MODULAR SOLUTIONS
SUMMIT BARCELONA

LIDERANDO LA CONSTRUCCIÓN
INDUSTRIALIZADA, CIRCULAR Y CERTIFICADA



INDUSTRIALIZACIÓN | CIRCULARIDAD | CERTIFICACIÓN

20 DE NOVIEMBRE
10:00H – 12:30H

PORCELANOSA Barcelona - Diagonal
Av. Diagonal, 409
Barcelona

PORCELANOSA
CATALUNYA

ORGANIZA:

BioEconomic | INTERNATIONAL WELL BUILDING INSTITUTE™ | USGBC | Passive House Institute BREEAM ES | VERDE

PORCELANOSA | butech | pich architects PICH-AGUILERA | SALAS | SAINT-GOBAIN | Siber

picharchitects
PICH-AGUILERA

We integrate, catalyse and produce sustainability through architecture.



We turn complexity into built innovation.

We integrate technology, design and sustainability to turn ambitious ideas into concrete, efficient architectural solutions that respect their context.

We guide our clients towards architecture conceived through energy performance, reducing its impact and generating environmental, social and economic value.



Architecture designed for people and their balance with the environment.

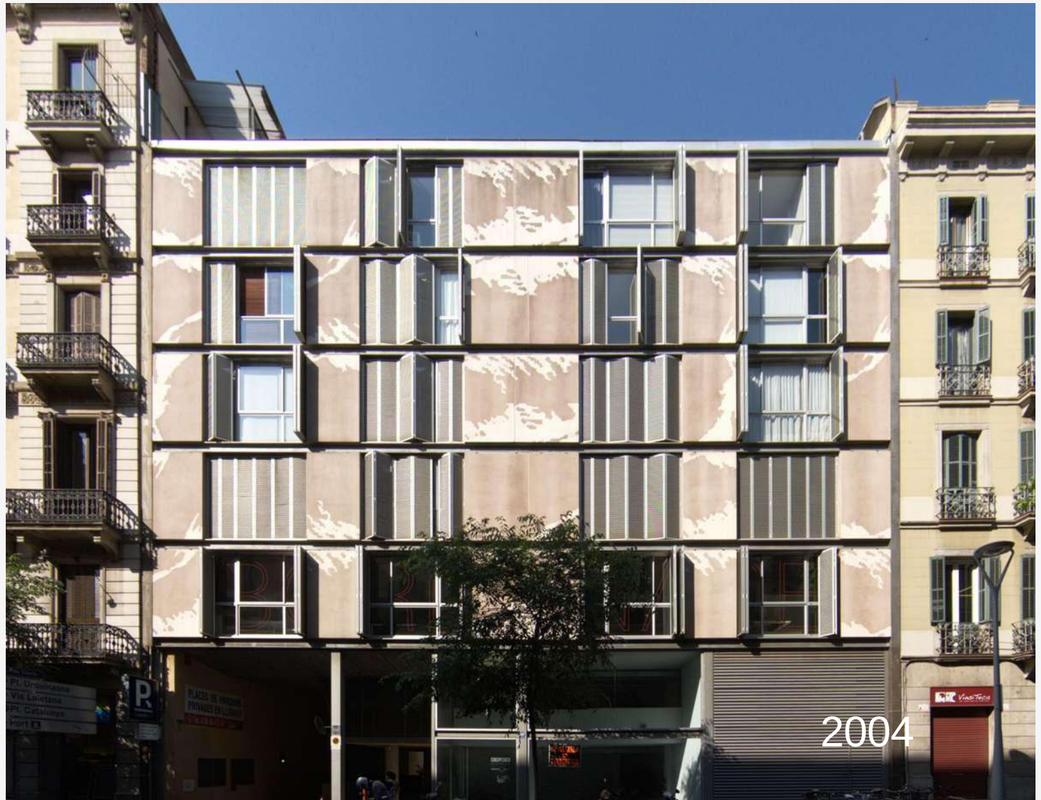
We are committed to an architecture that improves the quality of spaces, can adapt over time and offers more with less.

We design user-centred spaces that adapt to different uses and moments, promoting well-being through natural ventilation, healthy light, vegetation and non-toxic materials.



40 years building sustainable architecture





For 40 years, we have been committed to the realities and ambitions of society, researching, building and designing around four pillars:

- sustainability;
- Industrialised construction;
- BIM technology and digitalisation;
- innovation in construction systems

From idea to reality: how we translate sustainability

into well-being and efficiency



Natural comfort designed for users

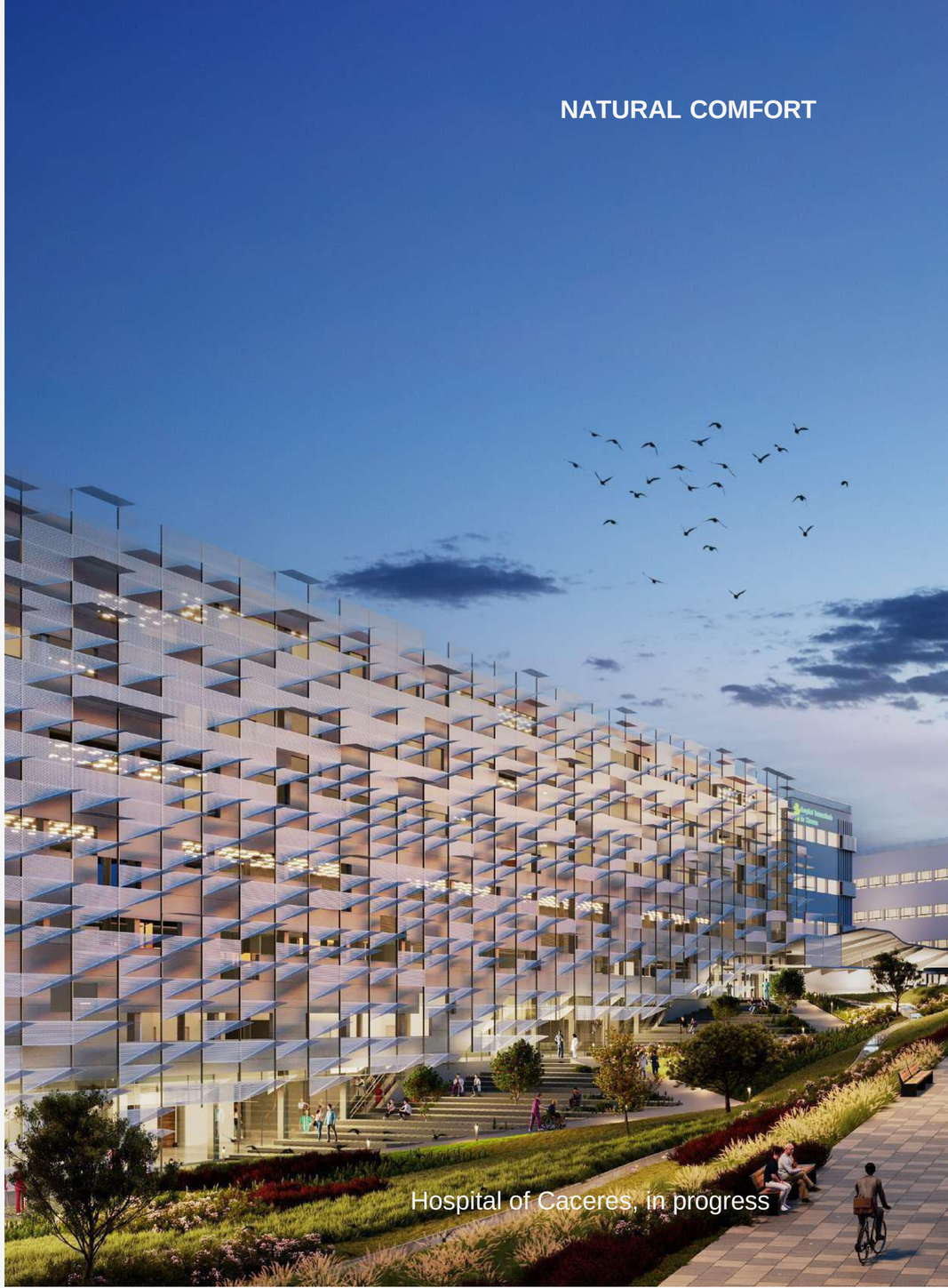
The healthy effectiveness of an infrastructure

CONFORT LUMÍNICO NATURAL

The envelope is designed to make the most of natural light and create more comfortable spaces for those who inhabit them.

CUIDAR LAS PERSONAS

interior and exterior spaces and terraces at different levels that invite people to enjoy outdoor air with greater comfort.
contact with the outside from within, connection with nature





Lower environmental impact in construction

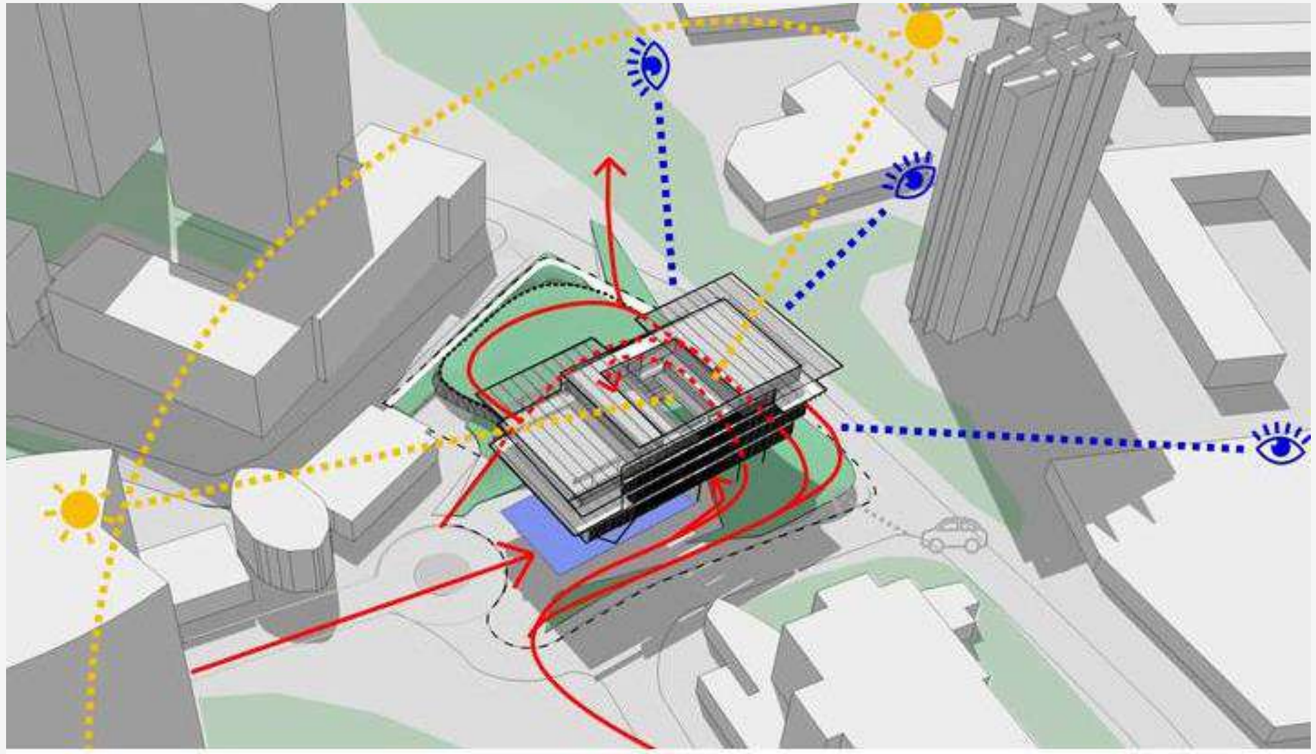
An evaporative facade for well-being

MATERIALES LOCALES

Manufacturing with local suppliers has been promoted, thereby reducing transport costs and environmental impact.

