



# HEALTHCARE

ARCHITECTURE

IDOM

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## HOSPITALS AND DAYCARE CENTRES



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## HEALTHCARE CENTRES

**148**

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**152**



**125**  
countries

**46**  
offices

**968**  
partners

**5.125**  
professionals



## THE SIGNS ARE EVIDENCES

We are at the end of a long historical journey, made up of fragmented evolutions in health care, which is now on the threshold of a real revolution.

The 'hospital', as we know it today, will rapidly move from being the cornerstone of medical care to taking on a different role in health policies, conditioned by new strategies of sustainability and efficiency, adapting to an emerging reality.

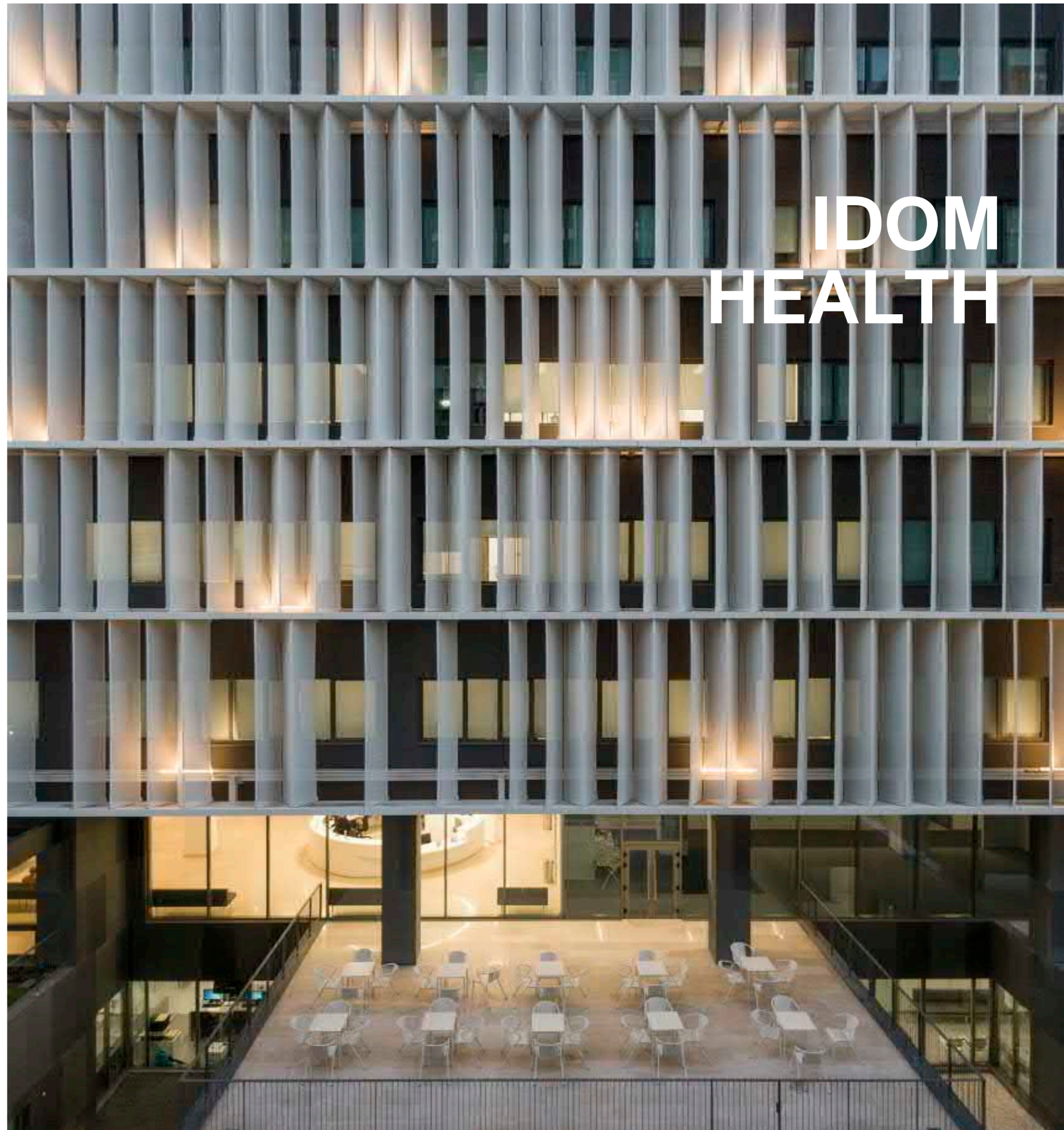
The new hospital infrastructure will be part of a system in which prevention, education, community support, new demographic and socio-economic scenarios, ecology and the design of health-promoting cities, without neglecting the extraordinary advances in research and early detection of diseases, will together assume crucial importance in shaping the healthcare of a future that is already present.

This new systemic approach to healthcare, in which issues of enormous dimension and complexity intertwine and extend far beyond the hospital infrastructure, generates a well-founded concern in our clients with which we identify and which motivates us every day to help them meet these challenges. To achieve success in the current uncertain historical frontier, companies and organisations dedicated to healthcare must

demand more from technicians, and project and consultancy companies should have the capacity to help organisations to look beyond the classic functional recipes, breaking conventional organisational taboos and exploiting paths that have never been travelled before, to respond to these new and exciting challenges.

In the multidisciplinary area of IDOM HEALTH, consultants, architects, engineers, biomedical, landscape and hospital interior designers, armed with a holistic work methodology where the whole represents much more than the sum of its parts, we are prepared to respond to all the challenges that arise, whether it be creating innovative solutions for infrastructures, strategic transformations, new operating models, or providing positive user experiences associated with the most advanced forms of healing.

# IDOM HEALTH



## HEALTHCARE ARCHITECTURE

In IDOM, we approach the design of hospitals by understanding the typological singularity of these buildings, which are much like complex living beings that grow, change, reproduce and age, and that must have at every stage of their life the intrinsic capacity to adapt and evolve.

For this reason, in the Healthcare department in IDOM, architects, engineers and consultants highly specialized in hospital projects, work as a team, combining synergies supported by knowledge, rigor and creativity, and taking on challenges of immense technological and functional complexity.

The targets we set ourselves at the beginning of a new healthcare project are transversal to the idiosyncrasies of each functional programme, the singularity of our clients and the typology and size of the hospital infrastructure: designing flexible and comfortable buildings which are functionally efficient and that allow for sustainable management.

To those general goals, we add the challenge of creating safe and human spaces, focused on the patient, that appease the suffering and anxiety of those who have to remain hospitalized. We consider that a good architectonic design, capable of generating excellent environmental

conditions for patients and the clinical and nonH- clinical personnel, plays a key part in the recovery process.

At IDOM, we also work towards our projects having a direct positive impact on the building's management, which will in turn improve the quality of the medical care through the optimization of work patterns and the rationalization of resources and procedures. With the background of our technical and technological knowledge, accumulated over numerous hospital projects carried out around the world, our desire at IDOM is to help our clients improve the work processes through design, achieving excellent and efficient results on all levels: functional, logistics, economic, energy and physical comfort.

### HOSPITAL TYPOLOGIES

Private Hospitals	Hospital Renovations
Public Hospitals	Master Plans
Health Centres	Maternity and children's units
Outpatient clinic	
PPP Hospitals	
Dialysis Centres	
Ophthalmologic Centres	
Laboratories	
Emergencies	
Psychiatric Units	
Old people's Homes	

# HEALTHCARE ARCHITECTURE

IDOM HAS A STRATEGIC HEALTH BUSINESS LINE, WHICH PROVIDES PROFESSIONAL SERVICES IN THE FIELDS OF ARCHITECTURE, ENGINEERING AND CONSULTANCY.

CLÍNICA UNIVERSIDAD UNIVERSIDAD  
OF NAVARRA IN MADRID

EXPANSION OF THE CUF DESCOBERTAS  
HOSPITAL IN LISBON, PORTUGAL

BBK SARRIKO CENTRE  
IN BILBAO

ELÍAS MARTÍNEZ SANTIAGO RESIDENTIAL  
CENTRE IN ZARAGOZA, SPAIN

HOSPITAL OF AMARANTE  
IN PORTUGAL

PUBLIC HOSPITAL OF VIGO, SPAIN

NEW OUTPATIENT BUILDING BASURTO  
HOSPITAL, SPAIN

SULLANA HOSPITAL, PERU

PAEDIATRIC HOSPITAL  
IN BURGAS, BULGARIA

AL-ANSAR PILGRIMS HOSPITAL  
IN THE MEDINA, SAUDI ARABIA

NATIONAL CARDIOVASCULAR CENTRE  
IN ULAN BATOR, MONGOLIA

NATIONAL CENTRE FOR EMERGENCY  
TREATMENT AND EMERGENCY TREATMENT  
CENTRE AND LABORATORY  
IN FARATO, THE GAMBIA

COVID EMERGENCY HOSPITAL  
IN LUNGI, SIERRA LEONE

TEPIC HOSPITAL IN MEXICO

HOSPITAL RÍO BUENO, IN CHILE

HOSPITAL LOS LAGOS, IN CHILE

INFANTA LEONOR HOSPITAL, VALLECAS,  
IN SPAIN

RED MAULE HEALTH SYSTEM, IN CHILE

HOSPITAL SAN ALEJANDRO, IN MEXICO

EMERGENCIAS 112, IN SPAIN

# 1. HOSPITALS AND DAY CARE CENTRES

# CLÍNICA UNIVERSIDAD DE NAVARRA HOSPITAL IN MADRID, SPAIN

## CREATING COMFORT CLOSE TO "HOME", FOR THE QUICK RECOVERY

IDOM has designed a highly specialised hospital model for the Madrid headquarters of the Clínica Universidad de Navarra, which incorporates teaching and research, where all the healthcare activity is centred on the patient.

A compact building has been designed to minimise routes, improve the form factor and constructive economy, while maximising the use of natural light. The development and vertical communications are promoted as a strategy for a quick and easy approach to the patient.

The project has an integral and holistic conception of the hospital environment, incorporating all the complex factors that affect the patient. The work is focused on making the stay of patients, their relatives and also the Clinic staff pleasant, friendly and bearable. The aim is to recreate an environment for the patient, close to home comfort conditions, which effectively favours the patient's recovery.

### Client

Clínica Universitaria de Navarra

### Location

Madrid, Spain

### Area

45.500 m<sup>2</sup>

### Year

2013 - 2018

### Services

Architecture and Strucution Project

Construction Management

Juan Miguel Otxotorena

**Nº Beds 60**

**Nº Sugerry Room 6**

**Procedure Room 4**

**ICU Boxes 7**





## A HOSPITAL MODEL DESIGNED FOR THE PATIENT

The project for the new headquarters of the Clínica Universidad de Navarra in Madrid responds to a highly specialised, teaching and research hospital model, where all healthcare activity is centred on the patient.

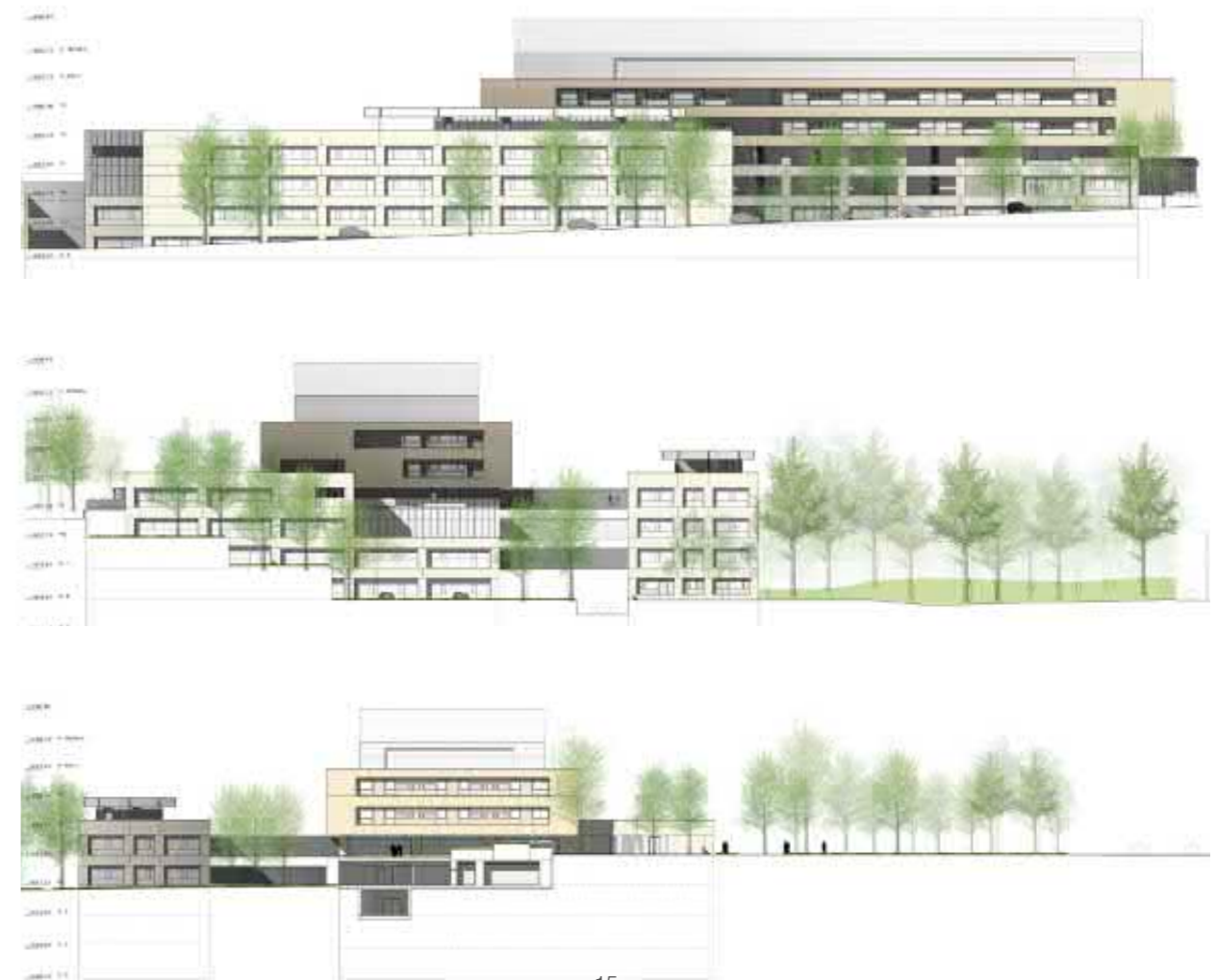
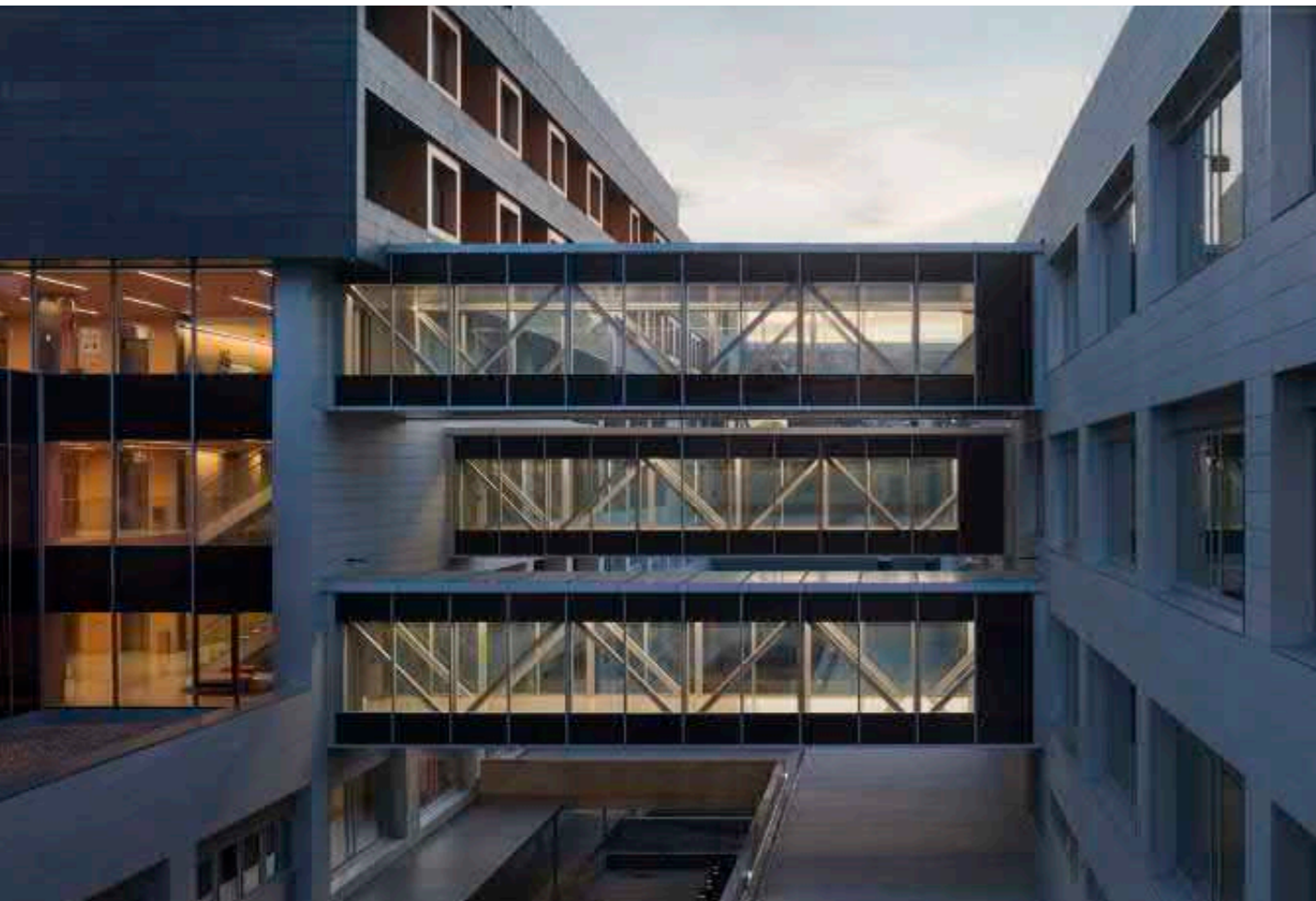
A compact building has been designed to minimise routes, improve the form factor and constructive economy, while maximising the use of natural light. The development and vertical communications are promoted as a strategy for a quick and easy approach to the patient.

The project aims to recreate an environment for the patient that is close to the comfort conditions of the home, which effectively favours the patient's recovery. It is functionally organised around 6 care areas:

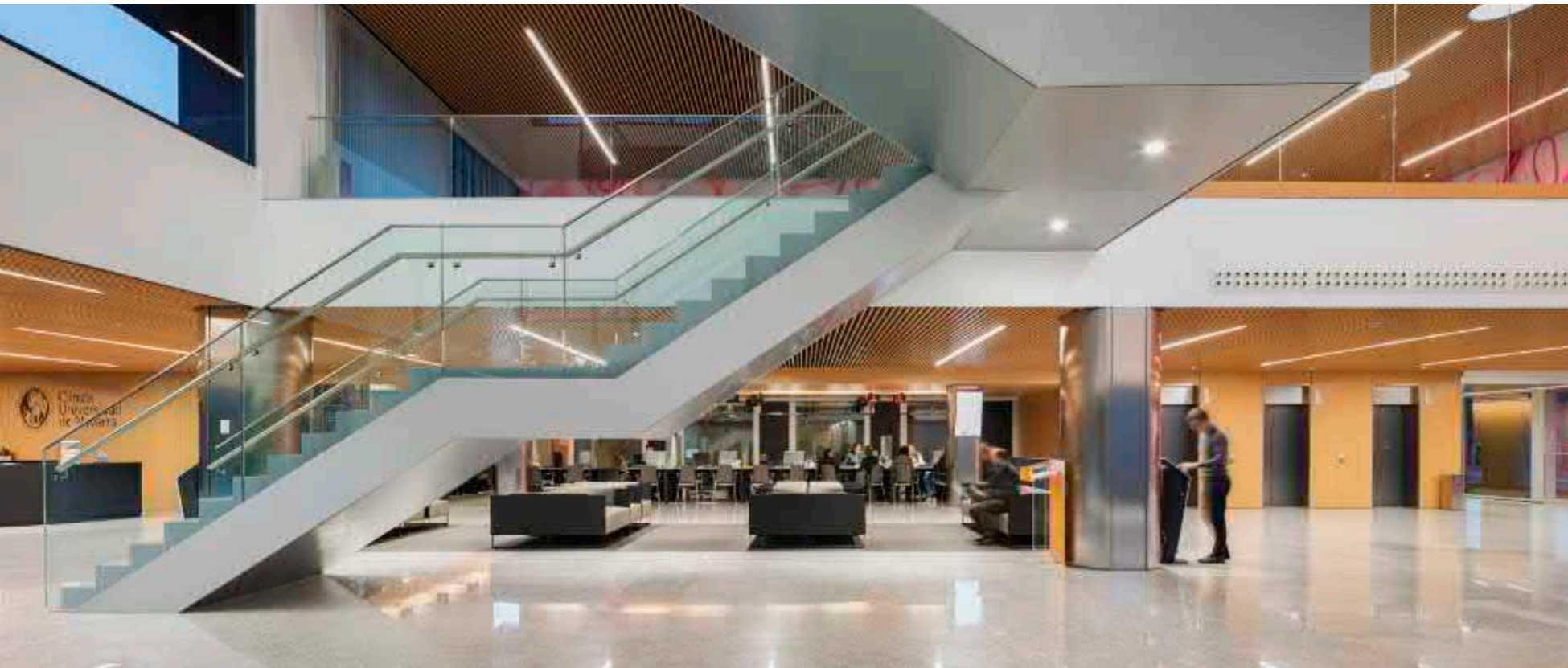
Oncology, Predictive Medicine (Check-ups), Women and Paediatrics, Advanced Surgery, Cardiovascular Area and Traumatology and Sports Medicine.

The Clinic has 58 hospital beds, 7 ICU boxes and 7 neonatal ICUs, 3 delivery rooms, 6 operating theatres, 1 hybrid operating theatre, 4 procedure rooms, 2 accelerators for oncology treatments and 65 consultation rooms for up to 46 medical specialities.

