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SAN MAMÉS

NEW STADIUM

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 **idom** | **ACXT**



When in 2006, Idom was commissioned by Athletic Club to carry out a feasibility study for the construction of a new football stadium, we never imagined we would get this far. We have managed to maintain and enhance the virtues of the old stadium: proximity of the spectator to the playing field, putting pressure on the visiting team, all within architecture with its own character. We have increased the capacity of the stadium and the features of the grounds. We have done all this while keeping to a budget which was half that spent on similar stadiums. But above all, we have ensured that the members of the club, the fans, the players, visitors, and even the passer-by on the street, have the sensation of being at one of the best stadiums in the world.

Fernando Querejeta
President of Idom

Luis Rodríguez Llopis
Managing Director

ONE OF THE BEST STADIUMS IN THE WORLD



To see San Mamés in all its glory,
scan the code

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OF SAN MAMÉS

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AN ELITE STADIUM
FOR THE UEFA

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THE CONSTRUCTION
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“San mamés is a
wonderful stadium”

Michel Platini
President of the UEFA

THE CATHEDRAL

OF FOOTBALL



“A great
stadium,
fit for a
unique club”

Josu Urrutia
President of Athletic Club

"Playing in this stadium is breathtaking"

Aritz Aduriz
Athletic Club striker

Over time, and despite retaining much of its “magic”, the old San Mamés stadium, inaugurated in 1913, had served its purpose well, however, there were many reasons to warrant its complete renovation.

The main reason was the need to increase its capacity. In addition, the progress that has been made in terms of the safety standards, meant that the facilities of the stadium were now lacking, a similar story for many other Spanish football stadiums.



“After a century of
history, there were
many reasons to build
the new stadium”

Alberto Tijero
Project Manager

THE ORIGINS

OF THE PROJECT

In 2006, the Provincial Council of Bizkaia consulted Idom on the idea of building a new stadium alongside the existing stadium. Rather than just confirming the feasibility of this proposal, we went a little further and presented a preliminary design which went down very well with the promoters of the project, the President of the Club, the General Councillor of Bizkaia Provincial Council, and the Mayor of Bilbao. Our proposal reassured them that the project was viable and it was possible to build a “five star” stadium with a homegrown team of architects and engineers.

In 2006, Idom presented an architectural proposal for the new San Mamés stadium that delighted the client. In 2007, we were awarded the basic design and the construction design projects, after competing against a half a dozen or so important architecture and engineering firms.

Given the requirement to continue play uninterruptedly in the old stadium, and the fact the part of the footprint of the new stadium was going to overlap it, the project had to be carried out in two phases.

“The first challenge in
designing the stadium
was to preserve and
enhance the magic
of the Cathedral”

César Azcárate
Head architect



THE ORIGINS

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“Bilbao without San Mamés
is like Paris without the
Eiffel Tower”

Luis Fernández
Former player of the French national football team
and ex-manager of Athletic Club

We managed to ensure that Athletic Club kept their sporting commitments at all times. At the end of the 2012-2013 season, the final match was played in the Old Cathedral in June 2013. Athletic kicked off the 2013-2014 season in the new stadium, a historic milestone. The next important milestone was reached in August 2014, when we completed the second phase, closing the South Stand.

It was then that we were finally able to fully experience the “pressure effect” of the fans and the dramatic acoustics of the crowd as they cheered on their teams. We had managed to enhance the magic of the Cathedral. We had achieved the best football stadium in the world!

“A Champions League Stadium”

Nika Cuenca
Journalist of Diario AS

The design in terms of comfort, security, and accessibility has resulted in the UEFA classifying the stadium as ELITE, the maximum rating and a requirement to host major football events such as the finals of national and international competitions.

HIGHEST

UEFA

CLASSIFICATION



DYNAMIC LIGHTING

THE MOST ADVANCED SYSTEM IN THE WORLD

The dynamic LED lighting system offers enormous illumination possibilities depending on the event that is taking place in the stadium. This system can change the colour of the white ETFE panels that make up the façade with a combination of colours and shapes to achieve exciting results

