

BUSINESS BRIEFING

INSTALLATION EUROPE



French star Youri Djorkaeff is pictured on the new Lighthouse LED screen at Bolton's Reebok Stadium; the screen was specified after a visit to an existing Dutch installation by the football club's officials

More than a sporting life

As competition increases, so stadium and arena operators are looking beyond sport, creating multi-purpose venues with retail and leisure interests. **Jim Evans** tracks the sector's development and asks installers what it means to them

Today's state-of-the-art sports stadium offers more than muddy turf, goalposts, plastic seats and half-cooked hot dogs. From being a niche industry dominated by idiosyncratic players who tended to work at their own pace, stadium design, construction and ongoing development have become big business. HOK Sport, one of the sector's leading architectural practices, currently has no fewer than 450 ongoing projects on its books worldwide.

This construction boom, however, has inevitably led to increased competition between the different stadium and arena operators. Outside the US, where much of the investment in stadia comes from city or college authorities, most major stadium building is conducted to cater for a one-off, large-scale event such as the Olympic Games or football's World Cup (see panel). Once these events are over, the stadia have to take their place in the market, competing for business with rival facilities in both their own territory and abroad.

For installers in the sound, video and lighting business, the need for operators to stay competitive should be good news. Since new stadia tend to be equipped with high-quality PA, video display and lighting systems, existing venues are under enormous pressure to upgrade their facilities to a similar or higher standard, or face being marginalised by the market.

It's all a far cry from the scenario little more than a decade ago, when most of the investment in stadium systems was made as a result of safety legislation rather than the need for greater flexibility. Steve Jones of the Symonds Group, which acts as acoustic consultant to many stadium new-builds and refurbishments, recalls that new safety requirements brought in as a consequence of the Hillsborough disaster brought his company into the sector.

'The club chairman could see how much of an improvement the latest technology offered over the screen they already had – the performance is in a completely different league'

"It was a refurbishment at Wembley in 1989, post-Hillsborough, when it really started for us," says Jones. "The only problem then was that a lot of grounds opted to take the lowest-price approach. That was fine until they wanted to play music or sponsors' commercials over the system. Today, attitudes have changed somewhat and football clubs, for example, tend to take pride in their presentations."

In this respect, operators of smaller grounds have taken their cue from their counterparts at flagship arenas.

The last few years have seen a number of landmark arenas completed in Europe, with two completed during the late 1990s – Cardiff's Millennium Stadium and the Stade de France in Paris – setting standards that many are following. The Millennium Stadium was completed in time to host the 1999 Rugby World Cup. It was revolutionary for a number of reasons – it has the UK's first acoustically insulated retractable roof, a removable grass playing surface, permanently installed large LED screens at each end, and 72,000 seats all offering an unrestricted view of the playing area.

Since opening for business, the Millennium Stadium has earned revenue from far more than rugby internationals. It has staged rock, pop and classical concerts, has hosted regular Saturday night speedway sessions, and has been the venue for major English soccer Cup Finals while Wembley Stadium has been out of action.

The Stade de France, completed a year earlier, is primarily a venue for major rugby and soccer matches but, like its Cardiff counterpart, can be adapted to cater for a variety of events. This summer's eclectic schedule, for example, included performances of Verdi's Requiem, a Celtic music festival and international athletics meetings. During July, tonnes of sand were imported for the staging of La Plage – a fiesta of beach sports and activities.

The Stade's arena sound is based on a Nexo Alpha system, and the Paris-based operation recently won the contract to install a Geo line array system to cover the Concourse area. The large concrete and asphalt Concourse, which covers the Stade's underground parking facilities, is home to four 'Villages' of sub-attractions. The 1,750,000 sports and music fans who attend events at the Stade de France each year can visit Animations for video game action, buy apparel at the Boutique Officielle, get refreshments at Kiosque Coca-Cola, or get directions at Point info. Each Village occupies a small square about 20m on each side, attracting customers from a quadrant of the entrance apron, which surrounds the exterior of the stadium.

The new Nexo system uses a short curved vertical array of Geo S805 loudspeakers. Each of these devices is a two-way system with a passive internal crossover network dividing an 8in vented woofer and a 1in compression driver. The driver is loaded on a patented Geo wavesource with 5° vertical and 80° horizontal coverage. This unusual pattern is achieved by using a hyperboloid acoustical mirror to reflect energy from the compression driver into

the 5° arc. In the horizontal plane, the wavesource operates as a diffraction slot with the 80° pattern being created by the flare at the slot's exit. A removable set of flanges can alter the horizontal dispersion to 120° if desired.

Working with SSE Melpomen of Paris, Nexo designed short curved vertical arrays of four elements each. By varying the angle between adjacent cabinets from the top to the bottom, the designers were able to deliver equal acoustic power (and therefore equal SPL) to both near and distant sections of the listening area.

