

# Company Presentation

Engineering by Practice  
Management by People  
Sustainability by Passion



# What we are.

FIRM OVERVIEW

NEW YORK

LONDON  
PARIS  
GENEVA  
MILAN  
FLORENCE  
ROME

RIYADH  
DUBAI

**+6500**  
Projects

**+10M**  
Sqm projects

**+60**  
Countries

**+30**  
Years of  
experience

*ESA engineering is an international multi-disciplinary consultancy firm providing all-round integrated consulting services to a broad range of markets.*

# Who we are.

FIRM OVERVIEW

NEW YORK

LONDON  
PARIS  
GENEVA  
MILAN  
FLORENCE  
ROME

RIYADH  
DUBAI

**47M€**  
2025 turnover

**140**  
Active projects

**21**  
Active BIG projects\*

**+400**  
Staff

**75%**  
graduates

**47%**  
Female

**7%**  
R&D

**7**  
Languages

\*over 20M€ construction value

# Our values.



## TRUST



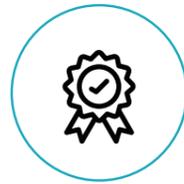
We trust in the reliability and talent of every project team member. ESA promotes honesty and transparency, celebrating successes to build trust and nurture growth within the team.



## ONE TEAM



By aligning around a shared purpose, we achieve new breakthroughs. A close-connected community fuels mutual inspiration and turns everyday work into meaningful achievements.



## EXCELLENCE



We set high standards and push boundaries to achieve the best possible results. The project's success is defined and shaped by the quality of the individuals.



## INNOVATION



We break boundaries and redefine what's possible, consistently challenging the status quo. With ESA, we bring an innovative team that embraces change and explores new ways of working.

