video wall, they create a glowing effect for the audience. Additional fixtures are placed on delay towers to enhance the visual impact. Positioning these fixtures on the frame of the video wall required special mounts, crafted by Tait and evenly distributed across the entire 72-meter width.

The production company Raw Cereal uses Variable Speed Motor Hoists to animate numerous show elements and create dynamic shapes and movements. Tyler Santangelo serves as the lighting programmer on the tour, Zac Coren as the lighting director. Matt Geasey and Bryan Siegel provide technical direction support. The lighting crew chief is Conrad Dew. The Chauvet products were supplied by Christie Lites.







Fun with a K

How does it feel to fill the Lanxess Arena at home (in Cologne) and now go back on club tour? „Wonderful“, says Kasalla - and the team agrees, talking about the „Rudeldiere Tour 2024“.

„The reason is relatively simple: a club tour is simply fun, and both the band and production are closer to or even in the audience“, says production manager and tour manager André Lehner. After the uncertainties in the event industry due to the Corona pandemic and a canceled tour in 2022, the band was also on an extensive tour through Germany and neighboring countries for the first time post-Corona and wanted to take it easy.

„Of course, factors like budget, truck space, quick setup and teardown, as well as compatibility in different venues, were crucial for the design/setup. Since we played both very small clubs with up to 500 peo-

ple and correspondingly little space on and behind the stage, as well as halls with capacities of up to 2000 people, the setup had to and should work well everywhere. In the very small clubs, we only set up parts of the set“, Lehner adds.

Kasalla themselves, in cooperation with the Peter Rieger Konzertagentur, are the organizers of the tour. The contents of the live shows are managed by the five band members themselves, who express their wishes and approve all ideas. Fundamentally, they wanted the largest possible LED surfaces and a relatively high-resolution system. Since various content was already prepared, the team had to

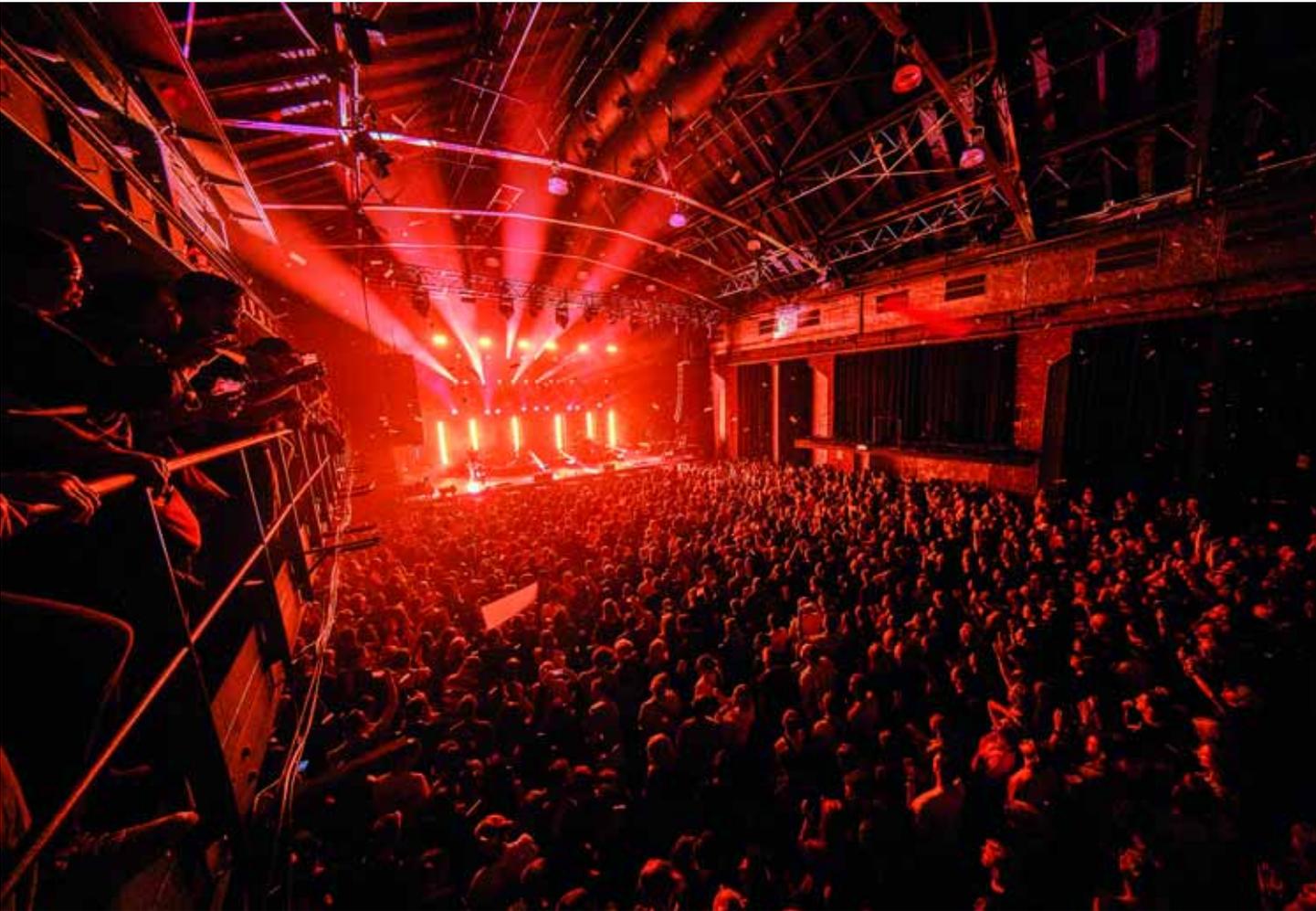


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adapt parts initially designed for a classic, full-surface LED wall to the chosen set.

Lighting designer and operator for the tour was Michael Dellwing, who was occasionally substituted by Thomas Lehnard, who also knows the band well and is familiar with the program from many previous gigs. As with the stage design, the goal in lighting design was to carry a floor setup that could be adapted and modularly built to suit different locations while maintaining the same aesthetic under varying conditions.

„The combination possibilities of the five completely pre-stocked video dollies allowed us to convey the artists' content even with a reduced setup adjusted to the stage size. The Portman S-Stripes arranged in the gaps gave the stage a lot of visual depth, especially in large halogen looks. The small number of carried spot, wash, and gobo lights allowed us to create targeted mood images independently of the locally available system. The content in the 'moving image' area is delivered directly by the band and output musically synchronized via timecode. The 3.9 mm system used provided very good reproduction even at close viewing distances and, especially due to the blackface variant in the background, appeared very 'invisible'“, says Dellwing.