The hospital complex has 35,000 m<sup>2</sup> for healthcare use and a further 11,000 m<sup>2</sup> for facilities and parking.







## THE PROJECT

The project designed by IDOM assumes the objectives and values proposed by the Clínica Universidad de Navarra. To ensure compliance with the Clinic's medical-functional needs and requirements, close collaboration and participation was maintained with all the medical departments and the different services of the Hospital.

The result is a building with a vertical and dense vocation, where natural lighting dominates the main rooms and the functional organisation is efficient, reducing the movement of patients and staff.

A large central atrium and walkways ensure direct communication and spatial relationships between the different areas, while characterising the different public spaces in the building.

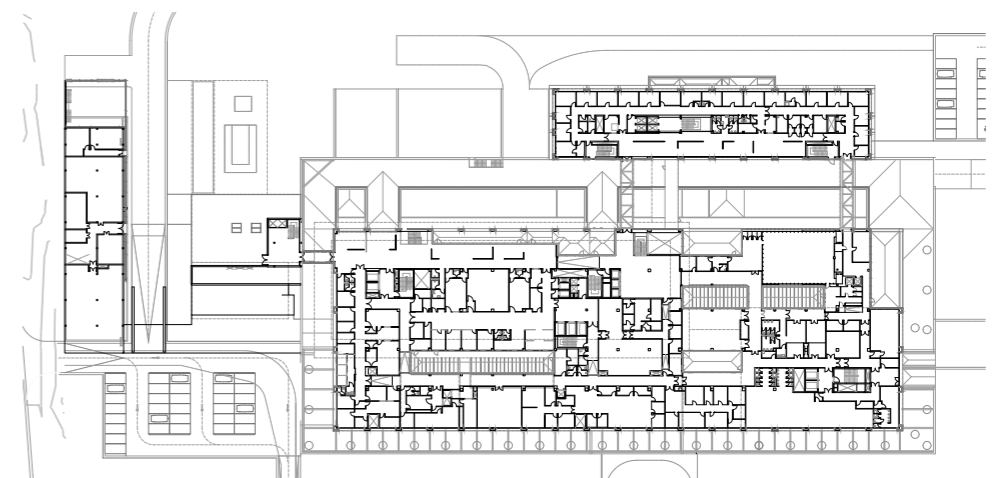
The project also integrates the requirement for flexibility, which is elementary in a hospital infrastructure that is always subject to change. To this end, a structure with large spans has been designed, an envelope modulated in different orders and vertical communication and service cores sized and strategically located. Future extensions to the building are planned, by occupying space already built in reserve and

also by extending the building by extending the structural circulations that organise the building.

The project has an integral and holistic conception of hospitality, incorporating all the complex factors that affect the patient. The work is focused on making the stay of patients and the Clínica's staff pleasant, friendly and bearable.

The Clínica Universidad de Navarra was inaugurated in November 2017.

**The project has an integral and holistic conception of the hospital environment, incorporating all the complex factors that affect the patient.**



# EXPANSION OF CUF DESCOBERTAS HOSPITAL IN LISBON, PORTUGAL

## REVOLUTIONISING HOSPITAL DESIGN - NEARLY ZERO ENERGY BUILDING

The Medicine, like architecture, has built its own history on the basis of technological advances and discoveries. In Building 2 of the CUF Descobertas Hospital ('Discoveries' in Portuguese), a new page in the history of hospital infrastructure has been written, with the aim of making the hospital behave as a Nearly Zero Energy Building (nZEB).

In response to this ambitious challenge and taking into account that hospitals are by their very nature large consumers of energy, IDOM architects and engineers worked interactively from the first sketches on the blank paper, making a series of decisions that led to solutions never before used in hospital design.

### Client

Hospital CUF Descobertas

### Location

Lisbon, Portugal

### Area

23.010 m<sup>2</sup>  
[11.200m<sup>2</sup> Clinical spaces  
And 11.810m<sup>2</sup> of Parking]

### Year

2014 - 2016

### Services

Architecture, Structure, and  
Building services project  
Nº Special rooms 30  
Nº Operational Rooms 2  
Nº Consulting Room 115





The CUF Descobertas hospital, owned by the José de Mello Saúde group, decided to expand its facilities with a new building for outpatient use only.

Located in the Parque das Nações in Lisbon, the original building, designed at the end of the 1990s, marked the beginning of a new era in hospital design in the country, introducing highly innovative criteria both in terms of functional organisation and, above all, in promoting a new image of comfort and humanisation of hospital spaces for patients and staff.

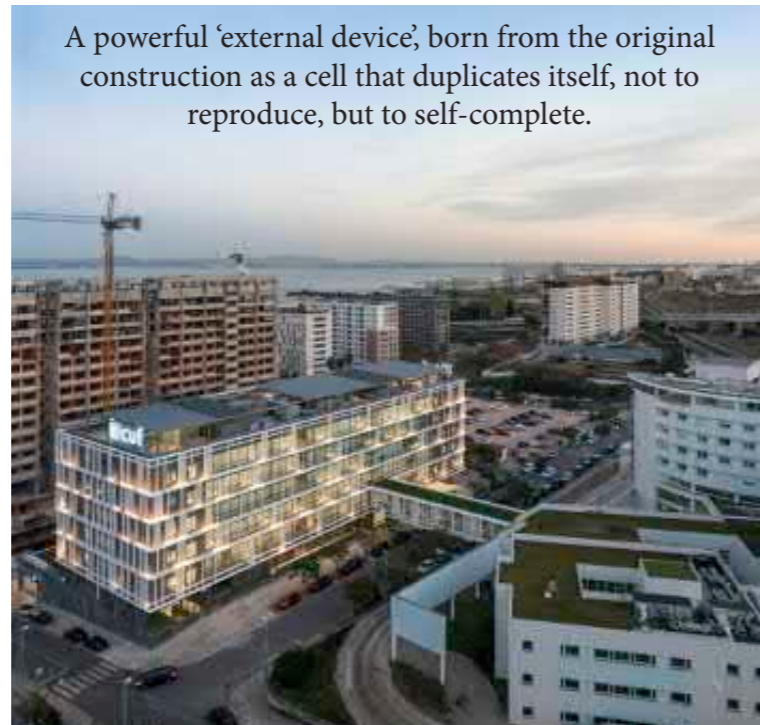
The extension building, inaugurated at the end of 2018, had to respond to a complex web of urban and programmatic commitments but, above all, it was intended to become a powerful 'external device', emerging from the original construction as a cell that duplicates itself, not to reproduce itself, but to complete itself. In this way it is intended to generate a 'hospital campus'.

The formal character of the new Building 2 of the CUF Descobertas Hospital had to ensure, on one hand, that the main building would be identified as a technological and healthcare centre of reference in the country and, on the other, its recognition as a new contemporary architectural commitment, showing in some way the singularity of its exclusively outpatient use and opening up to the city one of the main entrance doors of the hospital complex.

With a simple and regular volumetry, imposed by the urban requirements of the plot, the new building aims to express its own identity, compact

and sober, by generating a direct relationship between the building and its purpose and by a rational use of materials, while seeking a formal balance between past and present.

A powerful 'external device', born from the original construction as a cell that duplicates itself, not to reproduce, but to self-complete.



# BBK SARRIKO CENTRE IN BILBAO, SPAIN

## LIGHT, COLOUR AND TEXTURES, A SOURCE OF HEALTH

We are firmly convinced that the experience of space generated through the exquisite treatment of light, colour and textures constitutes to a large extent a therapy that contributes at all times to the well-being of the people who live in it. The materials have been carefully selected with this 'healthy' intention. Materials of natural origin with natural and soft colours, such as rubber, acoustic panels of white wood and large undulating curtains, together with the presence of the gardens through the large windows, extend along all the routes and rooms of the building, constituting an identification of the person with what is their home.

The furnishing of the housing unit avoids the stereotype of the nursing home room, while it has all the comforts that an elderly person needs to lead an autonomous life, a place designed to think about the future and to house the memories.

### Client

Bilbao Bizkaia Kutxa

### Location

Bilbao, Spain

### Area

23.362 m<sup>2</sup>

### Year

2009 - 2012

### Services

Architecture, Structure, and  
Building services project  
Construction Management  
Integrated Project Management  
and Construction management  
Elderly Care Home  
Accessible Apartment 168



The building is intended for residential social services for the elderly, responding to the typologies of Residence for the elderly, as well as social rental flats for young people.

The building is located in a plot with a 'U' shape scheme opening towards the square so that most of the facades can enjoy a good orientation, views and good sunlight.

The space of the plaza-park penetrates to the heart of the Residential Complex generating a 'lung' of vegetation that provides healthy air to the surrounding rooms.

The uses are distributed on the ground floor around the large central space. On the ground floor, the main leisure and recreational activities of the complex are concentrated around the perimeter, creating an ideal environment for the coexistence of young and old residents.

The building's facades mainly face east and west in order to obtain the largest possible number of flats with the best sunlight and views. On the fronts facing the square there are sunny communal areas with magnificent views.

The variation of heights in certain sections of the building makes it possible to increase the hours of sunlight on certain façades and to generate terraces for the use and enjoyment of the users.

Throughout the design process, special emphasis has been

placed on making the building as functional and flexible as possible.

The large central space concentrates the main entrances for residents to the youth flats and the Residence.

The building houses single and double flats for seniors and double apartments for young people. The double flats have a surface area of 45m<sup>2</sup> and the single apartments have a surface area of 30m<sup>2</sup>.

The layout of each group of flats on the ground floor is based on criteria of flexibility and adaptability, facilitating sustainable future management, given their versatility in the incorporation of alternative uses.

Throughout the design process, special emphasis has been placed on making the building as functional and flexible as possible.

Most of the common areas are located on the ground floor and contain the following main uses:

- Common areas equipped with dining rooms, multi-purpose living room and activity and occupational rooms, including a television room, conference room, games and occupational therapy room, video library and library.
- Health and Rehabilitation Area, equipped with medical consultation, treatment room and first aid kit, physiotherapy and rehabilitation room and pharmacy office.
- Laundry and meal preparation service.
- Administration offices.

The structure is made of concrete with prefabricated slabs of pre-slabs, which has significantly reduced the construction period.

The materials used have been chosen taking into account their suitability, their durability in accordance with criteria of massive use and their easy cleaning in accordance with the minimum maintenance required.

In the façades, a single material has been used for

the housing units and a differentiated treatment for the common areas.

In the interior, highly durable and easy to install materials have been chosen, such as continuous rubber or PVC flooring and dry plasterboard partition walls. Plasterboard false ceilings have been installed in corridors, kitchen and toilets and acoustic false ceilings in corridors. The doors are made of MDF with a stratified finish and highly durable fittings. The corridors and common areas have an acoustic cladding of shaved and perforated MDF. The predominant coatings will be vinyl or paint.

The interior of the central space is surrounded by a fence, with a pedestrian and vehicle gate and is conceived as a recreational area, landscaped and with benches, allowing the circulation of vehicles (ambulances, fire brigade, etc.). The pavement treatment is based on polished concrete with plant beds, medium-sized vegetation and concrete benches lined with wood.



# ELIAS MARTINEZ SANTIAGO HOMECARE CENTRE, IN ZARAGOZA, SPAIN



It is a building that includes a nursing home with 210 places, a day centre a residence for the elderly people.

The building descends in a staggered manner following the natural slope of the site, creating gardens between the different parts of the building.

The ground floor of the first block coincides with the lower floor of the next, and so on. These three elements, whose main use is for the rooms in the centre, are connected perpendicularly and at their ends to a fourth, more irregular and lower volume which encloses the communal areas of the building.

The intersections between these blocks are used for vertical communications.

The free spaces between blocks allow the landscaped areas of the plot to enter the building, like a comb, always thinking of the maximum enjoyment of the users of the building so that they can benefit from the privileged environment available to them.

## Client

IASS (Instituto Aragonés de Servicio Social)

## Location

Zaragoza, Spain

## Area

15.564 m<sup>2</sup>

## Year

2006-2009

## Services

Architecture, Structure, and Building services project and Construction management

## Residence for elderly people

210 spaces



# HOSPITAL OF AMARANTE IN PORTUGAL

## BEYOND CONSTRUCTION. THE HOSPITAL AS A CULTURAL REFERENCE

The proposal for the Amarante hospital seeks to provide a clear response with the intention of altering the way in which health care services are offered. The project is born from a careful reading of the Functional Programme, together with the design of the site where it will be implanted.

The project has a categorical and positive attitude that responds to the clear need for a hospital of proximity, where this reality between patient and user is assumed. The new hospital is transformed into a more humanised and efficient building, due to its functionality, to respond to the characteristics of the size of its outpatient area and also because it is equipped with the best services in the specialities of consultations, qualified basic emergencies, day hospital, mental health unit, physical medicine and rehabilitation services. It also has complementary diagnostic and outpatient surgery facilities, as well as an adequate number of hospital beds (a total of 60).

### Client

Centro Hospitalar do Tâmega e  
Sousa

### Location

Amarante, Portugal

### Area

20.551 m<sup>2</sup>

### Year

2008 - 2011

### Services

Architecture, Structure and  
Building Services projects  
Construction Management  
Integrated Project and  
Construction Management

### Nº Beds 60

Consulting Rooms  
Emergency Department  
Operating Rooms 3





A perfect interplay of pure, refined and free volumes.



### INNOVATIVE DESIGN STRATEGY

The proposal for the Amarante Hospital stems from a careful reading of the functional programme. The architectural medical programme is distributed in a diagrammatic way without the initial dependence on a predefined volumetry for the building.

This Cartesian volumetry is the result of the free fit of the architectural medical programme, regulated by a rectangular base.

The new hospital is clearly in tune with the landscape, open to patients and their families, thanks to a cut-out façade that guarantees natural lighting and views of all the care spaces.

“Tectonic” volumetry, firmly anchored to the ground, perforated by courtyards and open to the environment.

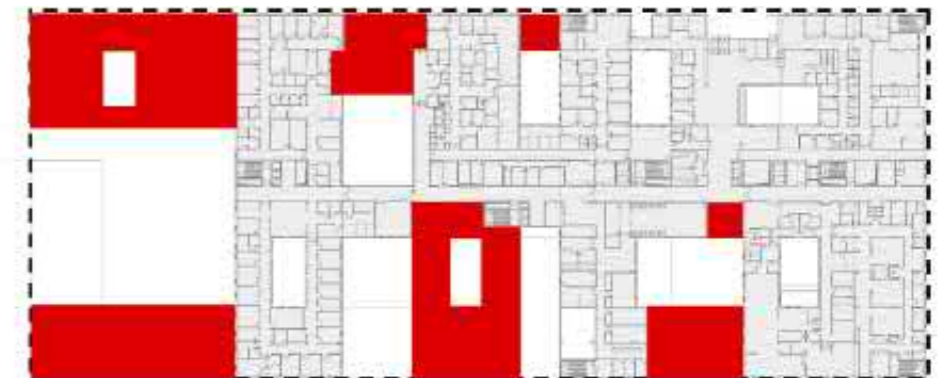
### CULTURAL ICON

Beyond the concepts of hospital and health centre, the project is inspired by the origins of the architecture of this region of Portugal: The Portuguese manor houses. Buildings with a refined, austere and sober character.

The manor houses are initially made up of a single rectangular volume, which is then completed in an orderly fashion with other volumes according to the expansion needs of the owners. In the same way, the Amarante Hospital can be extended when and where necessary without altering the compositional rule of the building, maintaining its formal coherence.



The building is volumetrically prepared for future changes and unforeseeable expansions.



# NEW PUBLIC HOSPITAL OF VIGO IN VIGO, SPAIN

## CONSTRUCTIVE AND FUNCTIONAL FLEXIBILITY; SEARCH FOR THE HUMAN SCALE

With a project by Valode & Pistre and Luis Vidal & Partners, the hospital of Vigo opted for the integration of the building in the natural surroundings. To do so, the buildings were staggered, adapting them to the slope they rest on in order to reduce the visual impact of the complex. Over the green roofs in the outpatients' area, the six hospitalization towers stand out, with a geometry that opens up to the landscape. The new hospital has 1,324 beds, 150 consultation rooms and 24 operating theatres, making it the main hospital in southern Galicia. The structural project deals with the staggering of the different bodies, the flexibility needed for the distribution of uses and the speed of execution. The building services incorporate energy saving systems such as trigeneration, reusing rainwater and adequate waste management, which minimize the environmental impact of a project this size.

**Client**  
UTE Novo Hospital de Vigo

**Location**  
Vigo, Spain

**Area**  
297.235 m<sup>2</sup>

**Year**  
2015

**Services**  
Construction Management for  
Building services, Structure and  
Urbanization/Civil works

**N° Beds 1,324**  
**N° Operating Rooms 24**  
**N° Imaging areas 35**  
**N° Consulting Rooms 150**





### CONSTRUCTIVE AND FUNCTIONAL FLEXIBILITY; SEARCHING FOR THE HUMAN SCALE

The building services project has taken into account energy-saving systems such as trigeneration, the reuse of rainwater and proper waste management to minimise the impact of a project of this size on the environment.

The urbanisation project has resolved the implementation on the plot, the accesses to the building and the necessary connections for all the infrastructures.

To achieve the integration of the building into the natural surroundings, the volumes have been staggered, adapting to the slope on which it rests in order to minimise the visual impact of the whole.

In order to integrate the building into the natural environment, the volumes have been staggered, adapting to the slope on which it rests to minimise the visual impact of the complex.



# NEW OUTPATIENT BUILDING BASURTO HOSPITAL IN BILBAO, SPAIN

## A NEW HIGH RESOLUTION CENTRE

Basurto Hospital is an important landmark in the city. It is a hospital loved by the people of Bilbao and provides pleasant spaces for patients and their families thanks to its gardens and wooded areas.

The new outpatients' building is the result of the need for growth of saturated infrastructures and, at the same time, of the need to revitalise the hospital complex.

IDOM designed a building with an important capacity for outpatient care, but also prepared to act outside its physical limits through Telemedicine. This resolute and preventive characteristic of the diseases marks the DNA of the project and will allow the Basurto Hospital to become a more specialised infrastructure.

## Client

Osakidetza

## Location

Bilbao, Spain

## Area

33.000 m<sup>2</sup>

## Year

2022-Ongoing

## Services

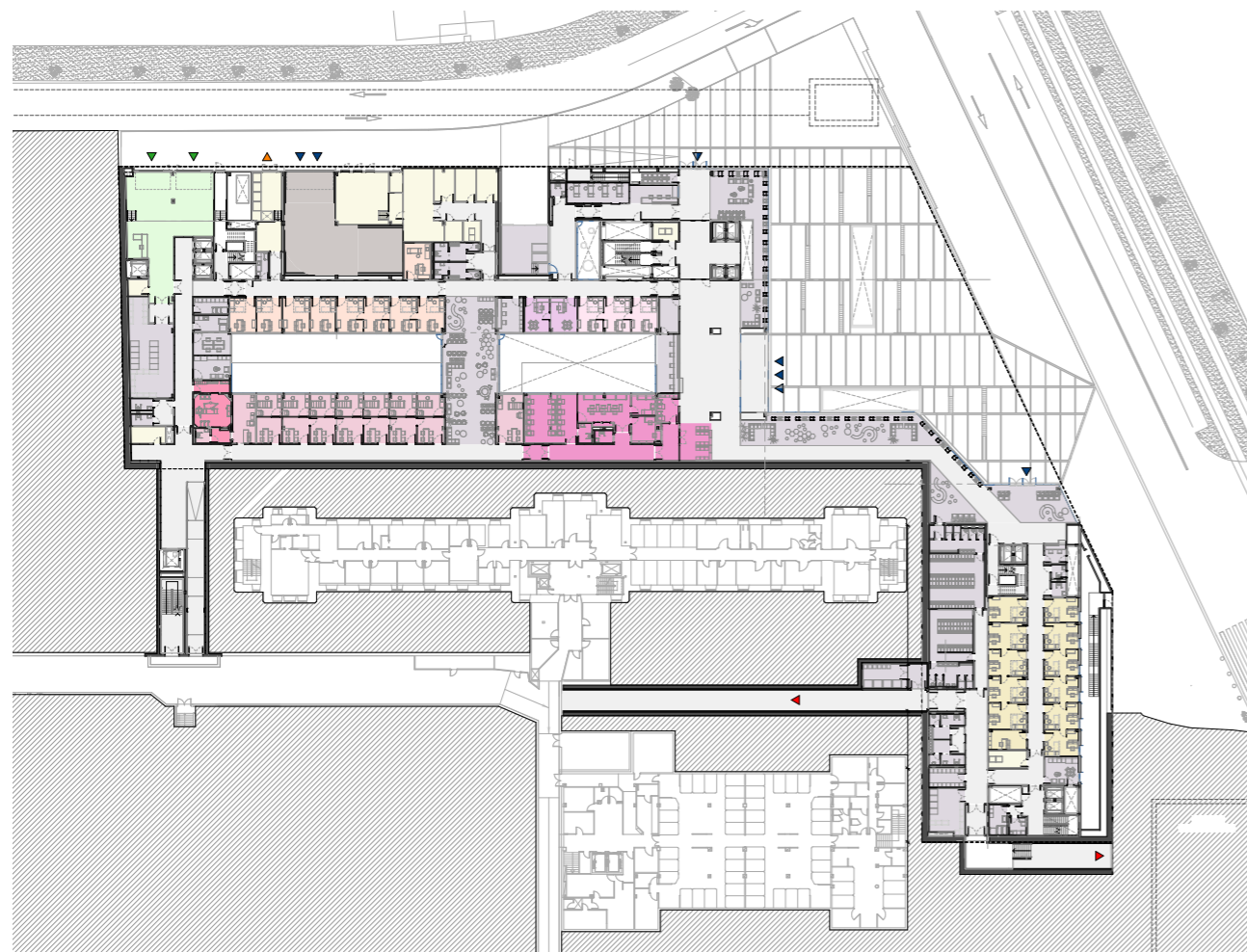
Architecture, Structure and  
Building services projects  
Integrated Site Supervision and  
Construction Management

Nº Consulting Rooms 188

Imaging Area

Automated Pharmacy






Basurto will become a High-Resolution Centre: Outpatient Care and Diagnosis in a single act.

