SAN MAMÉS
NEW STADIUM
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 Rodriguez Llopis
Managing Director

ONE OF THE BEST
STADIUMS IN
To see San Mames in all its glory, scan the code

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

El País Newspaper
INFRASTRUCTURE FOR TELEVISION BROADCASTING IN HIGH DEFINITION

DYNAMIC LIGHTING
FAÇADE

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

ELEMENTS OF THE FAÇADE & ROOF FINISHED IN ETFE

INDOOR TRAINING FACILITY

INDOOR SWIMMING POOLS & GYM

LEED REGISTERED

WARM-UP ROOMS

AMENITIES
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.”
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 ¾ 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
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.
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.

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

César Azcárate
Head Architect
2,500 ETFE sail panels on the façade

53,229 Seating capacity

480 ETFE cushions on the covering

3,000 Premium & VIP seats

116,760 m² Surface area

€2,130 Construction costs per seat

Completion of works: 03/2015

Laying of the first stone: 26/05/2010

End of Phase 1: 31/05/2011
Works commence

End of Phase 1: 16/09/2013
First match

End of Phase 2: 20/08/2014
Completed stadium
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: 

**ONE-STOP-SHOP**

A COMPLETE INTEGRATED SERVICE

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

**Services**

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

Procurement Stage:
- Contractual & procurement advice
- Tender Documents Production
- Tender Evaluation

Demolition & Construction Stage:
- Technical Design Support
- Site Supervision
- Cost Control
- Testing & Commissioning

Disciplines:
OUR TEAM

César Azcarate
Ricardo Moutinho
Diego Rodríguez
Mario Torices
Santiago Alonso
Álvaro López
Zurriñe Nofuentes
Rafael Papi
Luis Ausín
Beatriz Sansalvador
Imanol Elizmendi
Roberto Fernández de Gamboa
Iñaki Zabala
Alfonso Díez
Julio Solana
Javier Durán
Alberto Fuldain
Yon ochoa
Fernando Fedz

Javier Ruiz de Prada
Gabriel Bustillo
Agurtzane Insa
Antonio Marsal
Erlantz Basauri
Mikel Mendicote

Mario Liendo
Txema Lahija
Blas Beristain
Amaia Lastra

Alberto Tijero
Javier Vergara
Óscar Malo
Alex Zeus
Gontzal Martínez

Patxi Sánchez
Jon Zubiaurre
María Azpiroz
Arturo Cabo
Luis González
Álvaro Gutierrez
Jon Landaburu
Manuel Ferrandis
David Velasco
Nicolás Vicente
Mikel Lotina
Amaia Lastra
Alberto Ribacoba
Lorena Muñoz
Miquel García
Carlos Olmedillas
José Ramón Rodríguez

Mikel Arroyo
Ibai Ormaza
Nuria Fernández
Estibaliz Lekue
Aritz Muñoz

Armando Bilbao
Iñigo Eletxigerra
Alberto Fernández
Javier Llarena
Óscar Reguart
Sonia Casas
Guillermo Musatadi
Laura Blanco
Gorka Uria
Amaya Martínez
Iñigo Sard
Ainara Arrieta
Nerea Castro
Paco Morales
Ramón Campo
Susana Fidel Rodríguez
Joseba Juaristi
Asier Larrien
María Besada
Óscar Barrio
Edurne Sevil

ARCHITECTURE

CIVIL

SURVEYORS

ENVIRONMENT & SUSTAINABILITY

INSTALLATIONS

TELECOMMUNICATIONS

STRUCTURES