Overall, the team brought 12 Portman S-Stripe, 9 Martin Mac Aura, 6 Cameo Zenit W600, 4 Cameo Azor S2, 4 Chauvet Color Strike M, 2 Smoke Factory Tourhazer, various E27 incandescent bulbs, and a grandMA2 light on tour. The video area included 70 modules of LEDitgo rX3ioBF with a Novastar controller and the Resolume playback software at FOH.

Roland Peiffers, responsible for sound (FOH and system), adds: „Since the band plays many concerts both in and out of the Cologne carnival season, the musicians place great importance on the consistency and reliability of the technology used. During the tour, they wanted to forgo some quick solutions needed mainly for carnival performances (such as a drum kit mounted on a floor plate) to play more freely. Nevertheless, the sound in the musicians' in-ears should not feel completely new.“

For monitoring, the band's own monitor console was used, which also handles the FOH mix during hectic carnival performances and provides the usual sound for the band. The signals were split analog to connect an

FOH console. Additionally, a few extra signals were taken for the FOH mix that the band does not need in the in-ear mix.

„Since Kasalla has been using a timecode from Ableton for more and more songs, I decided at FOH to automate many fader moves, which are always the same for some songs, for more consistency in the mix and align them to the timecode. For this, I used QLab, a software that can read LTC timecode and send MIDI program change commands to the console“, explains Peiffers.

A Yamaha QL1 and a Rio3224 were used for monitoring, and at FOH, an Avid S3L-X with 4 Stage16, Waves MaxxBCL, Eventide Eclipse, QLab, and iConnectivity Audio 4c were used. The band uses six Sennheiser EW IEM G3 for in-ear, an AC3200 antenna combiner, four Sennheiser EW-DX EM2 wireless microphones (3 microphone channels, 5 instrument channels for guitars and accordion). Most of the equipment belongs to the band, who value reliability, compactness, and market availability. „New are the Sennheiser EW-DX wireless systems. The range, transmission quality, simple programming, and monitoring via iPhone are real game-changers“, says the sound engineer, adding, „We have been working with Sennheiser products for a long time and always experience excellent service, even when things get more complex, like at our concert in the RheinEnergieStadion in Cologne“.

The Avid console is also a mainstay: „I still enjoy using my Avid S3L-X at FOH. With a few nice additional plugins, I have all the options for sound design and signal distribution that I need. Also, I enjoy being able to program the show at home at my desk with the compact console.“

David Glandien was responsible for backline/monitor, René von Stephani, and Thomas Kohrt for backline/stage technology. A total of 16 people were on the road (Nightliner: Coach Service Double Decker 16 Bunks): 5 x band, 1 x management, 1 x tour/production management, 1 x FOH/system, 1 x monitor/backline, 2 x backline/sound engineering/special FX, 1 x light operator/system, 2 x merchandise, 1 x videographer, and 1 x photographer. „We spent a week on rehearsals and pre-programming of light/LED, followed by two more days of tour rehearsals“, reports Lehnard.



Mathematics in the Middle East and Asia

Since the tour kicked off in Dublin two years ago, Ed Sheeran's „+ - = ÷ x“ („Mathematics“) Tour has visited over 100 cities around the globe. The Middle East and Asia leg of the tour recently concluded at the Mahalaxmi Race Course in Mumbai, India.



This production is a prime example of the versatility and scalability of the latest Meyer Sound technologies. The setup included 212 Panther line-array speakers in 14 arrays, 78 1100-LFC low-frequency control elements, and 22 Leopard line-array speakers. The entire Milan-based system, controlled and monitored with 26 Galileo Galaxy processors, was managed using the new Nebra software.

However, adjustments were necessary for the stop in India, as Chris Marsh, Production Director for the Ed Sheeran tour, explains: „Mumbai was the only stop in India on our Middle East and Asia tour leg, but we couldn't bring our entire system here. Therefore, we rented the PA locally.“

Since Panther line-array speakers are available in India, it was possible to deliver the exact audio experience of the tour there. Marsh was thrilled: „Being able to use a Panther system in India was a huge advantage. It's simply our system of choice - we know it very well and are absolutely convinced of its performance. We also didn't need delays as we would have with a substitute system from another provider. This saved us a lot of money and eliminated one logistical detail.“

Working closely with Sun Infonet and system technician Adam Wells, the team seamlessly integrated the substitute system into the show's setup

and used the Mapp 3D system design and prediction tools to pre-plan the mapping and routing. „Mapp 3D is an essential tool when it comes to determining the number of speakers and hangs“, Marsh explains. „The visualization and universal language the software uses bridge all barriers, making it easy for the local team to understand our design.“

Charlie Albin, former Audio Systems Engineer for Ed Sheeran and now a Technical Support Specialist in the UK for Meyer Sound since 2023, supported the team in Mumbai. „Having Charlie, who now works at Meyer Sound, on board made our work much easier“, Marsh adds. Since summer 2024, the „Mathematics“ tour has been back in Europe, with more dates planned for 2025.

Setlist 2024: Tides/Blow/I'm A Mess/Shivers/The A Team/Castle On The Hill/Don't-No Diggity/Lego House/Eyes Closed/Give Me Love/Dive/Boat/Head > Heels/Medley (River/Peru/Beautiful People/South Of The Border/I Don't Care)/Overpass Graffiti/2step (+ Armaan Malik)/Galway Girl (+ Alicia Enstrom)/Thinking Out Loud/Love Yourself/Sing/Photograph/Tenerife Sea/Happier/Lover (Diljit Dosanjh) (+ Diljit Dosanjh)/Perfect/Bloodstream/Afterglow/You Need Me, I Don't Need You/Shape Of You/Bad Habits

A firework on tour

„Classy“ is the third tour production of the renowned „Feuerwerk der Turnkunst“ (Fireworks of Gymnastics), which annually fills the largest arenas in Germany at the end of the year. The „On Stage“ tour, which showcases smaller venues and halls, is perfectly lit by Johannes Laugwitz and uses various Robe lighting fixtures.



With its new format „On Stage“, the brand Feuerwerk der Turnkunst has created a show like no other. Young, dynamic, fast-paced, and in tune with the times, the demand was so high last year that this year’s „Classy“ show added more locations: a total of 15 performances took place in Lüneburg (2), Osnabrück (2), Lingen, Vechta, Wilhelmshaven, Wolfsburg, Walsrode, Hameln, Berlin, Hildesheim, Cottbus, Nuremberg, and Frankfurt - a huge success for the directing duo Felice & Alexander Aguilar.