CUIDADO ORIGEN MATERIAS PRIMAS

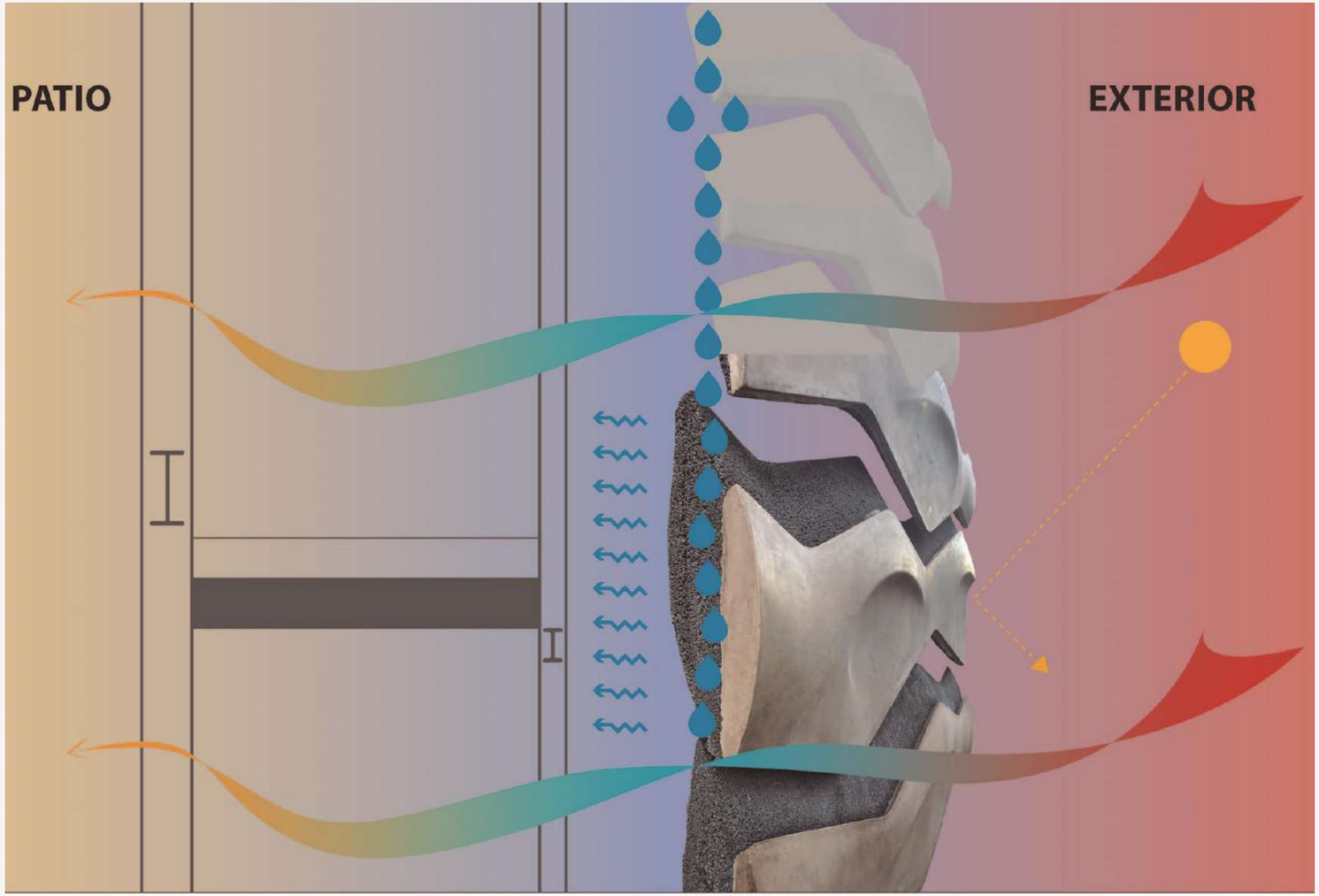
The facade piece has been designed and manufactured in low-impact concrete, in collaboration with the manufacturer, achieving an evaporative porous-concrete facade that protects from the sun, dissipates heat and channels
the breeze indoors.



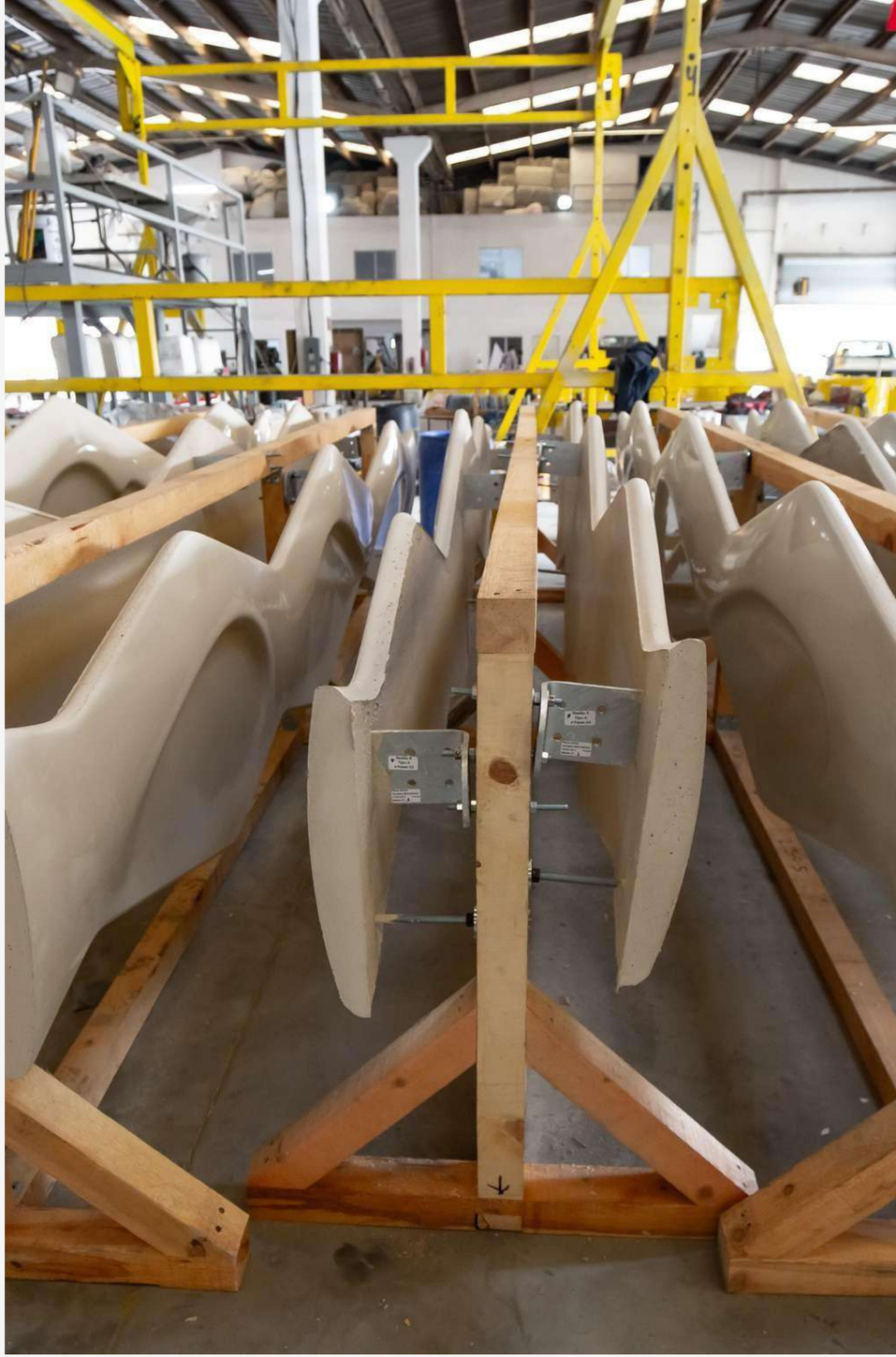
Oum Wellness Center in Monterrey



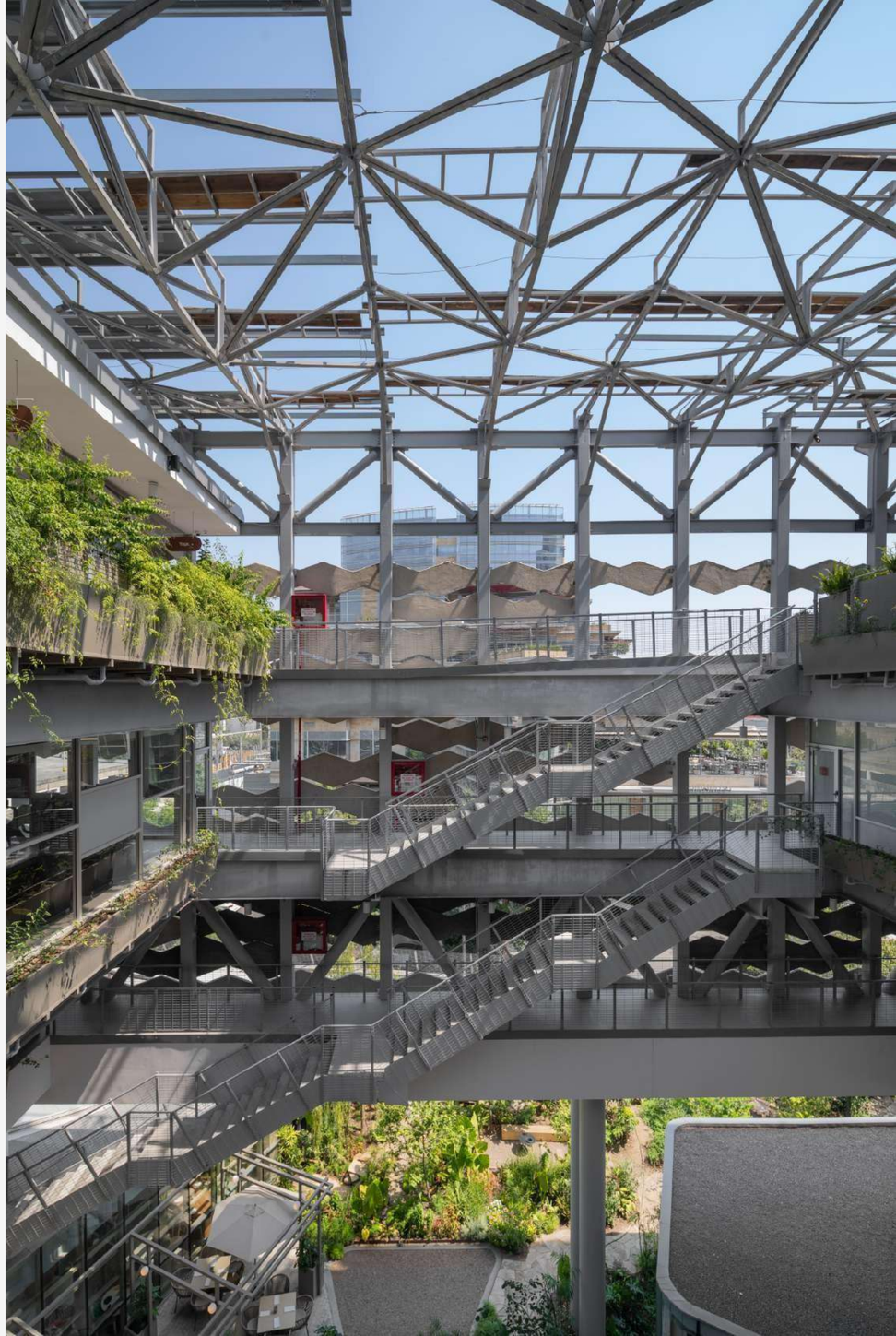




28 °C 27 °C 18 °C 23 °C 33 °C




Sandwicher



Facades that dialogue with the environment.

Dialogue with living memory

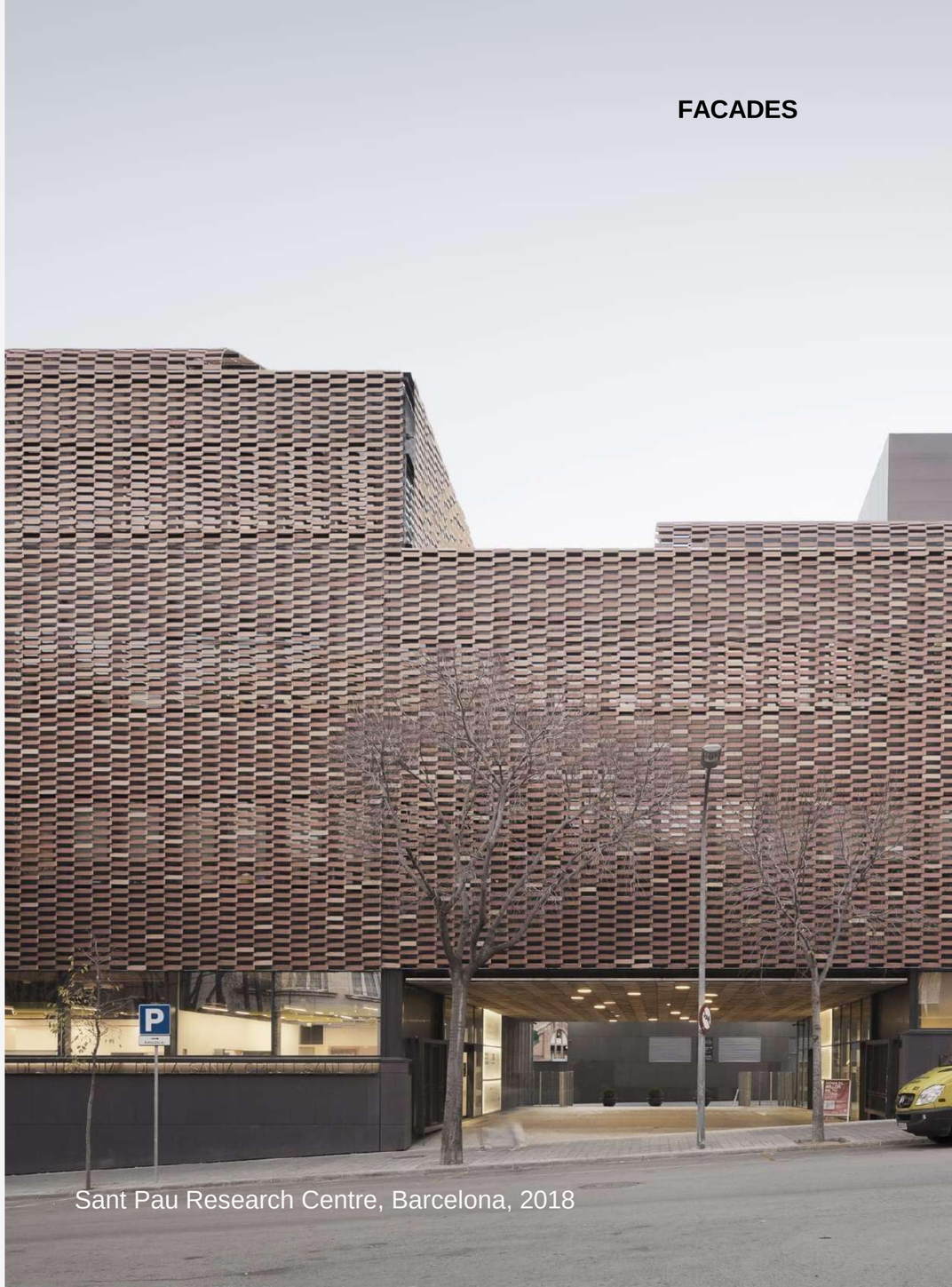
MODULACIÓN
RADIACIÓN SOLAR

The facade integrates with the setting of the protected complex, respecting its historic character
while incorporating contemporary elements.