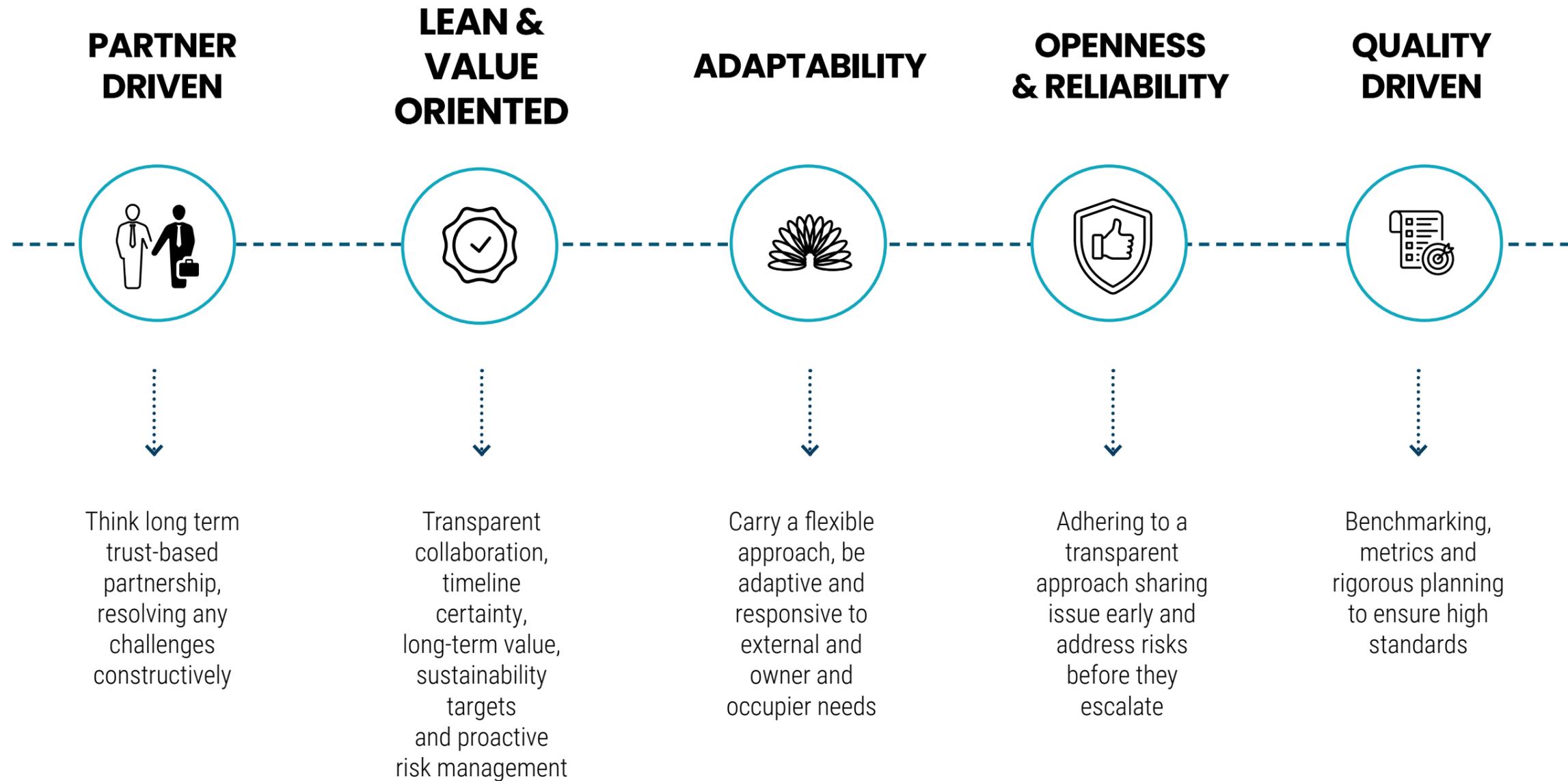


## TENACITY

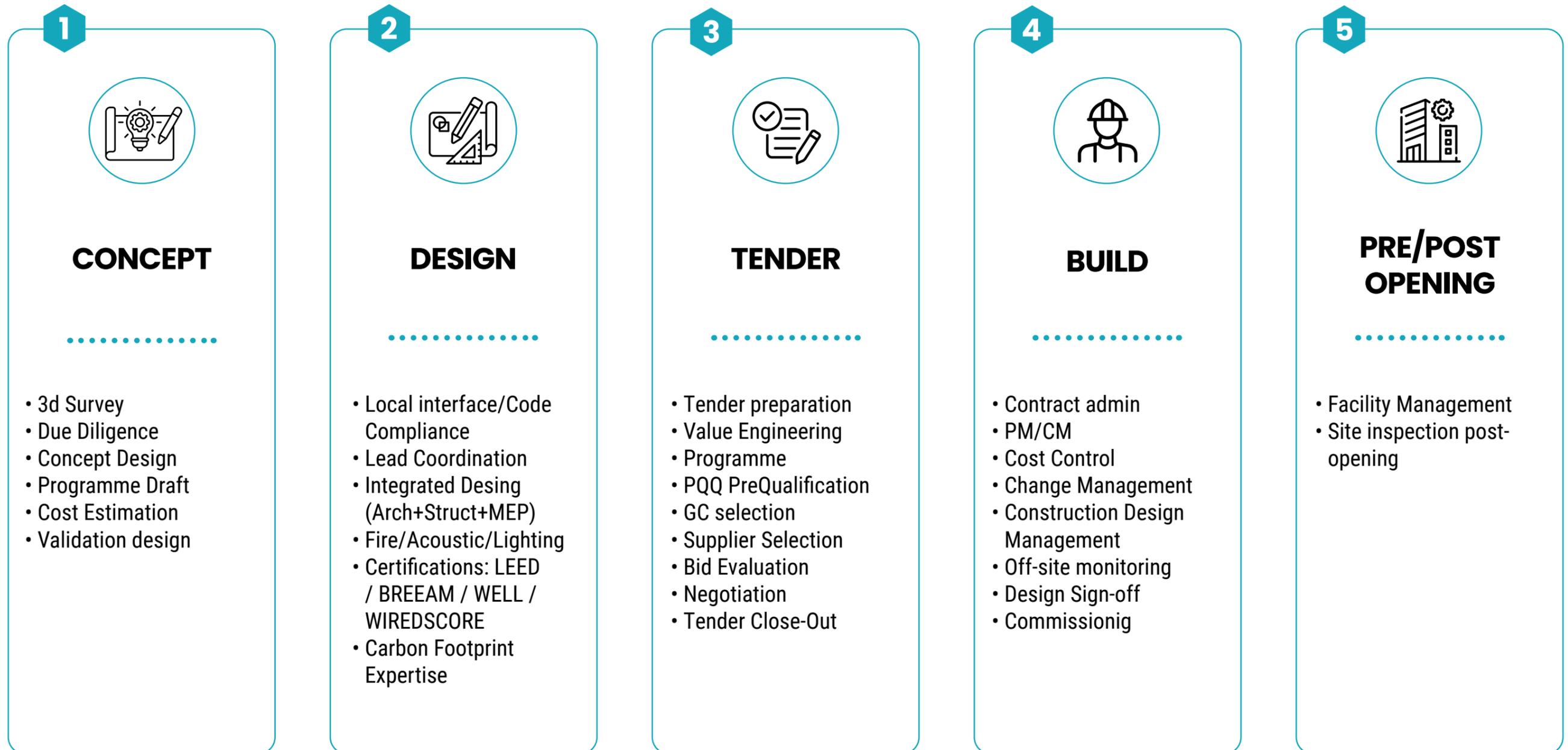


We approach challenges with determination and resilience, staying focused on our goals despite obstacles, learning together and moving forward as a team.

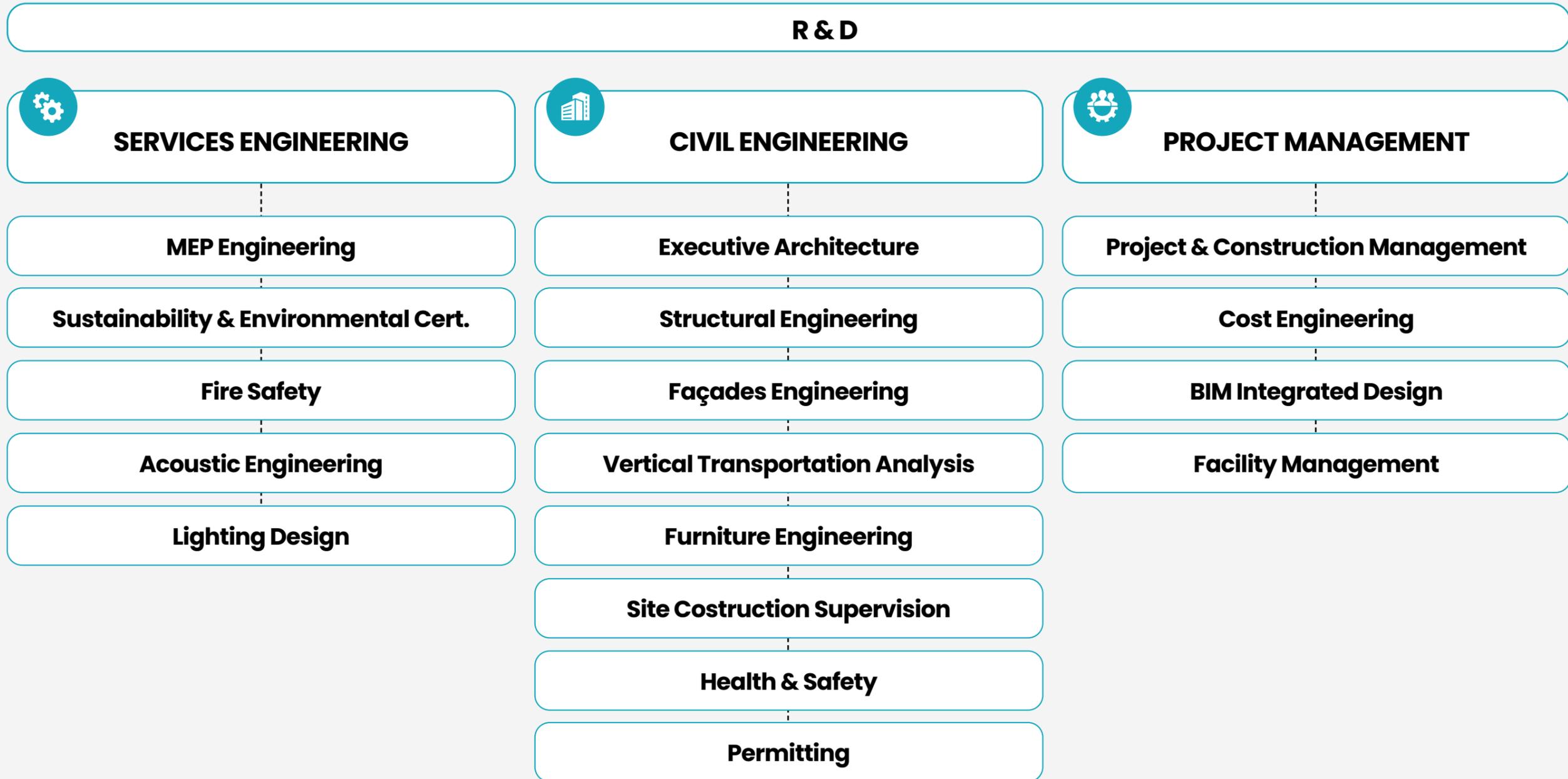
# Our behaviours.



# ESA – Your partner at every step.



# Our Services.



# Certifications & Associations.



**Quality Management System**



**Environmental Management System**



**Health and Safety Management System**



**Uni PdR 125:2022 Certification**



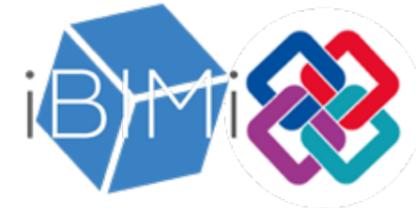
**Italian Diversity Charter**



**231 Organization Model**



**EFCA Member**



**iBIMI Member**



**Ecovadis**



**UNICMI Member**



**USGBC Member**



**GBC Italia Member**

# MEP Systems Engineering.

ESA engineering has been offering Technological Systems design services, commonly called MEP Design (from the acronym Mechanical, Electrical and Plumbing), **for over 30 years**. Our professionals Consultancy follows the evolution of the building at all stages, from initial decision-making processes to design, to specialist construction management and final testing. MEP systems represent **the nervous system of a building**, a key factor in determining the comfort of future occupants. Consultancy of an integrated team of mechanical, electrical and plumbing engineers transforms a building into a welcoming and livable space for the users who will visit it.