The flexible design of the proposal offers the possibility of applying a new concept to the hospital: High Resolution Centre. This consists of the patient being seen by the doctor and having the necessary complementary diagnostic examinations carried out on the same day and being able to return home with a treatment proposal and/or treatment carried out.

This results in a reduction in the waiting time for diagnosis and treatment, as well as the number of trips to the hospital, with clear benefits for the patient.





# SULLANA HOSPITAL IN PIURA, PERÚ

## AN EFFICIENT AND FAST TRACK BUILT HOSPITAL DESIGN

The Sullana hospital will be a Category II-2 hospital unit and is the result of a Government to Government Agreement with the United Kingdom.

It is located on 43,381 m<sup>2</sup> of flat land in the Sullana region of Piura in Peru. It has a net area of 27,760 m<sup>2</sup> with 209 beds and 4 operating theatres, one of which is multifunctional. It consists of the following Health Services Production Units (HSPU): Outpatients, General Emergency, Obstetric Centre, Surgical Centre, Hospitalisation (209 beds), Intensive Care, Clinical Pathology, Pathological Anatomy, Haemodialysis and Peritoneal Dialysis, Diagnostic Imaging, Rehabilitation Medicine, Nutrition and Dietetics, Haemotherapy and Blood Bank, Pharmacy and Sterilisation Centre. It also consists of the following Service Producing Units: Teaching and Research, Information Management, Transport, Power House, Cold Chain, Gas Central, Warehouse, Laundry, Maintenance, Environmental Health, Multipurpose Room, Maternity Home, Staff Residence and Guardianship.

### Client

Autoridad para la Reconstrucción  
con Cambios ARCC

### Location

Distrito de Pátamo,  
Perú

### Area

27.760 m<sup>2</sup>

### Year

2021

### Services

Architecture, Structure, and  
Building Services Projects  
Healthcare Equipment  
Integral Construction Management

**Nº Beds 209**

**Nº Operating Rooms 4**



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It is located on 43,381 m<sup>2</sup> of flat land in the Sullana region of Piura in Peru. Its useful surface area is 27,760 m<sup>2</sup> and it has 209 beds and 4 operating theatres, one of which is multifunctional. It consists of the following Health Services Production Units (UPSS): Outpatients, General Emergency, Obstetric Centre, Surgical Centre, Hospitalisation (209 beds), Intensive Care, Clinical Pathology, Pathological Anatomy, Haemodialysis and Peritoneal Dialysis, Diagnostic Imaging, Rehabilitation Medicine,

Nutrition and Dietetics, Haemotherapy and Blood Bank, Pharmacy and Sterilisation Centre. It also consists of the following Service Producing Units (UPS): Teaching and Research, Information Management, Transport, Power House, Cold Chain, Gas Central, Warehouse, Laundry, Maintenance, Environmental Health, Multipurpose Room, Maternity Home, Staff Residence and Guardianship.



Within the implementation scheme, the proposal is divided into two main volumes, corresponding to the hospital (four floors above ground) and the logistics building, separated by a series of courtyards and green areas.

The plot is surrounded by four avenues, allowing the possibility of clearly segregating the different flows of vehicles and access to the building. The main public accesses to the plot and the building are on the avenue north of the building: a pedestrian access and a vehicular access.

Given the climatic characteristics of this region, special attention has been given to the solar protection of the façades most exposed to radiation, particularly in the hospitalisation block.

Similarly, interior courtyards have been considered which, in addition to guaranteeing the natural lighting of a compact building for seismic reasons, provide natural ventilation to the innermost spaces.

The building is organised according to a conventional layout of a hospitalisation block on a plinth.

# PAEDIATRIC HOSPITAL IN BURGAS, BULGARIA

## SPACE AS A HEALING FACTOR

The European Investment Bank (EIB) has selected IDOM to develop the entire healthcare planning consultancy service for the new paediatric hospital in Burgas; from the demand and needs assessment studies for hospital services and organisational capacity planning to the preparation of the Functional Medical Programme and Schedule of Accommodation and the Medical Equipment Plan.

Based on these planning activities, IDOM has drawn up the Conceptual Design of the new health centre and has defined its main characteristics and all the technical requirements and design criteria. It has also defined the project execution structure, drawn up the specifications for the contracting of the design and construction project and for the acquisition of the medical equipment, as well as preparing the application for European funds.

**Client**  
European Investment Bank (EIB) –  
Burgas Municipality

**Location**  
Burgas, Bulgaria

**Area**  
28.055 m<sup>2</sup>

**Year**  
2021 - 2022

**Services**  
Functional Medical Programme  
and Schedule of Accommodation  
Feasibility Study for the plot  
Concept design of Architecture,  
Structure and Building Services  
Medical Equipment Project

**N° Beds 123**  
**ICU Boxes 10**  
**Operating Rooms 3**  
**N° Consulting Rooms 27**  
**N° Procedure Rooms 27**

**ДЕТСКА БОЛНИЦА БУРГАС**  
Дневен стационар →  
Хоспитализация →  
Хирургичен блок →  
Консултативен център ↗







### BRINGING THE JOY BACK TO THE HOSPITAL

The most common feeling in children when they are hospitalised or simply have a medical appointment with a specialist is fear. The terror of being in an unknown, cold, serious, dark place, where the only colour they find beyond white is the green of the gowns.

IDOM believes in the importance of humanising the spaces of a hospital, in this case, a paediatric hospital. To eliminate the feeling of anguish that children feel when they enter a health centre, to generate an atmosphere of joy, games, colours and life. We aim to replace the feeling of fear and dread with a feeling of fun, so that the child forgets that he or she is in a hospital, designing and thinking about each of the spaces for and with children in mind. The Burgas Paediatric Hospital has a play area in each of its medical areas, natural light in all of its rooms, signage and wayfinding designs for children and young users with bright and lively colours.

IDOM's aim is for the child to feel that this space feels like home, quiet, intimate, comfortable, safe



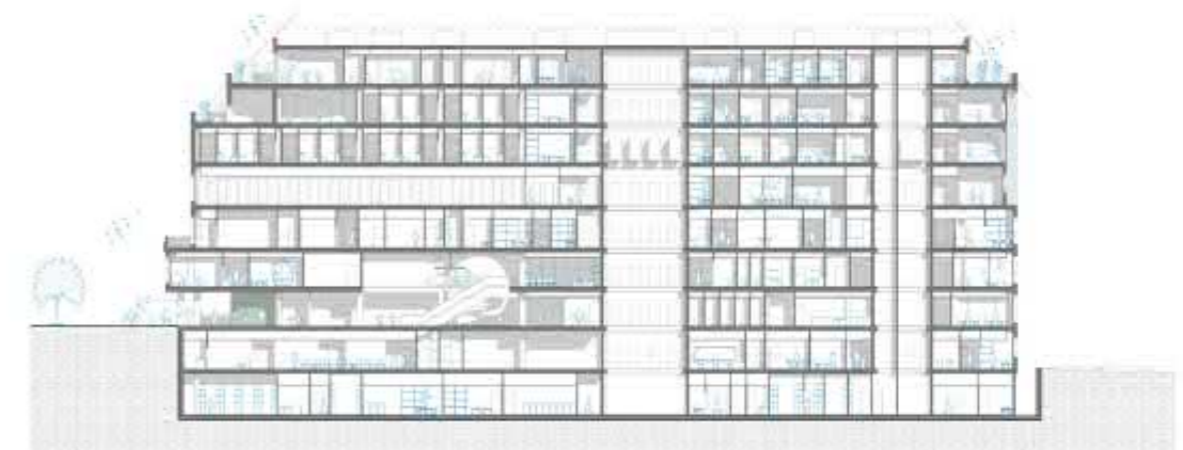
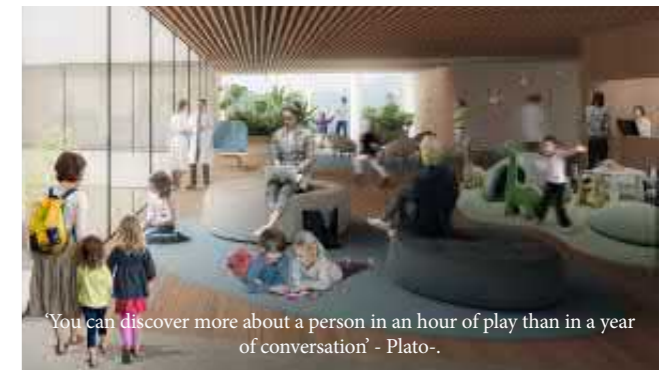
space and with enough space to be surrounded by their companions. We also eliminated the orthogonal corners both in the façade and in its interiors to generate more organic spaces.

Humanising means thinking of all users, generating environments that satisfy their physical and emotional needs.

The hospital is a physical and functional space in which human suffering is present in all its degrees and in a constant manner. Humanisation in the healthcare environment is based on the search for the well-being of users, through solutions that improve their physical and sensorial state. Designing friendly, warm spaces has therapeutic effects on patients.

Design criteria must be applied that contain innovative concepts, starting with patient safety and privacy, criteria that affect the perception of the environment, based on the five senses of the human being, such as natural lighting and ventilation, the use of colour and textures, acoustic comfort or the presence of vegetation in the spatial environment. Because it has been proven that we feel more relaxed when we are surrounded by a natural, green, luminous and open environment.

Architecture must be able to appease the suffering intrinsic to the sick person, applying the principle of 'primum non nocere' and develop physical, comfortable and humanised spaces to provide the user and their relatives with physical and emotional integrity.



# AL-ANSAR PILGRIMS' HOSPITAL IN THE MEDINA, SAUDI ARABIA

## A HOSPITAL DESIGNED TO HOST MASS EVENTS

IDOM developed the preliminary design for the PPP (Public-Private Partnership) tender for a Hospital for the Ministry of Health in Medina, Saudi Arabia.

The new Al-Ansar Hospital is a programmatically singular and symbolically designed project, as it is basically intended to support pilgrims accessing the Medina Mosque during Haj.

The project consists of the design of a public hospital with 172 beds to meet the urgent and emergency care needs of the growing number of pilgrims travelling to the Medina Mosque, the third mosque built in the history of Islam and now the second holiest between the Grand Mosque in Mecca and the Al-Aqsa Mosque in Jerusalem.

It is developed on a plot of 13,074 m<sup>2</sup> and with a total built area of 92,386 m<sup>2</sup>.

### Client

Consorcio formado por FCC y  
IHCC

### Location

Medina, Arabia Saudita

### Area

92.386 m<sup>2</sup>

### Year

2021

### Services

Concept Project for Architecture,  
Structure, and Building Services

Nº Emergency Boxes 90

Nº ICU Boxes 32

Nº Emergency Medical Inpatient

Beds 92

Nº Medical Surgical Inpatient

Beds 30

Clinical Areas

Outpatient area

Helipad





## A HOSPITAL DESIGNED TO SERVE PILGRIMS FROM THE MEDINA

The Medical Architectural Programme, aimed at an unconventional hospital typology in which a large emergency department becomes the heart of the hospital, acting as the main admission point for patients.

This large department is prepared to receive up to 80 ambulances per hour in situations of high emergency pressure. This requirement clearly marks the organisation of the building, its interior flows and exterior accesses.

The Emergency Department includes a 200 m<sup>2</sup> contingency space to be used in emergency

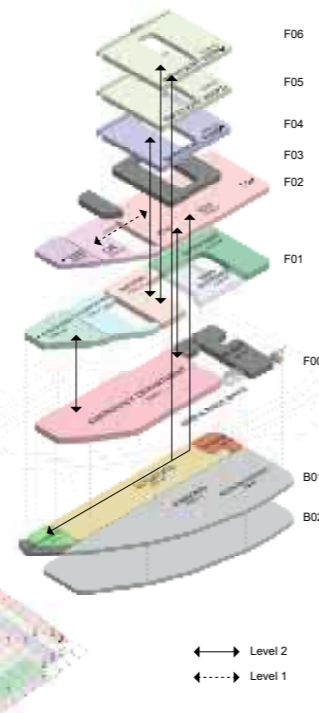
situations and mass patient arrivals. In a normal situation, this space functions as a waiting area and lounge for the outpatients after discharge.

The proposed solution has been designed to allow for easy adaptability of spaces and departments, where changes can be implemented with minimal impact. In addition, a number of design decisions have been made to safeguard the possibility of immediate growth as required.

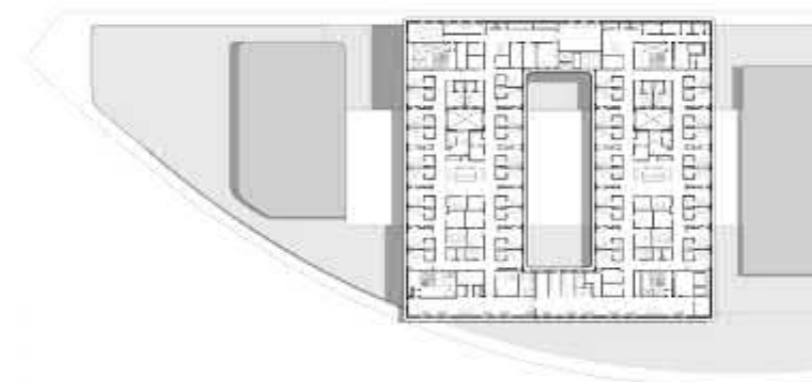
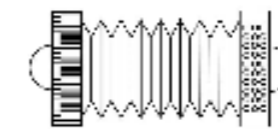
The new Al-Ansar Hospital will be located in a modern planned expansion area in the city of Medina.



The new Al-Ansar Hospital will be located in a modern planned expansion area in the city of Medina.

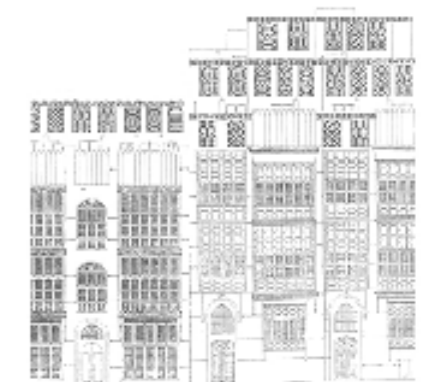


An accordion building that expands and contracts according to need.



## THE FAÇADE

The façade design is inspired by elements of traditional Middle Eastern architecture, such as solid façades with small openings, latticework with geometric patterns, exterior terraces and interior courtyards.



# NATIONAL CARDIOVASCULAR CENTRE IN ULAN BATOR, MONGOLIA

## HIGH-TECH AND NATURE TO HEAL HEARTS IN ULAN BATOR

The healing and relaxing power of gardens and natural spaces has been known for centuries, and in recent years therapeutic gardens have taken on special relevance due to the significant positive effects they have on people with ailments or illnesses, becoming key to their recovery. The therapeutic garden at the National Cardiovascular Center combines different areas designed for all users, aimed at creating interest and excitement when walking through the garden at any time of the day, in such a way that different activities take place, inviting people to walk and spend time with their families, surrounded by an environment that provides beauty, tranquillity and dynamism with stimulating colours throughout the seasons.

At IDOM we work to address all the psychological, physical and sensory aspects, which are so important in the recovery of patients, to care for and attend to all the vital dimensions of the people who make up the community of the health centre.

### Client

Luxembourg Development  
Cooperation Agency (LuxDev)

### Location

6th Khoroo Bayangol district.  
Ulaan Bator, Mongolia

### Area

15.079 m<sup>2</sup>

### Year

2019 - 2020

### Services

Schematic Design, Concept  
Design, and Construction Design  
for Architecture, Structure, and  
Building Services.  
Medical Equipment Project

Nº Beds 80 + 32 ICU

Nº Operating Rooms 3 + 1

Hybrid

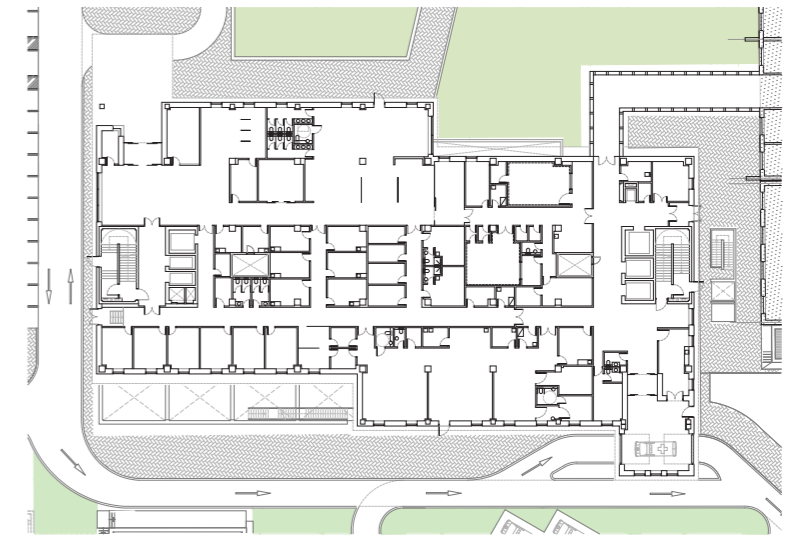
Nº Consulting Rooms 8 + 6

Procedure Room

Diagnostic Area



ЗҮРХ СУДАСНЫ ҮНДЭСНИЙ ТӨВ



The Luxembourg agency for Development Cooperation LuxDev selected IDOM through a merit-based selection process and ideas competition for the design of the new building that will house the National Cardiovascular Centre (NCC) in Ulaanbaatar, Mongolia.

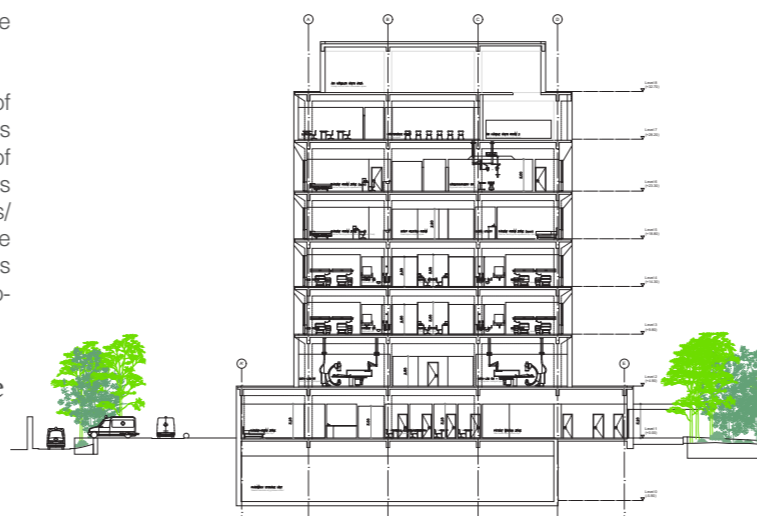
LuxDev has been supporting the Mongolian health service for more than 20 years in its fight against cardiovascular diseases, which have a high incidence in the population and are one of the main public health problems in the country. The latest of these collaboration programmes consists of financing the design of the building that will house the National Reference Centre for Cardiovascular Diseases.

IDOM has designed this hospital in response to the specific needs of the management and medical departments of the National Cardiovascular Centre,

proposing new solutions for a specialised reference hospital.

The new centre is integrated within the scope of the Shastin General Hospital, with which it shares general and logistical services. The relationship of the new building with the existing hospital and its surroundings, the forecast of future transformations/growth, the shared circuits and services and the differentiation of accesses and external circulations have been the main conditioning factors of the project.

**The new centre is integrated within the scope of the Shastin General Hospital, with which it shares general and logistical services.**



# NATIONAL EMERGENCY TREATMENT CENTRE AND LABORATORY IN FARATO, THE GAMBIA

## PRIORITISING SIMPLICITY AND SPEED OF CONSTRUCTION

The Government of The Gambia has developed a National Preparedness and Response Plan for Covid-19. The action plan focuses on scaling up and strengthening all aspects of preparedness and response, including coordination, surveillance, case management, communication and social mobilisation, psychosocial, logistics and security.

Priority has been given to the development of a National Reference Laboratory and an Emergency Treatment Centre, with capacity for 84 observation beds and 20 critical isolation beds.

The construction and design are financed by the World Bank. IDOM has been responsible for the design of the project, which has been carried out within a very demanding timeframe.

### Client

WorldBank – Ministry of Health of  
The Gambia

### Location

Banjul, The Gambia

### Area

9.730 m<sup>2</sup>

### Year

2020 - 2021

### Services

Architecture, Structure and  
Building services projects  
Nº Observation Beds 84  
Nº Critical Isolation Beds 20





It prioritises simplicity and speed of construction using locally available materials and systems.



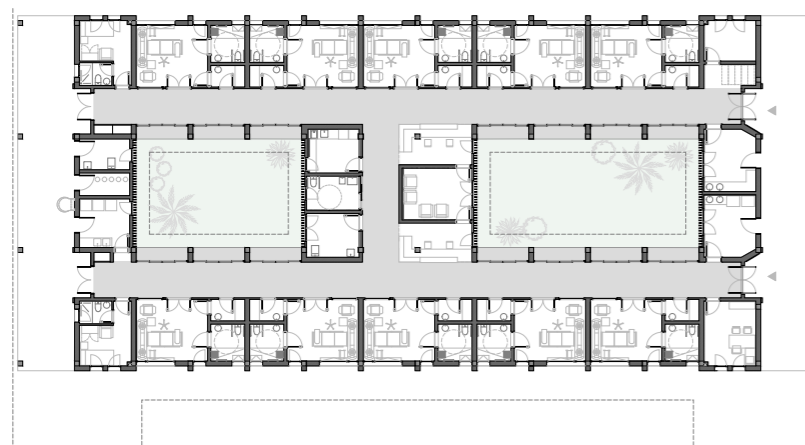
**HEALTHY ARCHITECTURE AS A PROTAGONIST**

The hospital complex is designed on the premise that it will be a busy place in times of emergency. Therefore, it will have several entrances to ensure good access for patients, visitors and staff, guaranteeing safety thanks to a unidirectional flow for all patients and visitors.