MATERIALES
MINÍMOS
Y DURABLES

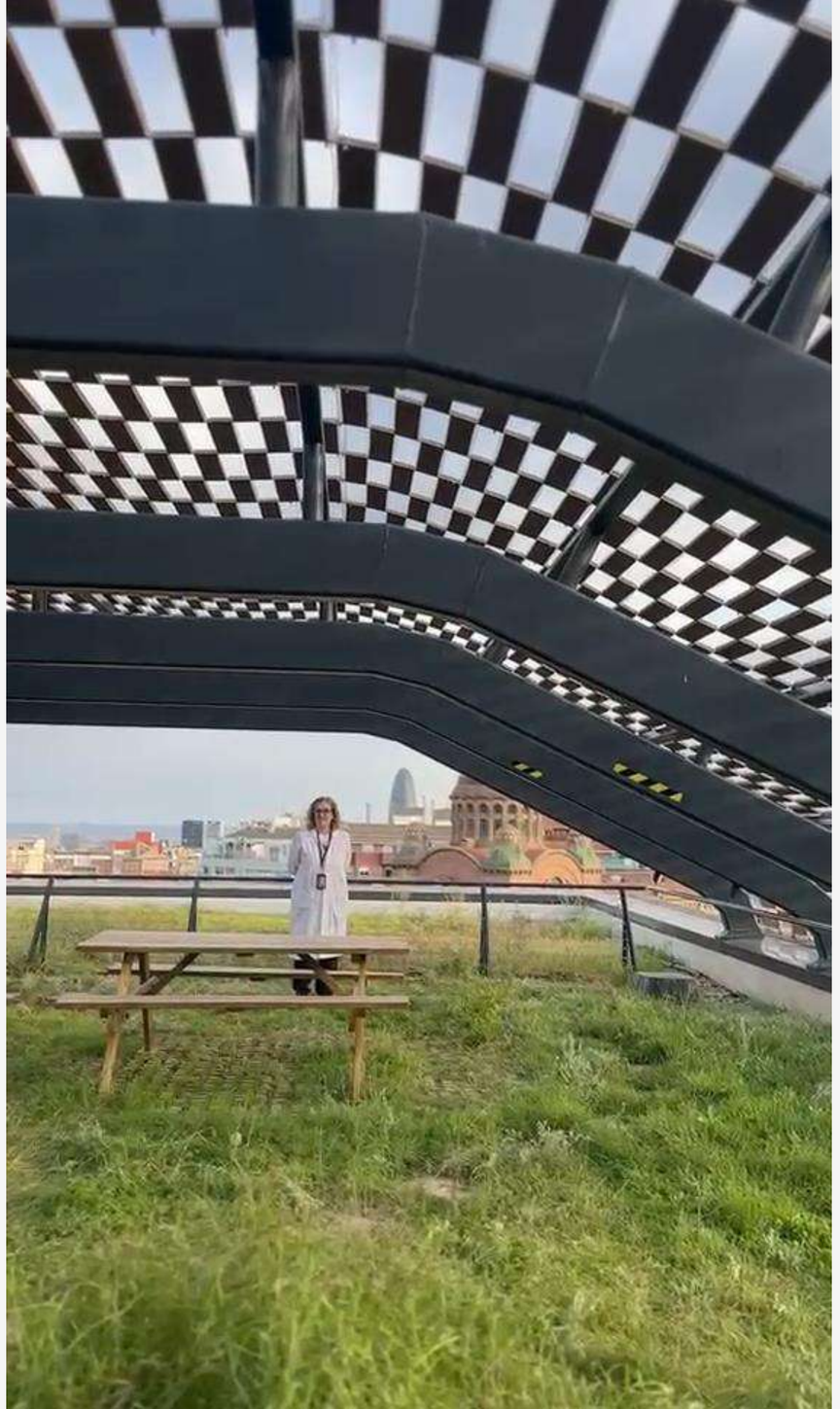
Different facade pieces have been designed with the research team, adapted to the building orientation and taking care of both integration and bioclimatic design.

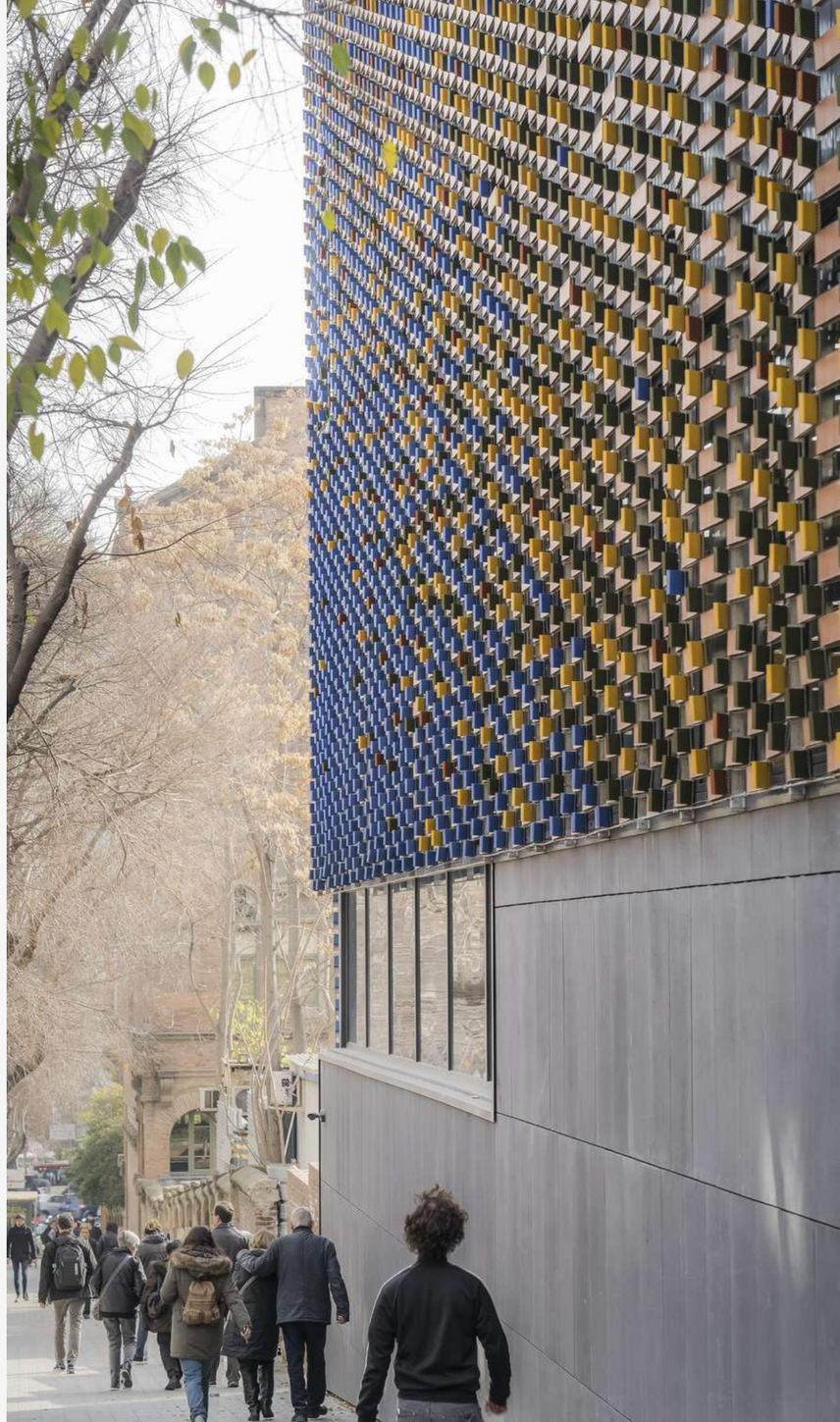
LEED Gold Certification



Sant Pau Research Centre, Barcelona, 2018







Innovating while respecting the city's natural pulse

Building a natural logic for the city

DISEÑO RESILIENCIA CLIMÁTICA

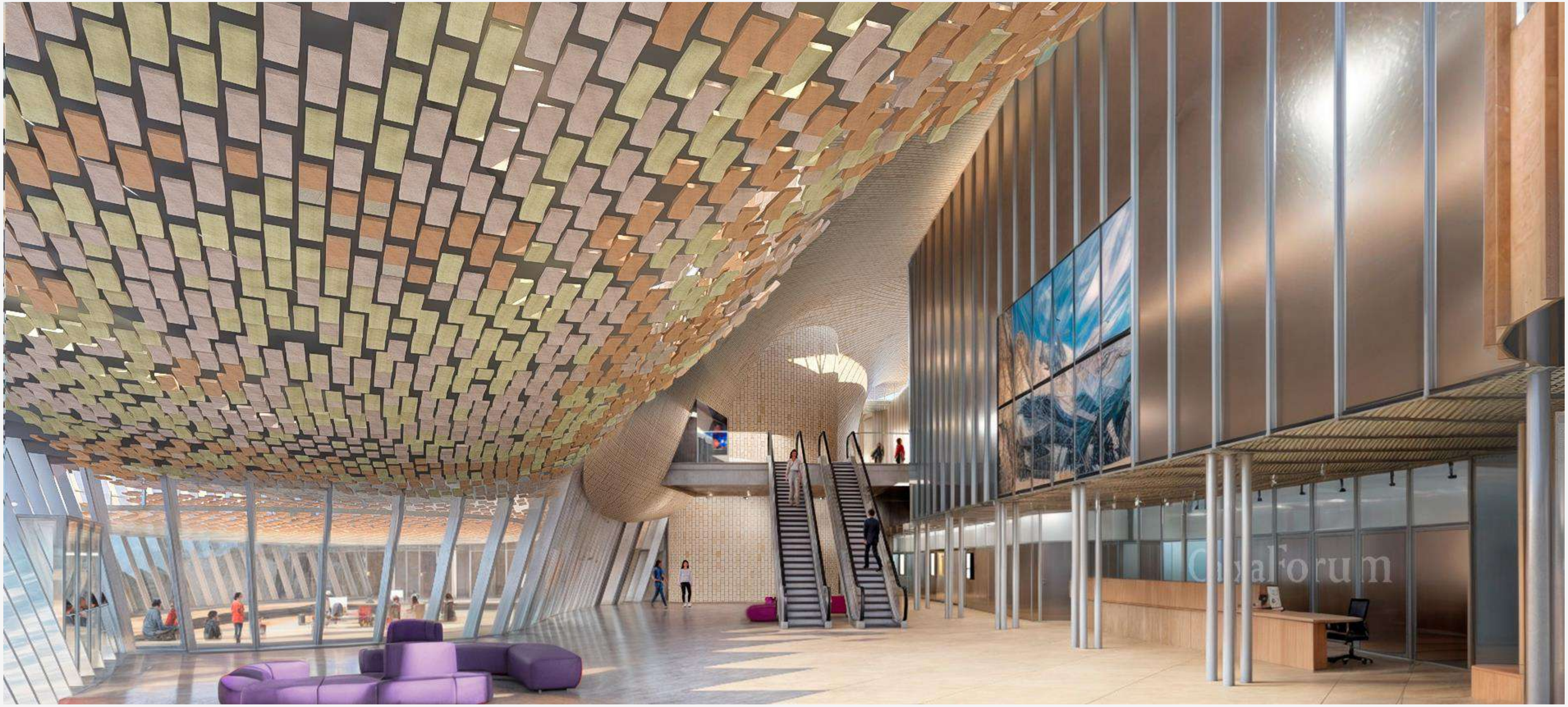
The silhouette of the building, inspired by a drop, is not only aesthetic: its geometry acts as passive solar protection and adapts to the environment to improve comfort. In addition, we are studying with the manufacturer and the innovation department how to incorporate LED lighting and the double curvature of its form.

CONFORT TÉRMICO

Thanks to CFD (Computational Fluid Dynamics) simulations, the interior has been designed to support bioclimatic performance, ensuring thermal well-being and energy efficiency.



Caixa Forum Malaga, in progress



Traces of the past, infrastructure of the present.