For over 30 years



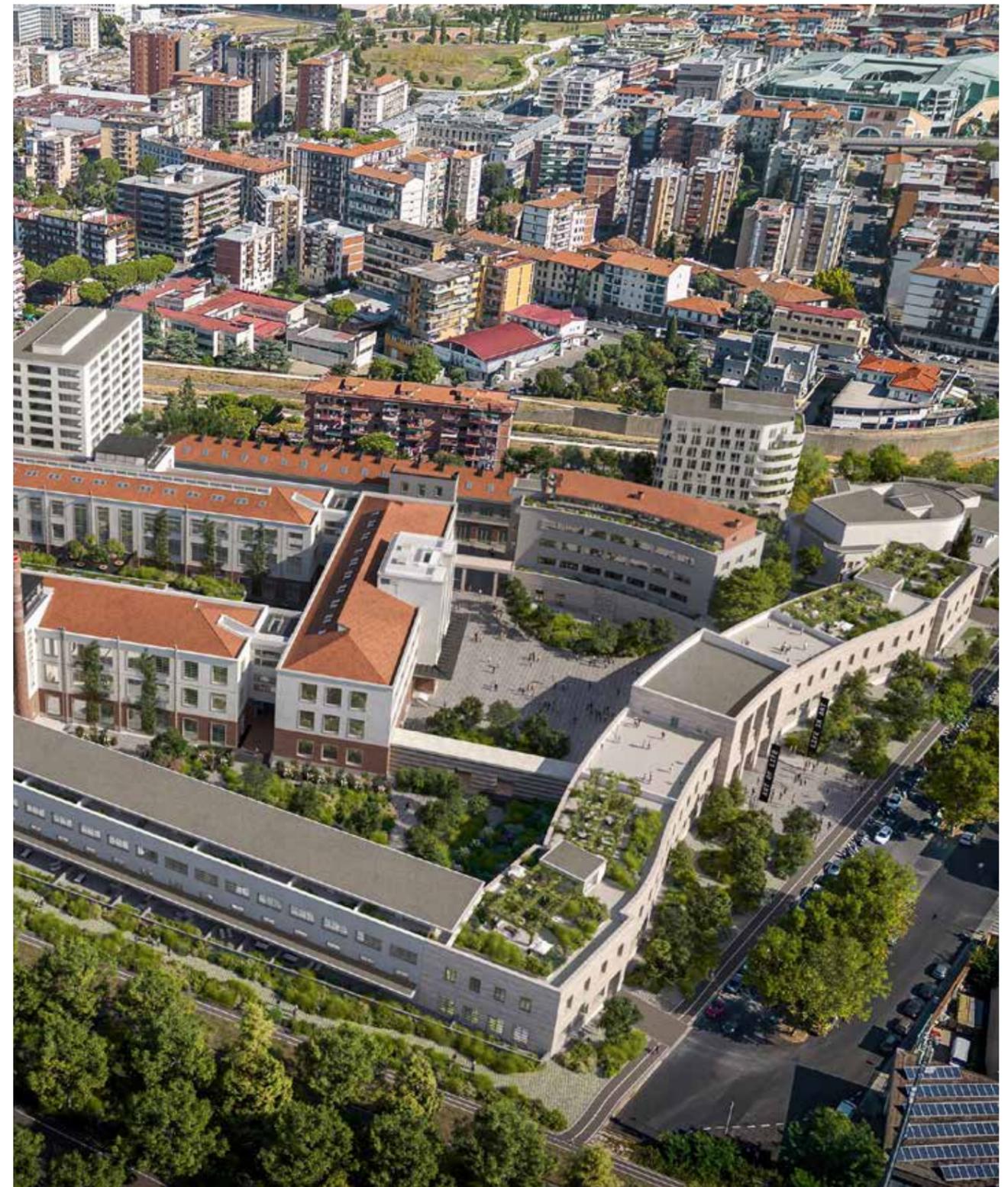
BIM integrated design



6000+ projects in 60+ countries

INT. SPECIALIZED HOSPITAL OF UGANDA





## Acoustic Engineering.

ESA engineering has been dealing with acoustic design **since its origins**. The Scope of works of our acoustic engineering projects are the reports concerning noise levels generated by traffic, restaurants, childcare centers, industrial buildings, etc.. We also evaluate the noise level produced by air conditioning systems, by motorized ventilation systems, as well as by construction sites during the construction phase.



Study of  
internal  
acoustic  
comfort &  
architectural  
acoustics



Checks &  
measurements  
with certified  
equipment



Computerized  
Simulations

# Lighting Design.

Lighting design is a discipline that combines technical aspects and perceptual aspects related to the world of architecture and design. Lighting design is the balance between technique and creativity. We take care of light at 360 °. The main topics covered by the department are: Retail; Multipurpose Buildings; Façades.

ESA engineering's studio dedicated to lighting design was founded in 2014 in Milan. Today the department embodies a fundamental role, ensuring a harmonious balance between technique and creativity. The team, formed by specialized architects and designers, collaborates to enhance the perception and identity of a place, offering a reading key.