To meet the growing demand, the current show was also expanded: „We put together a larger cast for ‘Classy’“, reveals project manager Sandra Lohmann. „With the additional artists, we achieve an incredibly colorful mix of high-caliber performances.“ Nevertheless, the production wasn’t suitable for every city. „The technical requirements in the halls were relatively high, due to some interactive elements.“

„Classy“ is a show for young and young-at-heart audiences. Various music styles are fused into a total composition featuring a world-class mix of acrobatics, BMX, and dance to the music of Mozart, Bach, Beethoven, and Chopin mixed with contemporary beats. „We wanted our audience to feel like they were in the middle of and part of the show. The interactive proximity to the protagonists should make everyone feel like part of the story.“

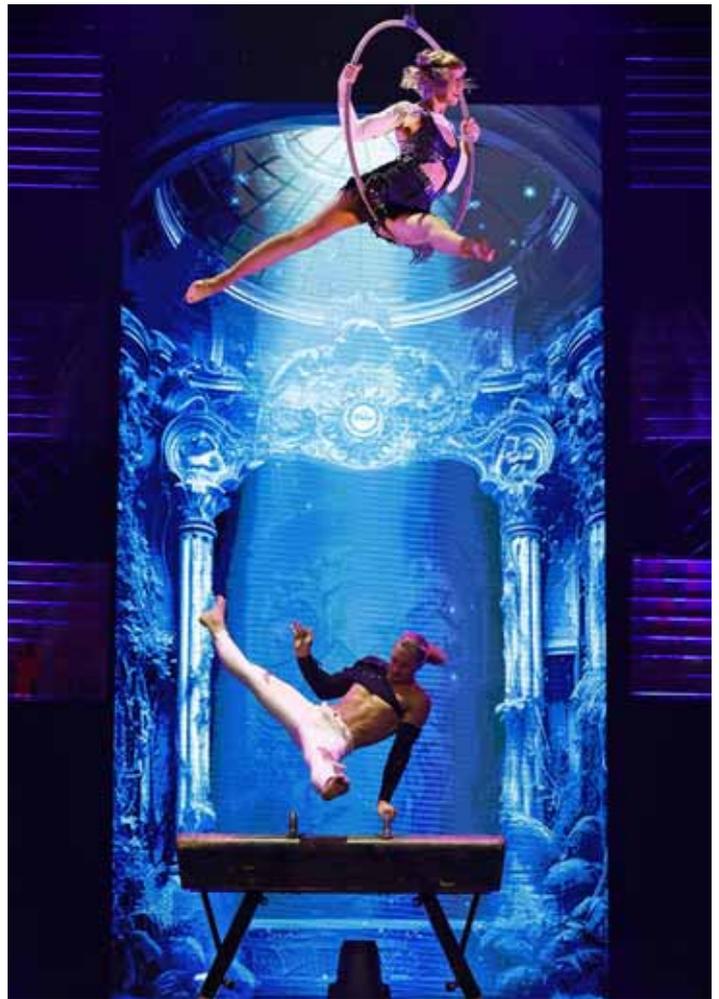
The „On Stage“ format was created in 2020 by the creative team of Feuerwerk der Turnkunst with its partner, DDC Entertainment from Schweinfurt, as a show for smaller theater stages and a young target audience. The energetic show utilizes all the advantages of classic stage settings and places high demands on the technology and lighting design, which should complement each act appropriately - a task that Johannes

Laugwitz (Random Lights) perfectly accomplished with a significant use of Robe Lighting fixtures in „Classy“.

„I thought intensively about the planning because we had to stick to the budget and fit all the equipment into one trailer. I chose 12 Spiider, 10 MegaPointe, 9 Esprite, 2 T1 Profile FS, and 2 RoboSpot Base Stations“, Laugwitz explains his choice. „Robe moving lights have the best light quality, homogeneity, and precision on the market. They always have a bit more effect options than other moving lights: the Spiider impresses with its Flower effect, the MegaPointe offers an unparalleled beam-spot combination, and the large zoom range and frost-shutter combination make the Esprite the perfect key light.“

The distribution of the fixtures was also well thought out: the lighting designer used the Esprites in the front and back truss as key lights. „Additionally, I used the lamps for specific actions to highlight them“, he adds. „T1 FS were also placed in the front truss and functioned exclusively as follow spots. The advantage was that I could adjust the colors for each act and also use them with gobos as follow spots.“ Laugwitz placed the Spiiders in the back truss and as side lights, with three per side of the stage and six in the back truss. „I used the lamps as a classic stage wash 80 percent of the time. For two songs, I additionally used the Flower effect, which I liked a lot. Additionally, the ‘side Spiiders’ were my key lights for all aerial acts.“

By the end of the tour, it was clear: „Classy“ exceeded all expectations. „Our concept of creating a young, quirky, and dynamic show has more than succeeded“, says Feuerwerk chief Wolfram Wehr-Reinhold. And the next tour production of Feuerwerk der Turnkunst is already set: „Superfly“ will be on stage from February 28 to March 10, 2025.



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Madonna concludes her „Celebration Tour“ with a beach concert in Rio, equipped with a 624-speaker system from L-Acoustics, powered by 212 Amplified Controllers. This allowed the Queen of Pop to achieve the largest concert audience for a solo artist in history.

„Madonna is a creature of habit, so the first and most important challenge in mixing her sound is to replicate her experience exactly every night, on every stage, at every venue. L-Acoustics made the critical difference“, says Madonna’s FOH technician Burton Ishmael. He mixed the sound for the singer’s concerts from October 2023 - from the O2 Arena in London to the record-breaking show on May 4, 2024, in front of about 1.6 million fans on the beach in Rio de Janeiro.

For Madonna’s 80-stop „Celebration Tour“, a K2-based system was used, provided by Eighth

Day Sound, a brand of Clair Global. For the tour finale on Rio’s beach, the São Paulo-based sound company Gabisom handled the production. The L-Acoustics setup included 172 K1, 80 K1-SB, 96 K2, 128 SB28, 68 KS28, 59 Kara, and 21 X8, powered by 122 LA12X and 90 LA8 controllers, along with two P1 processors. The complexity of this setup was managed with the help of L-Acoustics’ Soundvision software.

Soundvision was an essential tool to ensure the desired sound coverage of Rio’s beach. „Since we didn’t know the exact layout of the





beach, we could only estimate the throw distance, which we calculated at about four square feet per person, multiplied by the number of millions of people“, explains Ishmael. „We could input this distance into Soundvision and simulate the whole thing. Without Soundvision, it would have been impossible.“

The calculations helped Ishmael and his team, including system technician Andy Fitton and crew chief Frank Peoples, to develop a design to handle the challenging performance space. „While we didn’t expect walls or other reflective surfaces, we had to deal with temperature fluctuations on the beach“, says Ishmael. „During the day it was hot, and at night we expected a cooling of at least 10 to 15 degrees. And the wind also worried us greatly due to the diversion of sound.“

„Moreover, the salty sea air presented an additional challenge“, Ishmael continues. „That’s why we chose a system with massive power to overcome these obstacles. Many of the Amplified Controllers were only thirty meters from the breaking waves, but they managed to reliably serve all arrays along the beach.“

The delay towers of the system are particularly noteworthy in terms of number and placement - configured as eight stereo towers, each consisting of four K1-SB, eight K1, four K2, and eight KS28, and arranged as a kind of sound parade from the beach. „We had to account for atmospheric fluctuations and distances to make the delay towers functional - Soundvision’s autosolver tools, like Autoclima-

te and Autofilter, made this scale manageable“, says system technician Andy Fitton, noting that the wireless microphones used to calibrate the tower speakers half a kilometer from the FOH pushed the system’s antennas to their limits.