IDOM is committed to healthy architecture and ecological design. The building envelope is an important part of the passive architecture strategy for this project. It is essential to protect the buildings from direct solar radiation and to

provide natural ventilation where possible.

A pleasant natural environment has also been sought to support the recovery of patients through interior courtyards and a large central space with local vegetation, which help to maximise the use of natural light.



A design that responds to the climate and conditions of the natural and social



# EMERGENCY COVID HOSPITAL IN LUNGI, SIERRA LEONE

## A FAMILIAR DESIGN FOR EFFECTIVE PATIENT RECOVERY

The project for the new Isolation, Treatment, and Intensive Care Unit at Lungi Government Hospital responds to the city's and the country's need for an emergency centre for the detection and treatment of COVID-19.

The centre is integrated into the existing Lungi hospital and complements its services to meet these needs. Also, the proximity of the Centre to the Lungi International Airport makes it a reference in the detection of the disease in visitors to the country.

### Client

WorldBank – Ministry of Health of  
Sierra Leone

### Location

Lungi, Sierra Leone

### Area

6.295 m<sup>2</sup>

### Year

2021 - 2022

### Services

Schematic Design, Concept  
Design and Construction Design  
for Architecture, Structure and  
Building services projects  
Medical Equipment Project

Nº Beds 26

Nº ICU Boxes 6

Other Services: Laboratory







A design that offers a contemporary image with sustainable aspects



**A BUILDING ADAPTED TO LOCAL REALITIES**

The building consists of three two-storey modules and covered but ventilated circulation spaces.

The vertical circulation is achieved with a ramp that is integrated into a central courtyard and becomes the lung of the building. The integration of nature into the building is also achieved with the central courtyard and the courtyards of each module that bring patients closer to a natural and cared-for space.

The design intent of the envelope design has been to use the existing language of the hospital buildings' pitched roofs but incorporating innovative strategies for sustainability in a contemporary architectural framework.

Various sustainable strategies are employed to reduce reliance on air conditioning machines and to achieve patient comfort with passive techniques. The building is protected with a second skin that unifies all modules. In addition, the ventilated roof minimises solar incidence and the need to air-condition the interior spaces.

The difficulties of construction in the country and the constraints involved in the acquisition of equipment and its maintenance have been taken into account. Available or readily available materials have been used to facilitate the construction process. This is essential for an emergency centre that aims to be built quickly and sustainably.

Integration, proximity to the patient, fast and sustainable construction



# TEPIC HOSPITAL IN MEXICO



## FUNCTIONALITY; A MOTOR IN THE HOSPITAL DESIGN

The Tepic Hospital is a project under the PPP arrangement, being developed by the Ortiz-Invex Consortium and belonging to the ISSSTE (Institute of Social Security and Services of State Workers by its Spanish acronym).

The Hospital is located at the outskirts of Tepic, capital of the State of Nayarit (Mexico). The hospital has an area of 26,500 m<sup>2</sup> on a rectangular and elongated site of 35,000 m<sup>2</sup>.

The Hospital will have 150 beds, 21 beds for monitoring in the emergency room, 8 beds for adult patients in intensive, and 5 beds for neonatal intensive care. It will have 4 basic specializations, supported by medical-surgical specializations, as well as 35 specialization consulting rooms, and 4 emergency rooms, in addition to 7 surgical units made up of 6 operating theatres for general surgery, and 1 for surgical procedures. The General Hospital will also have areas for complementary services such as commercial premises, ATMs, vending machines and cafeteria.

### Scope:

- Financial and Technical Feasibility Study. Functional Medical Programme and Schedule of Accommodation
- Feasibility Study, Concept Design, Schematic Design & Construction Documents (all disciplines: Architecture, Structures & Building Services).
- Issued for construction.
- Medical Equipment Project, Furniture Project, Wayfinding Project.
- Construction and Medical Cost estimate.
- Technical Conditions permits to connect to the public services.
- Assistance to Site Supervision.
- Fire Protection Project.



**CLIENT**  
ORTIZ / INVEX

**AREA**  
26.500 m<sup>2</sup>

**YEAR**  
2017-2020

**150 Beds**  
**+ 20 Emergency beds**  
**8 ICU Beds + 5 PICU**  
**Nº Consulting Rooms 37**  
**Nº Operating Rooms 7**

# RÍO BUENO HOSPITAL IN THE LOS RIOS REGION, CHILE



## CONSTRUCTIVE AND FUNCTIONAL FLEXIBILITY; SEARCH FOR HUMAN SCALE

The Ministry of Public Works (MOP) issued a call for tenders for the 'Los Ríos - Los Lagos Network Concession' for the construction of three hospitals in the Los Ríos Region, located in the municipalities of Los Lagos, La Unión and Río Bueno, the first being of low complexity and the other two of medium complexity, and also a hospital of medium-high complexity in the city of Puerto Varas, Los Lagos Region. The Sociedad Concesionaria Región Sur was awarded the tender and entrusted IDOM to develop the three hospitals of the Southern Region. IDOM to develop the three hospitals in the Los Rios Region, which together provide 305 beds.

Services developed by IDOM:

- Background Analysis and Preliminary Design
- Concept Design of Architectural, Structures and Building Services Engineering
- Detailed Design of Architectural, Structures and Building Services Engineering
- On-site assistance

### Río Bueno Hospital

Health facility with a capacity of 120 beds (53 basic, 47 medium and 20 mental health beds), 3 major surgery wards, 1 minor surgery ward, 1 delivery room, 23 consultation boxes for health professionals, emergency care service, as well as diagnostic and therapeutic, administrative and industrial support services for a population of approximately 53,000 people. The architectural proposal considers a main building, which has 1 underground vehicle and seismic isolators, 4 upper levels.

**Surface area: 38,066 m<sup>2</sup>**

## CLIENT

Public Works Ministry (MOP), Ministry of Health, Subsecretary of Healthcare Service Network of Valdivia

## Direct Client:

Sociedad Concesionaria Región Sur S.A.

## AREA

38.066 m<sup>2</sup>

## YEAR

2022-Ongoing

## Nº Beds 120

**Nº Operating Rooms 4**

**Delivery Room 1**

**Nº Consulting Rooms 23**



In order to integrate the building into the natural environment, the rooms have been oriented towards the north (sunlight) and a public hospital road has been laid out to the west with a view of the urban landscape (city of Río Bueno) and the green plaza at the entrance to the hospital.



# HOSPITAL LOS LAGOS IN THE LOS RÍOS REGION, CHILE



## CONSTRUCTIVE AND FUNCTIONAL FLEXIBILITY; SEARCH FOR THE HUMAN SCALE

Los Lagos Hospital Surface area: **12,587.88 m<sup>2</sup>**

Health establishment with a capacity of 36 beds (30 adult beds, 4 gynaecological and obstetric beds and 2 paediatric beds), 1 minor surgery ward, 14 consultation boxes for health professionals, emergency care service, as well as diagnostic and therapeutic, administrative and industrial support services for approximately 25 thousand people. The architectural proposal considers a main building with 2 levels that defines a public transit area (entrance-exit) for outpatient care areas on the first level.

Services developed by IDOM:

- Background Analysis and Preliminary Design
- Concept Design of Architectural, Structures and Building Services Engineering
- Detailed Design of Architectural, Structures and Building Services Engineering
- On-site assistance

## CLIENT

Public Works Ministry (MOP), Ministry of Health, Subsecretary of Healthcare Service Network of Valdivia

## Direct Client:

Sociedad Concesionaria Región Sur S.A.

## AREA

12.587,88 m<sup>2</sup>

## YEAR

2022-Ongoing

## Nº Beds 36

Nº Operation Rooms 1

Nº Consulting Rooms 14



The size of the site and its immediate natural surroundings were considered for the harmonious implantation of the hospital on the site, allowing it to take advantage of the potential it offers in terms of orientation and relationship with the landscape.



# INFANTA LEONOR HOSPITAL, VALLECAS IN MADRID, SPAIN



The Vallecás Hospital Project, named after Princess Leonor, is based on the conceptual design prepared by VAB Arquitectos and is located on a 173,521 m<sup>2</sup> plot destined for hospital use.

The building has a modular organization to allow for its future extension. It consists of a square-based modular grid that serves as a backbone. Around it, six satellites of varying sizes are grouped together. The grid is also developed vertically, with a basement and four storeys above ground. The backbone acts as a main hall. The building is located on a horizontal platform and its half-open shape connects it with the plot, which is entirely landscaped.

This hospital has 324 hospitalization beds, 13 operating theatres, 101 emergency posts, 190 surgeries, 30 service points in the day care hospital, 16 incubators in the neonatal nursery, 9 dilation rooms, 32 diagnostic imaging rooms and the rest of usual services related with clinic and medical support, the management of patients and users, training and teaching, research, administration and management, logistics and general services.

**Client**  
PLODER Construcción S.A. and  
BEGAR

**Location**  
Madrid, Spain

**Area**  
71.624 m<sup>2</sup> Inpatient + 23.641 m<sup>2</sup>  
Parking

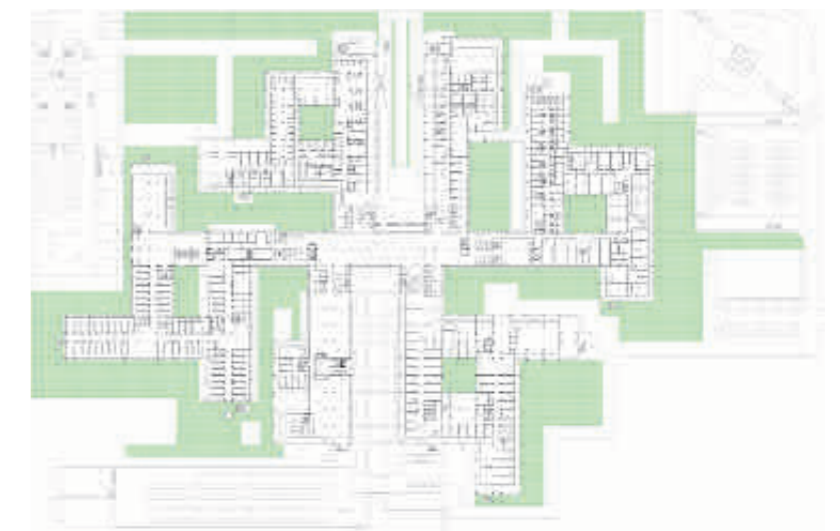
**Year**  
2005-2018

**Services**  
Architecture (collaboration with  
VAB), Structure and Building  
Services  
Construction Management

**Nº Beds 324**  
**Nº Operating Rooms 13**  
**Procedure Rooms 30**  
**Emergency Posts 110**



A hospital in Madrid designed like a tree, welcoming, permeable, open to light and on a human scale; and ready to grow.



# MAULE NETWORK HOSPITALS, EN CHILE PARRAL HOSPITAL, CAUQUENES HOSPITAL, AND CONSTITUCIÓN HOSPITAL



The Infrastructure and Projects Authority (MOP by its Spanish acronym) calls for tender for the "Second Programme Granting Health Facilities" to be executed through a granting system related to Group I of Maule's Hospitals network which comprises the architecture and engineering development of three hospital sites located in the cities of Cauquenes, Parral and Constitución within the Maule Region.

IDOM designs the facilities project for the three hospitals for the Ibero-Asian concessionaire formed by the construction companies: Grupo Puentes and China Road & Bridge Corporation.

IDOM designs the installation projects for the three hospitals for Concesionaria Iberoasiática, formed by the construction companies Grupo Puentes and China Road & Bridge Corporation.

## Maule Network Hospitals – Parral Hospital Area: 38.903 m2

The hospital in the city of Parral will have a capacity of 121 beds, 3 wards, 22 consulting rooms, an emergency care unit and support services for diagnosis, therapeutic, administrative and industrial.

### Client

Sociedad Concesionaria Red Maule S.A. (Grupo Puentes & China Road & Bridge Corporation)

### Location

Maule Region, Chile

### Area

116.516 m<sup>2</sup>

### Year

2021-Ongoing

### Services

Background Analysis, Schematic Design, Concept Design, Construction design of Building Services Engineering On-site Assistance

### Nº Beds:

**Cauquenes Hospital 136**

**Constitución Hospital 111**

**Parral Hospital 136**



## Maule Network Hospitals – Cauquenes Hospital Area: 40.449 m2

Cauquenes Hospital will have a capacity of 136 beds, 3 operating rooms, 25 consulting rooms, an emergency care unit, diagnostic and therapeutic, administrative and industrial support services to solve care demand for a population of approximately 59.000 inhabitants.



## Maule Network Hospitals – Constitución Hospital Area: 37.164 m2

The hospital in the city of Constitución will count with 111 beds, 3 wards, 22 consulting rooms, emergency care unit and support services for diagnosis and therapeutic, administrative and industrial.



# SAN ALEJANDRO HOSPITAL IN PUEBLA, MÉXICO



GENERAL REGIONAL HOSPITAL

The Mexican Institute of Social Security (Instituto Mexicano del Seguro Social) considered the need to develop the Integral Project of two hospitals to replace the 415-bed Regional Hospital No. 36 in Cholula, Puebla. The San Alejandro Hospital is built in the municipality of San Andres Cholula, Puebla, and is formed by two totally autonomous hospitals: the 205-bed Regional General Hospital and the 210-bed Paediatric Gynaecological Hospital. The Hospital is governed under the Public-Private Partnership modality.

Modular and flexible buildings are planned. The structural modulation of envelope elements and horizontal and vertical finishes, as well as the distribution of the building's facilities, allow for flexibility, which is essential to allow for future growth and changes in use.

The volumetry of the hospital complex clearly separates the activity of the diagnostic and treatment services, outpatient consultations, hospitalization areas, outpatient services and areas for support services and general hospital services in order to organize the circulation of personnel, patients, and materials.

The architectural design prioritizes functionality and the optimal and rightful zoning, in order to achieve the ideal interrelation of the different medical services, combining all this with useful, flexible, open and lightful spaces.

**Client**  
Sacyr Construcción México

**Location**  
Puebla, México

**Area**  
76.732 m<sup>2</sup>

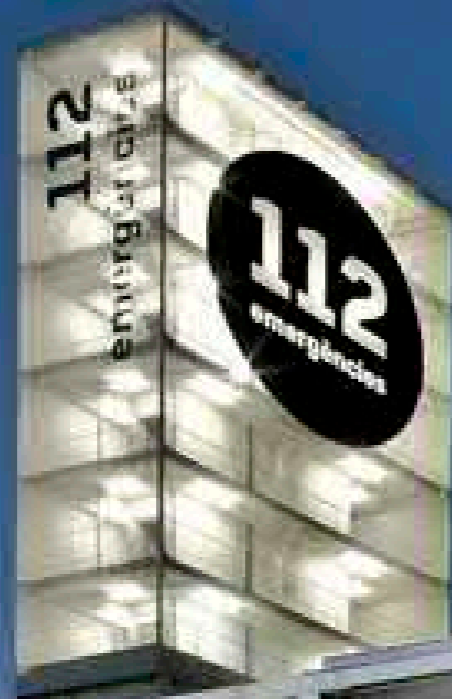
**Year**  
2018-2019

**Services**  
Master Plan, Schematic Design, Construction Design of Architecture, Structure, and Building Services Engineering

**N° Beds:**  
**Regional Hospital 205**  
**Pediatric gynaecology 210**



# 112 EMERGENCIES IN REUS, SPAIN



The 112 Building in Reus is the benchmark for the new model of emergency care and management in Catalonia and is the first public facility in the country with LEED certification.

It is a new architectural typology, where organisations that were previously scattered throughout the territory (112 call centre, police, fire, health and civil protection operational rooms) are concentrated, favouring a more efficient and better coordinated management of emergencies.

The complex is located as a new architectural reference in the landscape of the Camp de Tarragona, which is heavily dominated by industrial and leisure elements. The elongated, steeply sloping site is built according to safety criteria, with the main functional elements: heliport, car park, plinth and operational box-telecommunications tower, all staggered.

The different levels of security found in the building and the different flows of people are reflected in the functional organisation. Horizontally there are three levels: logistical, public and operational. The vertical flows are defined by four cores: telecommunications/visits, authorities, maintenance and main access for workers.

## Client

Generalitat de Catalunya

## Location

Reus, Spain

## Area

15.000 m<sup>2</sup>

## Year

2008 - 2010

## Services

Architecture, Structure and  
Building Services Project  
Integrated Project and  
Construction Management







The functionality of the operative box depends on the dimensions of the operative rooms and the space between the operative bodies. The layout of the metal trusses that form the operational box allows the work spaces to be arranged around a large courtyard that provides them with diffuse natural lighting and enables synergies between the operational bodies that intervene in emergencies.

The structure, apart from responding to the functional needs of the operational rooms, allows flexibility for future distributions and enhances the image of unity of all the operational bodies integrated in the new emergency management model.

The building has high physical security measures, both exterior and interior. The building's critical systems (electricity, air conditioning, telecommunications) are redundant, as they have to operate continuously 24h/365. In addition, the building is autonomous for 5 days in the event of a power failure. The building has been designed under strict sustainability and energy efficiency criteria, which have led to LEED certification, in the SILVER category.



**CHINANDEGA DEPARTMENTAL HOSPITAL**

**CLIENT**

Central American Bank for Economic Integration

**AREA**

40.000 m<sup>2</sup>

**YEAR**

2012-2013

**COST**

866.532,36 US Dollars

**SERVICES**

Market Study and Health Situation Diagnosis, Site Surveys (Topographical, Geotechnical and Hydrological) and Site Feasibility Study, Medical Functional Programme and Architectural Programme, Environmental Impact Study, Preliminary Project and complete Detailed Project of Architecture, Structures and Facilities, Obtaining Construction Licenses, Medical Equipment Project, Financial and Legal Study, Commissioning Plan, Training Plan, Construction Bidding Documents.

**LOCATION**

Chinandega, Nicaragua

The Departmental Hospital of Chinandega will be located on a 55,078m<sup>2</sup> plot in the municipality of El Realejo. It will have 300 beds and 5 large blocks containing the different medical areas in a constructed area of approximately 40,000 m<sup>2</sup>:  
Outpatient and Clinical Support Block, Emergency Block, Hospitalisation Area, Technical Block. General Services, Technical Enclosures.



**CARLOS ROBERTO HUEMBES HOSPITAL**

**CLIENT**

Central American Bank for Economic Integration

**AREA**

42.000 m<sup>2</sup>

**YEAR**

2012-2014

**COST**

1.251.200 US Dollars

**SERVICES**

Market Study and Health Situation Diagnosis, Site Surveys (Topographical, Geotechnical and Hydrological) and Site Feasibility Study, Medical Functional Program and Architectural Program, Environmental Impact Study, Preliminary and Full Detailed Architectural, Structural and Facility Design, Construction Licensing, Medical Equipment Design, Financial and Legal Study, Commissioning Plan, Training Plan, Construction Bidding Documents.

**LOCATION**

Managua, Nicaragua

It will have 300 beds and 5 large blocks containing the different medical areas in a constructed area of approximately 45,000m<sup>2</sup>:

- Ambulatory and Clinical Support Block
- Emergency Block- Hospitalisation Area
- Technical Block
- General Services
- Technical Enclosures



**SAN SALVADOR HOSPITAL AND NATIONAL INSTITUTE OF GERIATRICS**

**CLIENT**

Ministry of Public Works (MOP)

**AREA**

112.811 m<sup>2</sup>

**YEAR**

2012-2020

**SERVICES**

Preliminary design, Pre-construction design of Architecture, Structures and Building Services, Due Diligence of the work carried out.

**LOCATION**

Santiago de Chile, Chile

The project comprises two main buildings located on the same plot of land, the Hospital del Salvador and the National Institute of Geriatrics, both of which serve different target audiences and will be located on the same plot of land, sharing some central logistical and technical support.

The Hospital will have a total of 360 beds, 44 for pensioners, 102 ICU/UHI/ UCE beds, 24 Psychiatry beds; 124 medical boxes, 83 procedure boxes, 85 professional boxes and 18 dental boxes and 26 surgery wards, two of them for angiography.

The National Institute of Geriatrics, with a capacity of 112 beds, caters exclusively to patients over 60 years of age who require specialised gerontological care and has a built-up area of 12,600 m<sup>2</sup>.



**PRIVATE HOSPITAL OF FÁTIMA IN PORTUGAL**

**CLIENT**

Clinifátima medical services

**AREA**

23.500 m<sup>2</sup>

**YEAR**

2010-2011

**COST**

25.000.000 euro

**SERVICES**

Concept Design for architectural, Structural and Building Services. Site supervision.

**LOCATION**

Fátima, Portugal

The Hospital Particular de Fátima is a building that seeks to integrate harmoniously into an environment that breathes peace and spirituality. Set on a plot of densely wooded land, the Hospital rests gently on its flat topography, breaking down into simple geometries.

At the base of the building there are gaps in which, out of respect for the natural terrain, a number of century-old trees have been preserved. With the clear idea that the presence of nature contributes decisively to the recovery process of the patients, the existing vegetation has been assumed as a generating element in the conception and design of the hospital, together with the functional programme and with the same degree of importance.



**TRUETA HOSPITAL**

**CLIENT**

GESTIO DE INFRAESTRUCTURAS S.A. (GISA)

**AREA**

90.143 m<sup>2</sup>

**YEAR**

2009-2011

**COST**

260.000.000 euro

**SERVICES**

Preliminary, Concept Design and Pre-Construction design of all specialities: Architecture, Structures and Building Services

**LOCATION**

Girona, Spain

1st Prize in Restricted Competition. Project developed in joint venture MAP-IDOM for the new hospital in Girona, with a capacity of 252 inpatient beds, surgical block with 18 operating theatres, 48 intensive care units and 30 incubators for neonatology, 10 dilatation, delivery and recovery rooms, 44 emergency rooms for adults and 11 paediatric emergency rooms, 105 consultation and examination rooms, 57 day hospital care units, 14 technical rooms for diagnostic imaging and a Nuclear Medicine sector.

The hospital is located on a 27,580 m<sup>2</sup> plot of land and will have 100,015 m<sup>2</sup> plus 22,055 m<sup>2</sup> of parking space. It will replace the existing hospital, built in 1956.