CARTIER BOUTIQUE - MACAU



Retail projects



Multipurpose buildings



Façades

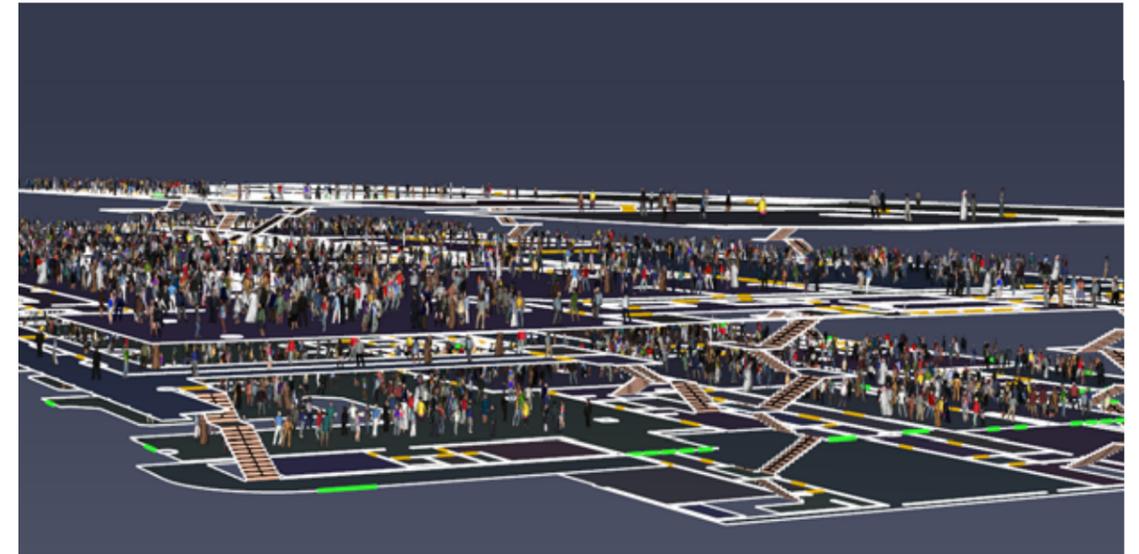
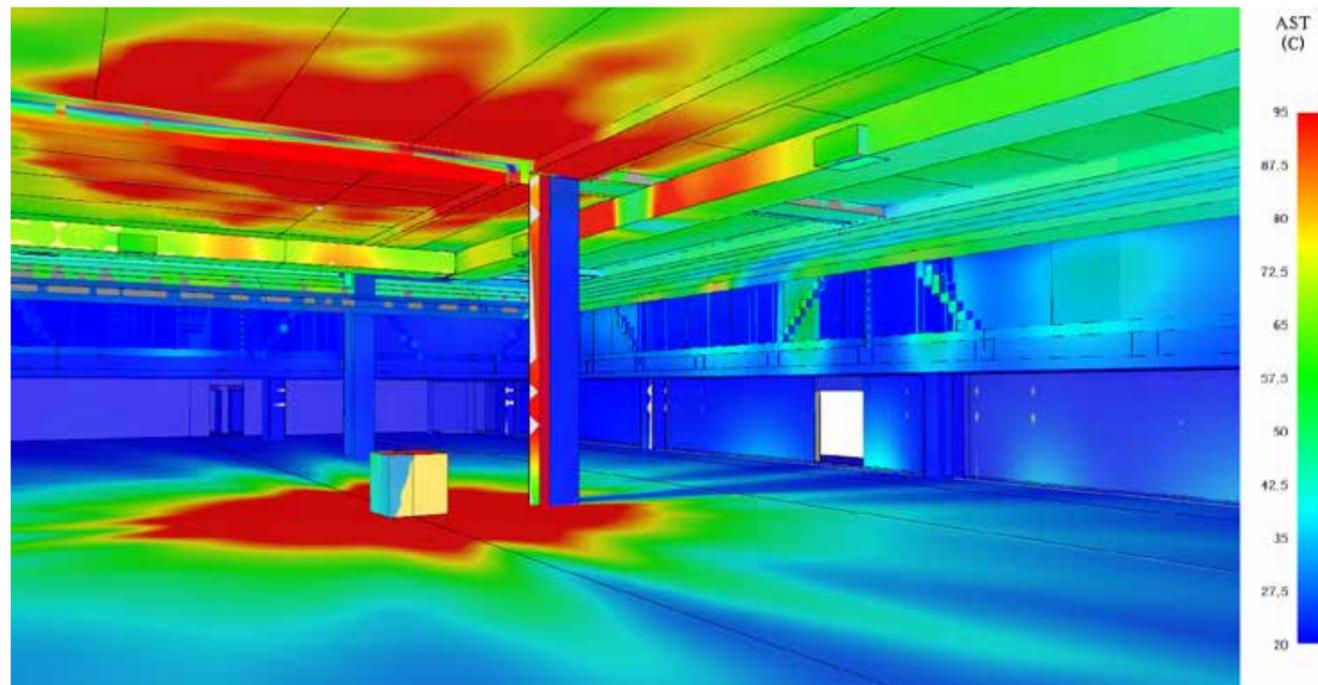


LV TEMPORARY STORE - DUBAI

# Fire Safety Design.

In accordance with the legislation of the country in which we operate, we carry out an analysis of the fire protection requirements for materials and coatings. We collaborate with the professionals involved in the project in order to make it compliant with fire prevention regulations.

We are in constant contact with the local Fire Brigade office and we can manage all the steps of presentation / approvals, in collaboration with the Local Architect, in order to obtain all the pre-validation and final validation documents. Our department makes use of exodus and fume simulation software, which is helpful in targeting advanced safety measures.



PASSENGERS TERMINAL EXTENSION - PISA AIRPORT

More than 20 years of experience

Skills and Experiences on National and International Legislation

FSE-Fire Safety Engineering Performance Approach to Fire Safety Design

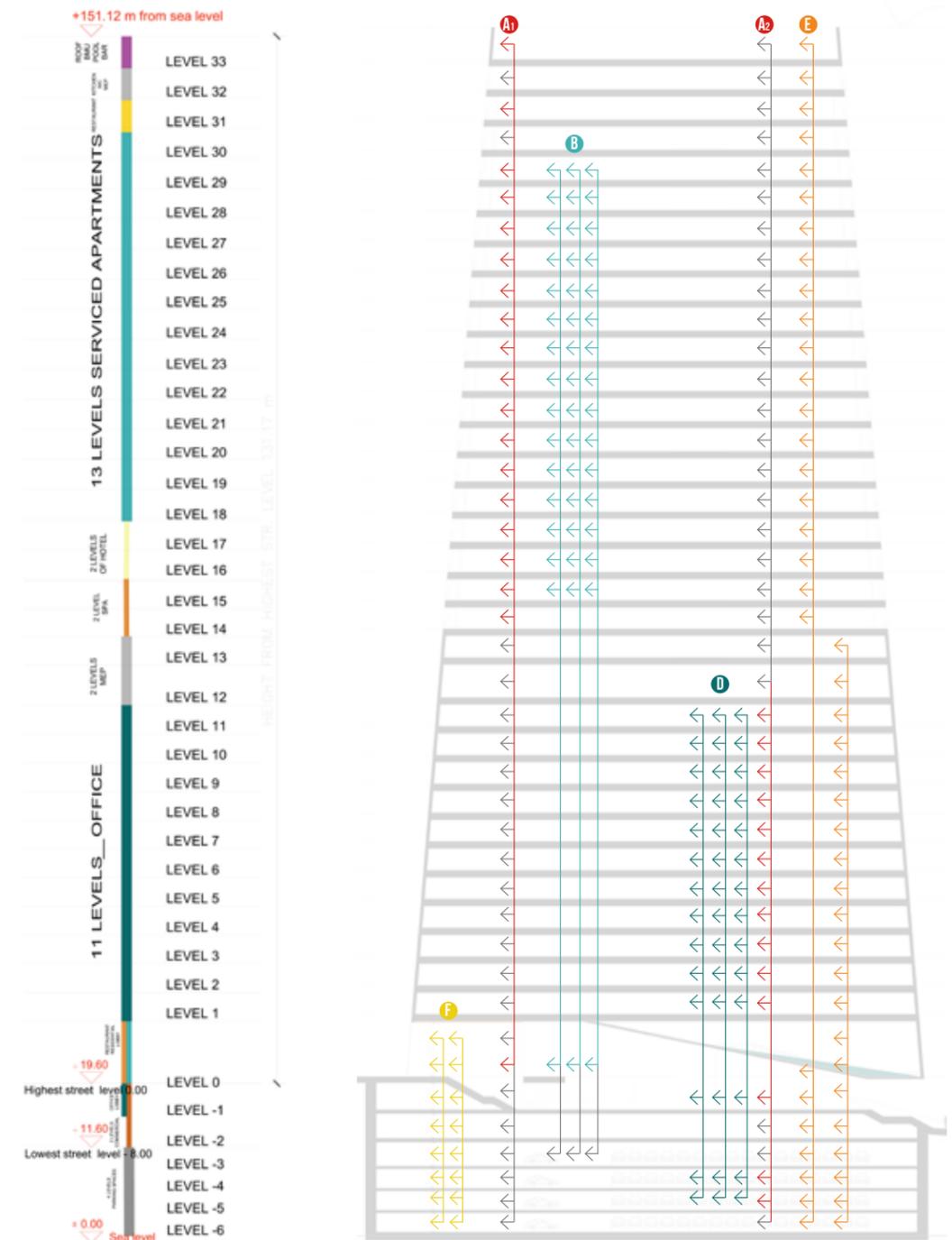
# Vertical Transportation Analysis.