ELITE STADIUM

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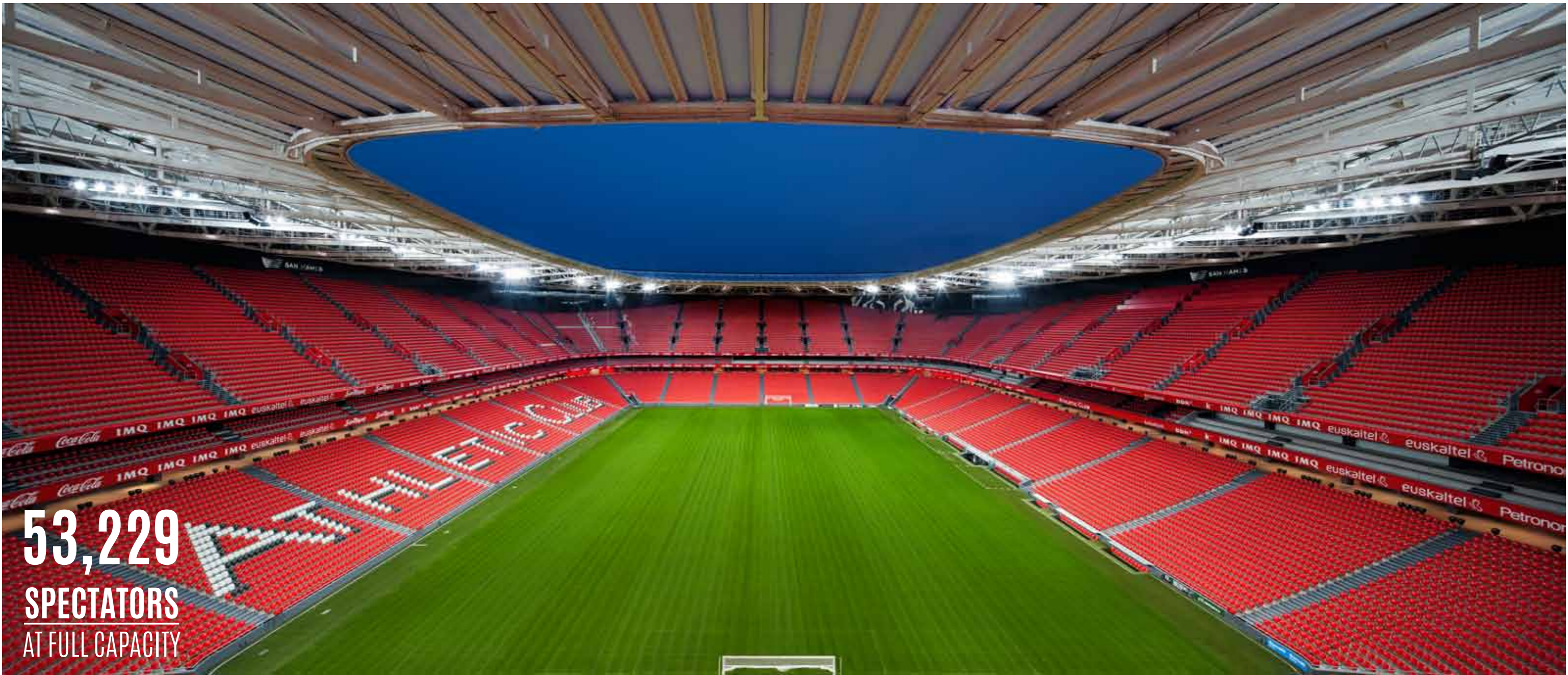


EURO 2020

SELECTED AS THE SPANISH HOST FOR UEFA EURO 2020

The careful attention paid to elements of the design such as access, circulation, comfort and safety, as well as the integration of the stadium into the urban fabric of Bilbao, are just some of the reasons why the UEFA considers San Mamés to be a stadium of reference in Europe. San Mamés has been selected by the UEFA to host some of the Euro 2020 matches.