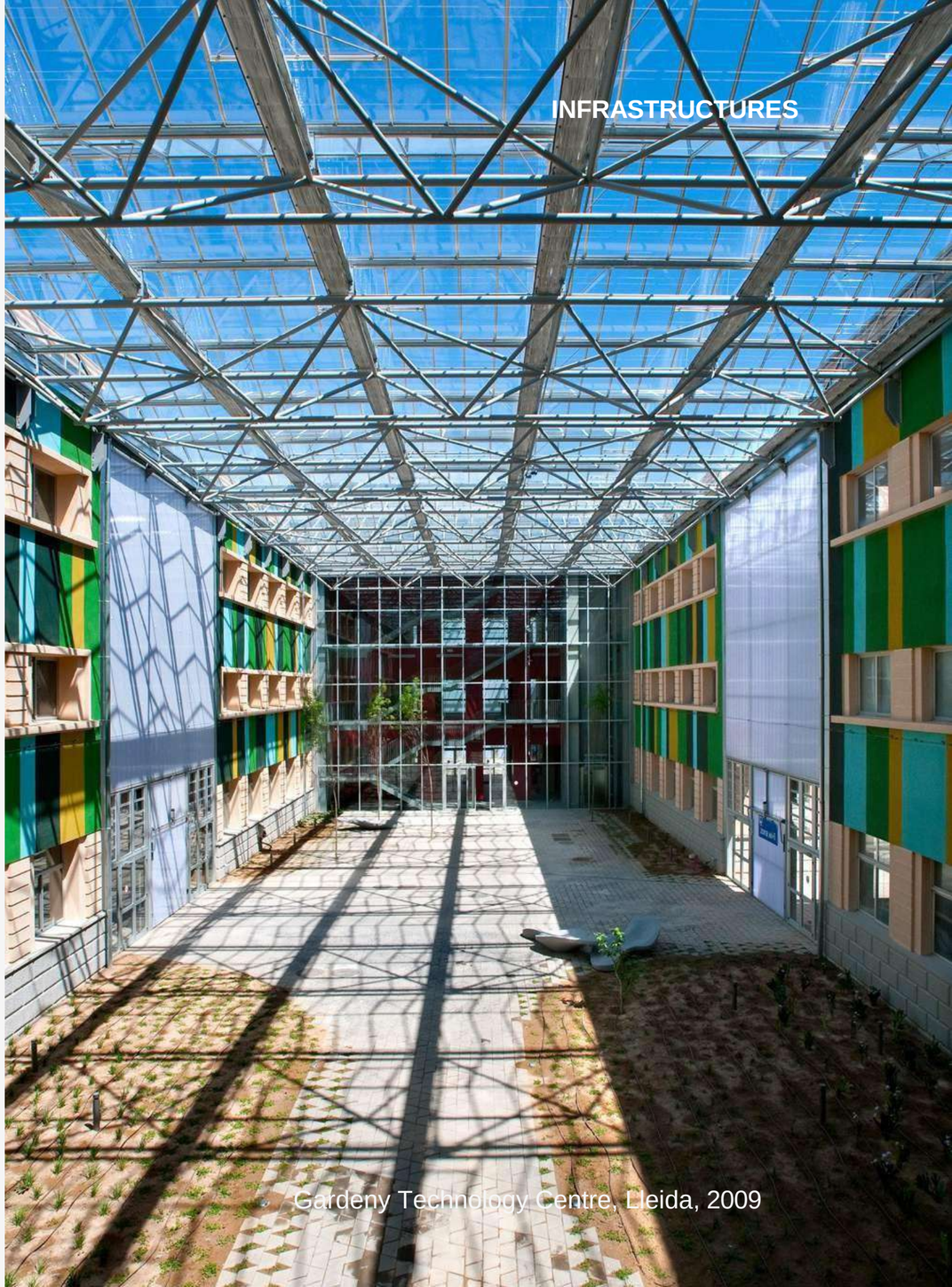
Revitalising the traces of the past

REHABILITACIÓN
REUTILIZACIÓN

The historic traces of the former barracks have been recovered and reinterpreted, incorporating them into the new research centre
to create functional and contemporary spaces.

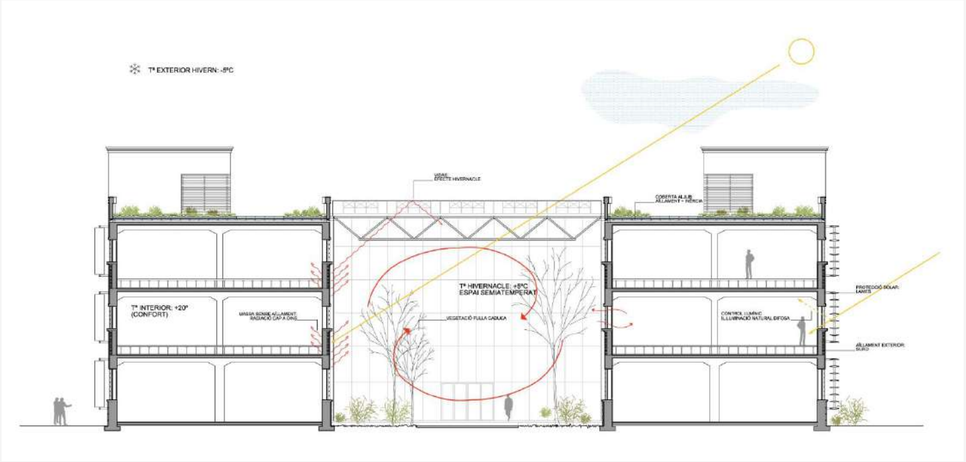
EFECTO
INVERNADERO

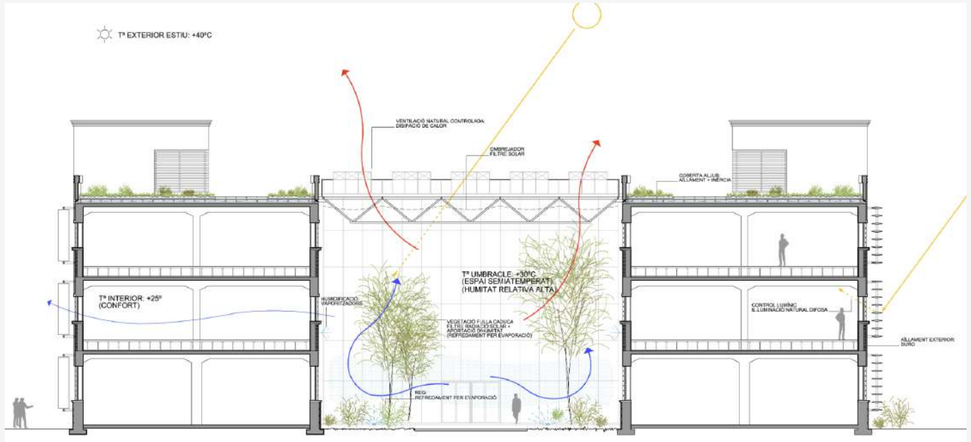
Outdoor spaces between buildings have been reused
to create a bioclimatic atrium that regulates the building environment: it captures natural light,
facilitates cross ventilation and modulates the interior temperature with vegetation and solar-control elements.



Gardeny Technology Centre, Lleida, 2009




Tª EXTERIOR HIVERN: -5ºC
Tª INTERIOR: +20º
(CONFORT)
Tª HIVERNACLE: +5ºC
ESPAI SEMIATEMPERAT
VEGETACIÓ FULLA CADUCA
PROTECCIÓ SOLAR
LAMES
CONTROL LUMÍNIC
ILLUMINACIÓ NATURAL DIFOSA
ALLAMENT EXTERIOR
DURO


Tª EXTERIOR ESTIU: +40ºC
VENTILACIÓ NATURAL CONTROLADA
DISIPACIÓ DE CALOR
OMBREJADOR
FILTRE SOLAR
COBERTA ALJUB
ALLAMENT + INERCIA
Tª INTERIOR: +25º
(CONFORT)
HUMIDIFICACIÓ
NAMORTEJADORS
Tª UMBRACLE: +30ºC
(ESPAI SEMIATEMPERAT)
(HUMITAT RELATIVA ALTA)
VEGETACIÓ FULLA CADUCA
FILTRE MAGNÍFICO DE LUM +
APORTACIÓ SOLAR EN
(REFREDAMENT PER EVAPORACIÓ)
CONTROL LUMÍNIC
ILLUMINACIÓ NATURAL DIFOSA
ALLAMENT EXTERIOR
DURO
REG
REFREDAMENT PER EVAPORACIÓ

Biophilic well-being with industrialised construction

Multiplying ground floors by freeing the ground

VEGET. COMO SISTEMA

The ground floor opens up like a park, raising the building to encourage plant growth, create a climate refuge and house a pond that collects rainwater and reduces the heat-island effect.

ESPACIOS INTERMEDIOS

The interior courtyard helps regulate the temperature of the spaces, while the large pergola provides shade and prevents overheating.



Delta Business Center, Barcelona, 2025



Concept

1 ·TERRITORY

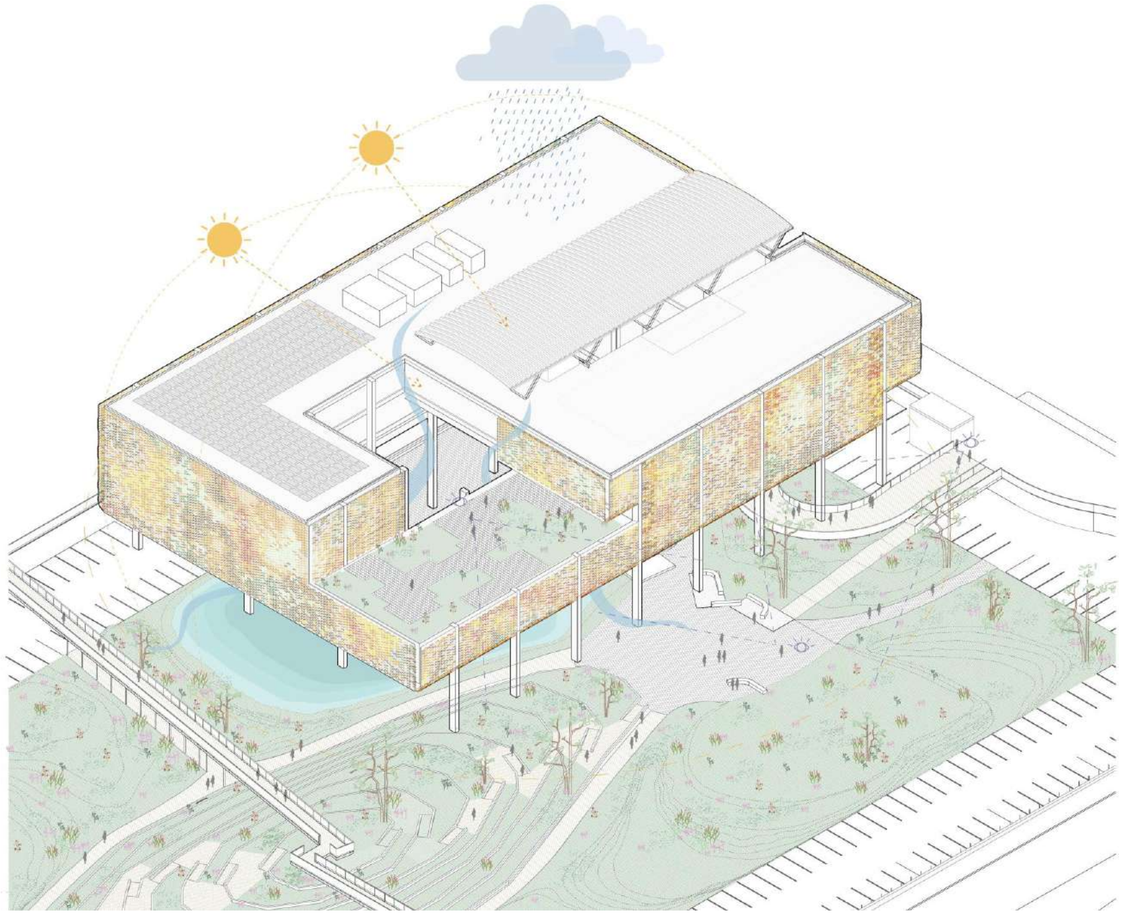
The building is conceived as a suspended volume, through which the landscape and its topography flow freely. By raising the building, the land is returned to the landscape, allowing ecological continuity, natural water management and the activation of the lower space as climatic infrastructure.

2 · A FLUID SYSTEM

The building can be walked around. External stairs link the levels and landscaped paths of each floor, until they reach the entrance of each office unit.

3 · NATURAL LIGHT

The sinuous contour and courtyard ensure natural light comfort with changing light throughout the day and seasons. The double façade allows the light to be nuanced and provides control over solar radiation.



4 · THE SKIN OF THE BUILDING

An industrialized metal façade generates reflections of varying colors. The changing image, inspired by one of Gauguin's paintings, imitates the colours of the Llobregat protected area.

5 · OUTDOOR SPACES

The patios and the roof, on different levels, provide light, natural ventilation and a space for relaxation.

The use of these terraces together with the interior spaces favors the connection and interaction between people and can also be used for occasional events.

6 ·FLEXIBLE SPACES

The functionality of the building is housed in an open, unprogrammed office system, designed to absorb future changes in use without the need for large additional investments.

Una fachada inspirada en la naturaleza



The façade is 100% industrialised and is integrated into a concrete structure resolved on three levels coordinated by different industrialists, who share support elements to optimise resources and reuse substructures. This layered system allows precise execution, reduction of construction times and minimization of waste. Level 1 - Prefabricated Structural Enclosure

Lightweight panels pre-assembled in the workshop (modules of approximately 5 m) formed by a metal frame with integrated gussets to fix the outer layers. The substructure combines lacquered steel profiles coated on both sides with galvanized steel sheet, with inner rock wool insulation, guaranteeing high thermal and acoustic insulation, as well as precise industrialized execution. System designed for dry assembly, with the possibility of disassembly and maintenance.