„The delay-mapping mode in Soundvision was crucial to getting it right. And the ability to visualize the low-mid pattern in the SPL target was key to achieving overall system consistency over distances of 300 feet.“

Another concern was the three large catwalks that Madonna used during the show. „Unlike an arena, where we have options to hang everything, there’s no roof system on the beach“, says Ishmael. „We positioned the main speakers at the bottom to avoid feedback on the three catwalks and added Kara and X8 upstage fills. This kept the FOH sound away from the catwalks but still provided amazing coverage in the VIP area.“

A deployment of this size doesn’t come without teamwork, as the „Celebration Tour“ crew chief Frank Peoples emphasizes. „Everyone contributed to making everything run as smoothly as possible, including Chris ‘Sully’ Sullivan and Alex Soto from L-Acoustics, who provided their system design expertise and answered any questions that arose“, says Peoples, who was part of the sound team for Pope Francis’s visit to Panama in 2019 and knows how challenging productions of this scale can be.

And although rehearsals began a year before the tour started, Ishmael says the final show on Rio’s beach was a one-of-a-kind event in terms of scale and challenges.



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The „Alphatier“ is back

Marius Müller-Westernhagen is currently on his „75Live“ tour, which sold out completely shortly after its announcement. Alongside his trusted band of top American musicians, the „Pfefferminz-Prinz“ is accompanied by a perfect lighting setup from Robe. Lighting designer Andreas Fuchs explains the details.







Due to the ongoing pandemic, Marius Müller-Westernhagen had to cancel his „Pfefferminz Experiment“ tour, planned for theaters and opera houses - his passion project. However, before he celebrates his 75th birthday on December 6, 2024, the artist embarked on his first major rock tour in almost ten years. „I want to make some nice noise again“, he says. „Let’s rock! Damn it, the time calls for it!“

Westernhagen presents not just a pure best-of set but also includes new songs from his latest album „Das eine Leben“ (2022) or lesser-known tracks like „Alles in den Wind“ (from the 1978 classic „Mit Pfefferminz bin ich dein Prinz“). „You’ll have to deal with it“, he grins mischievously, before launching into another highlight, a duet with his wife Lindiwe Suttle (from „MTV unplugged“) called „Luft um zu atmen“.

Vocally, the soon-to-be 75-year-old is in top form, and his grand band supports him throughout the evening. Always by his side is lighting designer Andreas Fuchs, who visually underscores Westernhagen’s musical images and creates the perfect atmosphere for each song. „The tour took us through large arenas in Dortmund, Hannover, Cologne, Leipzig, Ham-

burg, Frankfurt, and finally the Berlin Waldbühne. In late summer, another ten concerts will follow, including at some festivals. Marius and Klaus-Peter Matziol from the concert promoter Peter Rieger wanted a correspondingly ‘big’ stage and lighting design“, Fuchs recounts.

For the stage, a classic design was chosen, with no catwalk or B-stage. „Since we now play fully seated shows due to age, this was the best choice, although fans still can’t stay in their seats for songs like ‘Mit 18’ or ‘Sexy’.“

The entire design was created using Vectorworks Spotlight, a CAD software for creative design and technical planning in the event industry. The subsequent pre-programming was done using the planning and visualization software WYSIWYG (What You See Is What You Get) from the Canadian software company Cast, now one of the industry standards in the event sector. This was followed by four days of rehearsals at BBM Clair with the original set. Simultaneously, Marius rehearsed musically with his band, which consists exclusively of professional US musicians.





„For this type of production, Robe’s lights are simply the best“, enthuses Andreas Fuchs. „Besides the impressive performance, the price-performance ratio is also right. And for the summer festival appearances, we can always be sure that the various rental companies can easily meet the Robe requirements in the rider!“

Fuchs used a total of 54 Tarrantula, 44 BMFL WashBeam, and 36 MegaPointe fixtures in the set. „The lamps are just extremely reliable - I haven’t had a single failure yet“, the lighting designer explains his choice. „The MegaPointe is in a class of its own as a hybrid lamp: good colors, good zoom, good prisms, good gobos, and unbeatable speed - what more could you want? It’s much more than just a good beam due to its size, weight, and power consumption. The Tarrantula, with its brightness and various creative FX possibilities, fits sensationally into the design.“

Andreas Fuchs continues: „The punchy beam of the MegaPointe and the enormous light output of the BMFL give me a lot of freedom as a lighting designer to perfectly stage the artist, from fat beam looks to wide gobo images to entire color worlds on stage.“

In addition to Fuchs, lighting operator Justus Molthan and lighting crew chief Rouven Diedrich were also on the tour; TDA Clair was the rental partner.

Setlist 2024: Alphatier/Ich will raus hier/Fertig/Taximann/In meiner Bude flipp’ ich aus/Es geht mir gut/Die Wahrheit/Mit 18/Luft um zu atmen/Sexy/Alles in den Wind/Zeitgeist/Mit Pfefferminz bin ich dein Prinz/Wieder hier – Lass uns leben/Rosen/Schweigen ist feige/Halt mich noch einmal – Weil ich dich liebe/Johnny W./Freiheit

Sold Out Award in Cologne (from left to right): **Stefan Löcher** (Lanxess Arena), **Marius Müller-Westernhagen**, **Klaus-Peter Matziol** (Peter Rieger Concerts)





Metallica ignites soundstorm

State-of-the-art technology, reduced costs, and zero compromises for one of the world's largest LED screens - deployed in Riyadh, delivered by PRG.

Months before hundreds of thousands of visitors flocked to Soundstorm 2023 in Riyadh, Saudi Arabia, the PRG team was already planning rigging, audio, lighting, and video networks for the largest of the eight stages on site. The stage, called „Big Beast“, featured one of the world's largest LED screens, measuring 189 meters wide and 43 meters high, with over 200 million pixels, divided into 28 UHDs.