**LIDADOR HOSPITAL**

**CLIENT**

Grupo Português de Saúde SA

**AREA**

28.260 m<sup>2</sup>

**YEAR**

2006-2008

**COST**

26.622.702 Euro

**SERVICES**

Complete project of Architecture and Building services Engineering

**LOCATION**

Oporto, Portugal

1st prize in Competition by Invitation. This private hospital, the first of its kind in the North of Portugal, has a strong outpatient component. It includes 64 inpatient beds supported by an operating block with 4 operating theatres, a diagnostic imaging centre and a large area for outpatient consultations and complementary examinations. The building has a physical medicine and rehabilitation centre with hydrotherapy pools. The Lidador Hospital in Maia de has a specialisation in cardiological treatments, and is organised in four autonomous blocks arranged on the ground in a cruciform design.

The choice of natural materials such as stone and wood, the presence of trees in the courtyards, the grass roofs and the pools of water that accompany the entire glazed front of the outpatient clinics, offer a humanised environment for patients.

## 2. LABORATORIES

CERTEST BIOTEC  
IN ZARAGOZA, SPAIN

FAES FARMA  
IN BILBAO, SPAIN

BIOCRUCES INSTITUTE  
IN BILBAO, SPAIN

GENERAL SERVICES BUILDING OF THE  
HOSPITAL DE CRUCES IN BILBAO, SPAIN

PALLAS NUCLEAR MEDICAL CENTRE,  
IN THE NETHERLANDS

NATIONAL LABORATORY FOR FOOD AND  
DRUG QUALITY CONTROL,  
IN GAMBIA

# CERTEST BIOTEC IN ZARAGOZA, SPAIN

## COVID-19 PANDEMIC DRIVES CERTEST INTO THE VACCINE WORLD

Certest Biotec is a leading biotechnology company in Spain and worldwide, dedicated to the research, development and manufacture of medical devices for in vitro diagnostics, exporting to more than 70 countries.

Faced with the needs of the covid-19 pandemic to respond to the sudden global demand, Certest radically transformed its production system to adapt it to the mass and accelerated manufacture of PCR tests, with a production capacity of 120,000 tests per day.

As a result of this change and new business strategies adopted before the health crisis, Certest decided to diversify its products towards the pharmaceutical market of vaccines, with the construction of a new extension of 15,000 m<sup>2</sup>. With this extension, the complex now has 24,800 m<sup>2</sup> of floor space.

### Client

Certest Biotec S.L.

### Location

Zaragoza, Spain

### Area

24.800 m<sup>2</sup>

### Year

2010 - Ongoing

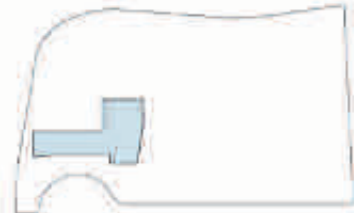
### Services

Architecture, Structure and  
Building Services Project  
Assistance for management of  
licences administration  
Site supervision  
Integrated project and  
construction management  
Project management

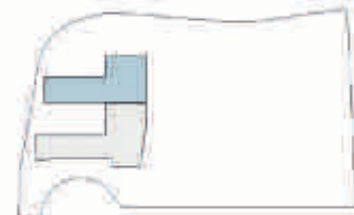
### Laboratories Complex

Offices  
Production zones  
44 Laboratories

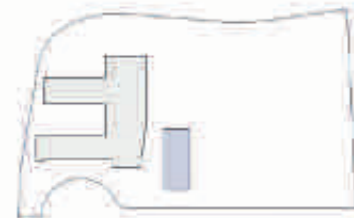




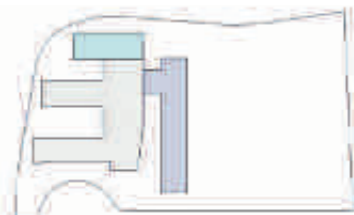
**PHASE 1**  
 PROJECT: 2010 (11 months)  
 END OF CONSTRUCTION: 2012 (11 months)  
 GROSS AREA: 2.545,37 m<sup>2</sup>



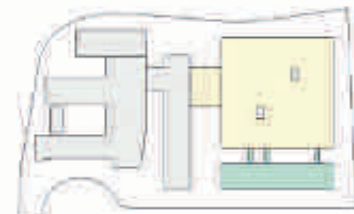
**PHASE 2**  
 PROJECT: 2016 (12 months)  
 CONSTRUCTION: 2018 (15 months)  
 GROSS AREA: 3.184,85 m<sup>2</sup>



**HANGAR – EXISTING STORAGE**  
 GROSS AREA: 736,28 m<sup>2</sup>



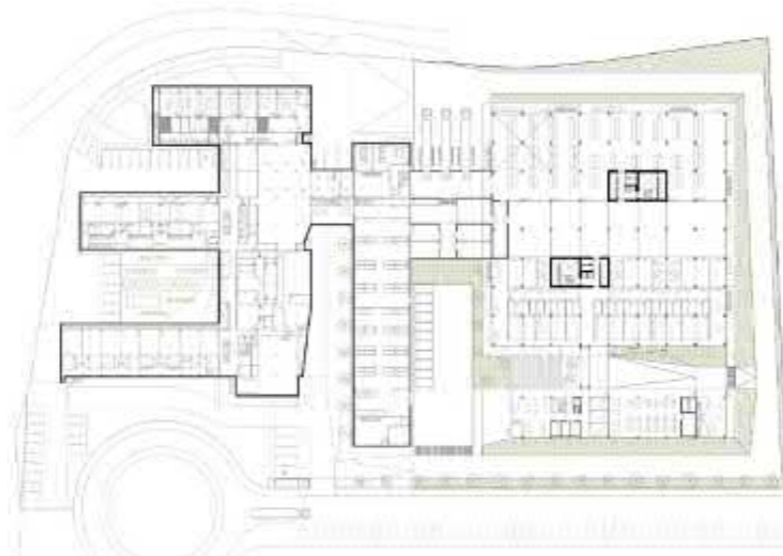
**PHASE 3 + PHASE 4**  
 PROJECT: 2020 (7 months)  
 START OF CONSTRUCTION: SEPT. 2020  
 GROSS AREA:  
 PHASE 3: 1.780,71 m<sup>2</sup>  
 PHASE 4: 958,90 m<sup>2</sup> + 736,28 m<sup>2</sup>



**PHASE 5 + PHASE 6**  
 PRELIMINARY DESIGN: 2020 (3 meses)  
 GROSS AREA:  
 PHASE 5: 13.218,37 m<sup>2</sup>  
 PHASE 6: 2.858,69 m<sup>2</sup>



A laboratory can be set up  
 or transformed in less than 6  
 months



### Adaptive Design: from bespoke suit to flexible container

The evolution in product manufacturing is so rapid that it has made it necessary to renovate parts of the building, with significant impact on the installations and civil works. This is due to the fact that, from the initial design phase to the completion of the works, a minimum of two years have elapsed, during which time the market and its needs have changed.

The traditional laboratory model, which is designed as a tailor-made suit, is not very flexible to changes in the type of product to be manufactured. This, together with the rapid evolution of Certest's activity, has made us think about new, more adaptive design models.

Thus, the new extension for the vaccine building has a totally innovative design. The envelope and the interior are separated, creating a gigantic 12,500 m<sup>2</sup> container building, with two floors with interior heights of 8 metres and floor slabs with

load-bearing capacity for heavy equipment in all areas. The growth proposal was conceived in the initial master plan, in such a way that the first building and the two subsequent extensions give the impression of a unitary architectural ensemble.

The strategy is simple: the extensions consist of new arms of laboratories attached parallel to each other, spaced by open courtyards of light and connected to a central body of circulations which in turn house common office, warehouse and production and packaging uses. The end result is an imperceptible view of the growth phases, both inside and out.



**A PROJECT DESIGNED FOR FUTURE EXPANSION**

Internally, the laboratories will be fitted out with lightweight construction systems totally detached from the structure and envelope.

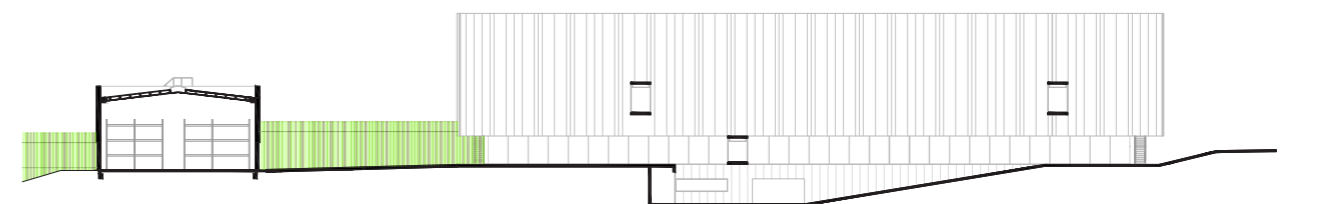
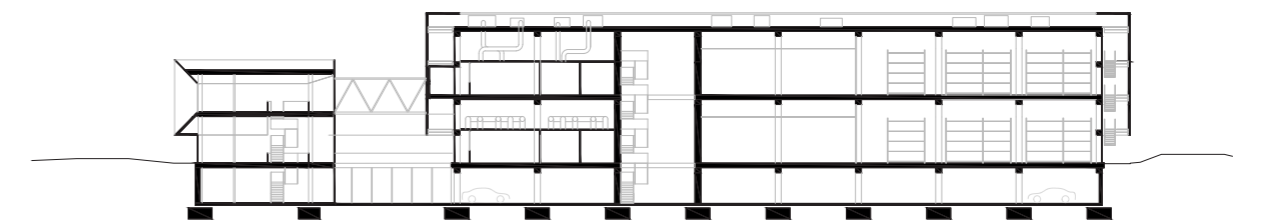
The flexibility to transform or create new laboratories will be total, through the use of pharmaceutical panels in both walls and ceilings.

The ducts of the laboratories will be connected to the external roof equipment through the courtyards or the technical façade. This design system will allow Certest to generate new lines of business in very short periods of time, thus increasing the efficiency and competitiveness of its business and further accelerating its growth.

Natural light is always present in the laboratories for the comfort of people, thus achieving healthier work spaces without affecting the technical requirements of the laboratories.

The roof is finished off with a roof panel that conceals and houses all the air-conditioning and distributes the equipment in any area of the floor. In order to distribute all the air and water flows between the interior and exterior, two large courtyards cross the heart of the building in the central part and, on the perimeter, a double skin envelope is created, turning the interstice into a technical façade for ducts and machines, which also houses walkways and stairways to ensure the evacuation of people in the event of fire.

**Fighting infectious disease-causing pathogens**



# FAES FARMA IN THE BASQUE COUNTRY, SPAIN

## Client

Faes Farma

## Location

Technology Park of Bizkaia,  
Basque Country, Spain

## Area

55.000 m<sup>2</sup>

## Year

2020 – Ongoing

## Services

EPCM Architecture, Structures and  
Building Services project.  
Pharmaceutical engineering and  
logistics project.  
Assistance in the management  
and application for administrative  
licences  
Site management  
Integrated project and  
construction management  
Project management

## Program:

Pharmaceutical production plant  
for solid, semi-solid and liquid  
medicines  
Robotised warehouse with 12,500  
positions  
Quality control and microbiology  
laboratories  
Offices

Due to growing demand both nationally and internationally, the pharmaceutical group Faes Farma has decided to expand its industrial capacity with the construction of a new pharmaceutical production plant scheduled for completion in 2023.

The new facility will be located in the Bizkaia Science and Technology Park, a privileged environment in which the group will live alongside other leading technology companies. The new plant, which will be added to the existing one in Leioa, will be located on a plot of more than 50,000 m<sup>2</sup>. It will have a surface area of 27,000 m<sup>2</sup>, with a gross surface area of 60,000 m<sup>2</sup>, to manufacture more than 100 million units of medicines.





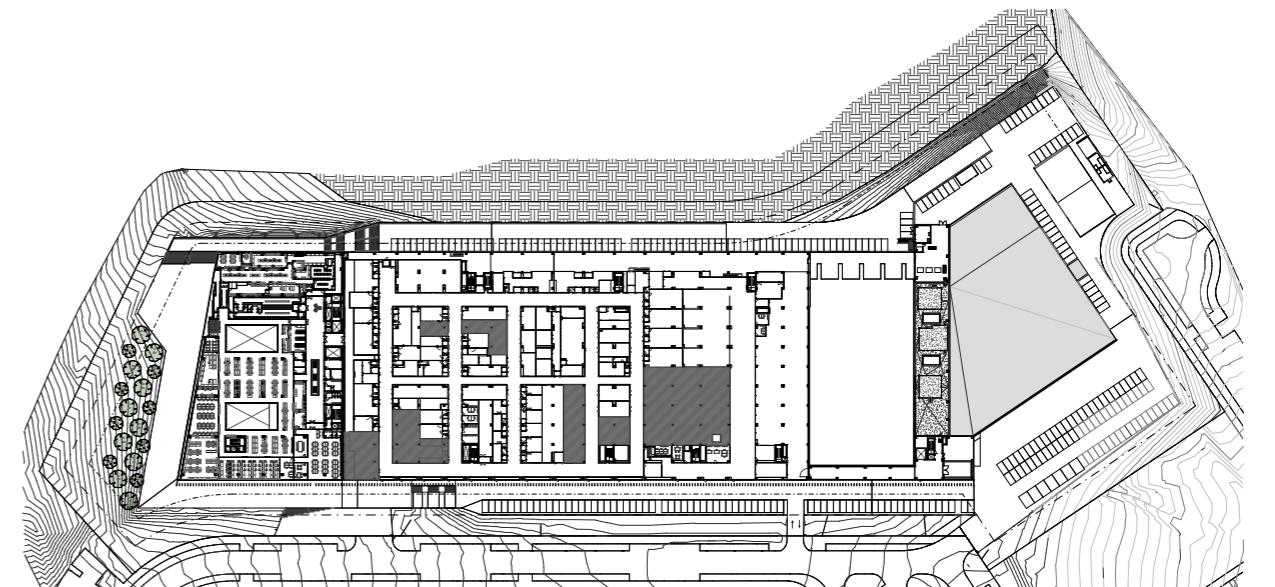
A clear relationship with the environment and its constraints.

It is a single building with a representative façade that allows the entry of sunlight to be regulated. The new floor plan is configured in three blocks. The first houses the representative part, with offices, a management floor and more than 3,000 m<sup>2</sup> of laboratory space. The different spaces are configured around two large courtyards which in turn connect with the landscape surrounding the building. The other two blocks are made up of the production plant and the automated warehouse and logistics area.

This arrangement means that, when approached from a distant point on the road, the image of the administrative building appears, apparently floating above the main entrance. This results in an increase in the representativeness and uniqueness of the building. In addition, the offices and laboratories are located in an area overlooking a valley where there are no plans to construct buildings that would affect the views and uniqueness of the building.

The strategy in the expression of the building consisted of a play of volumetric interlocking, with a clear differentiation between a white and a black volumetry. The white volumetry is linked to the work or production areas, as a reflection of the demands associated with a pharmaceutical process. In contrast, the black volumetry is mainly associated with storage elements and complementary uses, or as a formal resource in the form of large legs supporting the building in the social area. The mingling of both volumetries results in an image of an abstract character.

The manufacturing area will comply with ISO 8 (class D) requirements. For this purpose, it will have air locks and positive pressurisation to avoid risks of cross-contamination. The rest of the areas will be classified ISO 9.





# BIOCRUCES INSTITUTE IN THE BASQUE COUNTRY, SPAIN

## ARCHITECTURE AT THE SERVICE OF ONE OF THE MAIN CLINICAL CENTRES

The new headquarters of the Biocruces Institute is a new building designed to house the research and animal facilities. The programme is divided into 8 floors, 3 of which are below ground level. Above ground, the floor is divided into two laboratory blocks, separated by a block of common areas on the east façade and the communications core on the west façade.

As this is a laboratory building, in continuous change and with the appearance of new techniques and technologies, a highly flexible building was planned, which could be adapted to possible future changes. With the exception of common cores, corridors and fire sectors, the building was designed with modular systems that allow easy compartmentalisation and access to the installations in both the ceiling and walls. One of the keys to the building was the design of the facilities, which have a much greater impact and complexity than a conventional laboratory.

**Client**  
Osakidetza / Servicio Vasco de  
Salud

**Location**  
Bilbao, Spain

**Area**  
6.000 m<sup>2</sup>

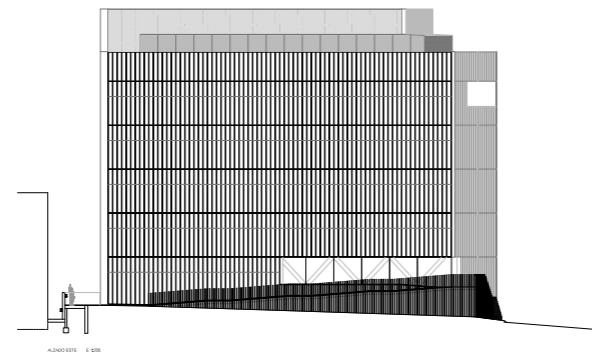
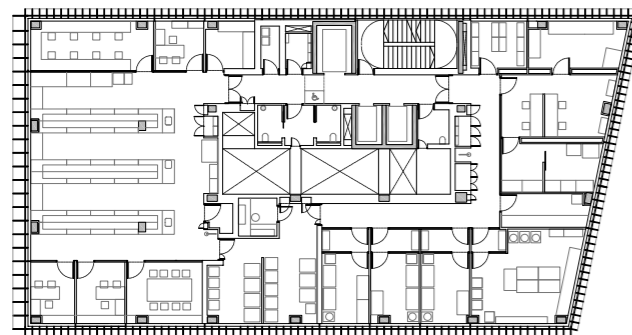
**Year**  
February 2014 - 2017

**Services**  
Architecture, Structure, and  
Building Services Engineering  
Projects  
Site Supervision  
Construction management

**Clinical Areas**  
17 Outreach areas  
Room dedicated to doctorates  
and scientific publications.  
Conventional animal facility  
Pathogen-free SPF area  
Research operating theatre  
Culture rooms  
Electron microscopy

**Other areas**  
Administrative areas  
Events room  
Dining and rest areas





**AN IMAGE ASSOCIATED WITH THE RESEARCH CONCEPT**

From a formal point of view, due to the visual impact of the building (the result of its volumetry) and its representativeness (a reference research centre), a building is designed with a sober and aseptic image, coherent with the use it contains, and which attempts to reflect the avant-garde nature of the work carried out there. The language of the building attempts to establish a dialogue with the nearby laboratory building.

Without any possible volumetric variations, the exterior design focused on formalising a dense grid of louvres to protect the building from direct sunlight and the view from neighbouring buildings. Only in singular spaces such as the foyer or the rest area were large windows created to highlight their character. The image was reinforced by the use of the colour white, which contrasts with the surroundings and offers a sober and aseptic image.

This strategy was extrapolated to the urbanisation enclosure to join the building with the other laboratory building of the hospital centre, also designed by IDOM, resulting in a research pole within the hospital complex.

The interior spaces follow the line of argument of the façade, with light colours that fill the building, generating luminous work spaces. The use of wood contrasts with the use of more representative and warm spaces. Colour was used to provide relevant information to the user.

**A building designed to adapt to the continuous changes in the research fields.**



Singular elements of the design



# GENERAL SERVICES BUILDING OF CRUCES HOSPITAL IN THE BASQUE COUNTRY, SPAIN

## EXTENSION OF THE LARGEST HOSPITAL IN THE BASQUE COUNTRY

The General Services building is intended to group together the laboratories of Cruces Hospital, which is the largest hospital in the Basque Country. It accommodates the haematology, robotic laboratory, immunology, microbiology, pathological anatomy, genetics and research areas, as well as other associated services such as the mortuary or the extractions area.

The building is constructed on one of the last vacant plots in the centre, annexed to an existing building and separating the hospital from a residential neighbourhood. The plot has an elongated proportion, 84 metres long by 15 metres wide at one end and 26 metres wide at the opposite end, with a difference in height of more than 13 metres.

Due to its location next to the motorway which runs at a lower point, the building takes a predominant position and acquires prominence in the surroundings. Through the main north and south façades, predominantly white in colour and abstract in character, the aim is to evoke the image of a protein map as a reflection of the activity that the building contains.

### Client

Osakidetza / Servicio Vasco de  
Salud

### Location

Bilbao, Spain

### Area

10.000 m<sup>2</sup>

### Year

February 2007 - 2013

### Services

Architecture, Structure, Building  
Services Project  
Site Supervision and Construction  
Management

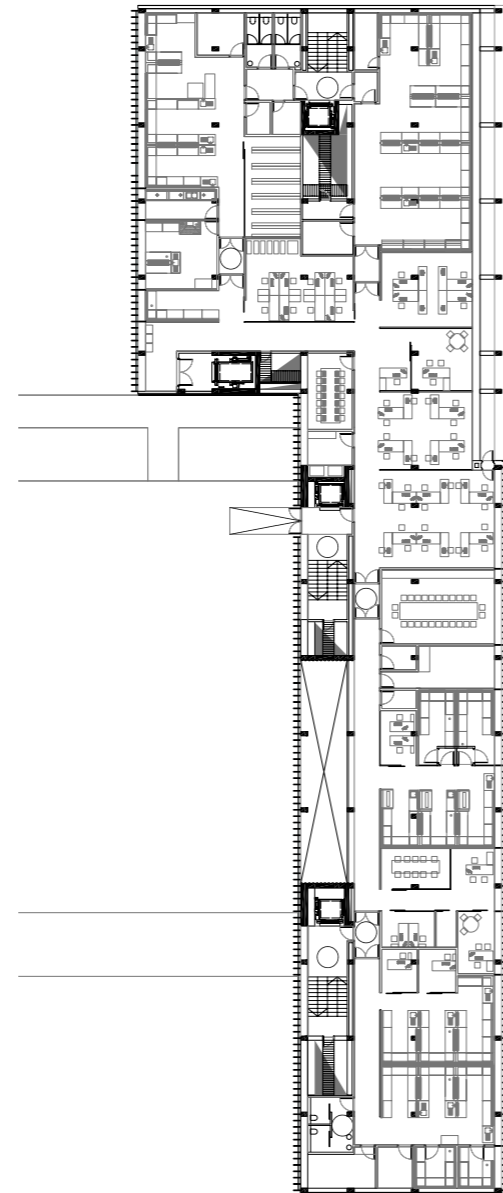
### Clinical Areas

Haematology  
Robotic laboratory  
Immunology  
Microbiology  
Pathological anatomy  
Genetics and research  
Mortuary  
Extraction area



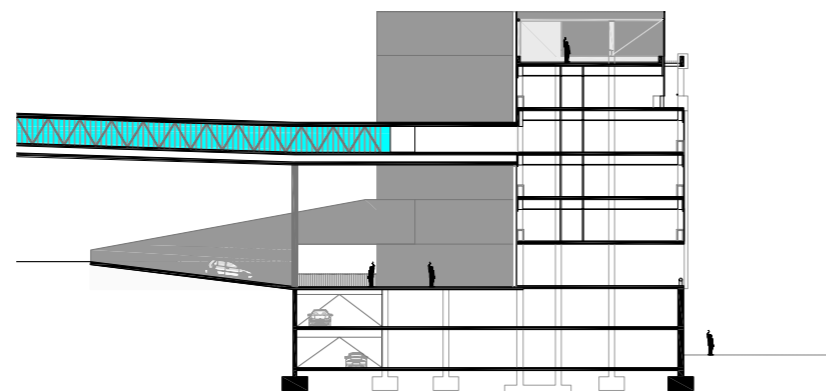
## Healthcare Reference in the surrounding area

The floors were designed to be as open-plan as possible, with wide spans between pillars to allow for future changes with great flexibility. A central axis in the shape of a herringbone encompasses both vertical and horizontal communications, as well as the walkways. The latter have full accessibility on all floors and were dimensioned with ample reserve space. The herringbone configuration minimises the movement of people out of the common areas and makes the layout of the facilities shorter, thus making it easier to redistribute the programme.