The appropriate vertical transportation solution will be a derivation of the scientific analysis of vertical traffic and simulations covering all aspects that may affect traffic management, including supplier standards, economic considerations and architectural requirements. Establishing the "Traffic Patterns" is the first step to outlining a vertical transportation configuration and make a detailed projection of the users and the traffic pattern of the building. A study of the regular frequenters, distinguished between occupants and visitors, of their distribution by floor

and their arrival, departure and movement schedules inside the building is required. Traffic inside a building depends on its characteristics, its size and requirements, its location as well as its opening hours. It is also important to note that the profile of the occupants of a building continuously changes over time. In every building there are critical peak moments that determine the necessary requirements for lifts. The concept must provide a sufficient service to meet peak time demands in terms of quantity and quality of the service, monitoring the waiting time of passengers.



PACEVILLE TOWER - MALTA





PALAZZO PORTINARI SALVIATI - FLORENCE

## Structural Engineering.

Our structural engineers can identify the solutions that best meet the functional and formal needs of the buildings to be built, seeking the best integration between the structures, the architecture and the technological / MEP needs of the buildings, with the aim of optimizing performance and reliability of the buildings, in compliance with the pre-established construction costs.



international  
projects



Experiences in  
various types  
of buildings



Integrated  
approach  
to design



DIOR FLAGSHIP - GENEVA



LV STORE - FLORENCE

## Architectural Consultancies.

Since 2011, our Architectural Service Department, joins the others to fully manage the construction projects. Our Architects, Project & Construction Managers, Cost Engineers and Consultants in Health & Safety can work closely in partnership with the Clients and Contractors, and subcontractor involved in the project, in order to design the Executive Project and plan and coordinate all constructive works in a timely manner and within budget minimizing all risks and dangers.



international  
projects



More than  
10 years of  
experience

# Project & Construction Management – Owner’s Engineering.

The Project & Construction Management area offers a professional service for the technical-organizational management of the interventions, from design to implementation, focusing attention on compliance with cost, timing and quality of work objectives. Our Project & Construction Managers can coordinate relations with the client, designers, companies and suppliers, monitoring their work, negoti-

ating and managing any conflicts that may arise, acting as the client’s interlocutor in managing the entire project. The role of the Construction Managers, and of the teams led by them, includes the management of the works through integrated phases of planning, scheduling, estimation and research of the necessary resources, allocation of available resources, formulation of the budget, measurement of results, definition and implementation of possible corrective actions, management of contingencies and conflicts.



DIOR OFFICE – PARIS



COSTA SCARPUCCIA – FLORENCE



Skills and Experiences on National and International Legislation



Integrated approach

# Interior Engineering.



## Coordination

Coordination between design team, external vendors and companies' internal departments.



## Experience

Experience in project management, research, knowledge and innovation on technical details, materials, design analysis and engineering, engineering and management for roll out, cost efficiency and processes optimization, suppliers scouting and management, quality control.



## Solutions

Proposing about new and alternative solutions for design, materials, implementation and logistic process.



## Support

Supporting millworkers, luxury brands, customers, designers and architectural studios.



## Management

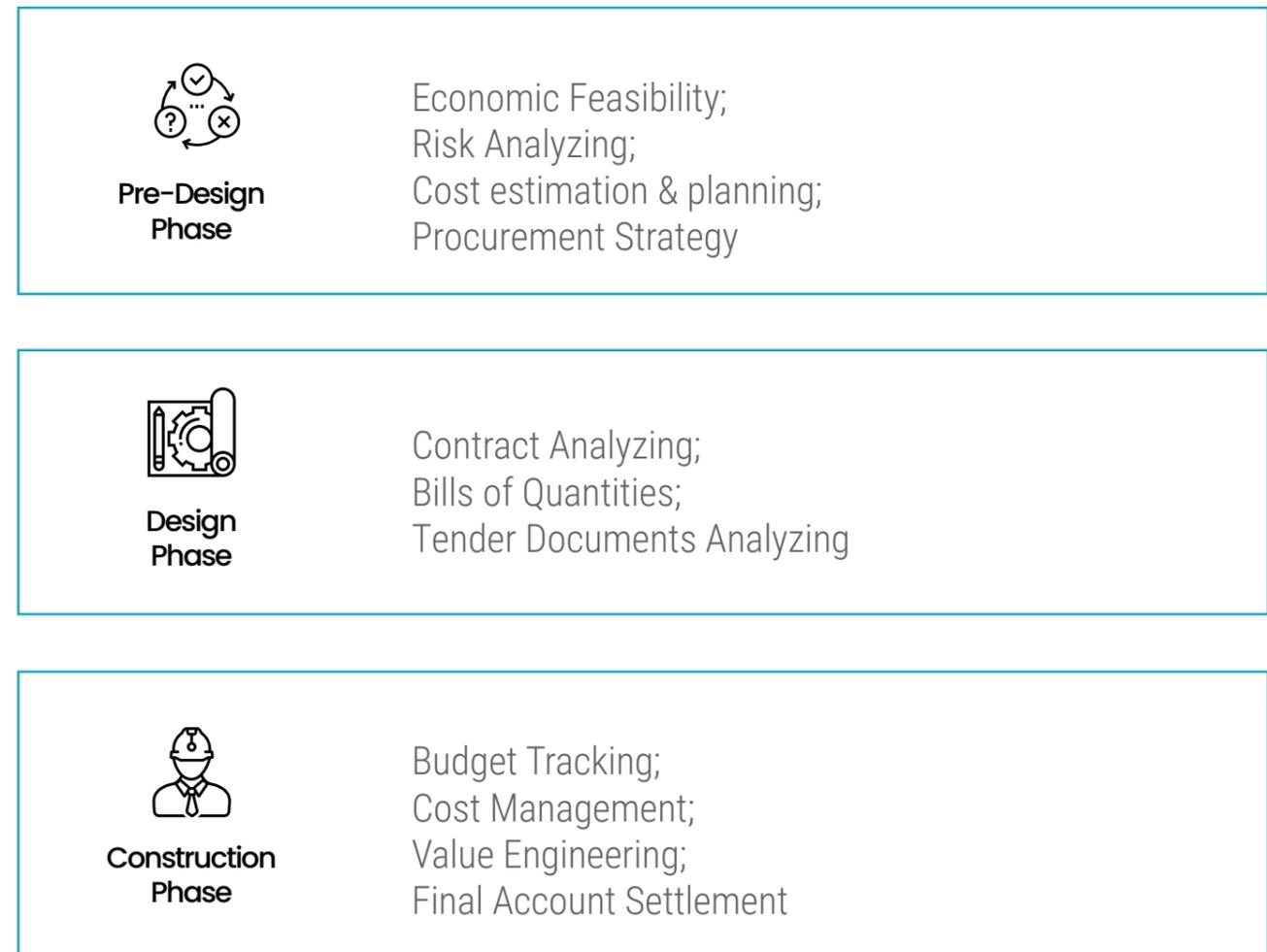
Management of the supply of customised products in relation to the customer's and designer's specifications, from the product catalogue and/or with the creation of prototypes, for the 360° evaluation.