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Sophisticated sound systems are not confined to glamorous arenas – this is the Funktion One AX88-based system just installed at Portman Road, Ipswich

David Sheepshanks, had done his research and gave us a reasonable budget. That doesn't always happen. Also, an important aspect of the work at Portman Road was the installation of a conference centre and corporate entertaining area overlooking the pitch, with permanently installed AV and communications systems."

At Ipswich, TG Baker installed a system based around Funktion One's AX88 loudspeakers, a total of 54 of which have been hung in pairs covering the arena's four stands. As with larger venues, the driving force behind such a high-quality installation has been the need to provide high-level music as well as conventional paging, emergency messaging and BGM sound.

"What stadia require these days is a complete package that covers entertainment systems together with emergency and PA," confirms Ian Bridgewater at TOA, which supplied an extensive PA system based around its MS1 weatherproof enclosures to the City of Manchester Stadium for this summer's Commonwealth Games. Bridgewater is keen to point out, though, that for TOA and the installers which use its products such as Blackburn-based Romers, there is more to life than landmark projects such as Manchester.

"As well as Manchester, we've upgraded facilities at AFC Bournemouth, Crystal Palace and West Brom this year," he says.

Both TOA and the Symonds Group are due to be involved in the building of a new stadium for Arsenal FC in north London, although this, like the city's two other big sports-arena projects at Wembley and Fulham, is proceeding a little slowly at present. A cynic might say that the much-publicised reduction in the value of sports rights to the media will begin to cause ambitious new venues to be scaled back, postponed or, worst of all, cancelled

altogether. There's no doubt that there is more uncertainty in the sector than a year ago, but Symonds' Steve Jones believes any delays are more likely to be caused by red tape than money worries.

"We see it [the sports sector] as a continuing steady market," says Jones. "In the UK there are still problems with planning permission and judicial reviews, Arsenal – a £200m project that includes residential and retail

developments – is getting back on track, but Fulham has been put back again and Wembley doesn't seem to be moving. It's galling when you see the Japanese and Koreans can complete 20 new stadia in four years [for the 2002 World Cup] and we can't even do one."

Bureaucracy is rarely such a big issue when it comes to the upgrading of other kinds of sports venues. For example, the Symonds Group is working on is the £160m refurbishment of Ascot Racecourse west of London, where plans for a new grandstand include a six-storey hotel, a panoramic restaurant, viewing boxes and a health club. Not all racecourses are this ambitious, but horse-racing is another sport that is embracing new technology.

A major networked installation has recently been completed at Sandown Park Racecourse in Esher, Surrey, by Racecourse Technical Services (RaceTech). The scale of the contract – which has been completed over an 18-month period – can be measured by the fact that it involved five BSS Audio Soundweb 9088LLs to set up the digital network across 36 sound zones, as part of an overall audio contract which will run to around £150,000 when complete.

"Today, racecourses are realising that to attract the punters they need to provide more than just the horse races," says RaceTech's head of sound, Robin Dibble. "There must be other attractions, facilities and live events, and these require increasingly sophisticated sound and communication systems."

With the importance of betting revenues placing emphasis on high-speed communication of images and results as well as sound, the horse-racing industry has been quicker to adopt advances in video display and signage than most sports. Other sectors are catching up, however. Screenco supplied two LED videowalls and two digital signage displays to the City of Manchester Stadium, while a little further down the scale, even relatively modest football clubs are realising the benefits of high-quality, high-impact, large-screen displays.

This summer, a giant 16:9 LED screen made up of weatherproof Lighthouse LVP2056 panels was installed at the Reebok Stadium, home of Premiership club Bolton Wanderers. The club's media partner, Touchline TV, was commissioned to survey all the likely screen manufacturers, and is continuing to use its existing control room and camera setup at the stadium, producing a programme of highlights, commercials, promotions and live-action camerawork on matchdays, to feed both the screen and third-party broadcasters.

François Deffarges, who together with Eric Vincenot designed the Geo system, comments: "The Stade operators wanted a system that would provide top quality coverage for the Concourse areas, while neither leaking into the arena itself or upsetting the Stade's neighbours. The Geo fitted the bill perfectly and is working well. The Stade is obviously a very important shop window for our products, and we have had a substantial quantity of serious enquiries since we installed this latest system."

The Stade de France is a fine example of a venue which, though only designed and commissioned four years ago, continues to receive upgrades to its installed

'What stadia require these days is a complete package that covers entertainment systems together with emergency and PA'

systems. And the experience of installers working on such projects is echoed by those involved in upgrading more modest sports venues.

Symonds' Steve Jones has just completed the consulting work for the Ipswich Town football club's Portman Road ground, where systems have been installed in new stands. "Ipswich was a nice-sized job," reflects Jones, "and it was particularly refreshing that the club chairman,

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Paris-based manufacturer Nexo has continued its association with the Stade de France by designing a system around its new Geo array for the arena's 'Village' retail spaces

"We bought the screen for two reasons," reflects Bolton's commercial director Gareth Moores. "We're constantly looking to enhance the matchday experience for our supporters, including live relays of away matches, and the video screen and the content on it is an integral part of that. Second, it's an important revenue generator for the club as a high-impact advertising medium for our partners, sponsors and advertisers."