ELITE STADIUM

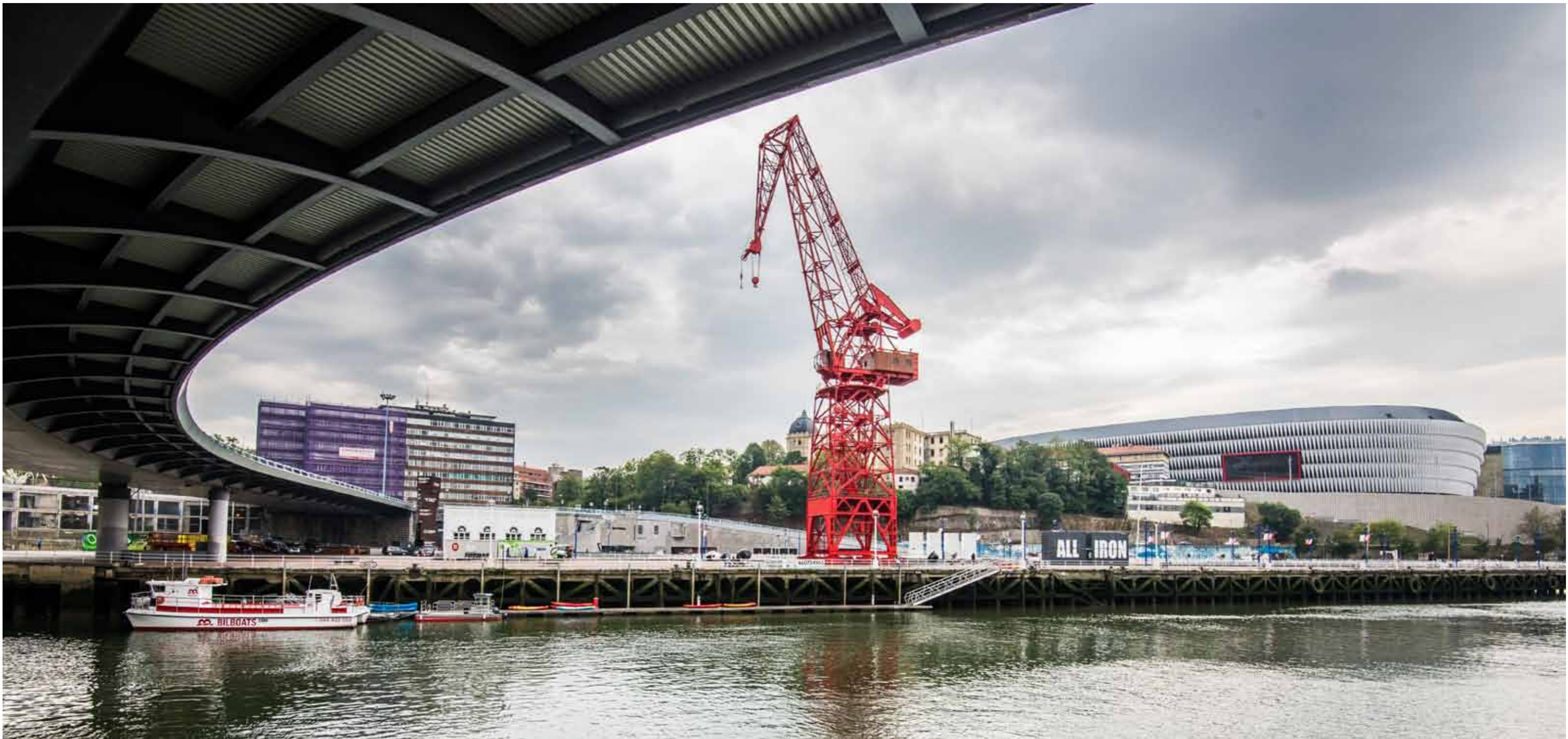


53,229
SPECTATORS
AT FULL CAPACITY

The design of the stands has managed to maintain the “excitement” of the old stadium, known across the world as “The Cathedral”, with the public in close proximity to the playing field, creating a unique atmosphere for both the spectators and the players

ELITE STADIUM

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The stadium interacts with its environment through the introduction of three large windows with bold red frames. LED screens with the logo of the club will fill one of these windows. From the other two, “la Carola”, a disused shipyard crane which is a fond reminder of our industrial past, can be seen.



The new stadium completes part of the urban fabric of the city, with an imposing presence overlooking the river, one of the axis of the urban change that Bilbao is undergoing

"Football in its
purest form is
played on this pitch"

Ernesto Valverde
Trainer of Athletic Club

THE MAGIC

OF SAN MAMÉS



“Keeping the old name,
making it eternal”

Alfredo Relaño
Diario AS



ATHLETIC CLUB
WAS FOUNDED IN 1898

The tradition of an historic club

Athletic Club, founded in 1898, is one of the big clubs, which along with Real Madrid and FC Barcelona has never been relegated to the Second Division. This great football tradition was cemented in the old stadium which was inaugurated in 1913. After undergoing many alterations, the stadium had served its purpose, and now the tradition lives on in the new stadium.



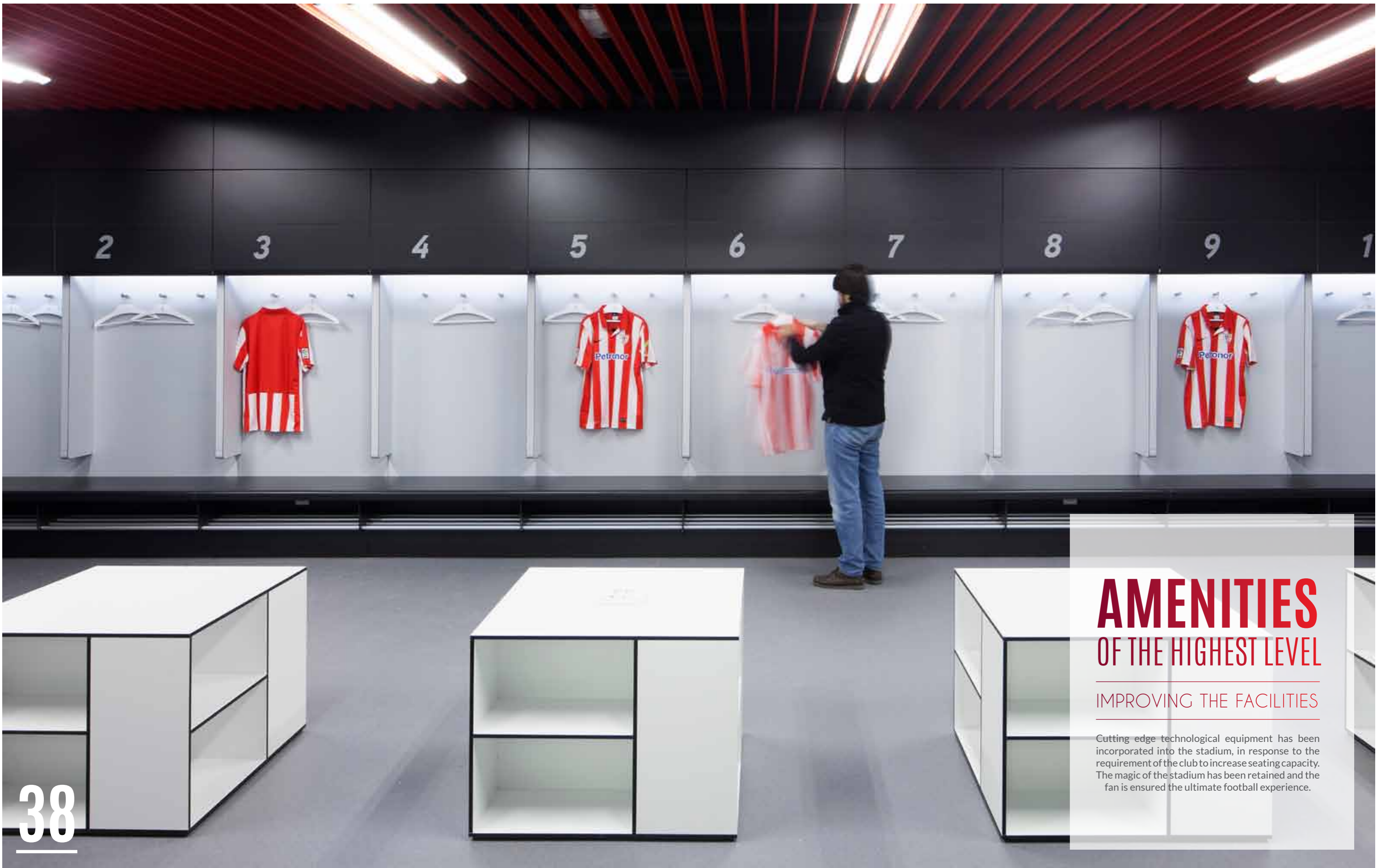
In the design of the stadium, the configuration of the stands has been meticulously analysed.

