

Tour Saint-Gobain

La Défense, France



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Saint-Gobain, a leader in building and high-performance materials, will set up its headquarters in a new tower developed by the Generali Group in the La Défense business district.

Valode & Pistre has been retained by Generali, in consultation with Saint-Gobain and EPADESA, following an international architecture consultation (BIG, SANAA, Renzo Piano, SOM).

Designed as the future showcase for Saint-Gobain's expertise and international image, the 49,000 m² tower, spread over 44 floors and 165 metres high, aspires to an exemplary level of environmental quality, with particular emphasis on site integration, energy efficiency and user comfort.

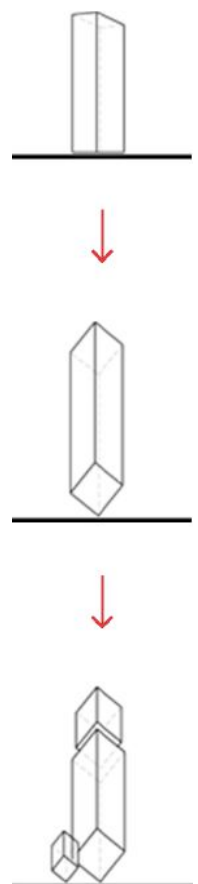
Designing a new tower today at La Défense means answering a large number of questions in a wide variety of fields:

Functional issues (creating a flexible place, an efficient building) - technical and construction issues (the site is complex, full of constraints, even traps, and we are well aware of the difficulties) - societal issues and the quality of living conditions in a high-rise building - urban issues (as La Défense takes on a more urban fabric) and symbolic issues also (as this involves building the headquarters of a large French company).

But beyond all these concerns a tower, more than any other building, involves and affects people. The expectation from a building as visible as this is first and foremost to feel an emotion and the architect's primary role is to provoke this emotion.

Several architectural strategies meet this objective:

- The Tour Saint-Gobain has been designed as architecture playing with light. Light is the essential material of the project.
- This tower is made up of an assembly of "crystals" and the play of aspects, angles and type of glass makes it alternately transparent or reflective.



Set of rhombohedral crystals



The aim is to give the building a magical dimension that changes with the time and place from which it is viewed.

Another way of creating emotion is to turn the tower into a sculpture. A sculpture employing a new geometry - rhombohedra. The rhombohedron is a cube with faces shaped as diamonds or parallelograms instead of squares or rectangles. A dynamic is created instantly. With the same height and volume as a normal straight prism, the silhouette soars upwards and the tower stands out from the others. A unique tower that surprises. Its variations compel the interest in this huge tripartite composition. Our naturally anthropomorphic perception turns it into a character, which turns and bends slightly to receive and welcome us.

The observer is also touched by ambiguous graphic play between the horizontal, the framework of floors on the façade, and the oblique, parallel to the upper and lower faces of the rhombohedra. This questionable game creates a rhythm, a vibration, a kind of music...

Another dimension that affects the public today profoundly - a deep-set trend in our society - is attraction for the natural environment. This tower gives pride of place to nature: large glasshouses contribute to the environmental image and performance and gardens on all floors are directly accessible from the office spaces.

A contribution to the La Défense/Courbevoie urban couture

The tower seems to float above the ground. Its oblique undersides broaden the visual field from the esplanade and follow the new stair railings that connect it to Boulevard Circular (ring road) below.

The tower thus contributes to the much-sought-after urban couture and the re-urbanisation of the boulevard. Its morphology is designed to present main and expressive façades in all directions. It becomes a link between the worlds of the La Défense esplanade and ring road and the Courbevoie residential areas.