# Quantity Survey & Cost Engineering.

All participants in the construction process are constantly challenged to carry out successful projects, regardless of the conditions they work in or may find themselves in (tight budgets, limited human resources, fast pace).

Quantity Survey and Cost Engineering are essential services in the construction industry that involve the management and control of costs throughout the project lifecycle.

The Cost Engineering is a fundamental discipline in this process because, if properly supported, it ensures a precise initial estimate and control of design and construction costs. The Quantity Surveyors are involved in each stage of the project. Whether it's residential, retail or industrial projects, clients rely on them to ensure the end result has a good quality-price ratio. Cost engineering ensures that projects carried out meet legal and quality standards.



# Façade Engineering.

The facade is, by definition, the element of the building with the greatest relationship with the surrounding environment, the face, but at the same time it is closely interconnected with all the other “internal” components of the building (the structure, the air conditioning, lighting, acoustics...) imposing a transversal design between all the various disciplines involved. In the light of these observations, facade engineering can be defined, with good reason, as the science of solving aesthetic, environmental and structural problems, in compliance with sustainability objectives, regulatory and safety requirements and the expectations set by the project architectural and by the client.

The design of the facades must essentially be framed in a holistic strategy aimed at finding the right balance, thanks to complex modeling and simulations, between energy efficiency, safety, lighting design and acoustic performance, not to mention the design implications related to durability, sustainability, structural capacity and compliance with economic objectives. Our goal is to select the construction systems that are closest to the aesthetic design intent, satisfying the various regulatory, budget and feasibility constraints and collaborate with architects to optimize performance and buildability.



**Pre-Design Phase**

Feasibility study;  
Preliminary Design Criteria.



**Design Phase**

Definition of design criteria;  
Technical Reports;  
Tender Specifications.



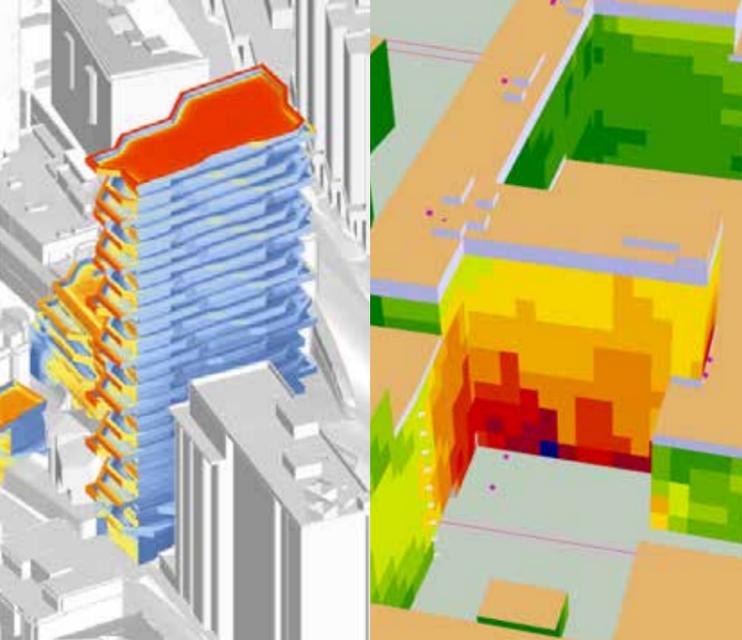
**Construction Phase**

Selection of contractors;  
Performance & Mock-up assistance;  
Shop-drawing validation;  
Site visits/inspections;  
Value engineering.



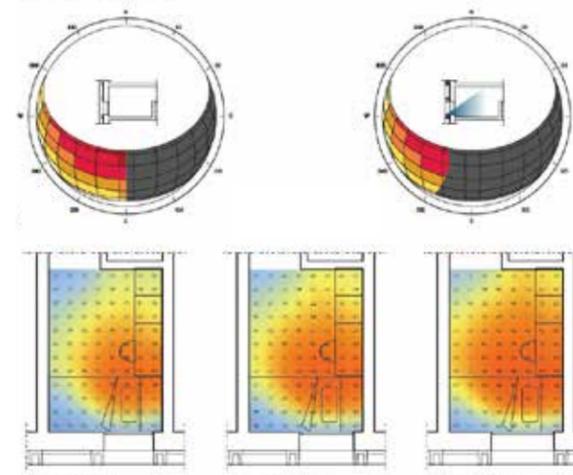
**Post-Construction Phase**

Commissioning;  
In Use & Maintenance documents.



### BUILDING PHYSICS

Solar analysis  
Thermal & condensation risk analysis  
Acoustic analysis  
Daylight analysis  
Environment analysis



