



Switzerland's Stadion Letzigrund upgraded its sound system with Renkus-Heinz to provide spectators with audio for concerts by internationally renowned artists, the Swiss Football League and the European Championships.

Being a good sport

Sport and entertainment venues are shrewd businesses that need to make every dollar they can while providing fans and audiences with an unmatched experience.

Paul Bray explains how AV suppliers can help them to square this circle.

A

V has become an integral part of live sport and entertainment, whether it is LED ribbons around the pitch, massive LED installations providing instant action replays and close-up views of performers, digital menu boards in the bars, or light and

projections replacing conventional theatre scenery.

The aim is not only to give fans and audiences the best experience and view of the action, but to keep them in the venue – and spending money – as long as possible.

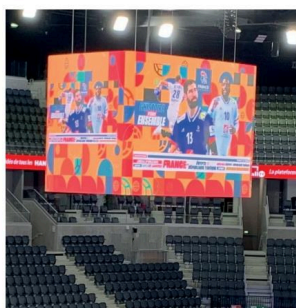
Different priorities

According to James Keen, European

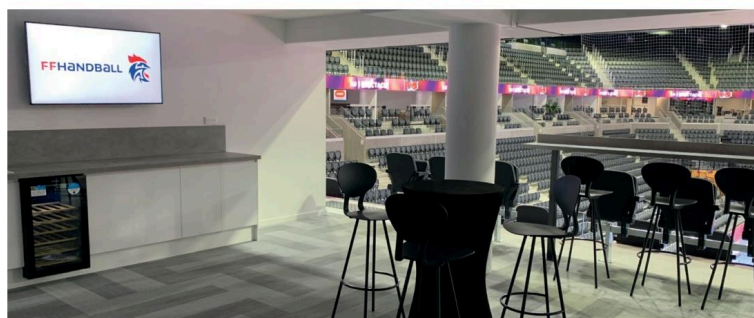
vice-president of marketing at Uniqwest, although sports stadiums and entertainment venues can look similar in technological terms, they may have different priorities. "Arenas and performance venues tend to be more focused on visual impact, amazing graphics and choreographed visual experiences, while sports stadiums tend to lean more into supporting rev-

enue generation – how do we speed up the food and beverage lines to maximise revenue during non-playing periods, or increase average order size, promote special offers, sell more merchandise?

"Arenas also want all that, but they have more time around a main event to sell to their audience, so they can shift focus a lot more towards experi-



VITEC created a dynamic IPTV and HD digital signage solution for GL Events' new CO'Met Arena in Orléans, France.



ence. Sport is also massively improving from an experiential perspective, but most of that tends to be focused 'in-bowl' rather than in concourses."

Selling to this sector can be exciting and rewarding, but is not without its challenges, according to JJ Barnett, business development manager at Bose Professional. "We're dealing with big players that have big expectations.

Stadiums and entertainment venues are high profile projects that require both manufacturer and integrator to go above and beyond the call of duty. You're often working with decision-makers who expect premium performance and cutting-edge technology. The stakes are high, and clients want to create a memorable experience for tens of thousands of people weekly.

"Deals in this market tend to be complex, involving multiple stakeholders - AV consultants, engineers, architects and venue management. You need to be ready for long sales cycles, detailed demonstrations, and addressing a wide range of pain points the customer has experienced in the past."

Venues are not wealthy

One common misconception is that venues are wealthy. "Although many system integrators gravitate towards sport on the understanding that clubs are cash rich, the reality is that over half of all revenue goes into the playing squad," says James Cook, European industry development director for OOH and sports at Absen.

As for entertainment, "some impoverished theatres are reusing Gaffer

tape and lighting gels," says Bill Coons, director of Contact Distribution.

One of the main business issues is therefore cost, believes Rob Meiner, senior technical solutions engineer at Peerless-AV. "Cutting-edge AV demands significant investment in both infrastructure and ongoing maintenance. Balancing this cost with RoI, while ensuring monetisation through ads and partnerships, is critical."

"Without doubt the biggest challenge for rights holders is the capital expenditure," agrees Cook. "There must be a clear financial plan to offset any cost of investment. This often makes deals in the sector very complicated, because there's nearly always a need for a third party (agency) involvement to help offset capex.

"This can muddy the waters because of the variety of agency options in the market, and quite often the deal becomes about everything other than the specifics of the AV technology.

"My advice to integrators and others looking to enter this space is make sure you have knowledge of the entire ecosystem and understand the third parties who make things happen, because you'll need to offer more than

just best-in-class product," he says.