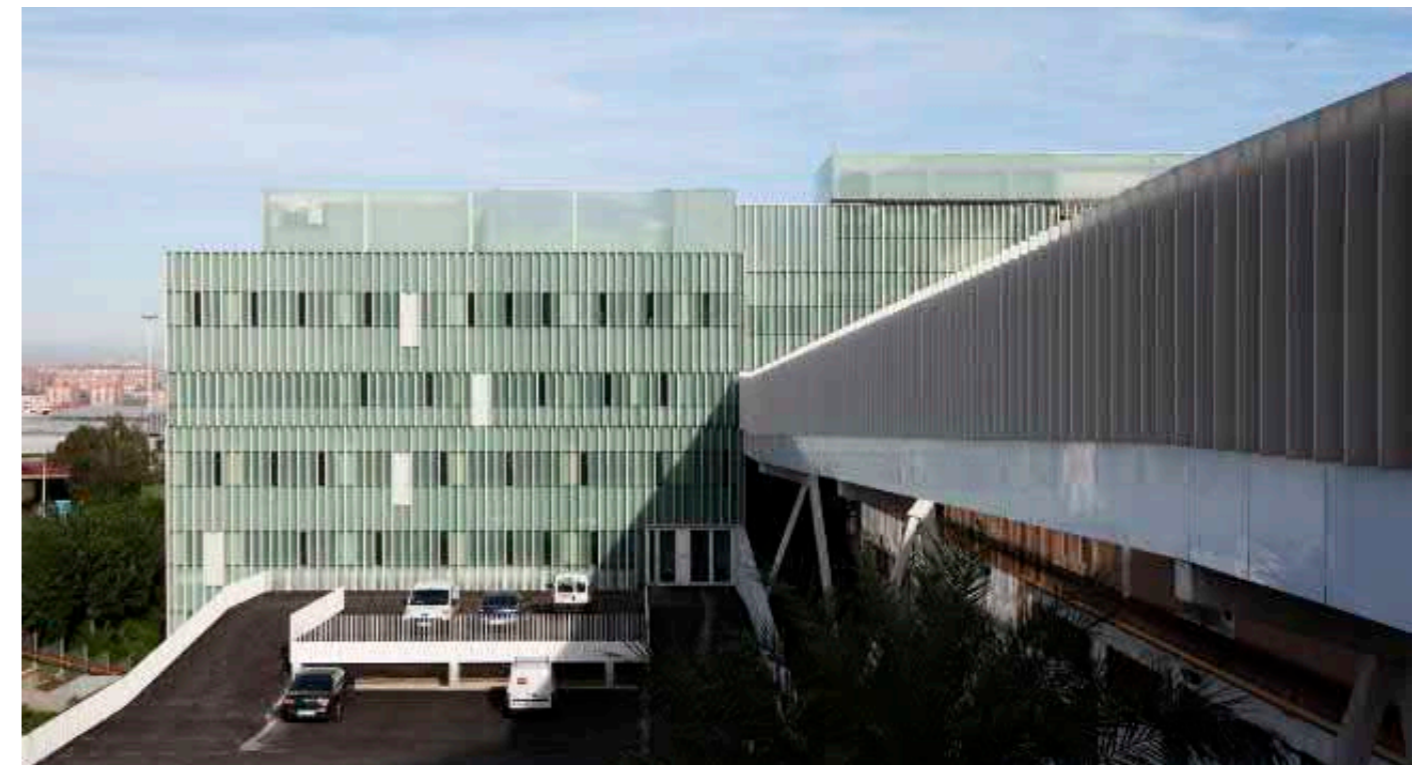


The building not only serves Cruces Hospital, but also other hospitals in the surrounding area, so the connections with the exterior, both pedestrian and vehicular, are of vital importance. The building has four direct accesses from the street at different levels, thanks to the steep slope of the site, as well as different connections with the annex building.

The programme is distributed over seven floors, two of which are garages. On the first floor, the continuation of an aerial pedestrian communication core, known as the 'human pipeline', connects the internal circulations of the staff with the rest of the hospital buildings.



A container with a technological image



# PALLAS NUCLEAR MEDICAL CENTRE, IN PETTEN, THE NETHERLANDS



IDOM has completed the Architectural and Engineering works for the structures and facilities of the new Nuclear Health building in Petten, North Netherland.

The scope of works performed by IDOM included the Conceptual Design and Detailed Design of the architecture and engineering of the facilities and structures, the management of the construction licenses, environmental license and nuclear licenses. The works were carried out to the Client's full satisfaction during the period September 2019 to March 2020.

Construction works are scheduled to start in May 2022 and the centre is expected to open in late 2023. The Nuclear Health Centre is an important infrastructure for the production and development of nuclear medicine.

The Nuclear Health Centre (NHC) is a new production facility for the production and development of nuclear medicine. It will process and package large quantities of irradiated raw materials (medical isotopes) into semi-finished products (radiochemicals) and medicines (radio-pharmaceuticals). As part of the Research Area the building has two bunkers (concrete hot cells) which are containment chambers dedicated to Research and a linear accelerator.

**Client**

PALLAS

**Location**

Petten, The Netherlands

**Area**

9.000 m<sup>2</sup>

**Year**

2019-2020

**Services**

Architecture and engineering  
 Conceptual design of structures and facilities, Architecture and engineering Detailed design of structures and facilities,  
 Construction licensing and permit management, Environmental licensing management, Nuclear licensing management



# NATIONAL FOOD AND DRUG QUALITY CONTROL LABORATORY, IN BRUSUBI, THE GAMBIA

**SIMPLE, LOCAL AND FUNCTIONAL; MINIMAL MAINTENANCE TO ACHIEVE THE FIRST FOOD AND DRUG LAB IN A COUNTRY**

The Gambia COVID-19 Preparedness and Response Project (P173798) financed by the World Bank is supporting the implementation of the Gambia National COVID-19 Preparedness and Response Plan which is aimed at preventing, detecting, and responding to the threat posed by COVID-19 and strengthen national system for public health preparedness. The project activities will include the establishment the National Food and Drug Quality Control Laboratory (NFDQCL). The Government of the Republic of The Gambia, through the Project Coordination Unit (PCU) of the Ministry of Health (MOH) has selected IDOM to prepare briefing documents, complete schedules of accommodation, Concept design, Construction design, bill of quantities, specifications, and bidding documents for the NFDQCL. For this purpose, a plot of approximately 28,300 sqm has been selected by the MOH. The plot will be occupied by the NFDQCL on the north side and the future MOH (Ministry of Health) and NHIA (National Health Insurance Authority) offices on the south side.

The construction will be done in different phases:

- Phase 1 : NFDQCL building
- Phase 2 : MOH and NHIA Buildings.

NFDQCL is a BSL-2 type laboratory with the objective of analytical testing of medicinal (drugs) and food products for verifying whether the qualitative and quantitative composition of medicinal and food products present in The Gambia meet accepted international standards of medicinal and food product quality.

The Laboratory building has with 3,716.90 sqm gross built-up area, accommodates 6 different departments:

1. Food Laboratories (3 Laboratories)
2. Drug Laboratories (3 Laboratories)
3. Food & Drug shared labs
4. Directorate of quality control and analysis offices
5. General services (Changing Rooms, Toilets, Resting areas, Laundry, Storages, etc.)
6. Technical Areas.

## Client

World Bank (WB) – Ministry of Health of The Gambia

## Location

Brusubi, The Gambia

## Area

3,717 m<sup>2</sup>

## Year

2023 - En Construcción

## Services

Proyecto básico de arquitectura, estructuras e instalaciones.

Proyecto de Ejecución Preparación de documentos de

Licitación

Supervisión de obra





The Laboratory building will be designed and constructed in such way which allows the construction of 2 more stories dedicated to MCA (Medicine Control Agency) office areas in the future. In this way, the construction in the future will be easier and the abortive works will be reduced as much as possible.

- Elaboration of Functional Programme and Schedule of Accommodation
- Elaboration of complete set of Architecture, Structure, and MEP construction drawings, calculations, and reports.
- Elaboration of the complete Technical Specifications
- Elaboration of the complete Bill of Quantities

**Scope:**

**Concept Design**

- Analysis of the preliminary design and develop the concept design layouts
- Updating the Schedule of Accommodation
- Definition of the construction components and preparation of the Bill of Quantities items.

**Construction Design**

- Site Support Studies (Geotechnical, Topographical, Utilities, etc.)

**Tender Documentation**

- Elaboration of the complete package of Tender documents for the Construction of the building.
- Support MOH and WB in preparing all the tender documents and Request for bids.
- Evaluation of the bidder's proposals.
- Answer to all the technical clarification by the bidders.



# 3. PROTON THERAPY CENTRES

THE PROTON THERAPY UNIT  
QUIRÓN SALUD  
IN POZUELO DE ALARCÓN, MADRID, SPAIN

THE PROTON THERAPY UNIT  
IN KUTAISI, GEORGIA

THE PROTON THERAPY UNIT  
AND OUTPATIENT CLINICS IN THE HOSPITAL  
OF  
DONOSTIA, GUIPÚZCOA, SPAIN

THE PROTON THERAPY UNIT  
HOSPITAL LA PAZ, MADRID, SPAIN

THE PROTON THERAPY UNIT  
MARQUÉS DE VALDECILLA UNIVERSITY  
HOSPITAL, IN SANTANDER, SPAIN



# THE PROTON THERAPY UNIT QUIRÓNSALUD IN POZUELO DE ALARCÓN, MADRID, SPAIN

## TECHNOLOGICAL VANGUARD IN THE CANCER TREATMENT

Proton therapy is the most advanced, safe and precise external radiotherapy that protects healthy tissue as much as possible by not exposing it unnecessarily to radiation. It uses a beam of high-energy accelerated particles to direct the radiation more precisely against the tumour.

IDOM has managed the design and construction of the first Proton treatment centre built in Spain, which is now operational. A multidisciplinary team of architects, engineers and physicists have participated in the QuirónSalud project, solving problems of great technical complexity and very high demands of rigour and precision.

### Client

Quirónsalud / Radioterapia de  
Protones S.L.

### Location

Calle Virgilio 5, 28223  
Pozuelo de Alarcón, Madrid

### Area

2,380 m<sup>2</sup>

### Year

April 2017 - March 2019

### Services

Project Management and  
Coordination  
Construction Management for  
Structure and Building Services  
Project  
Works Execution Management  
Nuclear services: drafting  
of licence applications for  
authorisation to operate  
radioactive facilities. Verification  
and calculation of shielding for  
radiological protection.

**N<sup>o</sup> Consulting Rooms 3**

**Clinical Areas**

**N<sup>o</sup> Rooms**

**Treatment Room**

**Diagnostic and planning**

**Planning – Scanner**

## PROTONTHERAPY

Protontherapy is currently the most advanced and safest radiotherapy technique for treating certain types of cancer. It consists of generating a beam of protons to irradiate the tissue affected by a tumour. The protons can act precisely inside the tissues, achieving greater anti-tumour activity and generating less dYear in healthy tissue. For this reason, this therapy is indicated in paediatric patients and in certain types of tumours.

IDOM has participated in the design and construction of the first cancer treatment centre using Protontherapy built in Spain, which will begin to treat patients at the end of 2019.

IDOM has developed the general management and coordination of the Project, the drafting of the Structural and Installations Engineering projects, as well as the Nuclear Services required for the Licensing process of the Facility before the Nuclear Safety Council, and the management of the engineering works.




The Protontherapy Centre has a floor area of 2,380 m<sup>2</sup>. It is organised into three distinct areas; the first is the Clinical Care Area, with consulting rooms, a diagnostic area (prepared for PET-CT) and an area for medical offices and training. The second is the Proton Treatment Area, which contains the control room and the bunker where the treatment room, the Gantry and the synchrotron-cycle room are located. Finally, there are the rest of the rooms for storage, maintenance and facilities serving the building. The multidisciplinary nature of the IDOM team has

made it possible to offer the Client an integral service, especially suitable for projects of this complexity.

IDOM has participated in the design and construction of the first cancer treatment centre using Protontherapy built in Spain, which began treating patients at the end of 2019.





**PROTONTHERAPY AND RESEARCH CENTRE  
KUTAISI INTERNATIONAL UNIVERSITY HOSPITAL  
GEORGIA**

**REVOLUTIONARY TECHNOLOGY AND THE  
HUMANISATION OF SPACES TOGETHER TO FOR  
CANCER TREATMENT**

The International Charity Foundation CARTU, the largest charity organization in Georgia has counted with IDOM for the design of the first proton therapy centre in the country that will contain the IBA'S Proteus@ONE patient treatment equipment and a Stanford-SLAC Cryo-EM (S2C2) for scientific research.

The facilities will be located at the Kutaisi International University (Georgia) and will increase the international profile of the Kutaisi International University Campus and as well as serving as a scientific research centre for medicine, nuclear physics, and radiation biology.

IDOM will bring its experience as an international architectural and engineering consultant developing the work of all the necessary disciplines involved (architectural design, structural, MEP, lighting, landscaping....).

The scope of works includes Concept Design, Schematic Design, Developed Design, Detailed Design and Construction Supervision.

**Client**

Kutaisi International  
University & Cartu Group

**Location**

KIU University Campus, Georgia

**Area**

6.650 m<sup>2</sup>

**Year**

February 2021 – In Construction

**Services**

Architectural project,  
Structures and Building Services.  
Landscaping project  
Interior design  
Lighting design  
Direction of execution of the work

**No<sup>o</sup> of consulting rooms 3**

**Clinical areas**

**Treatment room**

**Diagnostic and planning**

**planning - scanner**

**Research rooms**

**Laboratories**

**Co-working rooms**

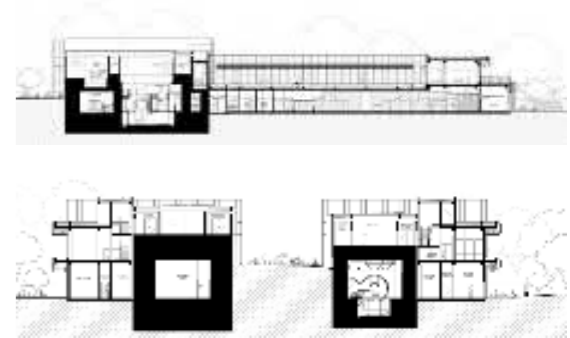
**Reading room**



The environment conditions us, it can calm us or stress us, it can adapt or not to our needs.

Contact with nature, natural lighting, smells, colours or quality textures promote positive effects on the mood of the human being.

The IDOM team has stopped to analyse each of the interior and exterior spaces of the hospital, to get to know the types of users and their needs (seeking not only the comfort of the patients, but also that of their professionals, relatives, companions, etc.). Because the evolution of the patient depends on both quality care and a quality environment.



### PROTON THERAPY

Proton therapy is the most technologically advanced cancer treatment available. It has been shown to be the least aggressive therapy due to the precision of protons in irradiating the tumour.

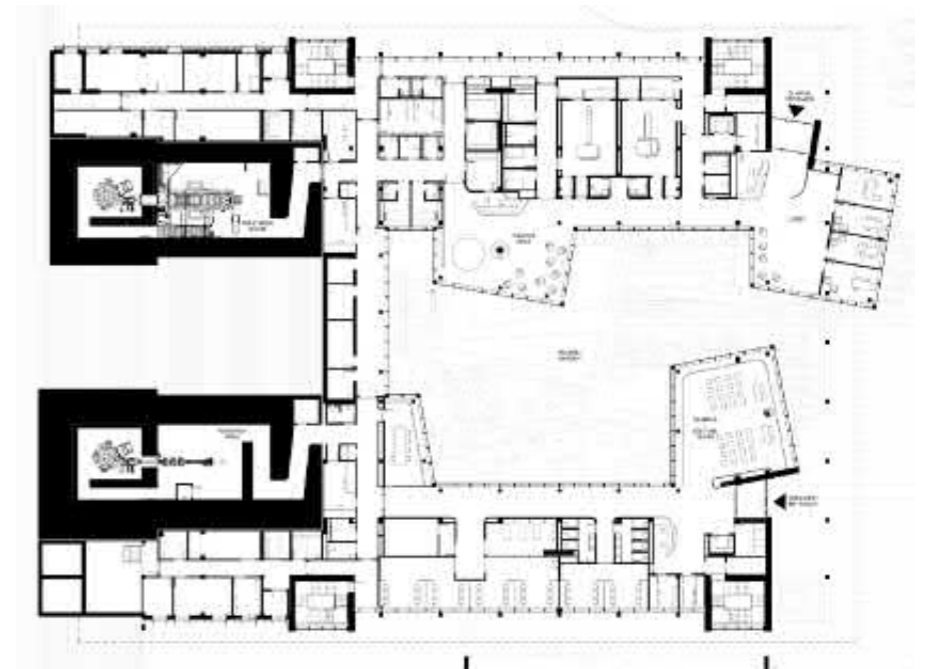
Proton radiotherapy is an advanced cancer treatment modality that allows a more localised delivery of the radiation dose, reducing the toxic effects on healthy organs close to the tumour and also the likelihood of developing second tumours.

It is particularly indicated in cases where the use of photons would involve excessive risks for patients: paediatric, skull base, ocular and spinal cord tumours.



“Architecture is a non-medical tool that can contribute to medical outcomes.”  
- Stefan Lundin -

Efficacy, effectiveness, safety, precision and cost-effectiveness of Protontherapy.



# THE PROTONTHERAPY UNIT AND OUTPATIENT CONSULTATIONS AT THE HOSPITAL OF DONOSTIA, IN GUIPÚZCOA, SPAIN

## DESIGN INSPIRED BY THE PATIENT'S EXPERIENCE

Given the functional characteristics of this new building for consultations and the Protontherapy unit, where there is a high turnover of patients between consultations, diagnosis and treatment, their time spent in the centre is high and there is a high volatility of the objective needs of care over time, we have opted for a highly flexible design at all levels.

IDOM proposes flexible, spacious, comfortable waiting areas, with abundant natural light, which allow the patient to choose between different types of environments and activities such as working, watching television, reading, playing or enjoying an indoor garden. These waiting areas are supported by innovative patient call systems based on the use of mobile applications, as a complement to the traditional method to avoid the problems of the digital divide.

### Client Client

Osakidetza

### Location

Donostia, Spain

### Area

46.200 m<sup>2</sup>

### Year

2022-In progress

### Services

Architecture, Structure, and Building Services Project  
Construction management and Site supervision

Nº Consulting Rooms 217

Protontherapy Unit

Imaging Services

Day Hospital

Hospital de día

Outpatient Pharmacy services



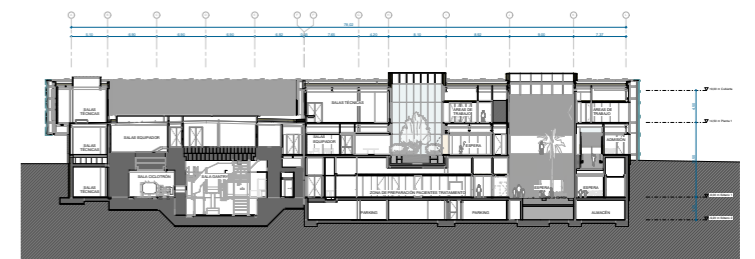
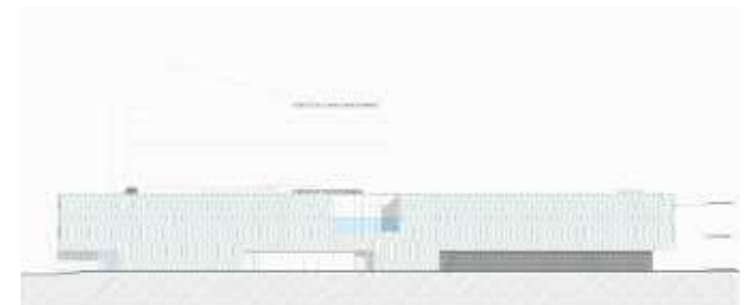


Protontherapy is a high-precision, proton-based external radiation therapy modality. Proton therapy allows an increase in the radiation dose by causing less toxicity than radiotherapy, achieving greater local control of the disease with minimal exposure of healthy tissues to radiation. For these reasons, Protontherapy is the most indicated radiotherapy modality for children and adults affected by tumours located in regions that are more sensitive to radiation, such as the brain, spinal cord or eyes.