James Morden, PRG's lead video engineer for the event, sums it up: „When you're in a large stadium, the field is about 100 meters long. Imagine placing a screen on the field that extends through both goals, out of the stadium, and into the parking lot, poking through the roof. Your brain can't process that.“

178 etnow! 110

The Big Beast stage at Soundstorm, with its international headliners, drew hundreds of thousands of visitors over three evenings. Compared to previous years, the production team aimed to simplify the technical infrastructure while ensuring top-notch performance for the artists on stage. Morden recalls earlier systems: „We knew we needed a better solution because the screen sizes limited scaling and playback. We had countless layers of scalers just to achieve the needed resolution. Something as simple as switching a signal became a real mission.“

After weeks of research, PRG sent a small team to meet with the Pixera team at AV Stumpfl's headquarters in Austria. „On paper, we knew it would work - the purpose of the trip was to first meet the Pixera team and



second to test our ingest and scaling plan“, Morden continues. One of the key points in the tests was latency: „At a festival, each artist can show up with their own show on their own hardware, which we have to integrate, scale, and sequence. Using high-speed cameras, the team measured the latency at three frames from a signal hitting the input card of the Pixera four to the output rendering. PRG was satisfied with the test results and recommended a pure Pixera solution with full redundancy to its clients. It delivered exactly what it promised. It cut, sliced, and scaled whatever we threw at it“, recalls Morden.

Before PRG could finalize the system design for the show, the planned use of Pixera had to be approved by several key stakeholders: the end client MDLBeast, its production management Bill Leabody and Andy Head, and the team from Production Glue, which oversees the delivery on site, and Visual Noise Creative, responsible for control management and integration on all eight stages as well as for signage, emergency announcements, and pre-production and visualization of the incoming acts.

PRG's final Soundstorm 2023 system consisted of 12 AV Stumpfl Pixera four RS servers (including spare render servers), two Pixera two servers, and three Pixera Director servers. Since the same server hardware handled all Notch effects, compositing/scaling, and playback, PRG needed less rack space and fewer cables (which, in turn, reduced freight costs), needed less power, had a smaller crew on site, and had a more flexible video system. This meant that the Soundstorm 2023 system, despite using a video playback platform that could process more pixels (the previous year's platform only had 22 UHDs), would cost less than the 2022 system - another customer-friendly feature.

PRG also provided an offline server where the creative teams could program their content before hitting the stage. „Tom Denney, who spent most of 2023 touring with Metallica, reprogrammed the tour show on Pixera to ensure it looked great on opening night. The entire content was 1:1, so we didn't have to scale anything“, explains Morden. „And you could load and blend multiple Notch blocks across the entire LED wall - it was a mindset shift. Thanks to the multi-user feature, we could monitor





CPU and GPU statistics on another Director machine. We didn't drop a single frame."

„In December 2023, neither synchronization nor scaling was spared. Visitors were impressed by 28 UHD output paths shining in perfect sync“, reports Morden. „We received a lot of feedback from all the artist camps. Normally, festivals have a backdrop and two IMAGs - three simple screens to connect to. Anything beyond that needs to be scaled, which increases latency. All the feedback was about responsiveness: it took five frames from leaving the laptop to appearing on the screen, enabling capture, processing, and scaling. When the system in Riyadh runs at 50 frames per second, that's a tenth of a second - that's impressive and ultimate-

ly helps the creatives be creative - they can press the buttons at the right moment without anticipating a fraction of a beat.“

Used to the pressure, the Big Beast video team had plenty of passersby backstage - not just artists in town for the event but also production companies responsible for the other seven Soundstorm stages. „Sometimes they want to talk about the overall design, but usually they're more interested in how we got everything to work. We've been very open about it and emphasized that there's no panacea, no one-size-fits-all solution, but for these extra-large, high-end shows, you need a flexible and fully redundant system“, adds Morden, „and Pixera more than fulfilled that. I'm looking forward to building on this in 2024“.



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POP MEETS CLASSIC

Location: VW-Halle, Braunschweig
 Company: Groh-PA
 Specification: This year's „Pop meets Classic“ was supported by the Lisa Immersive Audio System from L-Acoustics, deployed by project manager and L-ISA operator at Groh-PA, Florian Werner. Instead of relying on traditional stereo setups where sound comes from the left and right, L-ISA uses a much larger number of speakers that can be placed above and around the audience. The system consisted of 78 L-Acoustics Kara II, 18 KS21 subwoofers, and 13 X8 speakers, driven by LA12X amplifiers.



ART INSTALLATION

Location: King Fahad Library Oark, Riad
 Company: Bright Studios
 Specification: Lighting designer Thomas Giegerich from Bright Studios and Esme Entertainment Services teamed up to illuminate the artwork „Agal“ for the Kingdom of Saudi Arabia's Founding Day celebrations. Over 250 Elation Proteus lights were used. Giegerich said, „We surrounded the Agal with 120 Proteus Hybrid on the ground and placed 24 Proteus Excalibur at the top - a total of three light circles“. Additionally, 60 Proteus Rayzor 760 were placed to create a glitter effect.



SHARJA LIGHT FESTIVAL

Location: Emirat Schardscha, VAE
 Company: Digi Projection, Artabesk
 Specification: Nearly 60 Digital Projection laser projectors, including 46 Titan Laser 37000 WU and 13 M-Vision 23000 WU, provided the displays for the Sharjah Light Festival. Video specialist Artabesk provided its extensive equipment of digital projectors to create visually unique experiences, including a 300 x 50 m projection on a mountainside. At the Sharjah Mosque, 21 Titan Laser projectors with 37,000 lumens were used to create a linear projection over an area of 400 sqm.



SISTER ACT

Location: Jakobskirche, Nürnberg
 Company: Kwick Lights
 Specification: General service provider Eventloxx hired Kwick Lights for the lighting production, which used ETC lighting systems, including SolaPix 19, TurboRay, and High End Systems Lonestar. Kwick Lights CEO Alexander Kwick said, „We had to consider the monument protection. Additionally, the normal church operations should not be disrupted during the Sister Act playtime until mid-May. For example, the availability of power is limited, so we focused on efficient LED lights“.



OPERA BALL

Location: Opernhaus, Hannover
 Company: Lightpower
 Specification: The lighting department of the opera house used a mix of Portman and Prolights fixtures, controlled via a grandMA3 system in 3rd software mode. The transformation of the state opera into a ball location took about a week. The fixed lighting team was expanded to about 35 people for the two-day opera ball event. Although they had no prior experience with the grandMA3 system, Fabian Grohmann decided to control the show lighting with it.



THE OSCARS

Location: Dolby Theatre, LA
 Company: Shure
 Specification: At the 96th Oscars, millions of viewers worldwide were able to follow the blockbuster event in crystal-clear audio quality with the help of Shure's wireless audio technology. The production team used a total of 50 channels of the Axient Digital wireless system and monitored the spectrum with Shure's Wireless Workbench software. The teams from ATK and Soundtronics used 16 channels of the Q5X Player Mic, which can be seamlessly combined with the wireless Axient Digital system.