The result is a sensation of pressure on the visiting team, intimidating them while, at the same time, spurring on the local players. The visual effect, the proximity of the fan to the pitch, along with the acoustic effect of the thundering roar of the spectators, creates an atmosphere for exceptional football.

“A building with all the necessary amenities, functional, practical and manageable, and more importantly, without losing any of the magic of the old San Mamés”

Jon Berasategi
Director General of Athletic Club





AMENITIES OF THE HIGHEST LEVEL

IMPROVING THE FACILITIES

Cutting edge technological equipment has been incorporated into the stadium, in response to the requirement of the club to increase seating capacity. The magic of the stadium has been retained and the fan is ensured the ultimate football experience.



THE CONCOURSES

SAFE & WITH NATURAL VENTILATION

The design of the façade which envelopes the concourses allows natural ventilation, guaranteeing the correct level of safety for the flow of the crowds of people. The materials used on the concourses are highly durable and designed to put the safety of the fan first.

DESIGN AND DURABILITY

The durable materials used in the concourses recreate the colours of the Club, increasing the sense of belonging to something special from the moment the fan enters the stadium. In addition, the choice of materials will keep the maintenance requirements of the spaces to a minimum.



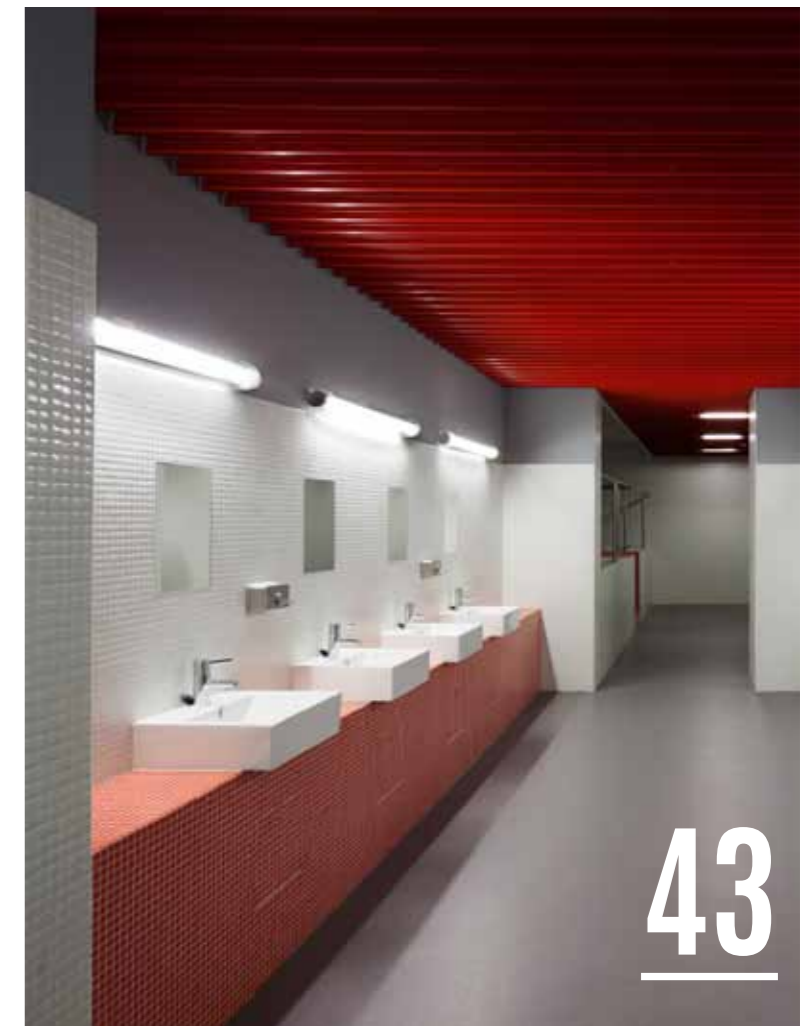


DRESSING ROOMS

The spaces destined for the players are designed to allow them to centre their concentration before the game, however, the visiting team will experience the pressure effect once they leave the dressing rooms and enter the tunnel leading out onto the pitch.

The areas that are not usually visited by the fans also have a style which emits functionality, design and durability.

The present structure of the stadium building will not have to be altered as the hospitality areas are added in future phases.





PRESS CONFERENCE ROOM

A STATE-OF-THE-ART MEDIA CENTRE FOR INTERACTIVE COMMUNICATIONS

In order to meet the demands of the ever increasing global interest in Spanish football, a media centre that includes a conference room is provided.

