

## Nanterre Coeur University

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**Address 1 - street** : allée de Corse 92000 NANTERRE, France

**Starting year of the project** : 2015

**Delivery year of the project** : 2021



76000 ha

**Certifications :**



### ID CARD

This project was awarded the Sustainable District Grand Prize of the Green Solutions Awards 2020-21, at both the national and international levels.

**Nanterre Coeur University** is a large-scale urban project, of 76,000m2 SDP, developed by the management of the Major Urban Projects of Bouygues Immobilier, **UrbanEra**, since 2013, date of the competition launched by the developer of the major development project of the ZAC Seine Arche, Paris-la-Défense Aménagement, in which it is part.

The ZAC Seine Arche project is a vast urban reconquest project of a territory fragmented by heavy infrastructures (motorway and railroads) between the Grande Arche de la Défense and the Seine, on the historic royal axis which leads from the Louvre at the castle of St Germain-en-Laye.

The **Cœur Université** project is part of the urban sewing work of the major development project, but it constitutes a very unique point, due to its development on either side of a refurbished RER station, in seam of an important university campus (Paris la Défense) and social housing districts undergoing urban renewal, and through its multiple ambitions: to constitute a new urban center, a new polarity for the municipality of Nanterre; be part of an innovative environmental approach in terms of energy via an energy heat loop that feeds the entire project and in terms of biodiversity, by delivering the first Biodiversity® Ready district; integrate art into the construction and future identity of the neighborhood; and integrate home automation and digital standards into its operation.

This project is **very mixed: 497 housing units** (including 40% social housing, 10% intermediate housing, 10% supervised access and 40% free access at capped prices); **2 office buildings** developed under the **GREEN OFFICE** brand; **around 30 shops** and **ten restaurants, leisure facilities** (a multiplex with 10 cinemas , a **climbing wall** and a **fitness center**) and a **shared** car park with 770 spaces for all uses in the area.

## Programme

- Housing
- Offices
- Businesses and services
- Public spaces
- Green spaces

## Project progress

- Operational phase

## Key points

- Quality of life
- Economic development
- Mobility
- Biodiversity
- Energy /Climate

## Certifications

- HQE for urban planning
- BREEAM for communities
- Autre

## Photo credit

Bouygues Immobilier and Graphix-Images

## TERRITORY

### Climate zone

[Cfb] Marine Mild Winter, warm summer, no dry season.

## KEY FIGURES

### Green areas, roofs included

Green areas, roofs included : 700 m²

### Public spaces area

Public spaces area : 31 016 m²

### Office floor area

Office floor area : 27 696 m²

## Commercial floor area

Commercial floor area : 15 000 m<sup>2</sup>

## Housing floor area

Housing floor area : 19 000 m<sup>2</sup>

## Number of residential units

Number of residential units : 497

## GOVERNANCE

### Project holder

Name : Bouygues Immobilier / UrbanEra

Type : Private company

General description :

To be sustainable and desirable, the city must always reinvent itself. A place for meetings and sharing, it must respond to the changing uses of its inhabitants, promote diversity and live together. With the UrbanEra® approach, Bouygues Immobilier works alongside local authorities in the creation and long-term management of sustainable eco-districts.

### Project stakeholders

Function : Operator

Florent Remond, Directeur technique

Construction21 company page :

<https://www.dalkia.fr/fr>

Function : Developer

Jean-Luc Abouchard, Directeur pôle aménagement de Nanterre

Function : Other

## QUALITY OF LIFE

### Quality of life / density

Nanterre Coeur University is made up of 497 housing units, two office buildings developed under the GREEN OFFICE brand, around 30 shops and a dozen restaurants, leisure facilities (a multiplex with 10 cinemas, a climbing wall and a fitness center) and a shared car park with 770 spaces for all uses in the area.

In direct contact with the 32 hectares of the Paris Nanterre university campus, this space offers different types of use. The ambition is to promote meetings between residents, students and employees: 10-screen cinema, coworking space, etc.

Nearly 950 housing units, 200 rooms in student residences and 100 rooms in serviced residences, shops on the ground floor of buildings and an innovative tertiary offer.