Determining whether or not the owners or stakeholders appreciate the need to invest in technology can be a unique challenge, according to Coons. "Entertainment has become big business, and the 'suits' have taken control away from the technical directors who used them largely to determine budgets. They need to be educated about our industry's quickly evolving technology, and how hardware can soon become obsolete or incapable of work-

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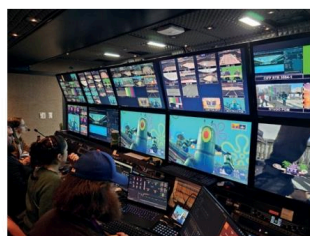
**James Cook,
Absen**

"The displays in these venues are highly visible and often featured on camera during live broadcasts, so downtime is not an option."

**Ross Noonan,
LED Studio**



EDGE Sound Research used LEA Professional at The Thomas & Mack Center, Las Vegas with Connect Series amplifiers and ESR's Embodied Sound technique that can immerse the crowd.



Silver Spoon and Stage Precision brought the 2024 Super Bowl to a younger audience using realtime AR graphics simulcasted on the children's broadcast channel, Nickelodeon and CBS.

ing with new products running under new software that's not backward compatible."

Another "stakeholder" group is, of course, the fans or audience. "The sports and entertainment market is driven by fan experience," says David Thompson, associate director of Tata Comms Media. "Fans' expectations are incredibly high, and any failure in AV performance is immediately noticeable. A big screen in a hospitality area must capture the action in realtime, and instant replays have to be instant.

"Events like Formula E, which rely on live video feeds across various platforms throughout a venue demand AV systems that perform flawlessly."

Reliability is vital. "The displays in these venues are highly visible and often featured on camera during live broadcasts, so downtime is not an option," says Ross Noonan, technical sales and marketing manager at LED Studio. "To address this, venues demand higher levels of specification, including robust redundancy for signal and power to ensure seamless operations on match days or during events."

And the AV supplier's responsibilities do not end when the system is delivered. "Manufacturers and integra-

tors who provide ongoing support and training for venue staff set themselves apart," says Barnett. "Stadiums require long-term partnerships for maintenance, upgrades, and system adjustments over time. Offering exceptional post-installation service can be a major selling point."

"Sports and entertainment is an anti-social hours kind of industry, so AV companies need to be prepared to provide support around the clock," adds Keen. "A major star wants a live stream from the auditorium to the TV in her dressing room before a show? That's something you as an integrator are going to need to solve fast. The sports and entertainment industry is smaller than you'd think and everybody talks to each other, so when you get into the space, stay on your toes!"

Keeping it simple

Simplicity of operation is a key requirement, according to John Sparrow, senior systems consultant at Clear-Com. "Often the teams are multi-tasking and don't have the luxury of concentrating on one area of expertise (this differs from broadcast, where the engineers often specialise in one area). Also, theatres, concert halls and are-

nas need to be rigged and de-rigged quickly."

"Sustainability is also becoming a priority," says Andrew Sharp, sports and arena business development manager at Pioneer Group. "Stadiums are looking to energy-efficient AV solutions, from low-power LED displays to more eco-friendly broadcasting equipment, aligning with broader efforts to reduce environmental impact."

On the technical side, a key issue is integration with legacy infrastructure.



"For integrators, the ability to offer modular, scalable systems that can integrate seamlessly with existing infrastructure is crucial."

**Thomas Lind,
Appear**

"Many venues have older systems that need to be upgraded to handle IP-based solutions without disrupting operations," says Thomas Lind, director of product management at Appear. "For integrators, the ability to offer modular, scalable systems that can integrate seamlessly with existing infrastructure is crucial."

Audio can still be something of a poor relation. "As a frequent attendee of concerts, musicals and shows, I often find myself wishing for better audio mixing – something that algorithms still can't fully address – rather than simply more sound pressure or better technology," says Dirk Noy, director of applied science and engineering at WSDG. "This highlights that the issue isn't just about the technology itself. It also involves the operators and their decisions on how to enhance the audience's experience."

In the future, a number of emerging technologies seem set to make their mark on the sector.

"Cloud-based AV solutions are transforming the landscape, offering broadcasters and stadiums the ability to manage and scale their content with unprecedented ease," says Sharp. "And the rollout of 5G networks is