The media centre provides instant access to the key players, staff and management of the Club, either on match days or when an extraordinary press conference is called.

The corridors are lined with desk spaces with high-speed internet connection to allow press reports to be despatched promptly.

AMENITIES

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COVERING CORPORATIVE REQUIREMENTS, GENERATING REVENUE AND MEETING THE CLUB'S COMMITMENT TO SOCIETY

The first floor is destined to hospitality. If required, as many as 100 corporate boxes will be constructed. Meanwhile, this area is being used to seat season ticket-holders who are on the waiting list to become members of the Club.

In order to enhance the experience on match day and generate revenue, apart from the corporate boxes, there will be bars, a café and a restaurant.

The list of services offered by the stadium will also include the rental of the conference and meeting rooms on non-match days.

As part of its commitment to society, the new stadium of Athletic Club has been designed to accommodate public spaces under the East stand. These spaces can house sports amenities such as swimming pools, gyms and a speed track, contributing to the regeneration of this area of the city.

The official Athletic Club store and the planned Club Museum will be located in the plaza to the north of the stadium.

PRESIDENTIAL BOX



“SAN MAMÉS HAS ENTERED THE MODERN AGE WITH A PROJECT THAT HAS BEEN RECOGNISED FOR THE QUALITY OF ITS ARCHITECTURE”

El País Newspaper

AMENITIES

MAIN CHARACTERISTICS

OFFICIAL CLUB
MUSEUM

HOSPITALITY AREA

SEATING FOR 3,000 VISITORS
UP TO 100 SKYBOXES
PREMIUM SEATS
CATERING AREAS
MEETING & EVENTS AREAS

PRESIDENTIAL
BOX & MEETING ROOMS

**MEDIA PRESS
ROOM**
HIGH TECHNOLOGY
CAPACITY

CAFE
FOR EVERY
DAY USE

RESTAURANT
FOR EVERY DAY USE

**OFFICIAL
CLUB
STORE**

INFRASTRUCTURE FOR
**TELEVISION
BROADCASTING IN
HIGH DEFINITION**

**DYNAMIC
LIGHTING**
FAÇADE

**LEED
REGISTERED**

VIDEO SCOREBOARD
& STATE-OF-THE-ART GIANT SCREENS

**INDOOR TRAINING
FACILITY**

**INDOOR SWIMMING
POOLS & GYM**

**WARM-UP
ROOMS**

ELEMENTS OF THE
**FAÇADE
& ROOF
FINISHED IN
ETFE**

AMENITIES

49

TECHNOLOGY & DESIGN

FOR A STADIUM WHICH IS ONE OF A KIND IN THE WORLD

“The architects have treated natural light as a unique element of the façade”

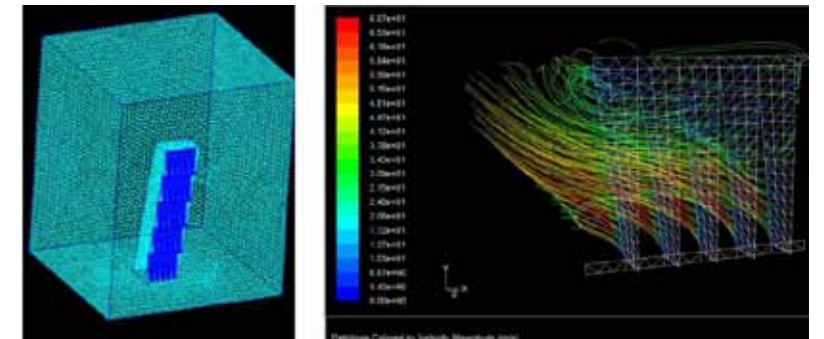
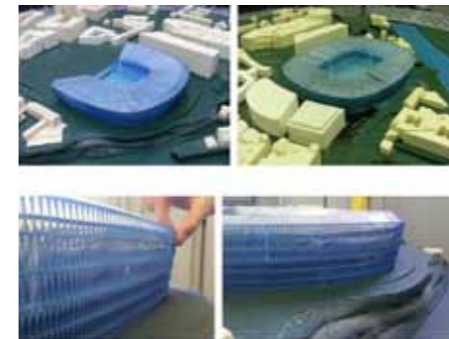
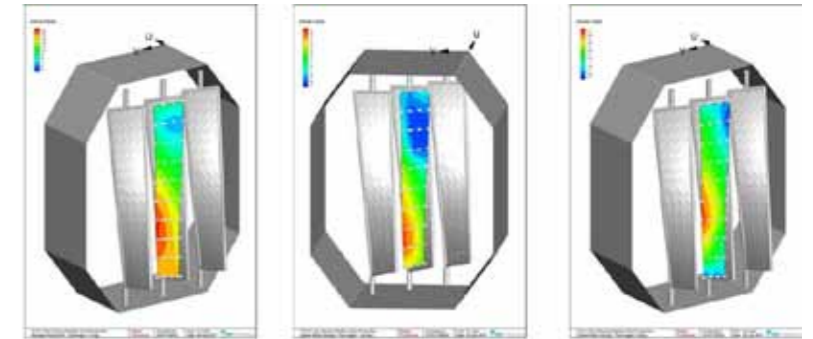
TECHNOLOGY

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WIND TUNNEL

The concourses are effectively open areas with high ventilation rates, but the panels are designed to give some protection from the elements. The design reduced the requirements in the HVAC and Fire Protection Systems, achieving benefits in the form and cost savings together with a shortened programme.