Level 2 - Intermediate layer of facilities

Technical space fragmented by sections that allows the optimised distribution of facilities without increasing the structural thickness. This layer shares supports with the first level, reducing material and complexity. The integration of services within the façade improves spatial efficiency and facilitates future adaptations.

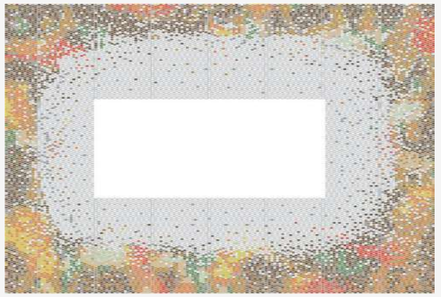
Level 3 - Denvelops industrialized hybrid façade system This is the main element of innovation. It is an industrialized hybrid metallic fabric with a density of 50%, increased to 80% compared to installation skates, where it acts as sun protection and visual filter.

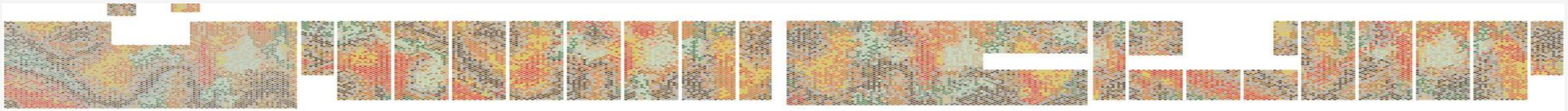
The skin is made up of lacquered platelets in 10 different colours, arranged mostly vertically (approximately 24 cm apart) and horizontally in front of the openings. This geometric variation generates chromatic vibration and adaptive solar control. The solution allows passive climate control through the reflection and dispersion of solar radiation, reducing the need for active air conditioning.

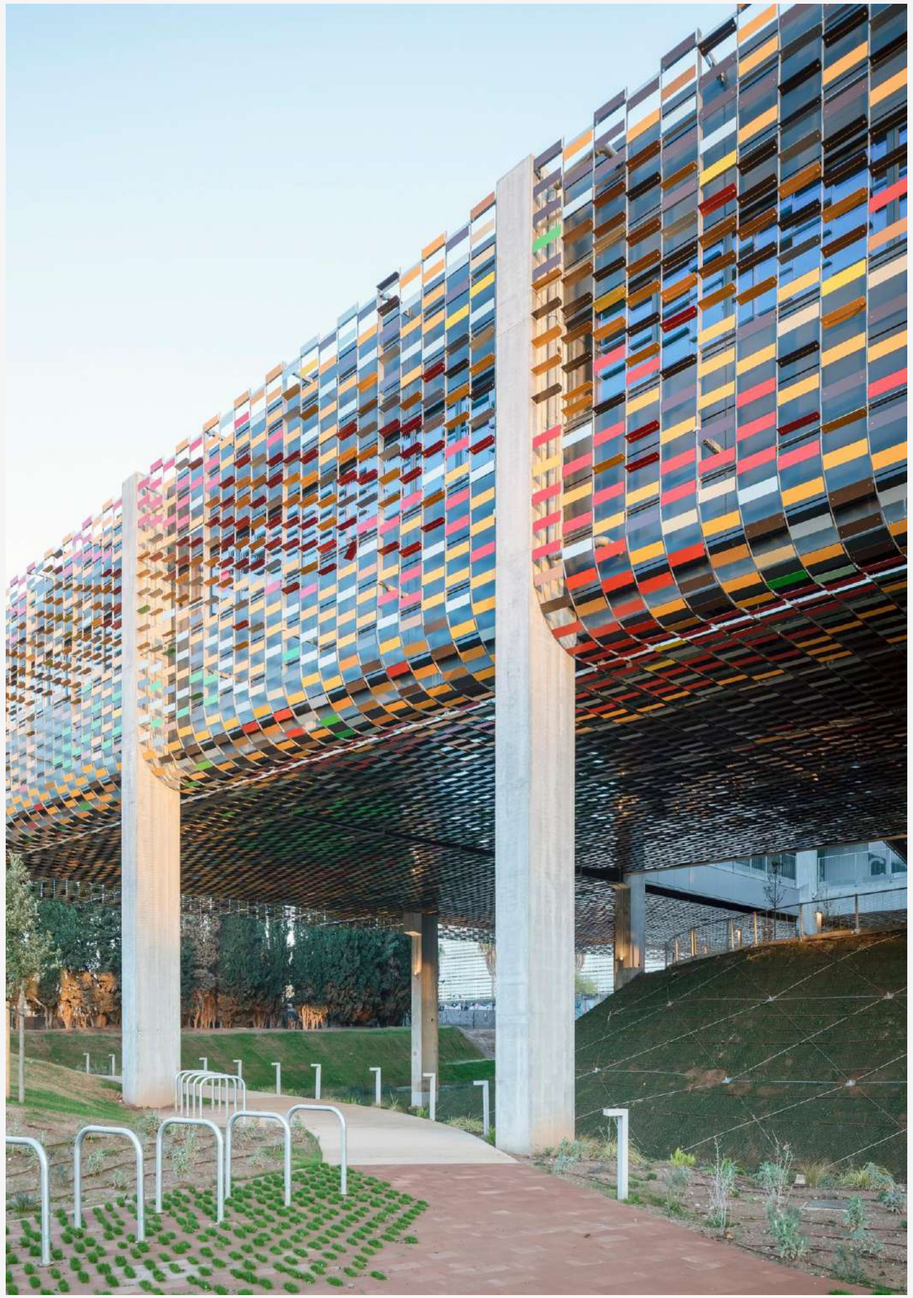
The chromatic composition is inspired by a work by Paul Gauguin, reinterpreting the tones of the Llobregat Delta
—ochre, green and earthy nuances— to establish a landscape link with the natural environment.