‘Adherence rates to treatment increase after treatment in a hospital playroom.’



Patients who have the possibility to access this technology can be oriented and informed about their appointment time and location early enough to allow them to choose the waiting space that best suits their needs.

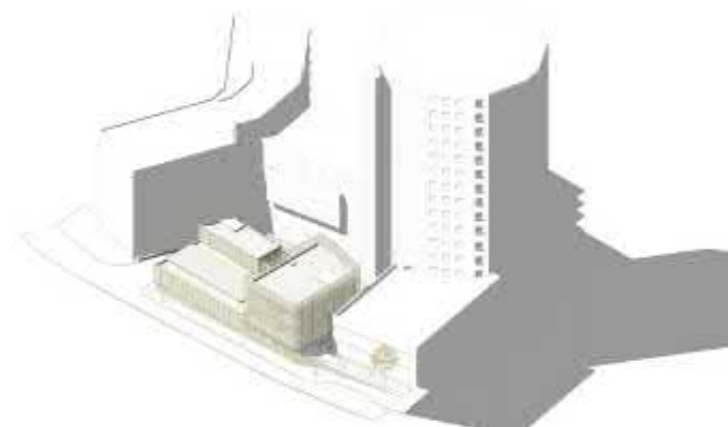


# THE PROTON THERAPY UNIT HOSPITAL LA PAZ, MADRID, SPAIN



The multidisciplinary nature of our team allows us to integrate all the technical disciplines involved, which is particularly suitable for this type of project, of great technical complexity and extremely demanding in terms of rigour and precision.

We are proud to contribute with our work to improve the quality of life of both paediatric and adult patients facing the challenge of cancer.



## HIGH TECHNOLOGY FOR THE FIGHT AGAINST CANCER IN THE HEART OF MADRID

La Paz University Hospital in Madrid will soon have an innovative proton therapy unit, for which we are the project leader to provide architectural and engineering services, detailed design and construction management.

As part of this project, we will carry out safety analysis studies and generate the necessary documentation to support the CSN (Consejo de Seguridad Nuclear) safety licensing process for the new IBA Proteus One unit.

This unit is part of the donation made by the Amancio Ortega Foundation for the implementation of proton therapy in Spain. This effort is part of the Sustainable Development Goal, Health and Wellbeing, and its incorporation will have a direct impact on the quality of life of the users of the public health system.

IDOM has experience in the design and construction of 4 other Protontherapy centres, such as the one at the Donostia University Hospital, the Protontherapy unit at the Marqués de Valdecilla University Hospital in Santander, the Hadron Therapy and Research Center at the International University of Kutaisi, in Georgia, and the Quirón Salud Protontherapy centre in Pozuelo, Madrid, which was the first oncology treatment centre using Protontherapy built in Spain.

**Client**  
University Hospital La Paz

**Location**  
Madrid, Spain

**Area**  
3.000 m<sup>2</sup>

**Year**  
2022-In Progress

**Services**  
Feasibility Study  
Architecture, Structure, and  
Building Services Project  
Site Supervision and Integrated  
Construction management



# THE PROTON THERAPY UNIT MARQUÉS DE VALDECILLA UNIVERSITY HOSPITAL, SANTANDER, SPAIN



In accordance with the strategic lines set out by the Regional Ministry of Health of the Government of Cantabria, with the aim of maximising the efficiency of healthcare provision, the Management Directorate of the Cantabrian Health Service has approved the provision of a Proton Therapy Unit for the Marqués de Valdecilla University Hospital (HUMV) within the care area of the Radiotherapy Oncology Service.

Proton therapy is currently the most precise and effective alternative for the treatment of cancer with radiotherapy, based on objective criteria that the dosimetric benefit always has value in terms of clinical benefit.

The hospital is one of the most important facilities in the city, due to its activity, size and impact on the city and its area of influence. As part of this implementation, it has also been defined the rehabilitation of some areas in the existing hospital, the adaptation of interior spaces to accommodate the care areas to the proton therapy programme, and the adaptation of the main access to proton therapy. In addition, interior refurbishment works will be carried out in the interior and courtyards of basement 4 of the 'Las Tres Torres' building and the connection of existing facilities to the proposed new use.

The location for the future bunker is within the HUMV hospital grounds, adjacent to the Radiation Oncology Service, mainly on floor level -4 of the 'Las Tres Torres' building, occupying two types of spaces depending on the programme requirements, available spaces to be adapted to the new use, and newly built spaces. The unit has an access for technicians and maintenance personnel from the outside at street level.

The total built-up areas of the areas of action are 2313 m<sup>2</sup> of new bunker construction and 5369 m<sup>2</sup> of the refurbishment and adaptation of the existing Las Tres Torres building. In addition to the built-up area, a total of 2029 m<sup>2</sup> of the exterior urbanisation area has been completed, including the bunker's vegetation cover, roadways, paving and other necessary actions.

In line with the objective of the project, which is to improve the health care provision in the HUMV Radiotherapy Oncology Service facilities, IDOM has developed in 2 phases the basic project, the activity project and the execution project for architecture, structure and installations, including all disciplines.

**Client**  
Servicio Cantabro de Salud (SCS),  
University Hospital Marqués de  
Valdecilla

**Location**  
Santander, Spain

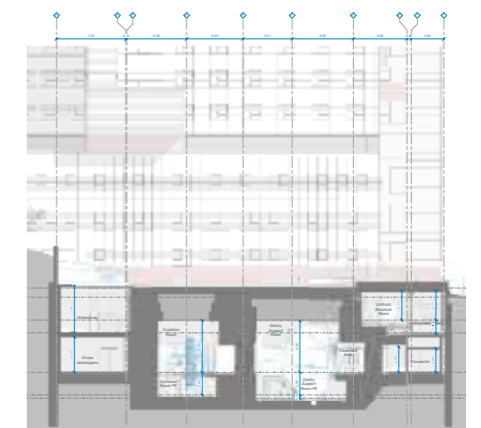
**Area**  
7.500 m<sup>2</sup>

**Year**  
2023-In Progress

**Services**  
Architecture, Structure and  
Building Services Project  
Site Supervision and Construction  
management



The complexity of the implementation of the proton therapy unit in terms of structural and plant engineering, coordination of disciplines, coordination with the equipment supplier, and meeting the important milestones during the project and construction process have been proudly covered by idom's multidisciplinary and highly professional team of architects and engineers from different specialities including nuclear engineers.





## 4. PROJECT AND CONSTRUCTION MANAGEMENT

ELCHE HOSPITAL,  
IN VALENCIA, SPAIN

HOSPITAL DE GANDÍA,  
IN GANDÍA, SPAIN

IMQ IGUALATORIO MÉDICO QUIRÚRGICO,  
IN BILBAO, SPAIN

ONCOLOGY HOSPITAL,  
IN SAN SEBASTIÁN, SPAIN

CENTRAL UNIVERSITY HOSPITAL OF ASTU-  
RIAS, IN OVIEDO, SPAIN

XANIT MÁLAGA EXPANSION,  
IN MALAGA, SPAIN

NEW HOSPITAL NUESTRA SEÑORA DE LA  
SALUD, IN GRANADA, SPAIN

SANT JOAN DE DÉU HOSPITAL EXPANSION,  
IN MANRESA, SPAIN

PROJECT MONITORING HOSPITAL  
SERENA DEL MAR IN COLOMBIA

# ELCHE HOSPITAL, IN VALENCIA, SPAIN



The total investment for the construction of the hospital amounted to 65.5 million euros. The building, with a total surface area of 44,500 m<sup>2</sup> and a development of 50,106 m<sup>2</sup>, is distributed over 4 floors with a planned capacity of 198 beds and a possible capacity of 296. The hospital is equipped with 57 outpatient consultations, nuclear medicine areas, radiotherapy (a linear accelerator

is available), 12 operating theatres, 14 resuscitation stations, 8 delivery rooms, 16 ICU boxes for adults and 6 for children.

The role of IDOM, as manager, was to represent the Property before the entities involved and to direct the project designers and contractors in order to achieve the objectives set in terms of time, cost and quality.



IDOM managed the project and construction of the new Elx-Crevillent Hospital, included in the Building Health Programme 2005 - 2008 of the Generalitat Valenciana, whose population assigned by Basic Zones is 129,707 people. The contract model adopted for the development of the hospital is that of a comprehensive healthcare concession, which allows the new healthcare resources to be quickly put into operation. The contracting of the Public Service Management is by concession, by means of a tender and open procedure. The maximum total period for drawing up the execution project and carrying out the works was 25 months. The building is located on a plot of land ceded by the City Council to the Valencian Regional Ministry of Health, following a reparcelling of the sector.

**Client**  
Elche-Crevillente Salud SA

**Location**  
Valencia, Spain

**Area**  
44.500 m<sup>2</sup>

**Year**  
2008-2010

- Services**  
Project and Construction Management
- Nº Beds 198**
- Nº Operation Rooms 12**
- ICU Boxes 16 adults 6 children**
- Nº Consulting Rooms 57**
- Resuscitation stations 14**
- Delivery Rooms 8**



# GANDÍA HOSPITAL, IN GANDÍA, SPAIN



## A HOSPITAL WITH THE CAPACITY TO ADAPT AND EVOLVE

The work on Gandía Hospital began with the modification of the original project. This means an increase of approximately 10% in the built surface area, as well as an important general remodelling of the initially proposed building.

The solution adopted includes an inner ring road network with visual-acoustic protection.

The solution adopted includes an inner ring road network with visual-acoustic protection of tree mass, minimises the urban impact and is an ecological enhancement, incorporating a low and extensive building in two blocks:

1. Technical block on three levels (Accesses, care services, diagnosis and treatment, Surgical Area).
2. Hospitalisation on four levels (General services and rehabilitation, and hospitalisation), two parallel circulation axes: one interior (internal patients and health personnel), and the other service (nursing units/floors) and interior courtyards for lighting, sunlight and rest.

The hospital building has a total built area of 48,640.30 m<sup>2</sup> and the facilities building has 3,269.40 m<sup>2</sup>. The hospital has 411 beds, 10 operating theatres and 3 delivery rooms.

### Client

Generalitat Valenciana

### Location

Gandía, Spain

### Area

48.640 m<sup>2</sup>

### Year

2007-2015

### Services

Modification of architectural project, structures and building services, site management and supervision.

### Nº Beds 388

### Nº Operation Rooms 10



# IMQ IGUALATORIO MEDICAL-SURGICAL, IN BILBAO, SPAIN



The new Zorrotzaurre Clinic belongs to IMQ, the leading health insurance company in Biscay and with a presence throughout the Basque Autonomous Community. It is the reference hospital and care centre for the whole of the Basque Country. Designed by OAB and AIDHOS Arquitectura, it has 157 rooms, 14 ICU beds, 12 boxes, 7 operating theatres and 60 consulting rooms, 7 operating theatres and 60 consulting rooms, as well as a car park with more than 450 parking spaces.

IDOM carried out the integral management of the entire process, from the start of the project, assisting IMQ in all the urban planning procedures, to the opening of the clinic and the commissioning of all the installations and equipment.

IDOM participated in the complex process, not only in the priority issues such as the deadline and the COST, but also in all the administrative formalities with the institutions to speed up the many procedures that were necessary. It also intervened in the tendering and contracting phase of the works and coordinated all the agents involved in managing the entire process. Our work was key to the successful completion of the process in all aspects. successful in all aspects.

## Client

Sociedad Inmobiliaria del IMQ,S.A.

## Location

Bilbao, Spain

## Area

46.320 m<sup>2</sup>

## Year

2008-2024

## Services

Integrated project and construction management

**Nº Beds 157**

**Nº ICU Beds 14**

**Nº Boxes 12**

**Nº Consulting Room 60**



## ONCOLOGY HOSPITAL, IN SAN SEBASTIÁN, SPAIN



KUTXA's Welfare Projects has built the new building 115 for the Oncology Institute in Miramón (Donostia-San Sebastián).

Once the construction project for the building had been drawn up by the architect Jon Uranga Etxabe (USLANARK, S.L.) and in order to carry out its execution within the indicated budget and deadline, KUTXA contracted IDOM the services of PROJECT MANAGEMENT to carry out the tendering and contracting management, technical assistance in the Execution Control and technical assistance in the technical assistance in Quality Control.

The total built surface area of the Oncology Institute is 23,500 m<sup>2</sup>, distributed over 3 floors above ground and 2 basements.

### Client

KUTXA

### Location

San Sebastian, Spain

### Area

23.500 m<sup>2</sup>

### Year

2009

### Services

Integrated project and construction management

### Nº Beds 104

Nº Operation Rooms 3

Nº Consulting Rooms 8

Nº Procedure Rooms 3



# CENTRAL UNIVERSITY HOSPITAL OF ASTURIAS IN OVIEDO, SPAIN



The architectural complex, built on the 364,867 m<sup>2</sup> site of 'La Cadellada', has 1,039 beds and is made up of an outpatient area in the form of 4 volumes associated with the main building, a hospitalisation building that rises 9 levels above ground level, an emergency area and a central general services area unifying the rest of the areas, totalling 189,345 m<sup>2</sup>.

The programme of the complex, designed by Juan Navarro Baldeweb and Ángel Fernández Alba, is completed with 121 beds in intensive care, 175 in the day hospital, 42 operating theatres, 200 outpatient clinics, 120 examination rooms, 79 emergency boxes and university spaces such as classrooms, laboratories and an assembly hall with a capacity for 452 people.

Around the complex, 3 car park buildings have been built (with a total of 3 car parks). (with a total of 62,000 m<sup>2</sup>) have been built around the complex, which can accommodate 2,035 vehicles. In addition, the old psychiatric hospital annex has been refurbished as a new administrative area.

**Client**

GISPASA

**Location**

Oviedo, Spain

**Area**

189.345 m<sup>2</sup>

**Year**

2005-2011

**Services**

Integrated project and construction management

**Nº Beds 1.039**

**Nº Operation Rooms 42**

**Nº Consulting Rooms 200**

**Nº Procedure Room 120**



# XANIT MÁLAGA EXPANSION IN MÁLAGA, SPAIN



VITHAS Group has considered the need for the construction of a parallel building similar to the existing Vithas Xanit International Hospital in Malaga, with a distribution of 4 floors, as well as the reorganisation and enlargement of areas located in the current building such as outpatients and operating theatres. The four floors of the new parallel building will include a floor for parking and facilities, a floor for the extension of the surgical block, URPA, ICU and outpatients, a fully equipped hospitalisation floor and a first floor prepared to respond in the medium term to the foreseeable increase in demand.

For this purpose, the Hospital has a site in the northern area, currently used as an open-air car park, with an approximate surface area of 3,270 m<sup>2</sup> and whose buildability is only regulated in terms of height, with the possibility of building the entire surface area. This site has a difference in height with respect to the main entrance of the hospital of approximately one storey. The extension proposes a built surface area of 7,195 m<sup>2</sup>, 36 hospitalisation beds, 4 operating theatres, 2 ICU beds, 14 outpatient consultations, 6 URPA 6 beds, 180 parking spaces (depending on the extended area) and 102 m<sup>2</sup> of sterilisation.

IDOM's great technical solvency in the development of hospital projects and its mastery in the application of modern project management processes, IDOM offers the Vithas Group its capacity to adequately undertake the contracting and works management phase for the extension of the Vithas Xanit International Hospital, from the starting point of endorsing the Vithas Group's objectives for this project.



**Client**  
VITHAS SANIDAD, S.L.

**Location**  
Málaga, Spain

**Area**  
7.195 m<sup>2</sup>

**Year**  
2019-2021

**Services**  
Integrated project and construction management

**The Expansion:**  
**Nº Beds 36**  
**Nº ICU Beds 2**  
**Nº PACU 6**

# NEW HOSPITAL NUESTRA SEÑORA DE LA SALUD, IN GRANADA, SPAIN



The Sanatorium Nuestra Señora de la Salud, founded in 1923, is an institution with a long and rich history in the city of Granada. It is a pioneering institution in medical care and many citizens have seen their children born there. The growth of its activity in recent years has led to an almost saturation of its capacity and the prospects for future growth demand larger and more adequate spaces for the new medical treatments that are currently available and those expected in the future. In order to face these challenges and continue to lead the private medical care activity in the province, the management of the Sanatorium decided to undertake the construction of the new Sanatorium Nuestra Señora de la Salud. For this purpose, a site is chosen at the foot of the Alhambra, where the building is arranged around the skirt of the mountain, with the living areas facing the Sierra Nevada mountains and the service areas at the mountain side. Within its 19,000 m<sup>2</sup>, the hospital has all the

**Client**  
N<sup>o</sup> SRA. DE LA SALUD HOSPITAL

**Location**  
Granada, Spain

**Area**  
29.000 m<sup>2</sup>

**Year**  
2010-2016

**Services**  
Integrated project and construction management



characteristic units such as emergencies, rehabilitation, 8 operating theatres, laboratories, neonatal treatments, haemodialysis and oncological treatments, radiology, nuclear medicine, 16 consulting rooms and 100 inpatient rooms. It also has an Eating Disorders Unit, the only one of its kind in the province. In the radiology area, the leading technologies in diagnostic imaging are introduced. A 9,000 m<sup>2</sup> underground car park was built. IDOM conducts the building process from start to finish, including the delicate operation of moving from the current facilities to the new ones. This process includes the contracting of the design services and their monitoring, the contracting of the construction companies, the monitoring of the works until their completion and the commissioning of the building.





# SANT JOAN DE DÉU HOSPITAL EXPANSION, EN MANRESA, SPAIN

**Client**  
Fundación ALTHAIA

**Location**  
Manresa, Spain

**Area**  
60.000 m<sup>2</sup>

**Year**  
2011-2014

**Services**  
Construction Management

**Nº Beds 402**

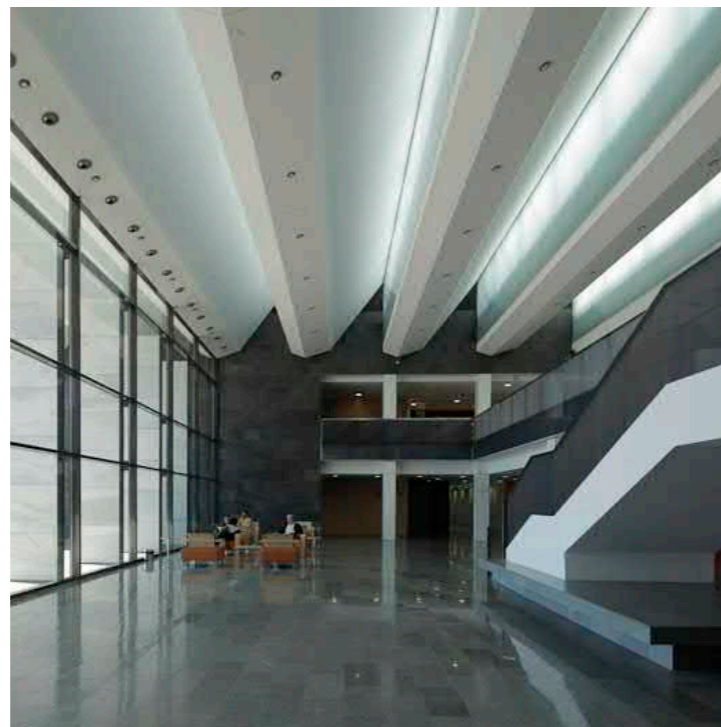
**Nº Operation Rooms 17**



The Sant Joan de Déu Hospital in Manresa, which belongs to the network of centres managed by the ALTHAIA Foundation, serves a population of some 220,000 people in the counties of Bages, Berguedà, Cerdanya and Solsonès.

Work on the second phase of the extension, which began in November 2010, has been divided into two main phases. The first came into service in October 2013. The second, in October 2014.

In addition to numerous operating theatres and conventional hospital beds, the complex has other care and support services, such as a Quality, Innovation and Teaching Area, classrooms and a study room; the Clinical Documentation and Information Service, Radiotherapy Unit, Laboratory and an auditorium with capacity for 200 people. To this must be added the new Obstetric and Gynaecological Block. The extension also includes state-of-the-art technological equipment and improved services.



# PROJECT MONITORING FOR SERENA DEL MAR HOSPITAL, IN COLOMBIA

**Client**  
IIC INTER-AMERICAN  
INVESTMENT CORPORATION IIC

**Location**  
Colombia

**Area**  
70.000 m<sup>2</sup>

**Year**  
2016-2024

**Services**  
Project Monitoring

The Serena del Mar Hospital Centre (CHSDM) is a highly complex general hospital with patient and family care at the heart of its operating model. This vision will be implemented by the Fundación Santa Fe de Bogotá, a leading institution in the provision of health services in Colombia and the region, which has been chosen to operate this hospital centre.

In its first stage, Finger 1 and 2 will be built, with a total area of 44,000 m<sup>2</sup>, in which will be located: 150 beds, 7 surgery rooms, 98 individual hospitalisation rooms, 53 individual intensive care rooms for adults, paediatrics and neonatals, a haemodynamics room and nearly 400 workstations; this will allow the provision of medical care of diverse and complex specialties and clinical and surgical subspecialties, and an institute specialising in oncology, which will offer comprehensive cancer management, with chemotherapy and radiotherapy.

The services performed included the review of the technical validity of the project, the technical review of the designs, the project schedule in terms of construction, delivery and commissioning activities, the review of the project budget, the business case and the market plan, and the prioritisation of the project risk. The scope of the services provided for monitoring the construction process includes monitoring the progress of the execution of the designs, works and compliance with the financial model, supervision of the activities executed, monthly on-site review of the progress of the construction and monitoring of the procurement of medical supplies and equipment.



## 5. HEALTH CENTRES

POSOPE ALTO HEALTH CENTRE  
IN PÁTAPO, PERU

ASPE HEALTH CENTRE, ALICANTE, SPAIN

IBI HEALTH CENTRE,  
IN ZARAGOZA, SPAIN

VALENZÁ HEALTH CENTRE,  
IN GALICIA, SPAIN

A MERCA HEALTH CENTRE,  
IN GALICIA, SPAIN

HEALTH RESPONDS AND 061 SERVICES  
IN JAÉN, SPAIN



**POSOPE ALTO HEALTH CENTRE IN PÁTAPU, PERU**

**CLIENT**  
AUTHORITY FOR RECONSTRUCTION WITH CHANGE ARCC

**AREA**  
4.500 m<sup>2</sup>

**YEAR**  
2021-2022

**COST**  
31.278.056,90 SOLES

**SERVICES**  
Site analysis, medical functional programme and medical architectural programme, conceptual design, basic design and detailed design of architecture, structures and installations (complete design of all specialities), medical equipment project, furniture and signage, definition of procurement, technical accompaniment on site (architecture, structures and installations, complementary studies (natural disaster risk assessment), maintenance project, start-up..