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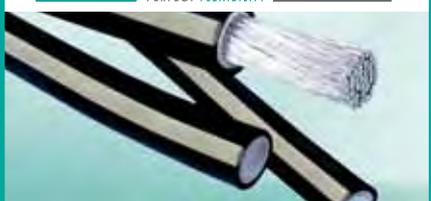
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„I would like to be paid like a plumber“

The American sound engineer Steve Albini, who was also the frontman of the post-hardcore and noise rock bands Big Black (1981-1987), Rapeman (1987-1989), and Shellac (1992-2024), has died. Below is a brief overview of his life and his legendary letter to the band Nirvana.

Steve Albini was the founder, owner, and chief engineer at Electrical Audio, a recording studio complex in Chicago. There, he oversaw the recordings of several thousand singles, EPs, and albums for artists such as Nirvana, PJ Harvey, and Jimmy Page & Robert Plant. The studio remains active.

Albini was born on July 22, 1962, in Pasadena, California, and grew up in Missoula, Montana. After discovering the Ramones as a teenager, he played in several punk bands. He earned a degree in journalism from Northwestern University in Illinois and wrote for local fanzines before moving to Chicago to immerse himself in the city's punk scene. He founded Big Black in 1981 and released two studio albums. After Big Black disbanded, he shifted his focus to sound engineering and opened the Electrical Audio studios. In 1992, he returned to music with the noise rock band Shellac, releasing six albums with them.

Known for his candid and blunt opinions, Albini strongly criticized the structure of the music industry, which he saw as exploitative towards artists. As a matter of principle, he did not take royalties for albums he worked on and only worked for a fee. Since the early 1990s, Albini was mainly known as a record producer; however, he rejected this term and preferred not to be named on album covers or notes. If he was named, he preferred the term „Recording Engineer“.

At Electrical Audio, Albini earned a daily fee of \$750 for engineering work and had an annual salary of \$24,000 in 2004. After completing studio work, Albini only charged for his time. In a 2004 lecture, Albini stated that he always dealt directly with bands at Electrical Audio and personally answered the studio phone.

In his essay „The Problem with Music“, Albini heavily criticized the music industry and major record labels of the time for financially exploiting and deceiving their artists.

In November 2014, Albini gave the keynote speech at the „Face the Music“ conference in Melbourne, where he spoke about the evolution of the music scene and industry since he entered the music world in the late 1970s. He described the pre-internet corporate music industry as „a system that ensured waste by rewarding the most wasteful wasters, in a system specifically designed to waste bands' money“. This system aimed to maintain its structures and business arrangements while preventing bands - except for „monumental stars“ - from earning a living. Albini contrasted this with the independent scene, which fostered ingenuity and established an alternative network of clubs, promoters, fanzines, DJs, and labels, allowing musicians to earn a reasonable income due to the system's greater efficiency.

As part of the „Face the Music“ speech, Albini noted that both corporate and independent industry models had been damaged by internet file-sharing but praised the spread of free music as a „fantastic development“ that allowed previously ignored music and bands to find an audience. He also lauded the use of the internet as a distribution channel to listen to music worldwide and the increasing affordability of recording equipment, which allowed bands to bypass the traditional recording industry. Albini argued that the increased availability of recorded music boosted the demand for live music, thus increasing bands' income.

Albini criticized music festivals for commercializing popular alternative music. In a 1993 interview, he said about Lollapalooza: „Lollapalooza is the worst example of corporate intrusion into what is supposed to be the underground. It's just the large-scale marketing of bands that pretend to be alternative but are really just another aspect of the mass-culture exploitation scheme. I have no appreciation or affection for those bands and no interest in that whole circle. If Lollapalooza had Jesus Lizard and the Melvins and Fugazi and Slint, you could argue that it actually had people at the top of the music. What it really is: the most popular bands on MTV that are not heavy metal.“

In 2004, Albini estimated that he had overseen the recording of 1500 records, mainly by underground musicians. By 2018, his estimate had increased to several thousand. Artists Albini worked with include Nirvana, the Pixies, The Breeders, Godspeed You! Black Emperor, Mogwai, The Jesus Lizard, Don Caballero, PJ Harvey, The Wedding Present, Joanna Newsom, Superchunk, Low, Dirty Three, Jawbreaker, Neurosis, Cloud Nothings, Bush, Chevelle, Jimmy Page and Robert Plant (as Page and Plant), Helmet, Fred Schneider, The Stooges, Owls, Manic Street Preachers, Jarvis Cocker, The Cribs, The Fleshtones, Nina Nastasia, The Frames, The Membranes, Cheap Trick, Motorpsycho, Slint, Mclusky, Labradford, Veruca Salt, Zao, The Auteurs, Spare Snare, and Foxy Shazam.

Albini was married to film director Heather Whinna. He avoided drugs and alcohol; his father was an alcoholic, which made him aware of his „own susceptibility to addiction“. However, Albini was an enthusiastic and successful poker player, referring to cash games as „part of my livelihood“. He died on May 7, 2024, at the age of 61 from a heart attack at his home in Chicago. Below is his (widely available online) letter to Nirvana, in which he clarified that he would only work with the band if he was paid once for his work and not - unlike what was and still is common - be involved in future earnings.

Photos of the letter: Nirvana via X.

Steve Albini
Post Office Box 442
Evanston, Illinois
USA 60204
Telephone USA (312) 539-2555
Fax USA (312) 539-4495

Kurt, Dave and Chris:

First let me apologize for taking a couple of days to put this outline together. When I spoke to Kurt I was in the middle of making a Fugazi album, but I thought I would have a day or so between records to sort everything out. My schedule changed unexpectedly, and this is the first moment I've had to go through it all. Apology Apology.

I think the very best thing you could do at this point is exactly what you are talking about doing : bang a record out in a couple of days, with high quality but minimal "production" and no interference from the front office bulletheads. If that is indeed what you want to do, I would love to be involved.

If, instead, you might find yourselves in the position of being temporarily indulged by the record company, only to have them yank the chain at some point (hassling you to rework songs/sequences/production, calling-in hired guns to "sweeten" your record, turning the whole thing over to some remix jockey, whatever...) then you're in for a bummer and I want no part of it.

I'm only interested in working on records that legitimately reflect the band's own perception of their music and existence. If you will commit yourselves to that as a tenet of the recording methodology, then I will bust my ass for you. I'll work circles around you. I'll rap your head in with a ratchet...

I have worked on hundreds of records (some great, some good, some horrible, a lot in the courtyard), and I have seen a direct correlation between the quality of the end result and the mood of the band throughout the process. If the record takes a long time, and everyone gets bummed and scrutinizes every step, then the recordings bear little resemblance to the live band, and the end result is seldom flattering. Making punk rock records is definitely a case where more "work" does not imply a better end result. Clearly you have learned this yourselves and appreciate the logic.

About my recording methodology and philosophy:

#1: Most contemporary engineers and producers see a record as a "project," and the band as only one element of the project. Further, they consider the recordings to be a controlled layering of specific sounds, each of which is under complete control from the moment the note is conceived through the final mix. If the band gets pushed around in the process of making a record, so be it; as long as the "project" meets with the approval of the fellow in control.