The entire solution was tested in wind tunnels to ensure performance, and modelled on CFD simulations to evaluate HVAC and Fire Protection.



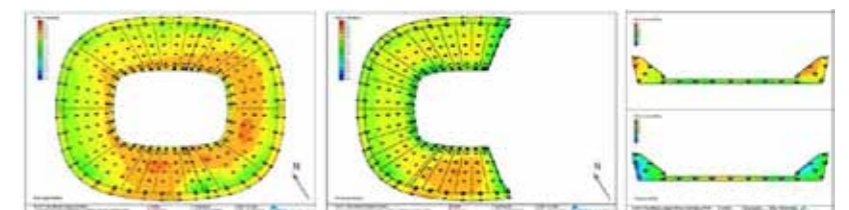
COVERING WITH ETFE CUSHIONS

The phased construction meant that one end of the stadium would remain open for one entire season. The $\frac{3}{4}$ built stadium, therefore, had to be structurally sound in isolation.

The solution was to use radial cantilevered trusses spanning more than 50 m. The design was tested in wind tunnels to check both the

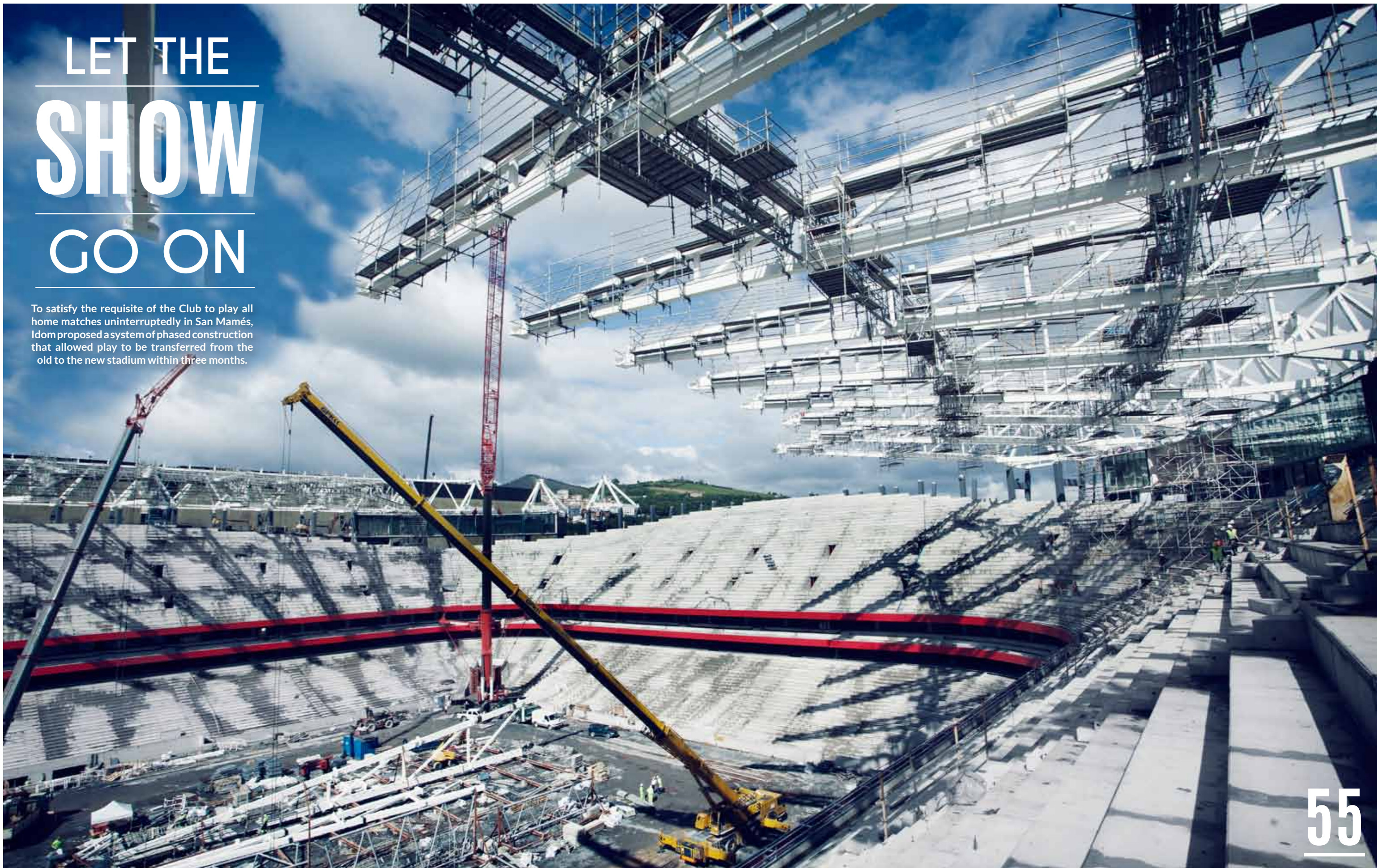
interim construction, with one end open, and the fully completed stadium. The covering with ETFE cushions ensures a good balance of light structural loads, spectator comfort and natural pitch growth.