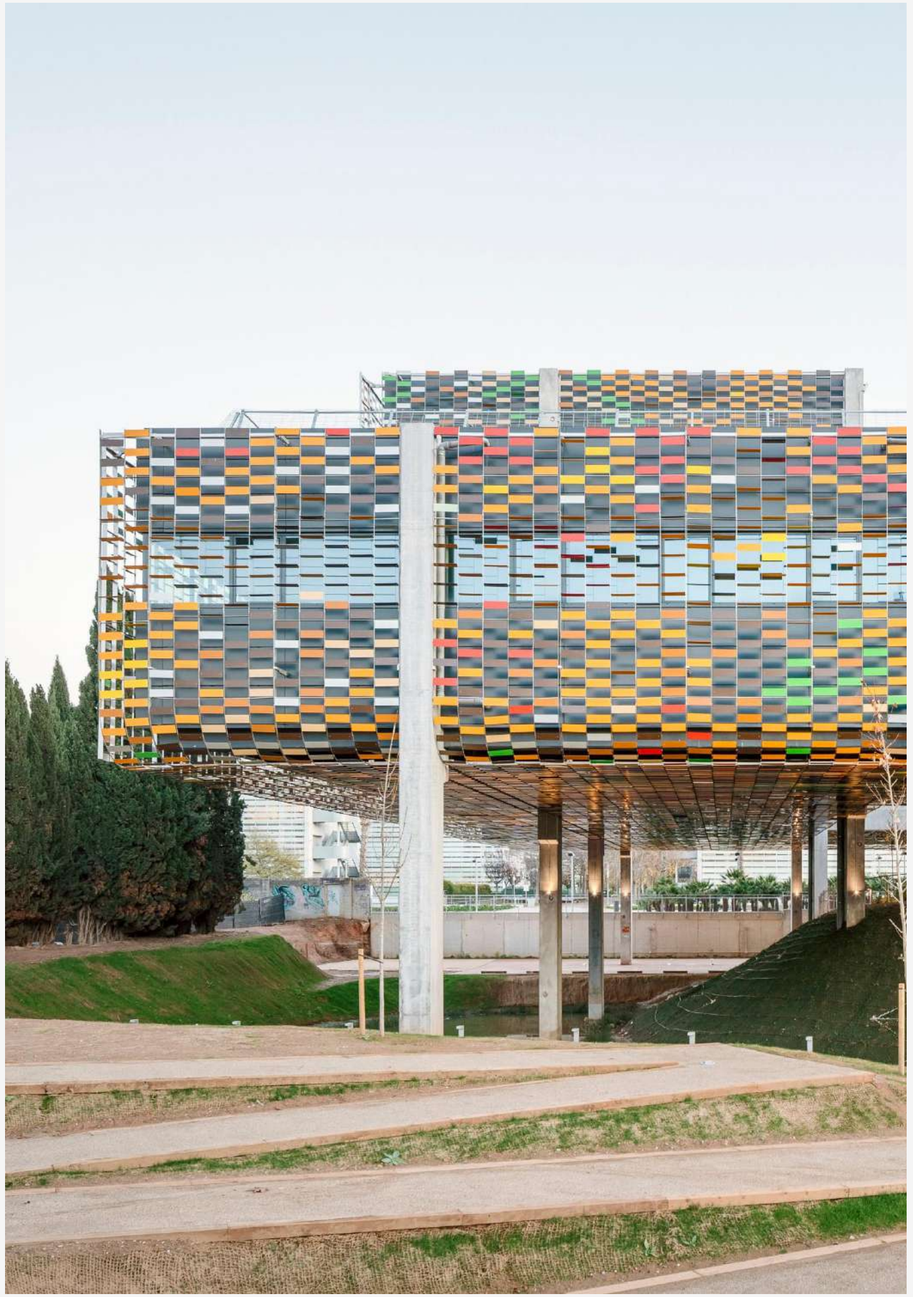






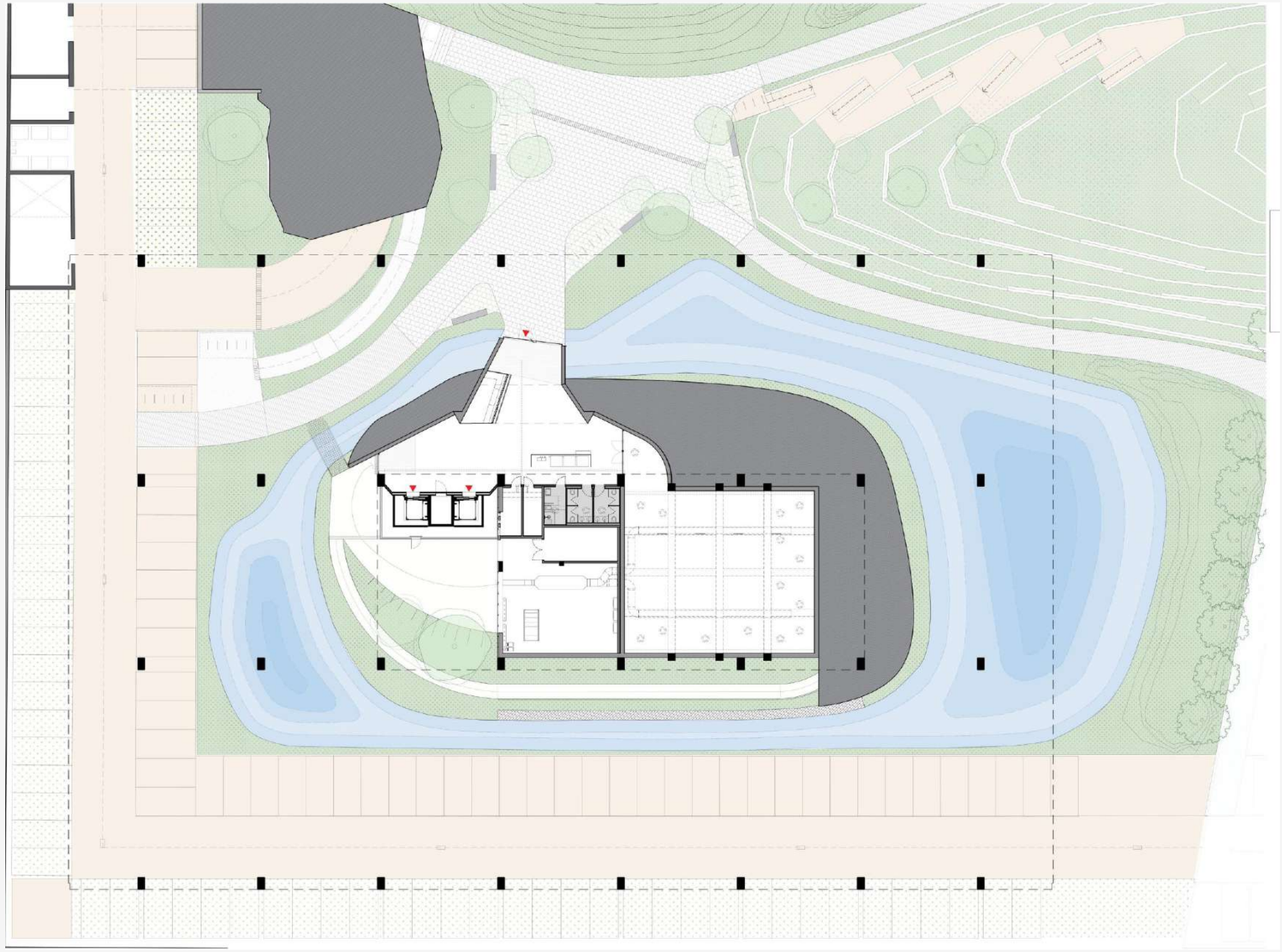






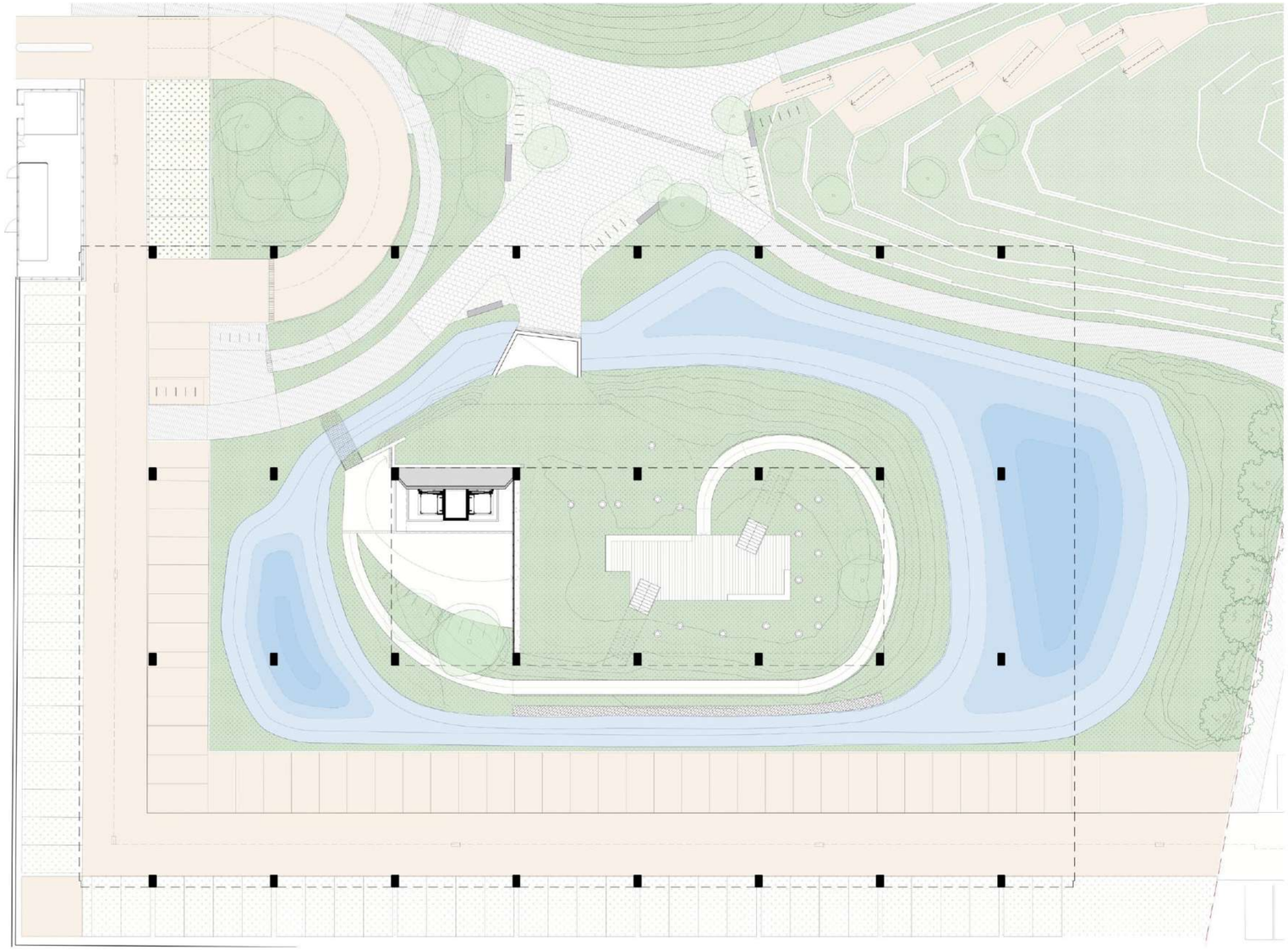
Planta sótano

Reception
Machine
Room



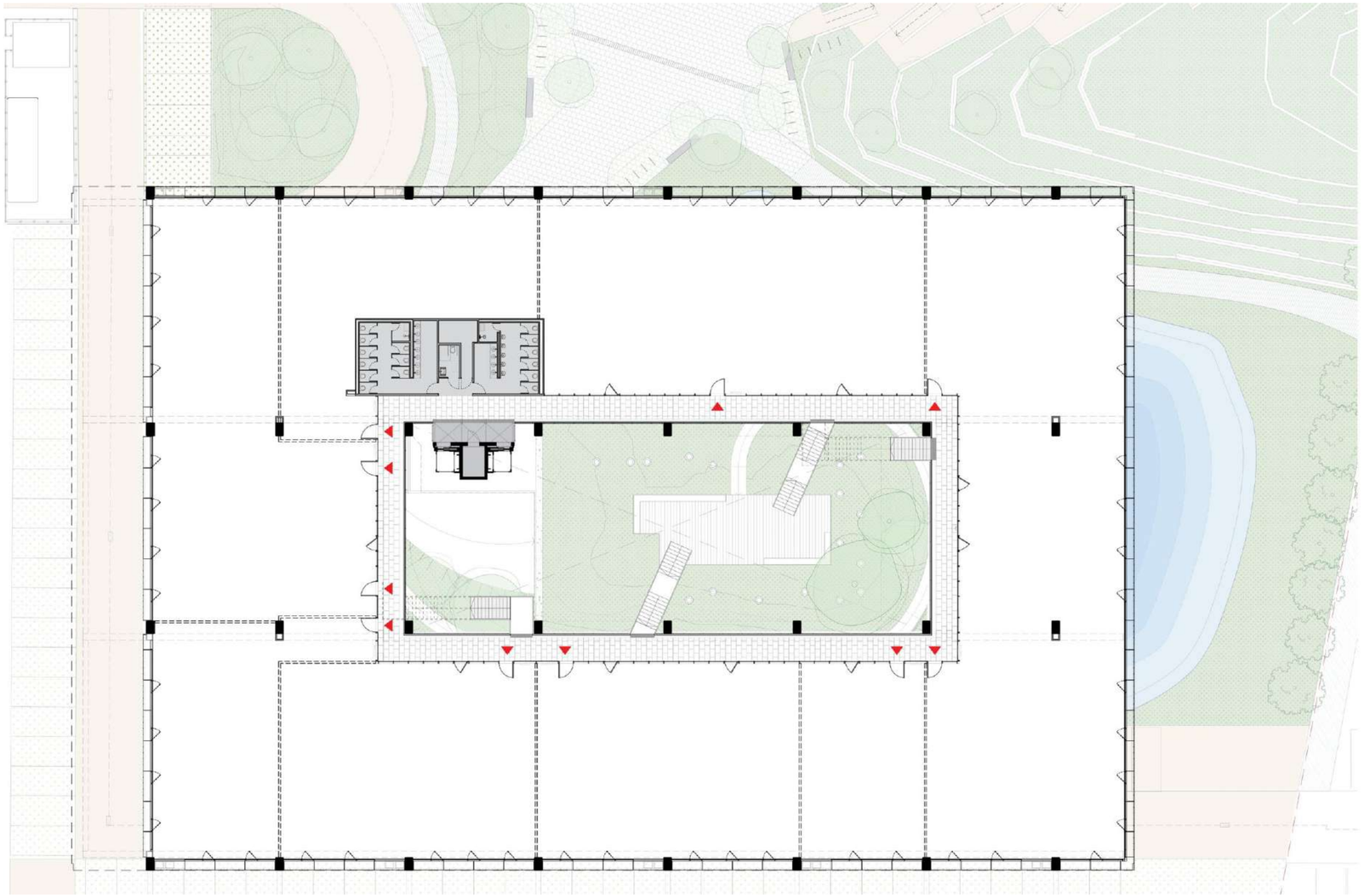
Ground floor

Large green courtyard with hill



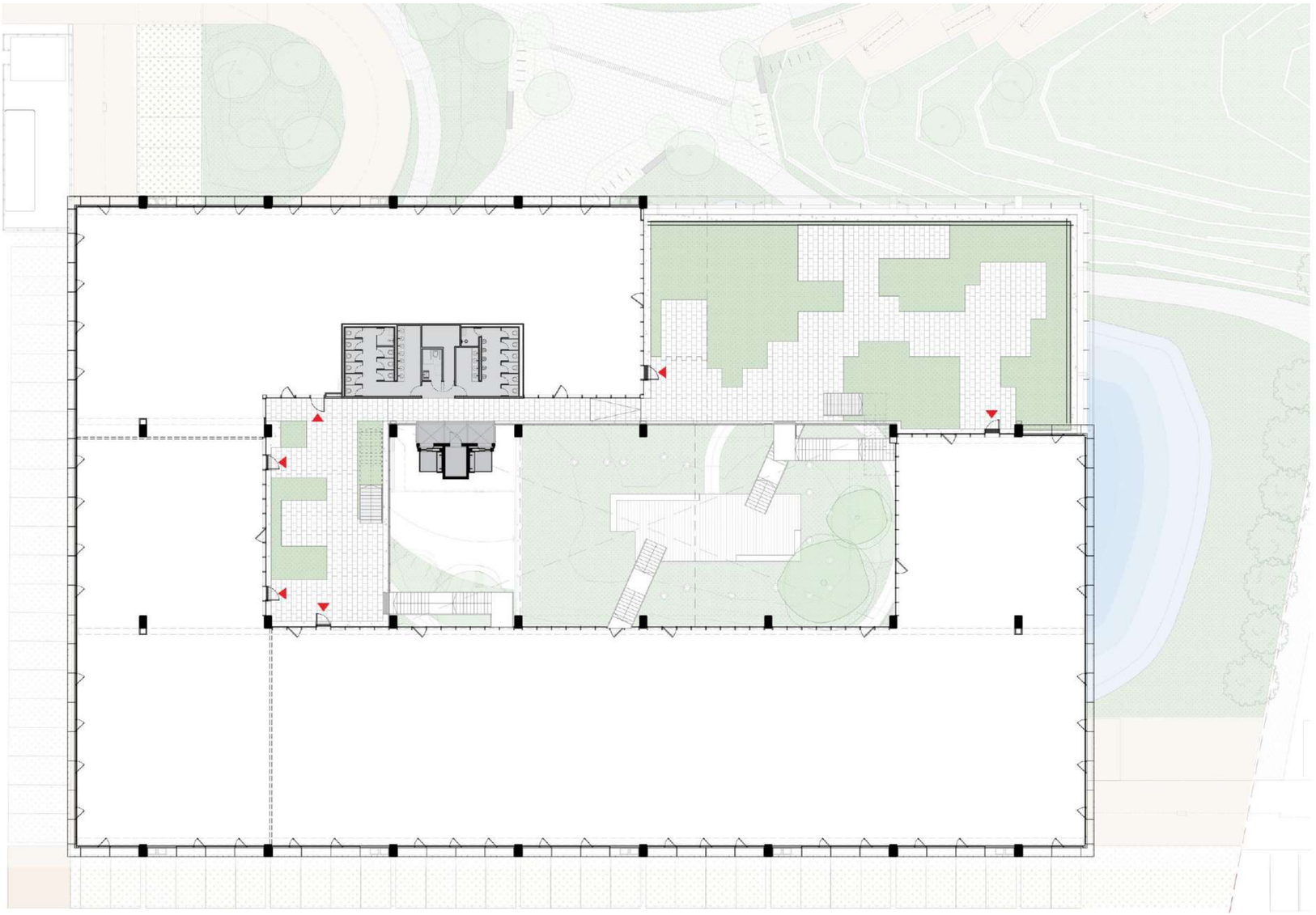
First floor

Offices
Flexible Spaces



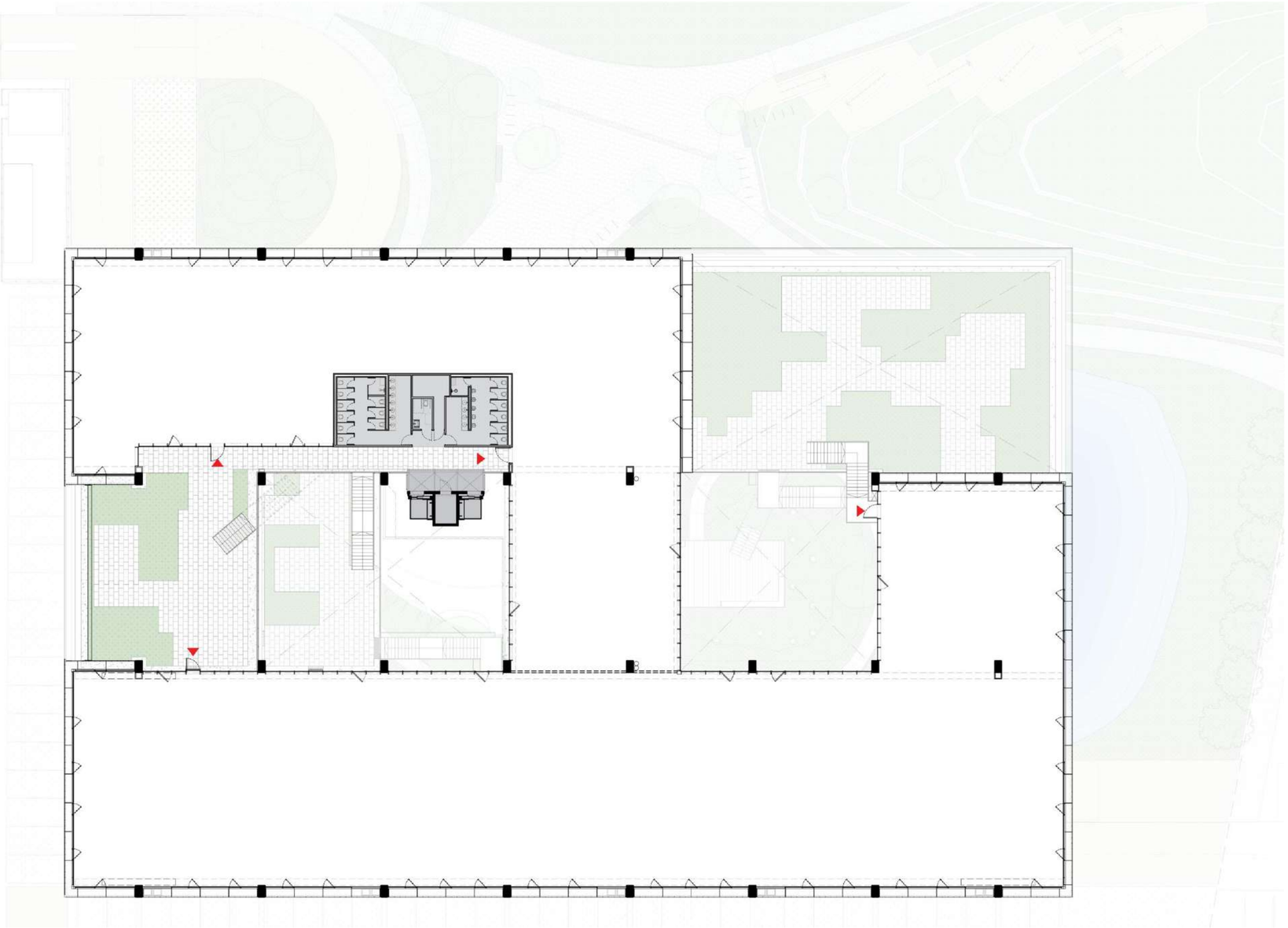
Second floor

Oficinas
Espacios Fexibles
Terrazas



Third floor

Offices Flexible
Spaces
Terraces





Adaptability of spaces

The structure is resolved by means of large spans and a clear modulation that completely frees up the interior space, allowing its flexible use without physical constraints. The structural materials, sized to guarantee durability and bearing capacity, act as a permanent infrastructure prepared for different load and occupancy scenarios.

Mountable and removable materials

The project incorporates materials that can be assembled and disassembled by means of dry systems and prefabricated components that facilitate their assembly and replacement. This strategy allows the space to be adapted quickly, reduce waste and promote the reuse of elements. Architecture is thus conceived as a reversible and evolutionary system, aligned with the principles of circular economy.