My approach is exactly the opposite.

I consider the band the most important thing, as the creative entity that spawned both the band's personality and style and as the social entity that exists 24 hours out of each day. I do not consider it my place to tell you what to do or how to play. I'm quite willing to let my opinions be heard (if I think the band is making beautiful progress or a heaving mistake, I consider it part of my job to tell them) but if the band decides to pursue something, I'll see that it gets done.

I like to leave room for accidents and chaos. Making a seamless record, where every note and syllable is in place and every bass drum beat is identical, is no trick. Any idiot with the patience and the budget to allow such foolishness can do it. I prefer to work on records that aspire to greater things, like originality, personality and enthusiasm. If every element of the music and dynamics of a band is controlled by click tracks, computers, automated mixes, gates, samplers and sequencers, then the record may not be incompetent, but it certainly won't be exceptional. It will also bear very little relationship to the live band, which is what all this hokey is supposed to be about.

#2: I do not consider recording and mixing to be unrelated tasks which can be performed by specialists with no continuous involvement. 99 percent of the sound of a record should be established while the basic take is recorded. Your experiences are specific to your records; but in my experience, remixing has never solved any problems that actually existed, only imaginary ones. I do not like remixing other engineer's recordings, and I do not like recording things for somebody else to remix. I have never been satisfied with either version of that methodology. Remixing is for talentless pussies who don't know how to tune a drum or point a microphone.

#3: I do not have a fixed gospel of stock sounds and recording techniques that I apply blindly to every band in every situation. You are a different band from any other band and deserve at least the respect of having your own tastes and concerns addressed. For example, I love the sound of a boomy drum kit (say a Gretsch or Camco) wide open in a big room, especially with a Bonhammy double-headed bass drum and a really painful snare drum. I also love the puke-inducing low end that comes off an old Fender Bassman or Ampeg guitar amp and the totally blown sound of an SVT with broken-in tubes. I also know that those sounds are inappropriate for some songs, and trying to force them is a waste of time. Predicating the recordings on my tastes is as stupid as designing a car around the upholstery. You guys need to decide and then articulate to me what you want to sound like so we don't come at the record from different directions.

#4: where we record the record is not as important as how it is recorded. If you have a studio you'd like to use, no hag. Otherwise, I can make suggestions. I have a nice 24-track studio in my house (Fugazi were just there, you can ask them how they rate it), and I'm familiar with most of the studios in the Midwest, the East coast and a dozen or so in the UK.

I would be a little concerned about having you at my house for the duration of the whole recording and mixing process (if only because you're celebrities, and I wouldn't want word getting out in the neighborhood and you guys having to put up with a lot of fan-style bullshit); it would be a fine place to mix the record though, and you can't beat the vittles.

If you want to leave the details of studio selection, lodgings, etc. up to me, I'm quite happy to sort all that stuff out. If you guys want to sort it out, just lay down the law.

My first choice for an outside recording studio would be a place called Pachyderm in Cannon Falls, Minnesota. It's a great facility with outstanding acoustics and a totally comfy architect's wet-dream mansion where the band lives during the recordings. This makes everything more efficient. Since everybody is there, things get done and decisions get made a lot faster than if people are out and about in a city someplace. There's also all the posh shit like a sauna and swimming pool and fireplaces and trout stream and 50 acres and like that. I've made a bunch of records there and I've always enjoyed the place. It's also quite inexpensive, considering how great a facility it is.

The only bummer about Pachyderm is that the owners and manager are not technicians, and they don't have a tech on call. I've worked there enough that I can fix just about anything that can go wrong, short of a serious electronic collapse, but I've got a guy that I work with a lot (Bob Weston) who's real good with electronics (circuit design, trouble shooting and building shit on the spot), so if we choose to do it there, he'll probably come along in my payroll, since he'd be cheap insurance if a power supply blows up or a serious failure occurs in the dead of winter 50 miles from the closest tech. He's a recording engineer also, so he can be doing some of the more mundane stuff (cataloging tapes, packing stuff up, fetching supplies) while we're chopping away at the record proper.

Some day I'm going to talk the Jesus Lizard into going up there and we'll have us a real time. Oh yeah, and it's the same Neve console the AC/DC album Back in Black was recorded and mixed on, so you know its just got to have the rock.

#5: Dough. I explained this to Kurt but I thought I'd better reiterate it here. I do not want and will not take a royalty on any record I record. No points. Period. I think paying a royalty to a producer or engineer is ethically indefensible. The band write the songs. The band play the music. It's the band's fans who buy the records. The band is responsible for whether it's a great record or a horrible record. Royalties belong to the band.

I would like to be paid like a plumber: I do the job and you pay me what it's worth. The record company will expect me to ask for a point or a point and a half. If we assume three million sales, that works out to 400,000 dollars or so. There's no fucking way I would ever take that much money. I wouldn't be able to sleep.

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P.5

I have to be comfortable with the amount of money you pay me, but it's your money, and I insist that you be comfortable with it as well. Kurt suggested paying me a chunk which I would consider full payment, and then if you really thought I deserved more, paying me another chunk after you'd had a chance to live with the album for a while. That would be fine, but probably more organizational trouble than it's worth.

Whatever. I trust you guys to be fair to me and I know you must be familiar with what a regular industry goon would want. I will let you make the final decision about what I'm going to be paid. How much you choose to pay me will not affect my enthusiasm for the record.

Some people in my position would expect an increase in business after being associated with your band. I, however, already have more work than I can handle, and frankly, the kind of people such superficialities will attract are not people I want to work with. Please don't consider that an issue.

That's it.

Please call me to go over any of this if it's unclear.