'The sports sector is certainly a growth area... The key is to make clients aware of how much more can be achieved with today's technology'

Julian Radley of Vision Reality Systems, a Lighthouse systems integrator, explains: "We have strong relationships with football clubs across Europe, and completed two European football stadium installations last year, including one at the new stadium for Roda JC in Holland."

"During their evaluation of different screens, we invited key people from Bolton Wanderers FC to Roda JC to see their new screen in action, and then organised a comparative demonstration at the Reebok. That allowed the club chairman and others to see how much of an improvement the latest technology offers over the screen they already had – the performance is in a completely different league."

This raises another important issue – which is that for every enlightened stadium operator out there in the market, there are probably another two or three who remain to be convinced of the need to upgrade their audio or video facilities.

London-based RG Jones Sound Engineering has long experience of installing systems in major sports centres, with a client list that includes Lords Cricket Ground and the All England Tennis Club at Wimbledon. Like the

Symonds Group, the company can trace much of its early work in this area to safety legislation.

"The Safety at Sports Grounds act came into force during our original involvement with Lords," recalls Robin Jones. "The problem then was trying to make new clients appreciate that it was a real legal requirement to have a more sophisticated PA system that would provide emergency voice evacuation. It was a difficult area to trade in as we found we were competing against other installation companies that were not fully conforming."

Today, it seems, installers have a slightly different battle to fight. "The sports sector is certainly a growth area for us," stresses Jones "But the key is to make clients aware of how much more can be achieved with today's technology." □

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▼ THREE IN TWO YEARS: THE EVENTS DRIVING EUROPE'S NEXT ARENA CONSTRUCTION BOOM

From Athens' Olympic return to Germany's surprise World Cup

□ Three upcoming major sporting occasions have prompted the development of a raft of stadia and new international-standard sporting facilities in Europe. The 2004 Olympic Games in Athens, Euro 2004 in Portugal and the 2006 World Cup in Germany are all providing massive opportunities for the construction industry and associated businesses such as the installation sector. The Olympic Games return to the country of their birth in 2004, with the city of Athens promising to offer "a unique Olympic experience in a safe and secure environment, greatly improved infrastructure projects as varied as the construction of modern competition venues, and the development of a state-of-the-art transportation network."

Gianna Angelopoulos, president of ATHOC (the Athens Organising Committee), says: "The level of work in Athens is gathering increasing momentum and beginning to make an exciting impact on our city. Over the next months, venue and transport construction will begin to show how holding the Games will give a unique legacy to this already unique city. There are many months of hard work ahead,

but the people of Athens relish the challenges which hosting the world's most spectacular sporting event brings."

Centrepiece venue for the Games will be the Olympic Stadium in Marousi, a northern suburb of Athens. The stadium is part of the planned Athens Olympic Sports Complex (OAKA) and will have a capacity of 75,000. The Ministry of Culture has appointed architect Santiago Calatrava to redesign and upgrade the facilities, with a scheduled completion date of December 2003.

Elsewhere, the National Stadium in Patra, a city in the north of the Peloponnese peninsula, is also being upgraded to meet Olympic demands. Work includes electromechanical and electronic infrastructure along with renewal of respective equipment. Similar upgrades are also planned or are already under way at the Panthessaliko Stadium in Volos, the Kaftantzoglio Stadium in Thessaloniki, the Pankritio Stadium in Heraklion (Crete) and the Panathinaikon Stadium in Athens – which was used for the first modern Olympic Games in 1896.

Portugal beat off competition from the favourites Spain and a joint bid from Hungary and Austria to host the Euro 2004 football tournament. The competition is to be held in eight cities, from Braga and Guimarães in the north to the

Algarve in the South, with five of the ten stadiums being revamped in time for what is Europe's premier international football event.

Lisbon will get a new 54,000 capacity stadium which will later become the home base for Sporting Lisbon. Benfica's Stadium of Light is being refurbished, with capacity increasing to 70,000. FC Porto's stadium is being rebuilt with a 50,000 capacity, with further new stadia being built in Braga, Aveiro, Coimbra and the Algarve.

The 2006 World Cup, controversially awarded to Germany despite a strong populist bid from South Africa, will be staged in 12 towns and cities including Berlin, Dortmund, Frankfurt, Munich and Hamburg. The final is likely to be held in Berlin, where the Olympic Stadium is undergoing major refurbishment, with completion scheduled for June 2004. Plans include increasing seating capacity to 76,000, installation of VIP lounges and permanent large-screen video displays. In Munich, the originally planned reconstruction of the Olympic site has been rejected. Instead, a new stadium, the Allianz Arena, will be built and jointly funded by the city's two major football clubs – FC Bayern Munich and TSV 1860 Munich. Completion is scheduled for summer 2005. JIM EVANS

Due for refurbishment in the next two years (below from left): the Panathinaikon stadium in Athens, Lisbon's Stadium of Light and Berlin's Olympiastadion

