

INTRO

6 The next era of top stadiums is coming

The opening of the Tottenham Hotspur Stadium has caused a sensation and has expanded the list of elite stadiums around the globe.

8 Arena projects around the globe

Multifunctional arenas to look out for.

10 Experts' opinions on stadium architecture

What are trends and upcoming issues in modern stadium architecture? Four experts share their opinions.

OPERATION

12 Battle of the giants

Spain's top clubs are battling on and off the pitch – some of Europe's best stadiums are standing in Iberia.

18 "The Santiago Bernabéu project is by far the best"

Tristán López-Chicheri, CEO-Senior Partner L35 Arquitectos, gives insights on the gigantic redevelopment of the Estadio Santiago Bernabéu in Madrid.

22 The times they are a changin'

Once again, the operators of Switzerland's largest leading indoor event location, the Hallenstadion Zurich, have to revise their plans and come up with new solutions.

23 "Raising flexibility to a new level"

Felix Frei, Director of the AG Hallenstadion, talks about the event mix in the Zurich arena, technical updates as well as the impending transition to a new era without the ZSC Lions as home team.

26 Good things come to those who wait

The gigantic Tottenham Hotspur Stadium was officially opened at the beginning of April.

28 "We have served 54,000 pints"

Mark Reynolds, Executive Head Chef for Levy at Tottenham Hotspur, talks about trends in stadium catering, smart technologies in sports venues as well as their own brewery.

32 My home is my castle

Owning, renting or sharing? The tenure statuses in Europe's top 5 leagues vary extremely.

34 A special stadium for a special club

Athletic Club marches to the beat of its own drum but still manages to keep up on an international level.

36 "Preserve the special values of the old stadium"

It's been five years since Athletic Club has started to play in the new San Mamés.

38 Naming rights: A message from the sponsors

The commercial sale of stadium naming rights has almost become a common sight. STADIAWORLD has conducted a survey among sponsors.

40 X factor eSports

eSports provides a new, promising event format for large indoor venues.

44 Creativity everywhere

Stadium operators have to cope with various challenges in terms of a sustainable venue operation.

46 A new era for sports venues

SPORTS VENUES 2019/20 puts the spotlight on digital infrastructures of leading stadiums and arenas in Europe.

49 "The sky's the limit"

Prof. Dr. Sascha L. Schmidt, Head of the Center for Sports and Management (CSM) at the WHU – Otto Beisheim School of Management, talks about contemporary stadiums, sustainability as well as nanobots and air taxis.

50 "We like to talk about the Barça Day"

With the 600 million euro project Espai Barça, FC Barcelona is pursuing gigantic plans. Interview with the director William T. Mannarelli.

52 "Fans will have a unique experience"

Juan Iraola, Head of Digital Transformation – Technology at Real Sociedad, about the reconstruction of the Estadio Anoeta into a smart venue as well as the cooperation with startups.

54 Exclusive data collection: Construction costs per seat

STADIAWORLD has compared the costs per seat of approximately 300 stadia around the globe – and gained notable results.

56 LA, London and... Thun?

Building a new stadium is always a major investment. Size and facilities can vary as well as the construction costs.

60 The MLB is on the move

The oldest ballparks of the Major League Baseball were opened as early as the beginning of the nineteen hundreds.

62 "A new facility is necessary"

After several proposals, the MLB franchise Oakland Athletics will finally leave the Oakland-Alameda County Coliseum for a new ballpark.

CONSTRUCTION REPORT

64 SPORTS VENUES 2019/20: Construction Report

The matchless report by STADIAWORLD provides the most comprehensive overview about construction of sports facilities.

76 Creative solutions: Roofs and façades

Whether it's media façades or roof constructions: architects and engineers can demonstrate their skills when planning and realising new stadiums.

80 Breaking free of the stadium "arms race"

We are witnessing an "arms race" in stadia development where the cost of new facilities are exceeding what most clubs can afford. Guest article by architect Dan Meis.



VENUE OPERATION

Crucial topics for stadium managers and exclusive data collections. Operational concepts in the digitalised world and much more.



TECH REPORT

Technical trends and updates in sports venues around the globe. Industry reports and expert interviews.