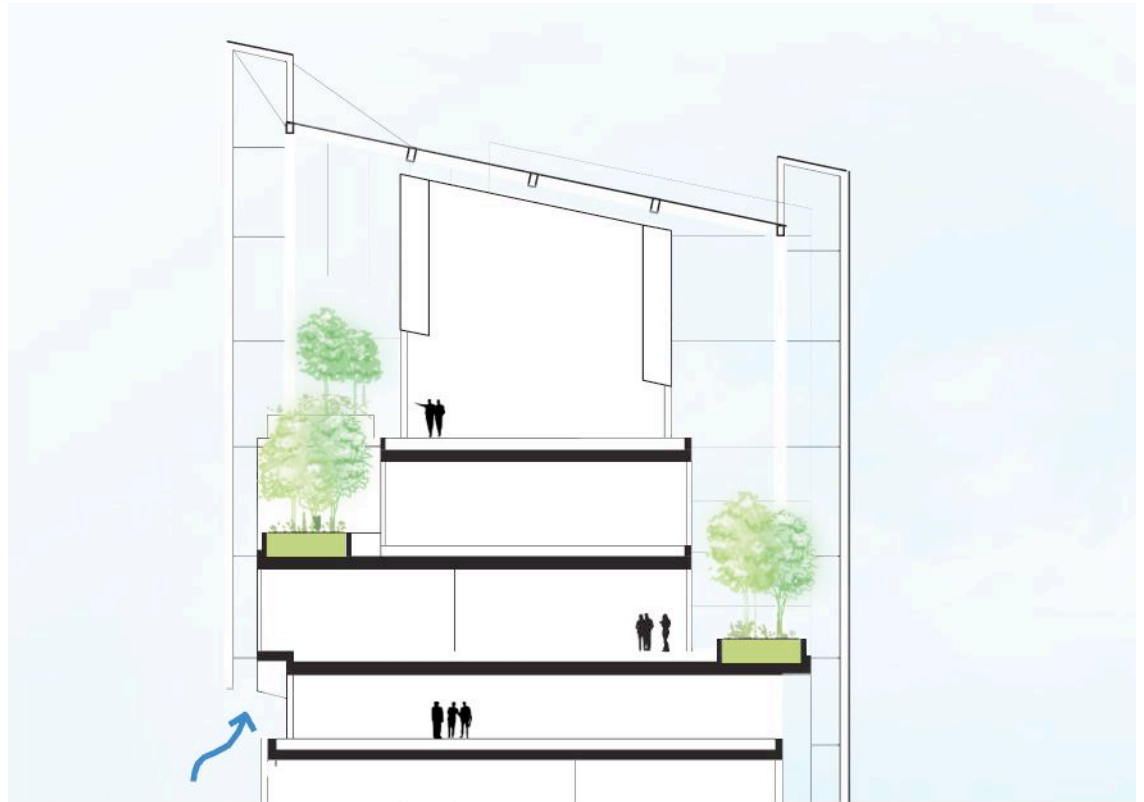
An efficient, functional and flexible tower The tower has been designed as a real working tool to serve the company. It is arranged in three sections, comprising:

- a main body where all the floors, with the same footprint, are dedicated to office spaces.
- a lower section containing the services, including premises open to the public, in particular a showroom.
- an upper section: the Plein Ciel (Open Sky) space

Given the tower's location on the edge of the slab, alongside the ring road, it enjoys both main and pedestrian access from the esplanade and another access at ring road level that provides an address on the boulevard along with taxi, VIP and bicycle access.



Urban couture



Glasshouse with Mediterranean climate

- The office areas are large, simple in shape - a slightly elongated rectangle - and the core is slightly off-centre to provide varying depths - 7 m and 12 m. Natural lighting is exploited to the full as 90% of the areas outside the core are within 7 m of the façades. The geometry and framework of the space is highly flexible, allowing a variation in space planning using more or fewer partitions.
- The highest floors located in the top prism are home to the meeting, communication and reception areas. A restaurant and a large indoor garden complete the facilities.

Exceptional working conditions The office areas are panoramic with excellent natural light. The very high window lintels, low apron walls and the limited depth of the spaces encourage the relationship with the outside.

The office floors have accessible, outdoor gardens that are nevertheless protected from the wind.

The dining areas are varied and have outdoor views.

The communication spaces are enhanced by their location and by their architectural expression directly visible on the esplanade.

The main hall, combined with the showroom, opens wide onto the esplanade as a sign of welcome.