**LOCATION**  
PÁTAPU, PERU

The new Pósope alto health centre, category i-3, is located on a 2,850.80 m<sup>2</sup> site in the district of pátapo. with a total built area of 4,186.80 m<sup>2</sup>, it will include an emergency unit, outpatient clinic, delivery unit, hospitalisation unit with 20 beds, radiology and clinical pathology, being one of the first health infrastructures built post-pandemic in Peru.



**ASPE HEALTH CENTRE**

**CLIENT**  
ELCHE-CREVILLENTE SALUS S.A.

**AREA**  
2.350 m<sup>2</sup>

**YEAR**  
2011

**SERVICES**  
Architectural and engineering projects, construction management

**LOCATION**  
ALICANTE, SPAIN

The ASPE health centre forms a u that occupies the south and west of the plot, leaving on the south side a road for ambulances and their access to the emergency area, connected to the car park, as well as an access for the health centre staff with direct connection to the administration area.

The programme is organised in three volumes:

- A main volume, of greater height, generates a c-shaped roof open to the northeast. It houses the administrative, facilities, support, emergency, rehabilitation and treatment rooms.
- Two smaller boxes, with different lengths, which come out of this volume and house the consultation area. These rooms are perforated on the roof by patios, which illuminate the waiting areas with natural light.



**IBI HEALTH CENTRE**

**CLIENT**  
IASS (ARAGONESE INSTITUTE OF SOCIAL SERVICE)

**AREA**  
2.520 m<sup>2</sup>

**YEAR**  
2006-2010

**SERVICES**  
Ideas competition, architectural and engineering projects, construction management

**LOCATION**  
ZARAGOZA, SPAIN

The new IBI ii health centre, awarded after winning the first prize in an open competition, is located on a rectangular plot of 3.000m<sup>2</sup>. The functional scheme is solved on two levels through an h-shaped plan, where the wings integrate the consultation and waiting areas along corridors lit from the interior courtyards, while the centre of the h articulates the communications, both horizontal and vertical, while resolving the main access for the public. One of the wings also houses the emergency unit with independent access for both the public and ambulances.

The structural system consists of reinforced concrete porticoes based on a shallow foundation with braced footings. The bidirectional structure of the floor slabs is lightened by means of prefabricated concrete vaults. The facades are ventilated.



**VALENZÁ HEALTH CENTRE**

**CLIENT**  
SERGAS

**AREA**  
1.952 m<sup>2</sup>

**YEAR**  
2006-2010

**SERVICES**  
Architectural and engineering project

**LOCATION**  
GALICIA, SPAIN

The projected building for the new health centre of valenzá in orense is located on a plot of more than 3,666 m<sup>2</sup> provided for by the urban planning for this purpose. This plot is located in a steep slope area halfway between the river, the main road of the municipality in its lower part and the motorway at the top of the slope. The plot has the peculiarity of its pronounced longitudinal dimension and is limited on its eastern front by an access road and a longitudinal block of four-storey houses and on its western front by a large slope with a difference in height of more than 16-18 metres.

The urban implantation of the new health centre tries to take this delicate situation into account. With these premises as a starting point, the health centre seeks a correct location that minimises the visual and constructive impact of this steep slope created by the original slope, reducing the effect of the centre being boxed into the plot.



**A MERCA HEALTH CENTRE**

**CLIENT**  
SERGAS

**AREA**  
518 m<sup>2</sup>

**YEAR**  
2006-2010

**SERVICES**  
Architectural and engineering design Site management

**LOCATION**  
GALICIA, SPAIN

Selected for the iv enor architecture awards 2009.

The a merca health centre is located on a triangular-shaped plot of land bounded by the access road to the sports pavilion, the space destined for the council's teaching facilities and a pine forest to the south closing the contour on its largest side, all accompanied by a downward slope to the south.

It has been sought at all times to allow visual permeability from the teaching space, the sports court and in turn the council building. Thus, the health centre adopts a position of withdrawal from the plot at its lower levels and embraces the access area by means of a green space and trees. A sequence has been sought in the approach. The route, access and visual opening once inside the centre itself.

The section and the play with the unevenness of the terrain determine the volume.



**HEALTH RESPONDS AND 061 SERVICE**

**CLIENT**  
EPES

**AREA**  
2.500 m<sup>2</sup>

**YEAR**  
2006

**SERVICES**  
Architectural and engineering design Site management

**LOCATION**  
JAÉN, SPAIN

The three-storey building, with a semi-basement, is the headquarters of salud responde, a pioneering project in andalusian healthcare, which provides a service for prior appointments, second medical opinions and other assistance through a large call-centre. It also includes administration and training areas, as well as a semi-basement for emergency teams.

Conceived as a transparent piece, it incorporates a blind volume, the call reception room. Dialogues are thus established between the different levels:

That of the underground services, understood as a quieter area; the access, as pure transit between levels and an area for future extensions; that of the administrative and training rooms, with great visual continuity over the square; and the upper level, the most unique piece, The call reception room.

EXPANSION OF THE HOSPITAL STA.  
CLOTILDE, IN SANTANDER, SPAIN

EXPANSION AND REFURBISHMENT OF CLÍ-  
NICA ALEMANA IN VITACURA, IN SANTIAGO  
DE CHILE, CHILE

EXPANSION OF CHICUREO MEDICAL  
CENTRE, IN CHILE

BUPA ANGAMOS MEDICAL CENTRE, IN CHILE

REFURBISHMENT OF HOSPITAL Nª SRA. DEL  
ROSARIO, IN MADRID, SPAIN

THE NEW ANATOMICAL PATHOLOGY UNIT,  
HOSPITAL UNIVERSITARIO MIGUEL SERVET,  
IN ZARAGOZA, SPAIN

NUESTRA SEÑORA DE SONSOLES  
CENTRO SANITARIO INTEGRADO DE ASPE, IN  
ÁVILA, SPAIN

CENTRO SANITARIO INTEGRADO DE ASPE,  
IN ASPE, SPAIN

HOSPITAL CASA SALUD DE VALENCIA,  
IN SPAIN

CATALAYUD HEALTH CENTRE,  
IN CATALAYUD, SPAIN

CENTRO DE SALUD FELANITX,  
IN FELANITX, SPAIN

REFORMA INTEGRAMÉDICA EL TREBOL DE  
BUPA, IN COCEPCIÓN, CHILE

S. FRANCISCO-UD.LEIRA HOSPITAL CENTRE,  
IN LEIRIA, PORTUGAL

HOSPITAL DE SÃO FRANCISCO XAVIER,  
IN LISBON, PORTUGAL

HOSPITAL CUF DESCOBERTAS,  
IN LISBOA, PORTUGAL

CLÍNICA MICROCLAR,  
IN LISBOA, PORTUGAL

HOSPITAL DE JULIO DE MATOS,  
IN LISBOA, PORTUGAL

REFORM OF THE EMERGENCY AREA,  
HOSPITAL DE MANISES, SPAIN

## 6. REFURBISHMENTS



**EXTENSION OF THE STA. CLOTILDE HOSPITAL EXPANSION**

**CLIENT**  
SANTA CLOTILDE HOSPITAL

**AREA**  
21.815 m<sup>2</sup>

**YEAR**  
2023-2024

**COST**  
83.300 EURO

**SERVICES**  
Analysis of the current status and feasibility of the location, market and competition study, portfolio of services, activity and estimated space, preliminary pma, site and zoning study, construction planning, preliminary investment plan

**LOCATION**  
SANTANDER, SPAIN

Idom's services have included the drafting of a master plan for the strategic redefinition of the hospital model and an expansion of the hospital's services to adapt to current and future needs.

Idom, after analysing the current state of the hospital, has defined the hospital model and the portfolio of services, and has defined the pma and the study of capacity and zoning for an extension previously approved by the specific modification of the pgou with 4500 + 5600 m2. Likewise, it has defined the actions of interior reform of the hospital to accommodate a more complete programme with the aim of extending the hospital services within 20 years.



**EXPANSION AND REFURBISHMENT OF THE GERMAN CLINIC IN VITACURA**

**CLIENT**  
CLÍNICA ALEMANA DE SANTIAGO S.A

**AREA**  
9.985 m<sup>2</sup>

**YEAR**  
2021

**SERVICES**  
Bim survey (existing), medical programme and functional preliminary design,

**LOCATION**  
SANTIAGO DE CHILE, CHILE

Clínica alemana de santiago s.a., a private health establishment, leader in diagnosis and treatment of all medical and health specialties in chile, wants to promote the expansion, remodelling and refurbishment of its main clinic located in vitacura. Clínica alemana seeks to strengthen the emergency service and to promote the accelerated development of outpatient care as a result of the increased demand for immediate services.

The initiative includes the proposal of a preliminary project for the new general emergency service, offering the best care experience to patients with new care boxes, resuscitation rooms, scanner and x-ray rooms exclusively for the service; reform of the imaging area with 3 x-ray rooms, 1 scanner room and expansion of the ultrasound service with new care boxes.



**CHICUREO MEDICAL CENTRE EXPANSION**

**CLIENT**  
CLÍNICA ALEMANA DE SANTIAGO

**AREA**  
800 m<sup>2</sup>

**YEAR**  
2021-IN PROGRESS

**SERVICES**  
Preliminary design, construction project and construction management of all specialities: architecture, structures and installations.

**LOCATION**  
CHICUREO, CHILE

The project consists of the design and construction management of the expansion of the chicureo medical centre in santiago de chile. This extension is carried out through the construction of an 'l' shaped building annexed to one of the sides of the building, as well as the filling of one of the existing courtyards.



**BUPA ANGAMOS MEDICAL CENTRE**

**CLIENT**  
BUPA CHILE

**AREA**  
850,81 m<sup>2</sup>

**YEAR**  
2019-2020

**COST**  
1.600.000 EURO

**SERVICES**  
Basic project, detailed architectural, structural and engineering design, municipal approvals, construction management and supervision

**LOCATION**  
ANTOFAGASTA DE CHILE, CHILE

Bupa chile s.a. seeks to expand the bupa antofagasta clinic, a private health clinic with outpatient services in the southern area of antofagasta in order to establish a presence in a sector of the city with an emerging urban growth, but with a lack of outpatient medical services. It was decided to set up a 850.81 m2 facility on the second and last floor of the recently inaugurated parque angamos shopping centre. The premises have a strong external presence, in an area of the city with higher purchasing power and with a potential future real estate development.

The project includes: 15 medical consultation rooms and 1 support procedure room; imaging area with 1 x-ray room, 1 ultrasound room; sampling area with 5 care boxes + 1 gynaecological box and staff area.



**REFORM OF THE HOSPITAL N° SRA. DEL ROSARIO**

**CLIENT**  
HOSPITAL N° SRA. DEL ROSARIO

**AREA**  
1.800 m<sup>2</sup>

**YEAR**  
2018

**COST**  
1.800.000 EURO

**SERVICES**  
Preliminary project, basic project of all specialities, execution project of all specialities, site management

**LOCATION**  
MADRID, SPAIN

The nuestra señora del rosario hospital turned to idom for the design and refurbishment of various medical and non-medical areas of its historic hospital building located in the central street of principe de vergara in madrid. The building was constructed in the 1920s and currently has historic protection status on its façades.

The refurbished areas within the hospital are as follows:

Refurbishment of several general hospitalisation rooms and access between the different hospital buildings.

New implementation of the functional rehabilitation area, new maxillofacial service and reform of the cardiology medical service. New implementation of the cafeteria.

New implementation of the mutua universal medical service.



**THE NEW PATHOLOGY ANATOMY AND PATHOLOGY UNIT, MIGUEL SERVET UNIVERSITY HOSPITAL**

**CLIENT**  
ARAGONESE HEALTH SERVICE

**AREA**  
1.800 m<sup>2</sup>

**YEAR**  
2015-2017

**COST**  
2.003.945 EURO

**SERVICES**  
Basic project, execution project, installations project, structural project

**LOCATION**  
ZARAGOZA, SPAIN

Refurbishment project of the miguel servet hospital to relocate and expand the anatomical pathology unit, which will have a surface area of 1,800 square metres. The unit is composed of several areas: administrative area, admission and registration of samples, macroscopy.

Intraoperative area, osna laboratory (sentinel lymph node breast), general laboratory, cytology area, puncture area/consultation, electron microscopy area, autopsy area, personnel area, storage area, molecular pathology unit and the special techniques laboratory area.



### OUR LADY OF SONSOLES

**CLIENT**  
INSALUD

**AREA**  
23.000 m<sup>2</sup>

**YEAR**  
2001

**COST**  
9.015.182 euro

**SERVICES**  
Architectural design, structures and installations, Site management

**LOCATION**  
Ávila, Spain

IDOM refurbished all the hospitalisation floors and adapted the building to fire regulations. A global replacement of the installations was also carried out (thermal and refrigeration plant, heating and air conditioning systems, water and sanitation networks, transformation centre, installation control system, communications, transport, medical gases, sterilisation and kitchen).

The responsibilities and services of IDOM include, Project Management and Technical Assistance to the Property, participation in the drafting of preliminary studies, preliminary design, architectural execution projects, structure and installations, site supervision and project management, costs, deadlines, purchases and licences.



### ASPE INTEGRATED HEALTH CENTRE

**CLIENT**  
Elche-Crevillente Salud S.A

**AREA**  
3.400 m<sup>2</sup>

**YEAR**  
2012

**COST**  
3.500.000 euro

**SERVICES**  
Architectural, structural and installation design

**LOCATION**  
Aspe, Spain

The building is composed of four comb-shaped blocks, which adopt different widths and lengths depending on the functional area they house. All the blocks are connected by a corridor and separated from each other to form lighting and access courtyards. These volumes fit perpendicularly into another volume that assumes a more transversal image to the other blocks.



### CASA SALUD DE VALENCIA HOSPITAL

**CLIENT**  
Congregación Hermanas de la Caridad Santa Ana - Hospital Casa Salud

**AREA**  
1.581 m<sup>2</sup>

**YEAR**  
2015

**COST**  
2.5 M euro

**SERVICES**  
Master plan, Architectural, structural and installation projects, Construction management, Construction tendering

**LOCATION**  
Valencia, Spain

IDOM starts its work designing a project for a three-storey underground car park, a semi-buried area where the new maternity and children's institute is located and a new access plaza for this hospital.

Subsequently, an audit of this building was carried out and a Reform Master Plan was drawn up in which the functional areas and facilities were analysed and a global reform of the centre was planned in phases: first the reform projects for the sixth and third floors were drawn up, reorganising the space and taking care of a versatile and modular design. Subsequently, the rest of the floors will be refurbished.



### CATALAYUD HEALTH CENTRE

**CLIENT**  
INSALUD

**AREA**  
4.000 m<sup>2</sup>

**YEAR**  
2000

**COST**  
2.993.040 euro

**SERVICES**  
Integrated project and construction management, Architectural, structural and installation projects, Site management.

**LOCATION**  
Catalayud, Spain

Refurbishment of a building to house the new Calatayud Health Centre with a built area of 3,710 m<sup>2</sup>. In its execution, two floors of the old hospital have been demolished, as well as the interior of all its floors, reinforcement of the structure, execution of new slabs and load-bearing structures, etc.

It has high and low voltage installations, fan-coil air-conditioning and four-pipe AHU, fire detection and extinguishing, lifts, gas, public address system, structured cabling and intruder detection, mainly.



### FELANITX HEALTH CENTRE

**CLIENT**  
CAIB | Govern Balear I

**AREA**  
2.395 m<sup>2</sup>

**YEAR**  
2002

**COST**  
2.557.900 euro

**SERVICES**  
Architectural design, structures and installations, Site management

**LOCATION**  
Felanitx, Spain

The site is located on one of the access roads to the town from Manacor. The site is located on one of the access roads to the village from Manacor, which favours accessibility to the public facilities, but generates an environment that is very marked by passing traffic. For this reason, a markedly introspective building has been designed with the interior garden as a point of relief and calming visuals.

Following a constructive rationality in keeping with the site and the budget, the building uses affordable construction systems: in situ concrete structure with rational spans, external façades combining exposed concrete and single-layer and simple joinery to the interior courtyard.



### BUPA'S INTEGRAMÉDICA EL TREBOL REFURBISHMENT

**CLIENT**  
BUPA CHILE

**AREA**  
409,70 m<sup>2</sup>

**YEAR**  
2019-2020

**SERVICES**  
Technical pre-feasibility, review of municipal antecedents, basic and constructive project, obtaining construction permits

**LOCATION**  
CONCEPCIÓN, CHILE

BUPA Chile S.A sought to reform its private medical centres, incorporating magnetic resonance imaging, medical consultations and other medical services and reorganising the interior spaces and the existing functional programme, adapting it to the new requirements of universal accessibility in accordance with current regulations. In several Integramédica medical centres, the technical pre-feasibility of the requirement is analysed and based on the municipal background and the existing distribution, a proposal for its development is determined. The medical centres that were analysed are: Integramédica el Trébol, in Concepción, Sonorad de Maipú, Integramédica Plaza Sur and Integramédica Costanera Center, in Santiago; Integramédica Estación Central, in Santiago Centro. For the Integramédica el Trébol medical centre, it is requested to develop the basic and construction project and building permits.



**S. FRANCISCO-UD.LEIRA HOSPITAL CENTRE**

**CLIENT**

San Francisco Hospital Centre, S.A.

**AREA**

9.950 m<sup>2</sup>

**YEAR**

2009

**COST**

7.465.000 euro

**SERVICES**

Architectural, structural and installation design  
Technical site assistance

**LOCATION**

Leiria, Portugal

The San Francisco Hospital Centre is a private hospital unit of reference in the Centre Region of Portugal. When it was integrated into the Portuguese Health Group network, it was decided to modernise the facilities, improving and increasing the capacity of the medical care services.

IDOM was contracted to collaborate in the definition of the Master Plan, materialised in the form of an architectural layout.



**SÃO FRANCISCO XAVIER HOSPITAL**

**CLIENT**

Hospital S. Francisco Xavier

**AREA**

16.973 m<sup>2</sup>

**YEAR**

2011

**COST**

6.400.000 euro

**SERVICES**

Architectural, structural and installation design

**LOCATION**

Lisbon, Portugal

Two basic factors determined the need to refurbish the old facilities of the São Francisco Xavier Hospital. On the one hand, the construction of a new extension block on the same site, freeing the old expansion, freeing the old building of several areas, in order to transfer some medical units, such as Paediatrics, Gynaecology/Obstetrics and Physiatry, to the new construction.

Within the scope of this intervention, IDOM has given architectural form to the new functional design of the Hospital, extending, redesigning and often repositioning practically all the medical units, such as the Surgical block, Intensive Care Units, Diagnostic Imaging, Laboratories, Emergency and Hospitalisation.



**CUF DESCOBERTAS HOSPITAL**

**CLIENT**

José de Mello Saúde

**AREA**

672 m<sup>2</sup>

**YEAR**

2002

**COST**

550.000 euro

**SERVICES**

Architectural, structural and installation design

**LOCATION**

Lisbon, Portugal

Due to the congestion of its emergency department, the CUF Descobertas Hospital, located in the Expo 98 area in Lisbon, is planning an extension and refurbishment. The proposed solution clarifies and separates the paediatric and adult areas, increasing and improving the capacity of admission of patients.



**MICROCULAR CLINIC**

**CLIENT**

MICROCULAR S.A

**AREA**

600 m<sup>2</sup>

**YEAR**

2008

**COST**

178.000 euro

**SERVICES**

Architectural, structural and installation design

**LOCATION**

Lisbon, Portugal

Refurbishment and extension of the Ophthalmology Ophthalmology clinic, located in the Monumental building. The structure of the intervention is based on a new search for the articulation of the space, opening the possibility of a better articulation of its activities. A volume was built in which, due to the need for total obscuring, the check-up, consultation and examination rooms were enclosed.

Due to area restrictions, two of the three rooms occupy a new volume with the same conditions. This volume defines a public area and a technical corridor for doctors. It was thus possible to differentiate a perfectly defined management and work area.



**JULIO DE MATOS HOSPITAL**

**CLIENT**

Lisbon Psychiatric Hospital Centre

**AREA**

2.800 m<sup>2</sup>

**YEAR**

2013

**COST**

871.276 euro

**SERVICES**

Architectural, structural and installation design

**LOCATION**

Lisbon, Portugal

The Julio de Matos Hospital, or Centro Hospitalario Psiquiátrico de Lisboa (CHPL), is a leading psychiatric hospital in Europe. Inaugurated in 1942, it was the first to have a Psychosurgical to have a psychosurgery unit in Portugal. In its beginnings, it also hosted several renowned international international meetings, such as the First European Meeting of Neurosurgery (1947).

After nearly 70 years of operation, the hospital decided to undertake a series of reforms. In 2010, IDOM was commissioned to carry out the remodelling of Ward 28, which is used for forensic psychiatry and has a total of 32 beds. This innovative unit at national level is intended to receive psychiatric patients who are serving prison sentences.



**REFORM OF THE EMERGENCY AREA OF THE MANISES HOSPITAL**

**CLIENT**

MANISES HOSPITAL

**AREA**

598 m<sup>2</sup>

**YEAR**

2018

**SERVICES**

Basic project, execution project, site management

**LOCATION**

MANISES, SPAIN

The project consists of the refurbishment of part of the emergency department of the hospital de manises to improve its functionality, under the following premises: To improve the current facilities in a way that clearly expresses the model of health centre that is being implemented at the moment. In this sense, space is being made available so that each of the patient stations can have a companion in accordance with the latest design criteria for hospital spaces, which propose services with doors open to relatives. Increasing the number of patient stations. Improve the facilities to comply with regulations. To carry out an accessible, safe and comfortable refurbishment for all users.



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