PORTRAITS

Estadio Santiago Bernabéu, Camp Nou, Tottenham Hotspur Stadium, San Mamés and more.



EVENTS

UEFA EURO 2020 as well as the Olympic Games are throwing their shadows ahead. A look on upcoming worldwide events.

82 "We have high ambitions here at Everton"

Everton Football Club is planning to build a new stadium on a world heritage site with new and bigger options for the club.

84 The winds of change

After years of a stagnating stadium infrastructure various clubs in Italy have presented concrete plans for new buildings or modifications.

85 "Our clubs understood the importance of modern stadia"

FIGC general director and former Serie A CEO Marco Brunelli spoke to STADIAWORLD about the stadium projects in Italy.

TECH REPORT

86 LED displays ever growing, security refining

Everything that shines in sports and entertainment venues is based on LED technology or will certainly be in the near future.

88 Video boards: Configurable designs

After we have observed a trend towards 360° solutions in stadiums, the center hung scorebords in indoor venues allow for more customisation than ever before.

90 Ribbon displays: On the rise in Europe

LED displays mounted on the upper tier – ribbon resp. fascia boards, offer arena operators additional marketing and communication potential.

92 Building envelopes: Shining lights

Roofs and façades are built to fulfil functions which povide comfort and protection.

94 Advertising boards: New dimensions

As sport marketing has become professionalised, what started with wooden planks from the carpentry workshop has developed into a world of digital screens.

95 "Virtual advertising is a game-changer"

Interview with Massimo Magri, Head of Virtual Advertisement Solutions at Infront, about virtual advertising and its potentials.

96 Digital signage: The next stage of development is in the starting blocks

The use of digital media serves a wide range of purposes, and in the process it supports various marketing goals.

100 Pitch lighting: LED is the new standard

Large lighthouse projects have been implemented with LED floodlights.

104 Venue access: Solutions and trends

The tasks for access organisation in stadiums, arenas and any type of venue have become more and more complex. Security isn't the only important aspect here.

108 Optimum conditions required

Track and field facilities are certified according to strictly defined criteria.

CASE STUDIES

30 LED Technology Enabling a Street to Seat Experience at Tottenham Hotspur Stadium

To provide Tottenham Hotspur and other live event attendees with everything they're looking for and expect, Daktronics delivered 93 LED displays at the team's new stadium in London for football, American football and other events.

78 Sports arenas - bright and light flooded

Transparent plastic panels for creative roof structures.

101 Tottenham Hotspur Shines Under Musco's Customised TLC for LED System

The recent unveiling of the new Tottenham Hotspur Stadium offered players, fans, and spectators watching around the world a truly enhanced entertainment experience, marked by highly advanced technological innovations and customised features.

102 "For most projects more than 70% energy savings"

Interview with Rüdiger Lanz, owner of the German lighting manufacturer LANZ MANUFAKTUR. Lanz talks about the benefits of the company's LED flood lights and other features he has to offer.

103 "What we plan is what you get"

Many video security installations these days are extremely complex, large-scale projects.

107 Olympic Park Munich: Entire New Construction of the Sports Campus

Conica Sports Floors Provide Secure Footing and Enable Top Performance.

EVENTS

114 Across all borders

The UEFA EURO 2020 is held in twelve different countries, which is a novelty due to the fact that UEFA is celebrating its 60th anniversary.

117 "San Mamés has proven to be an excellent host"

Joana Soares, EUR02020 LOS Local project manager, about the tasks until the tournament start next year.

118 Gigantic Leagues

The Super Bowl and the UEFA Champions League are among the most gigantic sports events worldwide. STADIAWORLD offers key figures at a glance.

122 The venues of the Olympic Games 2020

For the second time since 1964 the Olympic Games will take place in Tokyo.

124 Winter Olympics coming back to Italy

"Sognando Insieme" – "Dreaming Together": Different to the offi cial claim of the 2026 Olympic Games, it's time to wake up in Milano and Cortina.

126 Outlook: Events 2019 & 2020

The are several large events in the next 12 months – besides the UEFA EURO 2020 in Europe.

DIGITAL DISPLAYS IN SPORT VENUES

This magazine contains the special DIGITAL DISPLAYS IN SPORT VENUES as an attachment.