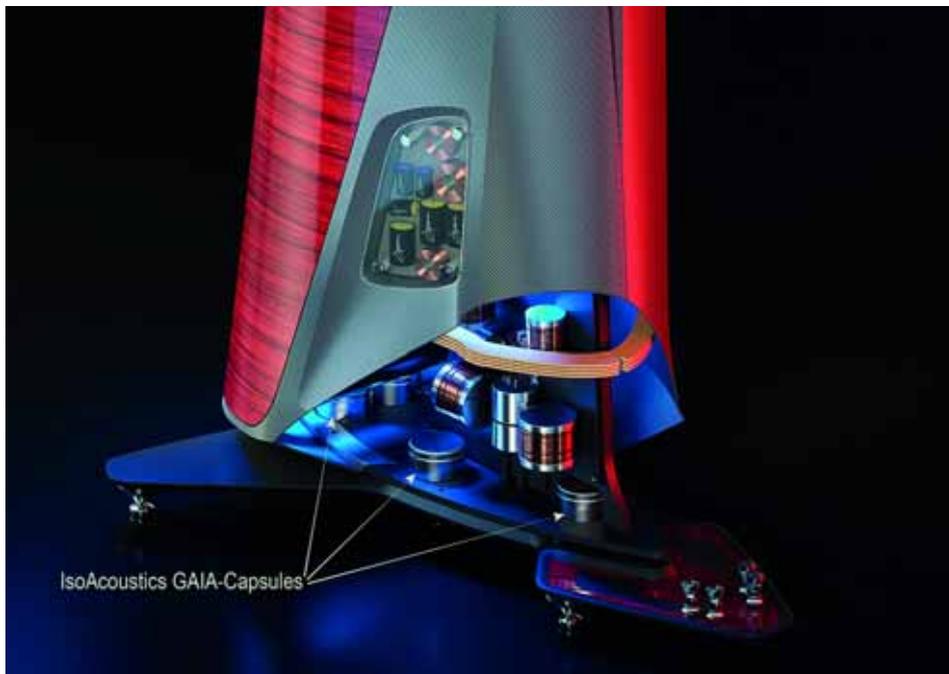
-Steve

If a record takes more than a week to make,
somebody's fucking up.

Oi!

\$ 750,000...

For the new flagship speaker system Suprema, valued at \$750,000, Sonus Faber and Iso Acoustics have jointly optimized the acoustic isolation of the speaker.



The Iso Acoustics technology enjoys an excellent reputation among manufacturers of high-end speakers. Now, Sonus Faber has integrated the isolation technology from Canada into its latest high-end speaker system: Suprema. Sonus Faber stands for impeccable sound. The Italian manufacturer makes no compromises in the development of its sophisticated systems, and this is once again demonstrated with the new Suprema. Priced at \$750,000, Suprema includes two main speakers and two subwoofers, as well as an electronic crossover, all made from the finest materials. Ten drivers per main column, including two in the rear panel, are complemented by two powerful woofers per subwoofer to create the natural and incredibly detailed sound for which Sonus Faber is famous.

Sonus Faber Suprema is a full-range system that spans from 16 Hz to 40 kHz. To prevent the finely tuned system from generating unwanted resonances through the connection to the floor, which could affect the sound, Sonus Faber engineers, in collaboration with Iso Acoustics, developed a special solution. A multi-stage suspension system between the cabinet and base plate, both for the main speakers and the subwoofers, ensures that Suprema can reach its full potential. The GAIA isolators from Iso Acoustics, specially optimized for this system, prevent vibrations from being transmitted to the floor or reflected back into the cabinet, allowing Suprema to shine in full brilliance with clear basses.

„We used to have an isolation system outside the cabinet, but this solution with exposed springs or elastomers was always a compromi-

se for us“, says Sonus Faber Chief Design Officer Livio Cucuzza. „With Suprema, we wanted to keep the design cleaner. With Iso Acoustics, we had the opportunity to develop a system as part of the speakers.“

The patented Iso Acoustics technology was developed to isolate speakers, turntables, and other audio devices from their respective surfaces. This acoustic isolation leads to two main effects: First, vibrations are not transmitted to the surface, which therefore does not resonate. This eliminates disruptive interferences and clarifies the sound in the room. Second, vibrations are not fed back into the speaker cabinet, where they could otherwise negatively impact the frequency response and transient behavior, ultimately causing the sound to become diffuse. The use of Iso Acoustics isolators enhances the sound of speakers, resulting in a more transparent and detailed sound. Even a high-end system like Suprema from Sonus Faber benefits from the integration.

While the Iso Acoustics effect improves the sound of any speaker, Sonus Faber has reached a new level of perfection with the integration of the new capsule version of Iso Acoustics' renowned GAIA system into Suprema. By considering the speaker in the context of its environment, Sonus Faber significantly enhances the listening experience with this innovative technology. „Iso Acoustics achieves great results in the mid and high frequencies, where everything becomes clearer without losing dynamics in the bass range“, explains Cucuzza. „Thanks to Iso Acoustics, everything is more precise, refined, and the soundstage is more clearly localized. We are extremely satisfied with the results.“

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Fichtestraße 18 · 30625 Hannover
Telefon: (05 11) 55 40 48 · Fax 55 40 40
Mail: redaktion@etnow.de

Editor-in-chief

Stephan Kwiecinski (v.i.S.d.P.)
sk@etnow.de

Editors

Julia F. Kwiecinski
Laura M. Kwiecinski

Photos

Ralph Larmann
Stephan Kwiecinski
Louise Stickland

Bryan Adams (Sennheiser), AMG (Westernhagen Sold Out Award), Ashley+Wesely (PLS-Highlite), Justin Bässler (Mark Forster sold out), Demian Becerra (Coachella), Patrick Bergmüller (James Blunt sold out), Sebastian Biesen (Bootshaus), Jonathan Braasch (Bootshaus), Dominique Brewing (FMX), Comtain/Fotostudio Eder (Austrian Event Award), Renee Del Missier (Restaurant Walters), Uwe Ditz (Robert Trebus), Jamal Eid (Coachella), Moritz Frankenberg (Opernball), Sascha Gansen (Dein Speisesalon, Jochen Gotzen), Paul Gärtner (Luciano), Jochen Günther (PLS, Light+Building), Cam Hill (Coachella), Brandon Ishmael (Madonna), Lars Kaletta (Feuerwerk der Turnkunst), Robin Kirchner (PLS), Carsten Klick (Joe Crawford), Christoph Koch (Rainer Brandstätter), Kuehnmedia (Stage Concept), Natt Lim (Coachella), John F. Martin (Johan de Nysschen), Carlos Martini (Kontra K), Christof Mattes (EVVC), Monsieur Benj (Sharjah Mosque), Brett Murray (Metallica), El Nariz (Joe Wilkins), Paul Needham (Jazzclub Karlsruhe), Neeraj KT/Vision X Studio (Ed Sheeran), Shannon McClean (Steve Albini), Collin O'Malley (Coachella), Jakob Päßler (Sister Act), Joe Pohl (Pacha), Marko Polasek (PLS-Robe), Stephan Polzer (Lawo Stadium), Bruna Prado (Madonna), Jamie Rosenberg (Coachella), Rool Rovner (Optimic), Alex Soto (Madonna), Dirk Strohmer (Degefest), Pietro Suter (Light+Building), Daniel Tirado (Coachella), Joachim Tournebize (Ioan Allen), Quinn Tucker (Coachella), Jeremy Verone (Coachella), Manfred H. Vogel (Leatcon), Petra Welzel (Light+Building), Jake West (Coachella), Kevin Winter (Oscars)

Design & Layout

Stephan Kwiecinski · sk@etnow.de

Advertising & Coordination

Claudia Kwiecinski · ck@etnow.de
Elke Petrick · ep@etnow.de

Printing & Distribution

Leinebergland, Alfeld · vertrieb@etnow.de

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