An environmentally- and energy-efficient tower
The tower's architecture has been designed with a focus on environmental concerns. An array of spatial, architectural and technical solutions combine to make the tower environmentally-friendly.

But more than anything, installing reversible radiant ceilings and a very low-speed air displacement ventilation system combined with the very high thermal performance of the façade has been key to achieving very ambitious goals. Rainwater is also collected for watering the gardens and the vegetation naturally helps to cool the glasshouses.

The Tower can be qualified as a bioclimatic

Key figures

Location

La Défense, France

Programme

Tower 170 m high (38 floors)

Offices 2,200 work stations

Restaurants

Cafeteria

Glasshouse with Mediterranean climate

Showroom

Auditorium

Certification

HQE "Excellent"

LEED "Gold"

BREEAM "Excellent"

"EFFINERGIE+" label

Schedule

Worksite in progress

Delivery in 2019

Project Owner

GENERALI

Entities involved

TERREL (*Technical Design Office - Structures and fluids*)

ANCORA (*Façades*)

Raphia (*Landscaper*)

AE75 (*Economist*)

LASA (*Acoustics Engineer*)

ARTELIA (*Technical Design Office - Fluids*)

13 hanging gardens

of 44 m², double height, planted with:

Hawthorn, Dog Rose, Roses with

Geraniums as cover characterised by

their resistant foliage.

Top of Tower

40 m high and 130 m above the esplanade, four levels of planted terraces growing in a 40 m high

glasshouse with a temperate atmosphere

allowing the development of Mediterranean

vegetation made up of large trees including the

Russian Olive, Strawberry Tree and Pomegranate

as well as other plantings of Roses, Achillea,

Mugwort, Acanthus, etc.

25 TREES

150 DIFFERENT SPECIES OF PLANTS

Tall trees: 3.50 m tall

- Russian Olive (terraces at top of tower)
- Strawberry Tree (terraces at top of tower)

Medium-height trees:

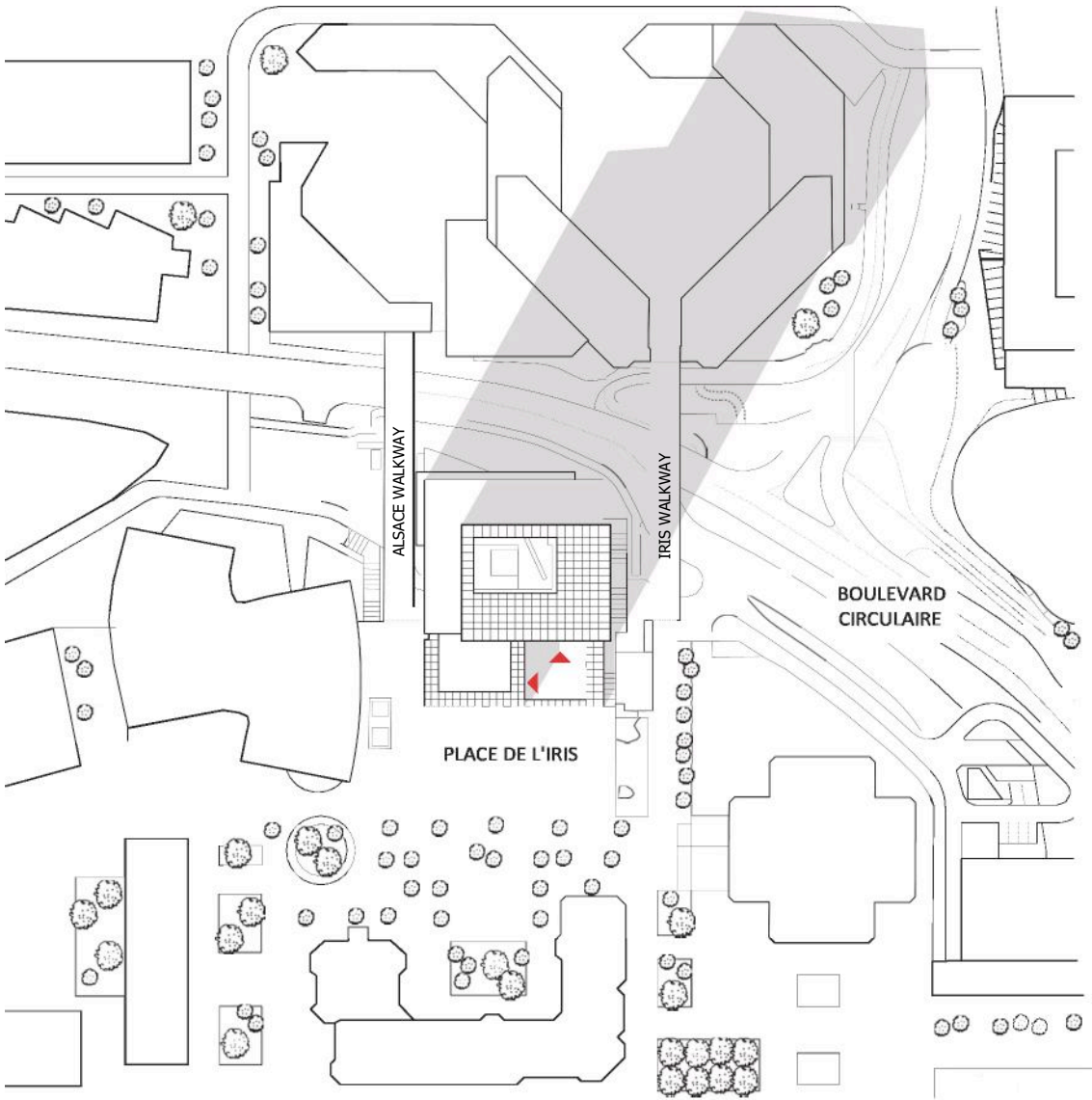
- Hawthorn (garden terraces)
- Pomegranate (garden terraces)
- Black Olive (restaurant glasshouse)