### SUSTAINABILITY

Certifications alignment  
LCA analysis  
Material strategic advice



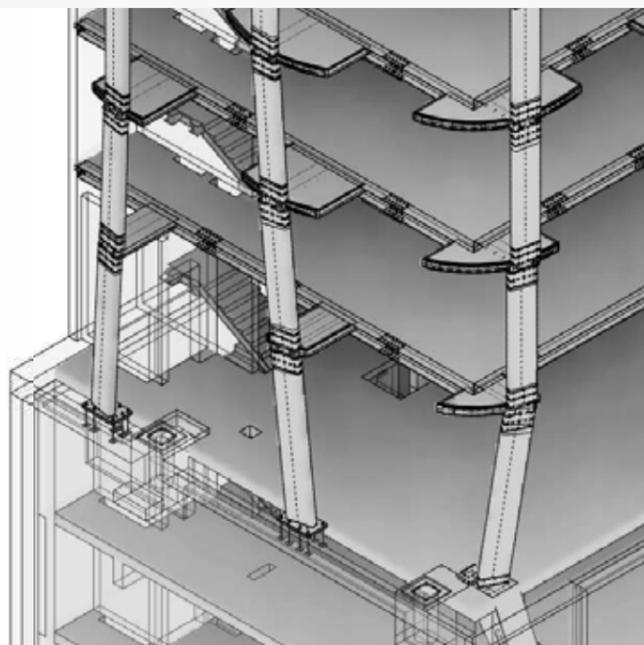
### SAFETY & SECURITY

Fire safety design  
Risk assessment



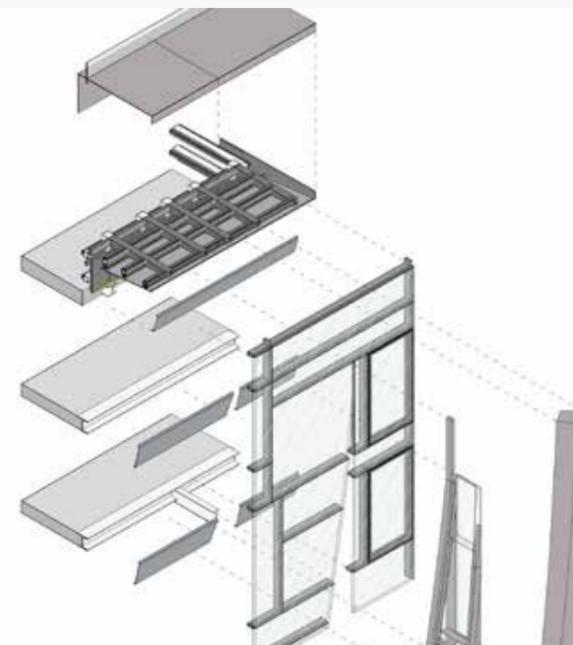
### TECHNICAL INTEGRATION

MEP & electrical fixtures  
Lighting fixtures  
PV analysis



### STRUCTURE

Structural advising



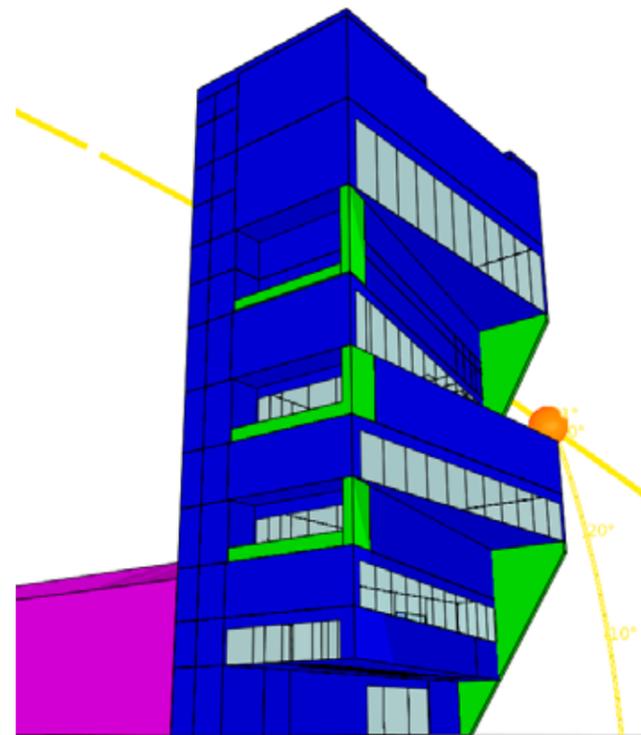
### MANAGEMENT

BIM integrated design  
Cost evaluation  
Access, maintenance & cleaning analysis

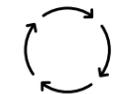
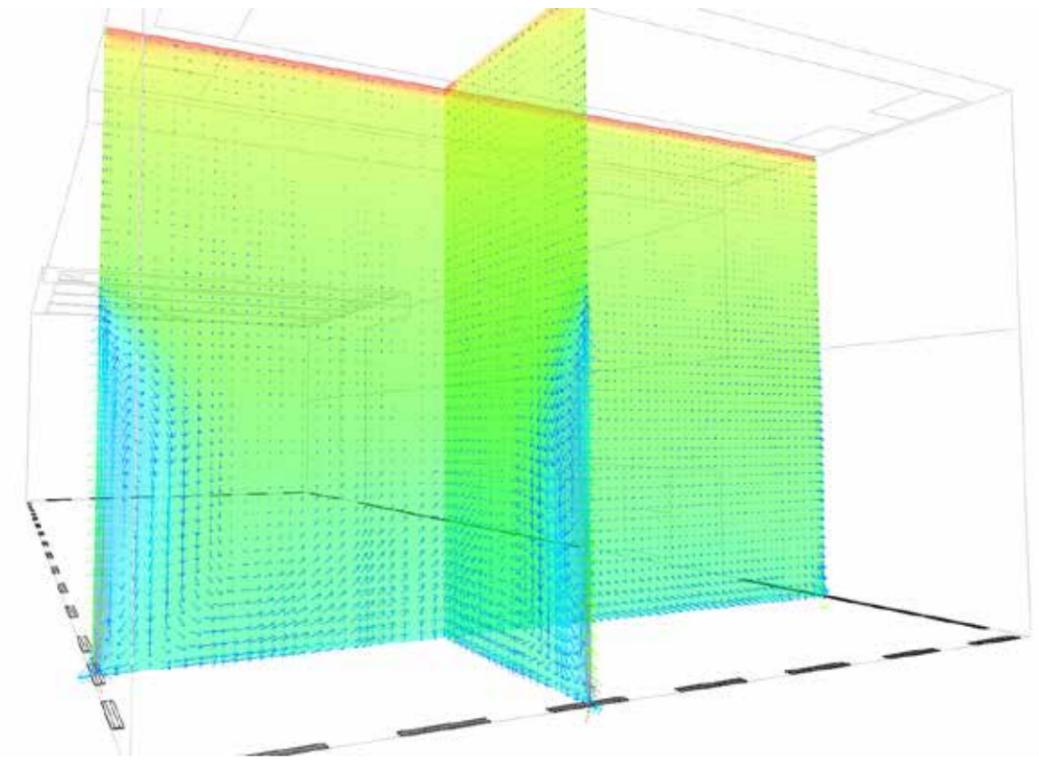
# Energy Consultancy.

Thanks to the energy modeling of a building, we are able to evaluate its energy consumption by simulating and calculating numerous components. Energy modeling represents an important tool in order to obtain an efficient design, as it identifies the performance requirements necessary for the MEP systems to be compatible with the construction

process. Energy modeling and dynamic simulation allow you to integrate all consumption - HVAC, lighting, electrical systems, external building envelope, CFD analysis - into a single energy consumption model. Once the individual consumptions have been calculated, the energy model gives results in terms of annual energy consumption peaks.



TORRE FONDAZIONE PRADA - MILAN



Life Cycle Assessment (LCA);  
Life Cycle Cost (LCC)



Environmental Sustainability certifications (LEED, WELL, ...)



Integrated approach to design

## Customized Sustainability Protocols.

ESA engineering has proven experience in the most famous sustainability standards related to the design and construction of complex buildings, and supports its customers in the process of choosing the most suitable certification for their real needs, as well as in the **creation of customized sustainability protocols.**



**Nespresso**  
Positive Boutique



**Swarovski**  
Triple S Protocol

## Sustainability certifications.

Born in the UK and created in 1990, **BREEAM**® (Building Research Establishment Environmental Assessment Method) was the first sustainability assessment and certification system in the world. Their method consists in analyzing and evaluating the impacts in 10 categories before issuing their ranking: improvement in terms of health and well-being, energy efficiency, transport, water saving, materials, ecological use of the soil, waste management, pollution and innovation. The **LEED**® (Leadership in Energy and Environmental Design) certification was developed in the United States by the U.S. Green Building Council in

1998 with the aim of promoting the development of buildings based on sustainable criteria. It is an internationally recognized system that classifies buildings according to their degree of excellence and can be applied to any type of construction. Also born in the United States, the **WELL** certification is a dynamic scoring system that measures the well-being and health of the occupants of a building.