The structural design solution underpinned the phased construction



LET THE SHOW GO ON

To satisfy the requisite of the Club to play all home matches uninterruptedly in San Mamés, Idom proposed a system of phased construction that allowed play to be transferred from the old to the new stadium within three months.



PHASES OF THE CONSTRUCTION



PHASE 1

06/2011 - 06/2013

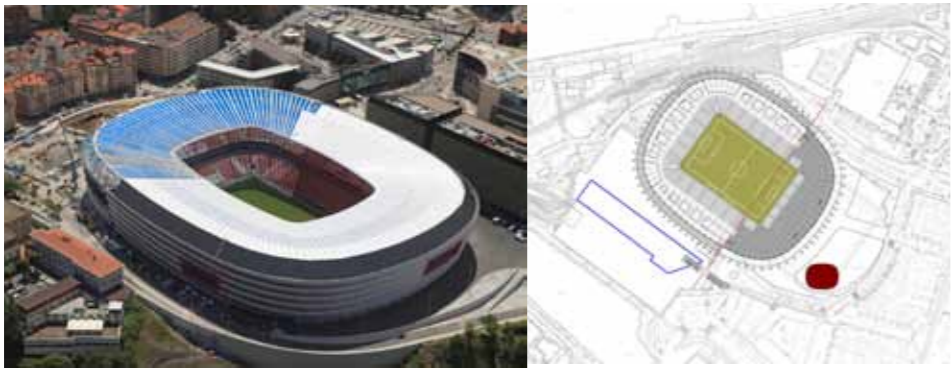
Without interrupting play in the old stadium, 2/3 of the new stadium was constructed



PHASE 2

06/2013 - 09/2013

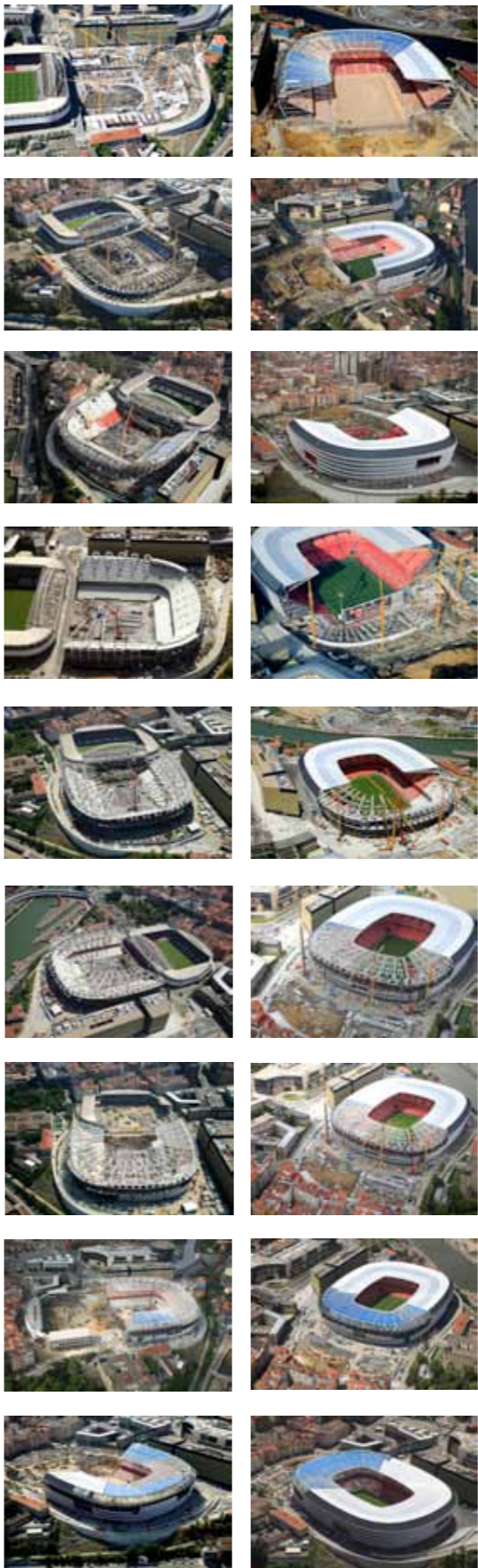
Complete demolition of the old stadium. The pitch was completed as well as all the finishing touches to Phase 1



PHASE 3

09/2013 - 08/2014

While the new stadium was up and running for 36,000 spectators, construction was completed until all 53,229 seats were filled



“Thanks to a phased construction program, Athletic Club has played all their matches at home”