Traceable materials

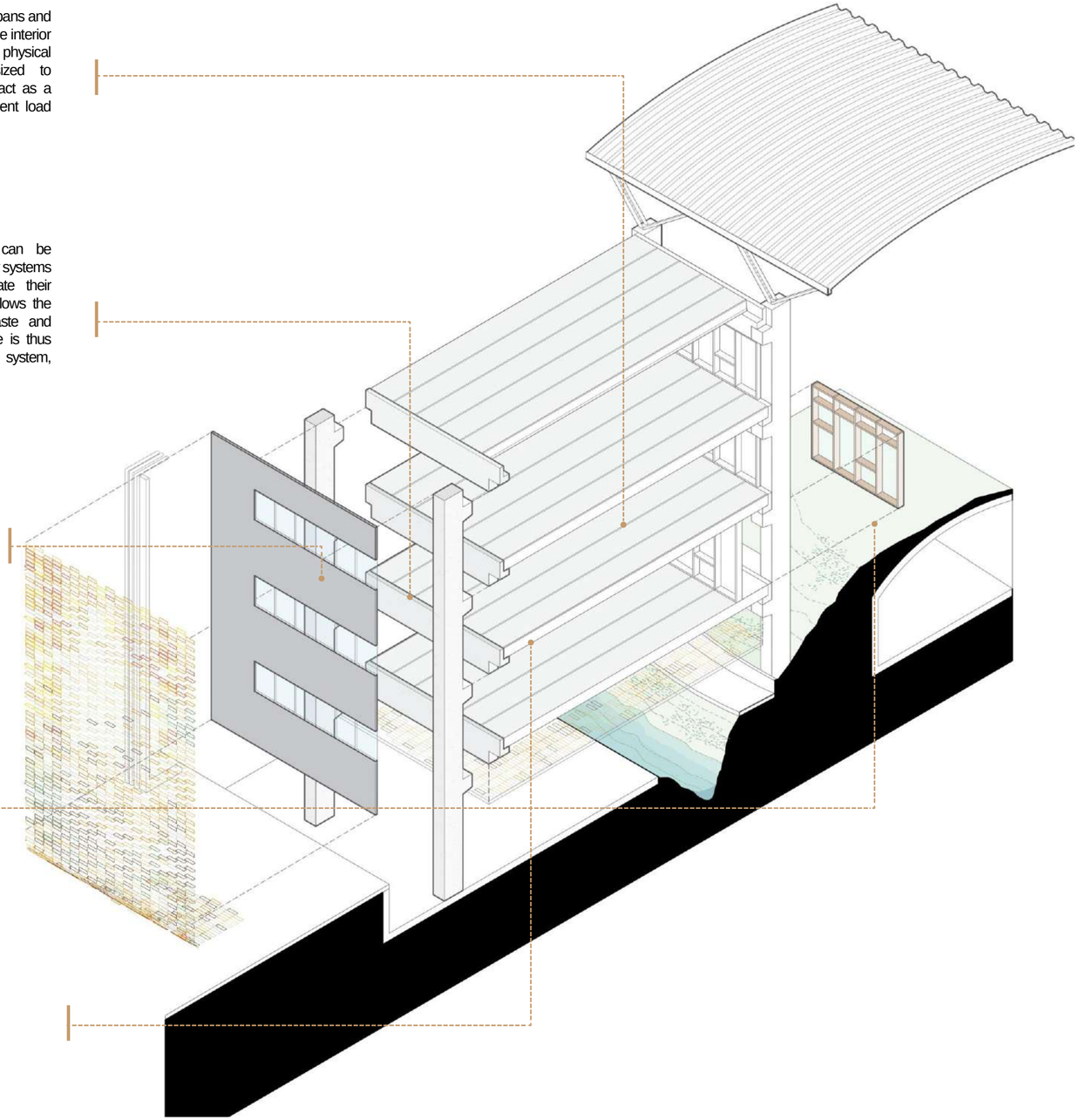
The project prioritizes the use of traceable materials with verified origins and associated environmental documentation. Each component includes information on its origin, composition, and performance, enabling effective monitoring throughout its entire life cycle. This transparency helps reduce environmental impacts, ensure quality, and promote a responsible and circular approach to architecture aligned with sustainability principles.

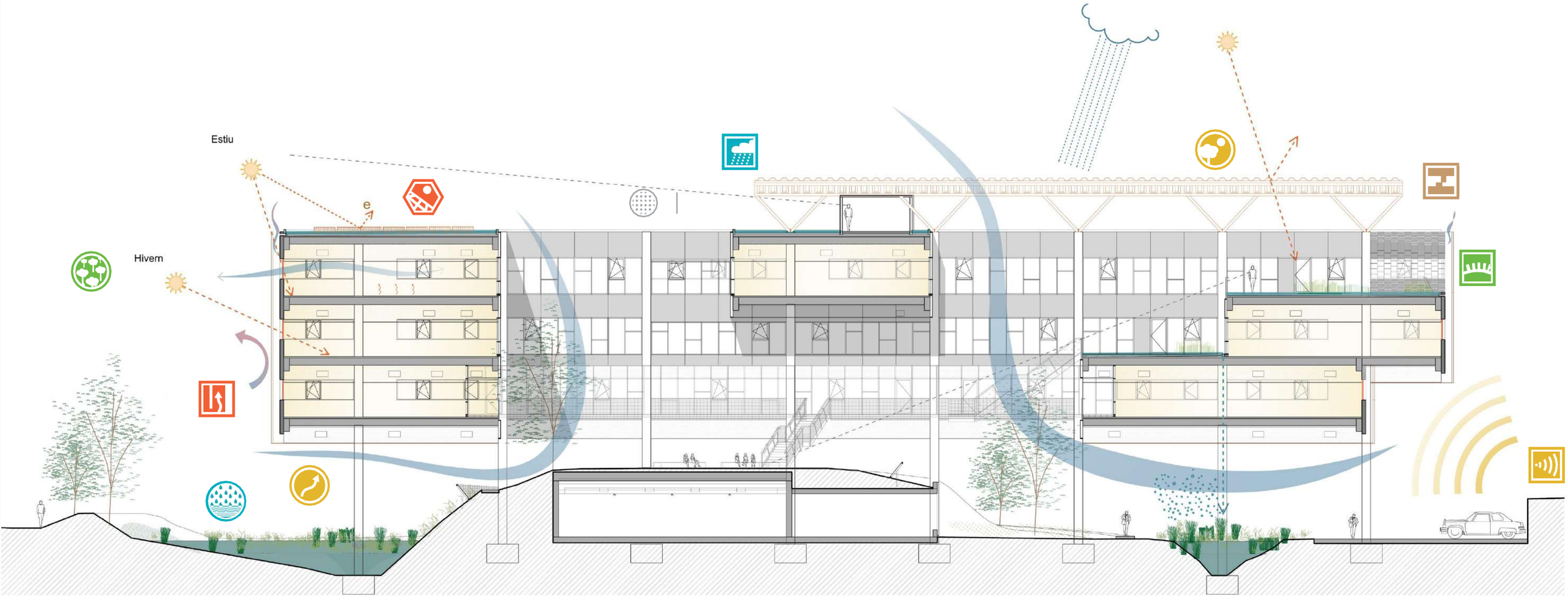
Comfortable materials

The aim is to integrate wood into the interior through carpentry with high thermal performance, capable of withstanding extreme weather conditions, while providing comfort, warmth and well-being in the interior environment.

Recyclable materials

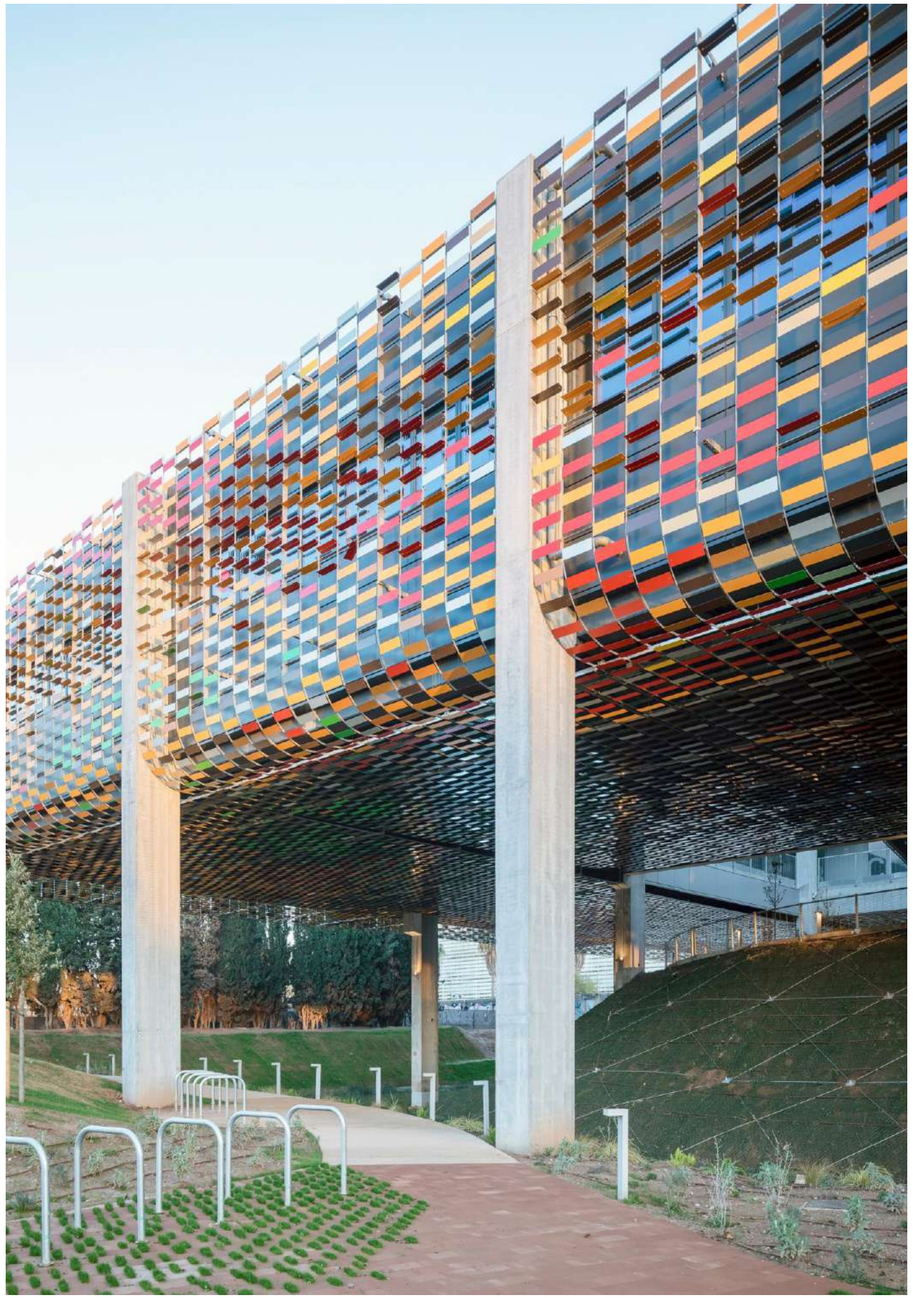
Recyclable materials that can be reintroduced into new production cycles at the end of their useful life are prioritised. The selection is based on single-material components or elements that can be easily separated, facilitating their proper management, recovery, and reuse. In this way, the building reduces its environmental footprint and supports a long-term circular economy strategy.
Priorizan materiales reciclables