ESA engineering has been a member since 2017 of U.S.Green Building Council ( USGBC ). The goal of this organization is to transform the way buildings and communities are designed, built, and managed. The U.S. Green Building Council is committed to a sustainable, prosperous future through LEED, the leading program for green buildings and communities worldwide. Thanks to its activities, it intends to promote and accelerate the spread of a sustainable building culture, guiding the transformation of the market, and raise awareness of public opinion and institutions on the impact that the design and construction of buildings have on the quality of citizens' life.

# ESG strategies.

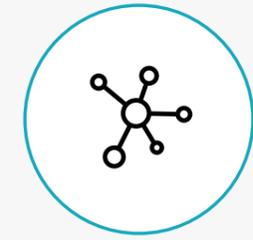
The acronym ESG (Environmental, Social, Governance) is used to indicate the activities related to responsible investment, i.e. which pursue the typical objectives of financial management while also taking into consideration aspects of an environmental, social and governance nature.



- **Environmental.** This criterion evaluates the effect of the investment on the environment. Attention to climate change, food safety, the containment of carbon dioxide emissions or the efficiency in the use of natural resources is examined.

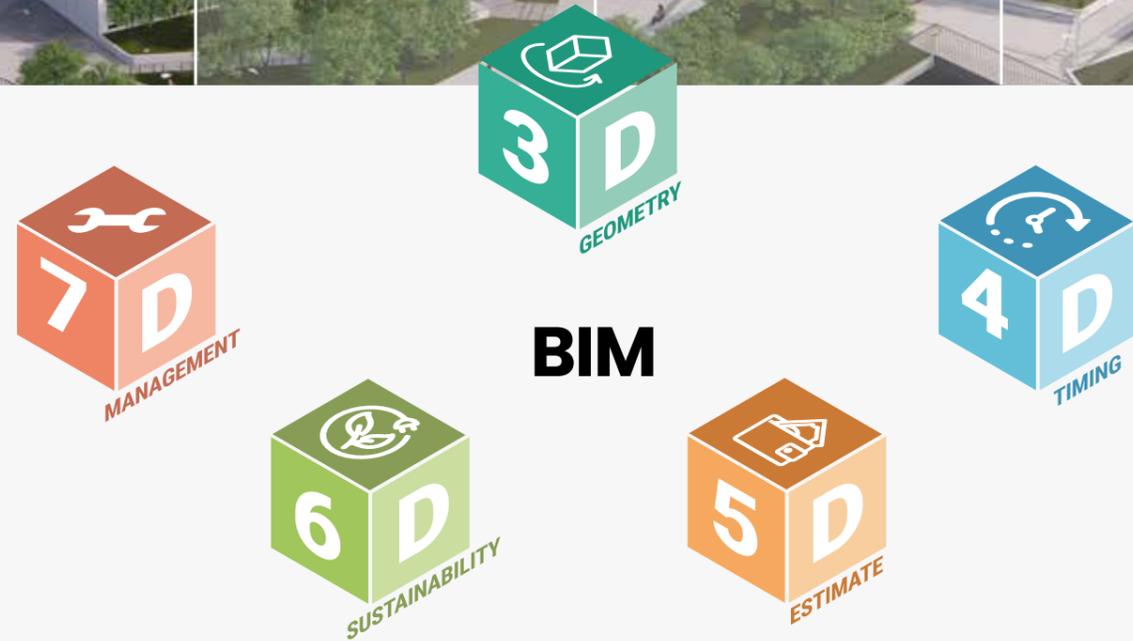
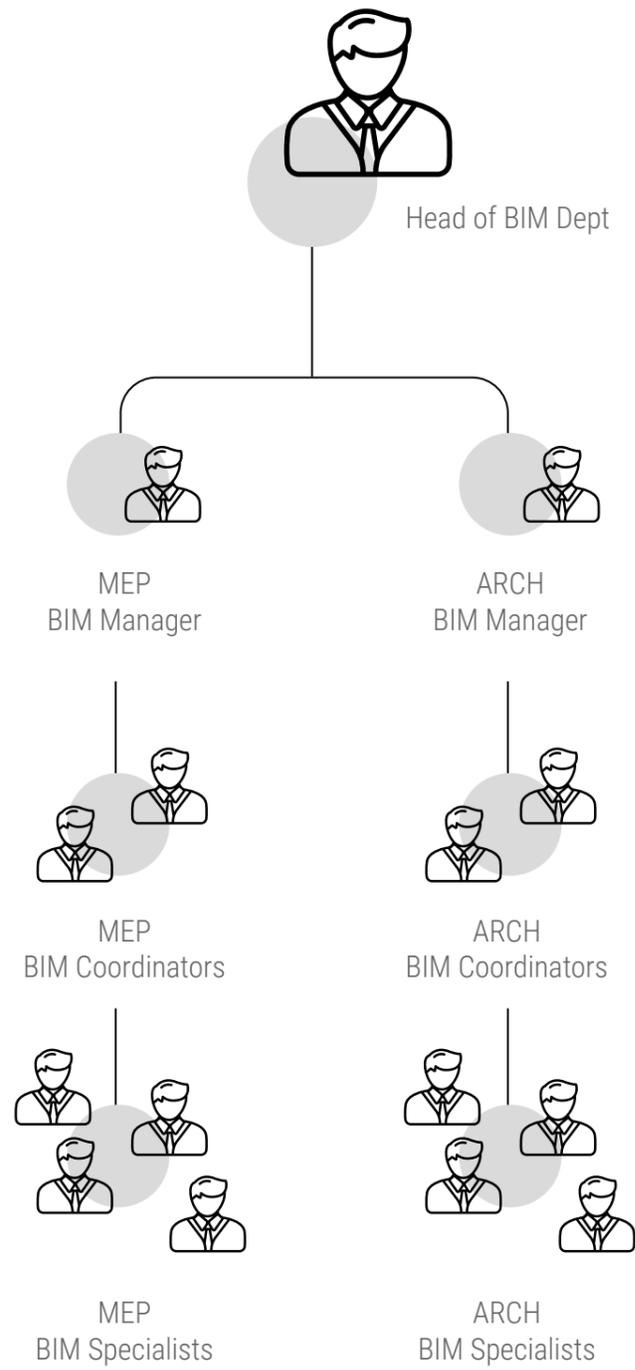


- **Social.** In this case, the social impact of the investment is analysed. Elements such as respect for human rights, attention to working conditions and the refusal of all forms of discrimination are therefore relevant.



- **Governance.** The Governance criterion evaluates respect for meritocracy, diversity policies in the composition of the BoDs, the fight against corruption, remuneration ethics.

# BIM Integrated Design.



FIRM OVERVIEW



*We work today for future generations*

**ESA**

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**engineering**

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