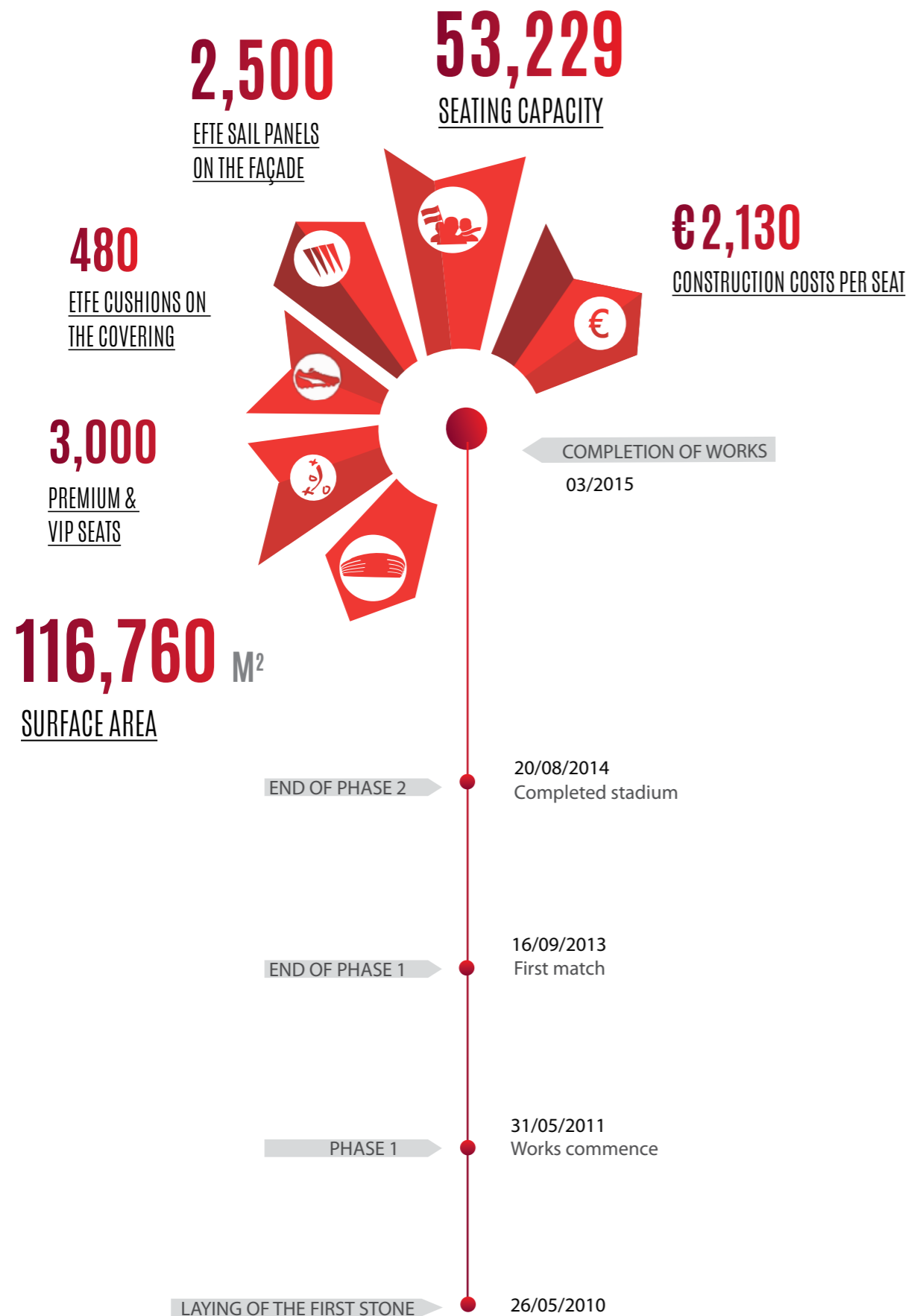
César Azcárate
Head Architect

Phased Construction resolved the requirements of the Club

Neither the club nor its fans were going to agree to the club being moved from its original location during construction; therefore, a solution was needed to ensure that both seating capacity and all amenities were maintained.

Idom proposed carrying out the project in phases, thereby, allowing the club to play all their home matches at home, and without causing disruption for the fans.

Following two years of construction in the first phase of the stadium project, at the end of the 2012-13 season the old stadium was demolished and play was resumed in the new stadium for the 2012-13 season. At no stage was play interrupted while the South Grandstand was completed.



DISCIPLINES

Architecture
Mechanical Engineering
Electrical Engineering
Civil & Structural Engineering
Environmental Engineering
Geotechnical Engineering
Cost Engineering
Health & Safety Coordination in Design and Construction
Fire Protection Engineering

FEASIBILITY & BRIEFING STAGE

Development Strategic Brief
Licensing & Permission Assessment
Stadium Outline Design
Preliminary Costing

DESIGN STAGES

Urban Design and Masterplanning
Pedestrian Traffic Analysis
Environmental Studies
Stadium Concept
Detailed Design
Construction Phasing & Delivery
Cost Estimation

SERVICES

ONE-STOP-SHOP

A COMPLETE INTEGRATED SERVICE

The stadium has been built under a Design and Construction Management contract, with the involvement of Idom from the early stages of the project. The following is the scope of services delivered by Idom:

Traffic Engineering
Acoustics Engineering
Telecommunications & Audiovisual
Special Equipment (scoreboards, screens, etc.)
Advice in Construction and Logistics
Legal advice
Project Management
Construction Management
Works Supervision

PROCUREMENT STAGE

Contractual & procurement advice
Tender Documents Production
Tender Evaluation

DEMOLITION & CONSTRUCTION STAGE

Technical Design Support
Site Supervision
Cost Control
Testing & Commissioning

OUR TEAM

ARCHITECTURE

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Diego Rodríguez
Mario Torices
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Álvaro López
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Iñaki Zabala
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Javier Durán
Alberto Fuldain
Yon ochoa
Fernando Fedz

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Gabriel Bustillo
Agurtzane Insa
Antonio Marsal
Erlantz Basauri
Mikel Mendicote

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Blas Beristain
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Óscar Malo
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Gontzal Martínez

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