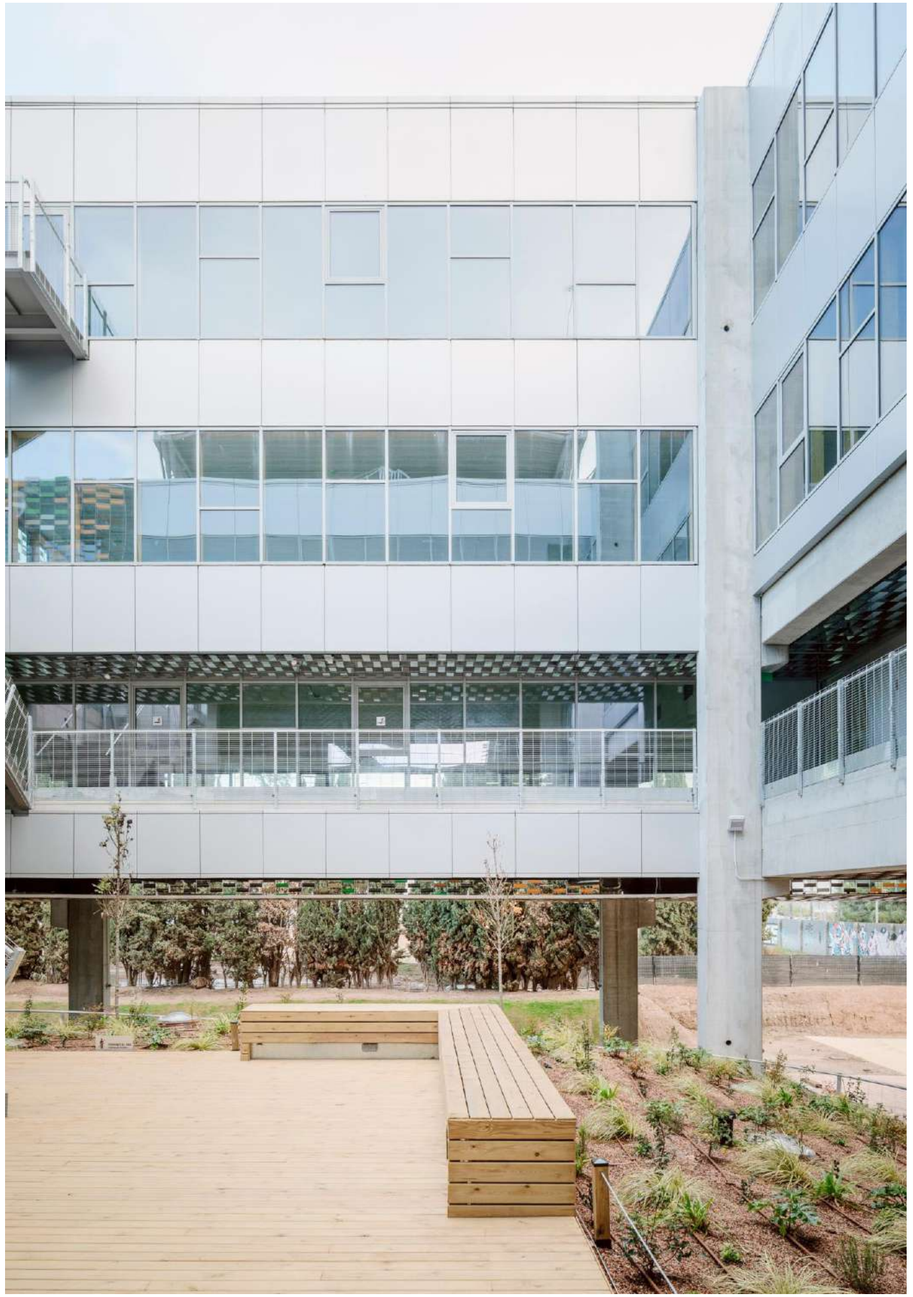




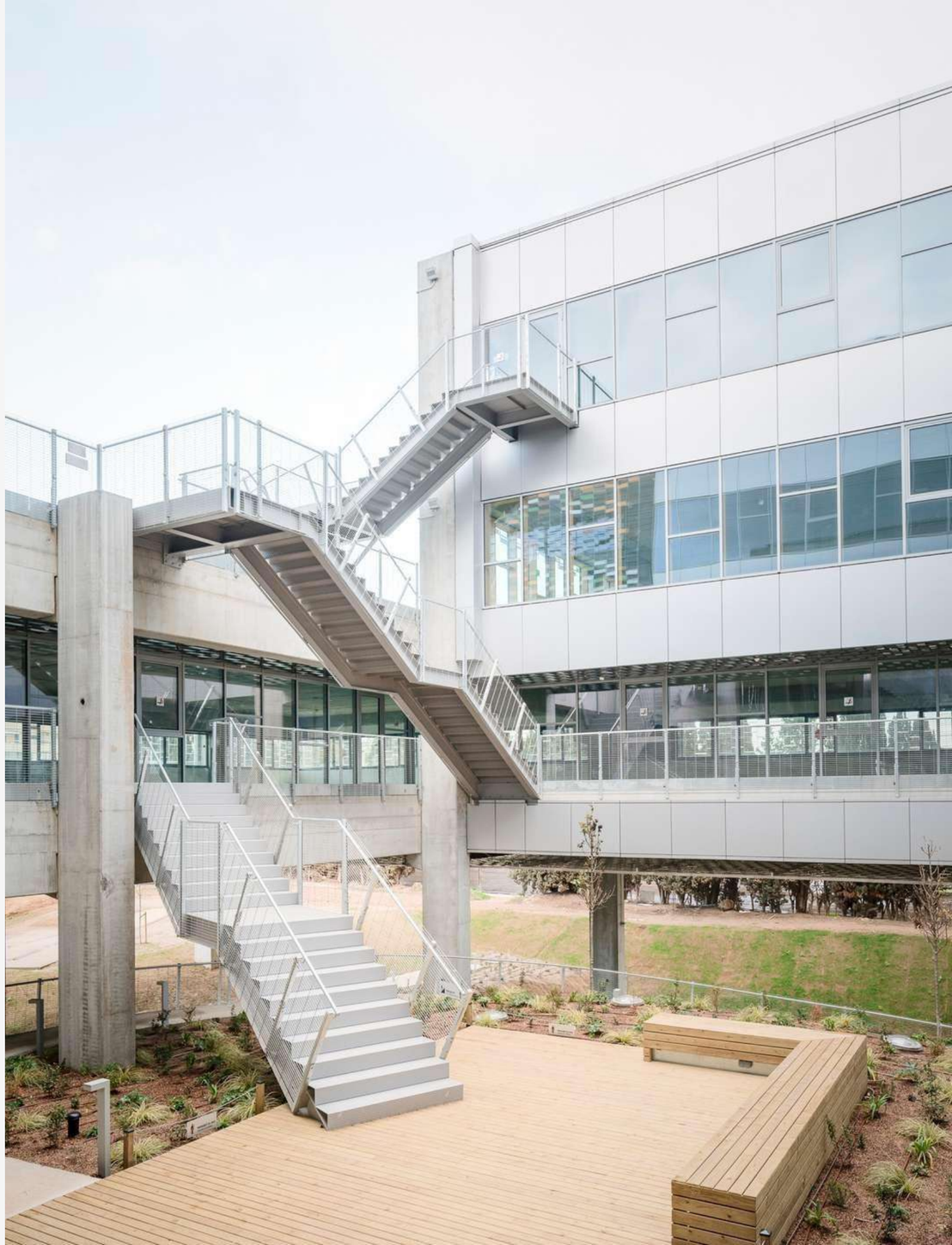
LEED GOLD
U.S. GREEN BUILDING COUNCIL
USGBC

WELL
GOLD 2020









How do we work?



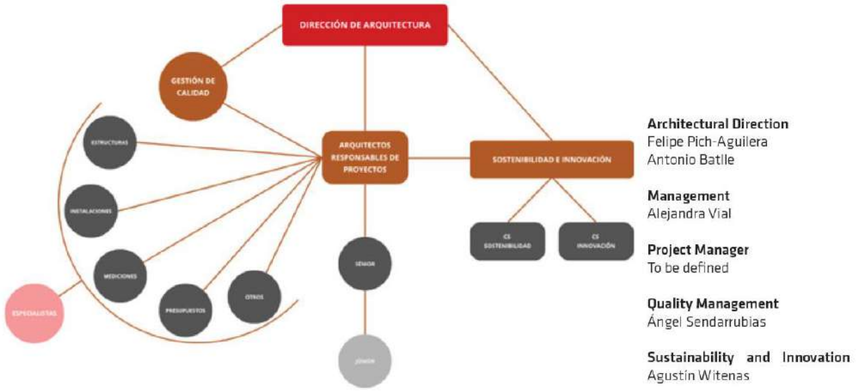
How do we work?

40 years of experience.



How we are

We are committed to an architecture that improves the quality of spaces, allows for readaptation over time and delivers more with less. We design user centreded spaces, that adapt to different uses and times, that promote well-being, with ventilation natural light, healthy light, greenery and materials Non-toxic.



Architectural Direction
Felipe Pich-Aguilera
Antonio Batlle

Management
Alejandra Vial

Project Manager
To be defined

Quality Management
Ángel Sendarrubias

Sustainability and Innovation
Agustín Witenas

What we are

We have been researching, building and designing for 40 years with four pillars:

Sustainability

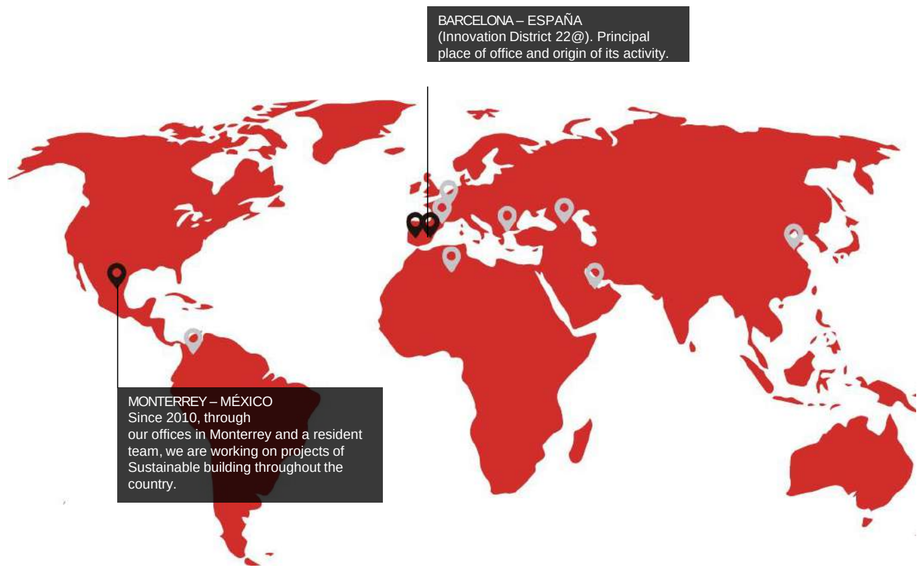
Industrialized Construction

BIM Technology and Digitalization

Innovation in Construction Systems

- We understand sustainability not only as the reduction of environmental impact, but as a comprehensive approach that must be translated into project decisions capable of optimising construction and maintenance costs, reducing execution times and maximising the functional, economic and social performance of buildings throughout their useful life.

Where we are



Ongoing Projects



UNIVERSITY HOSPITAL: "*Hospital and landscape of 100,000 m2*



MUSEUM: "*Caixa Forum Museum and Park Malaga"*



INDUSTRIAL COMPLEX: "*We Colors"*



URBAN THEATRE : Genesis, "*Grupo Focus"*



MODERNIST HOSPITAL COMPLEX: "*San Pau Cuinas University"*



CITY COUNCIL: *"Ayuntament de Espluques"*



OFFICE COMPLEX AND PARK: *"Delta bussines center"*



UNIVERSITY CAMPUS: *UIC "Universidad Internacional de Catalunya"*



SPORTS CENTER AND LANDSCAPE*: "Tec Ferrer Salat tennis club"*



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Sustainability, our commitment.

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