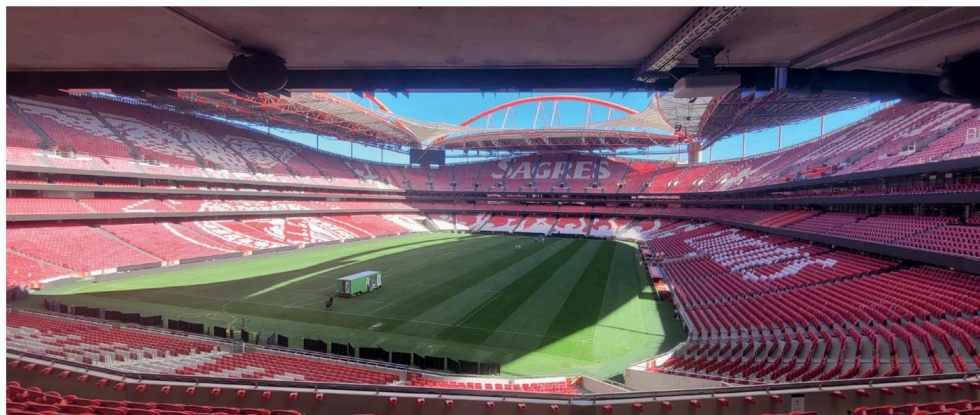
enhancing this transformation, offering faster, more reliable connections that can handle the immense data demands of live-streaming sports events. Paired with edge computing, this technology reduces latency, ensuring that fans experience the game in realtime, whether they're watching in the stadium or from home."

Artificial intelligence is set to redefine both broadcast and in-stadium experiences, believes Sharp. "AI-driven cameras will follow the action, capturing unique angles while providing detailed, realtime game analysis. This technology adds depth to the viewing experience, and personalises it, offering fans insights tailored to their interests."

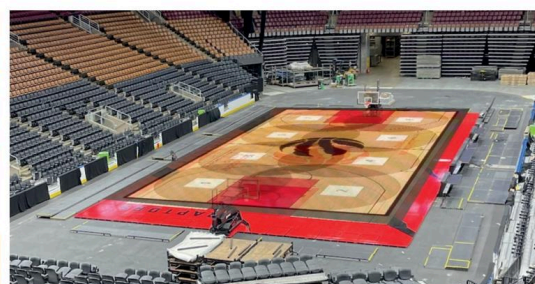
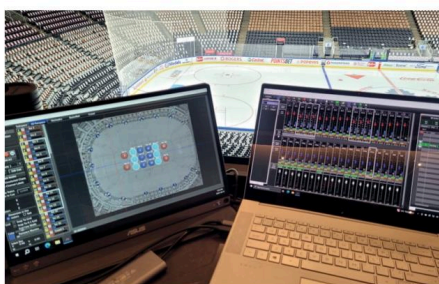
Meanwhile, technologies and techniques originally developed for the film industry, such as motion capture, volumetric capture and virtual production, are transforming engagement for fans and audiences, according to Simon Windsor, co-CEO of Dimension Studio. "Innovations are blurring the lines between the physical and digital worlds by allowing the creation of realistic, dynamic 3D virtual environments and assets that audiences can interact with in realtime."

Paris 2024 Olympic Games

For the Paris 2024 Olympic Games, Dimension developed an interactive race installation that allowed visitors to race against digital replicas of real athletes on a 10-metre track, against an LED wall that simulated a stadium environment made in Unreal Engine. "For fans at home, there are innovations such as Sky Sports' 'Sky Scope', a mixed-reality 3D player analysis by Dimension for The Open golf tournament," says Windsor. "We volumetrically captured the swings of professional golfers, providing broadcast audiences with a fully immersive 360-degree view and giving them a chance to inspect and analyse each player's technique – something you couldn't achieve live, even standing next to them on the tee." ■

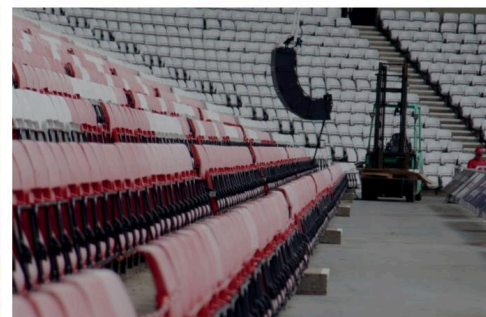
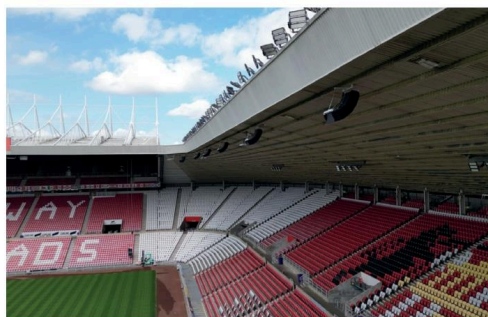


Sport Lisboa e Benfica Enhances Stadium Communications with Clear-Com's Arcadia Central Station



PHOTOS: © 2024 SOLOTECH

Spatial programming for Scotiabank Arena's Immersive VIP Suites visualised in TiMax PanSpace and (pictured right) Mic Array zones for ScotiaBank's Hockey pitch set up



PHOTOS: TISTEVE SVENSSON

Bose Professional integrator partners, Solotech, at Sunderland FC's 'Stadium of Light'. All the cabinets are Bose Professional ArenaMatch loudspeakers tailored specifically for the stadium environment.