Soil thickness

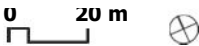
- For all trees, 1.00 m
- For supporting plants, 0.60 m

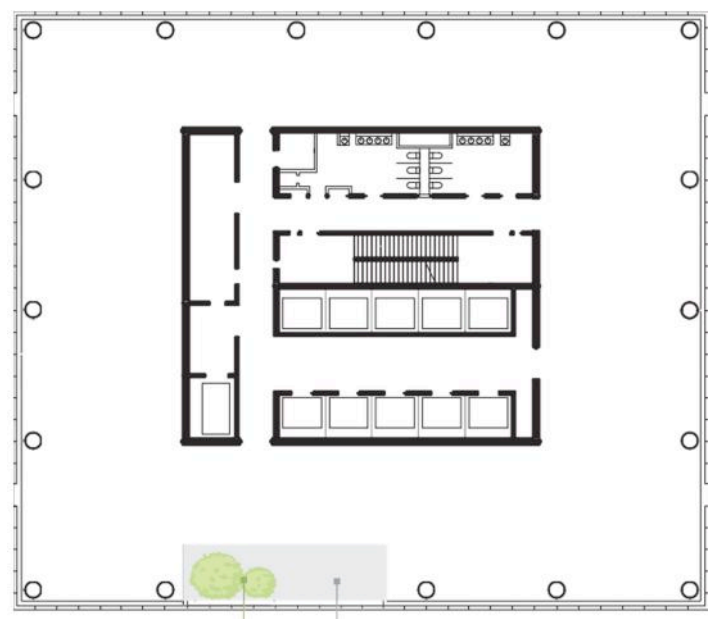
1,500 TONNES OF SOIL

Graphic documents



Block plan





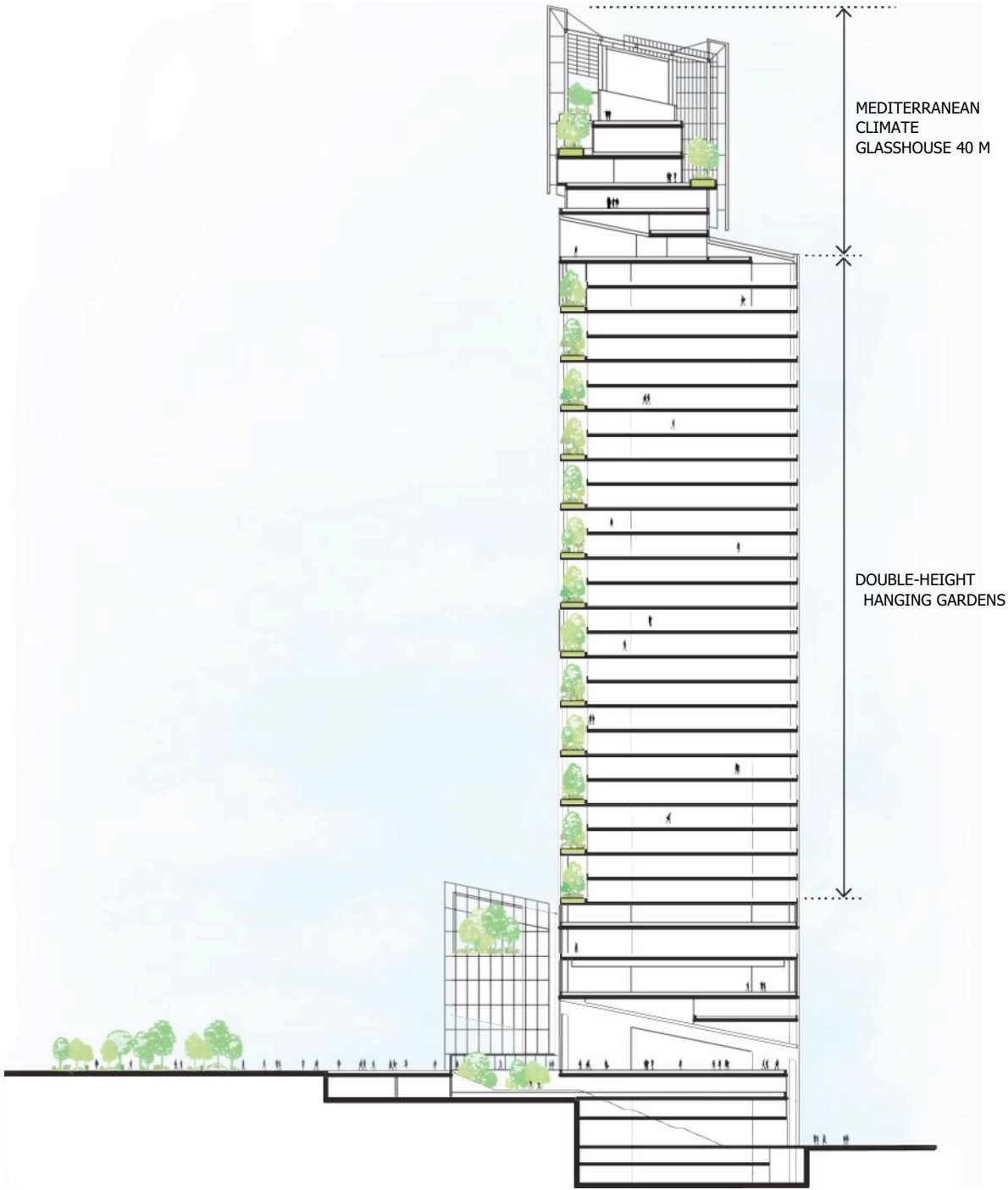
HANGING GARDEN ACCESSIBLE TERRACE

Current floor plan



MA II may

East elevation



North-South
cross section



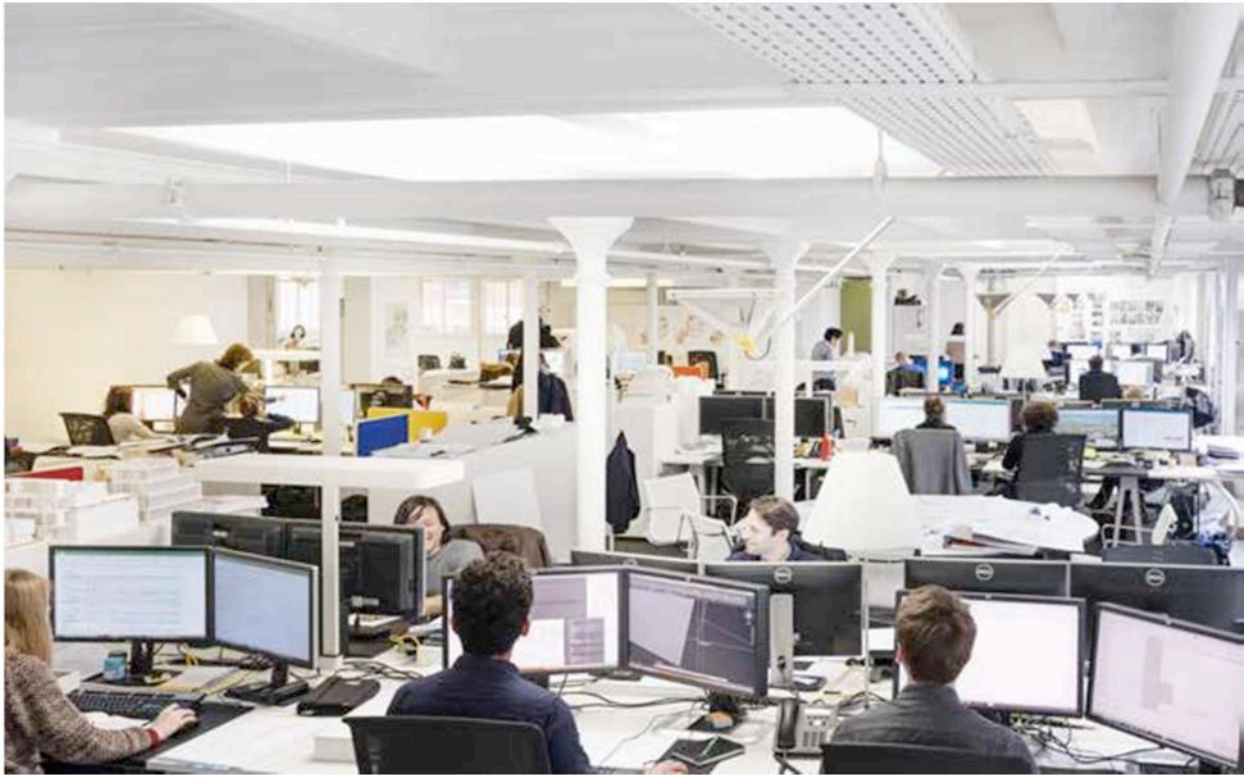
View from Alsace junction



View from Place de l'Iris



View from Place de l'Iris



Valode & Pistre *is today*
one of the leading French firms of architects and town planners.

Founded in 1980

by Denis Valode
 and Jean Pistre

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200 architects
 of 30 nationalities

—

**150 projects
 achieved**
 worldwide
 (35 countries)

—

**Installed in
 Paris,**

7 rue de Valenciennes

Based in Paris with subsidiaries in Beijing, Moscow and Dubai, it develops projects in France and around the world. Europe, Russia, Asia, Middle East, Maghreb, Sub-Saharan Africa.

Valode & Pistre's practice is highly diverse, from devising master plans for new towns to designing items of furniture. It also covers a wide range of programmes, with particular expertise major facilities, towers, headquarters, cultural projects and new mixed-use neighbourhoods.

Wherever they work, the architects endeavour to transfer contributions and innovations from one field to another and above all to propose new and original in-depth reflections that go beyond the project itself. This is especially true in terms of the quality of living and working places as well as public spaces. To achieve this, the firm taps into the heart of multiple questions, as much sociological and scientific as ecological, ethical, aesthetic and cultural. This desire to be "where all roads meet" - a ground with shifting geometry - nourishes mental gymnastics, the very embodiment of the creative process. *"Our primary interest is to create buildings that could not have been born somewhere else. The architectural gesture then has a meaning, some roots".*

Press contact

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