The Allée de Corse, a pedestrian axis which will cross the whole of the new district, will offer commercial continuity and dynamism throughout this site, leading to the Terraces rich in green spaces and shared gardens.

### Culture and heritage

We offer **a creative district to restore pride and identity to the current inhabitants of neighboring districts and more generally to all the inhabitants of the city, through an ambitious artistic approach** entirely financed by Bouygues Immobilier.

The artistic approach, "Worksite Heart", was deployed throughout the construction of the new district between 2015 and 2020, with the aim of improving the territorial impact. It benefits from the support of the City of Nanterre and the public development establishment *Paris La Défense*. Funded by *UrbanEra Bouygues Immobilier*, it was designed and orchestrated by *Cultiver la ville*.

The involvement of the city through the mission of the University district was essential to get in touch with the inhabitants, the associative fabric, the social centers, in particular *La Traverse*, as well as the schools. This is also where the quality of the partnership resides, where skills, resources and tools have been complemented in an exemplary manner between municipal services, who are very knowledgeable about the local context, and the intelligence of the multiple engineering departments made available to the project. by *Bouygues Immobilier* and *Paris La Défense*.

The "Worksite Heart" approach has paved the way and encourages the City to promote art in the public space thanks to all the devices within its reach: by relaunching public orders with the 1% by enhancing the park of works existing as well as in major projects with all the players in the urban fabric. The challenge is to successfully mediate lasting works of art for the benefit of residents of the adjoining neighborhood and newcomers to the neighborhood.

On the theme of anchoring and the link between what is being built and what is already present on site, ephemeral and permanent works have emerged. The artists not only revealed the identity of the places, but went beyond the functionality of the public spaces. They brought them an extra soul.

"Worksite Heart" gave rise to different artistic situations: workshops with children (schools, social centers and associations), urban walks, participation in the competition for the selection of permanent works, etc. All in a mix of styles ranging from street art to participatory art, while passing through contemporary art! Each inhabitant was then integrated into the development of the neighborhood, thus living the project.

## Social diversity

Social diversity with **497 housing units** of which 40% social housing, 10% intermediate housing, 10% supervised access and 40% free access at capped prices.

## ECONOMIC DEVELOPMENT

### Local development

Nanterre Coeur University is made up of around 30 shops and a dozen restaurants, leisure facilities (a multiplex with 10 cinemas, a climbing wall and a fitness center) and a shared car park with 770 spaces for all the uses of the neighborhood.

## TRANSPORT

### Mobility strategy

Nanterre Coeur University has a shared car park with 770 spaces for all users of the district. It is also close to the SNCF / RER A station, multimodal.

## SMART CITY

### Smart City strategy

More than an eco-district, it is an intelligent eco-district that is emerging, thanks in particular to the use of new information and communication technologies integrated into energy networks, thus allowing for time management real and avoid unnecessary consumption.

Smart and connected apartments which, via a smartphone application, allow remote control of the light, heating, roller shutters and smoke detector. A dedicated area on the application indicates in real time energy consumption (heating, electricity) and consumption forecasts.

## RESOURCES

## BIODIVERSITY

### Biodiversity and natural areas

The Nanterre Coeur University project teams regularly offer themed breakfasts to future residents of the district. One of them aimed to introduce future occupants of Residence Connec't to the 2,500 m2 garden terrace to which they will have immediate access.

This terrace which covers the RER is accessible to several residences. It includes around twenty vegetable gardens, an insect hotel, nesting boxes, a seed library, free access gardening tools, a protected biodiversity area, educational panels and even guinea pigs.

For two years, Bouygues Immobilier commissioned New Vegetable Plants and then BIOPEES CONSEIL, a local structure, to regularly run workshops to create links between residents and allow better ownership of places while making them aware of good practices.

It should be noted that the garden terrace has largely contributed to obtaining the Label BiodiverCity® Ready phase design, in pilot process of prefiguration.

At the district level, the project has significantly more surfaces favorable to biodiversity than the initial site presented (evaluation carried out via the Biotope Coefficient per Surface), in particular thanks to the cores of planted islands, and to the greening the roofs and the main facades of one of the buildings.

## ENERGY/CLIMATE

## Climate adaptation, resources conservation, GHG emissions

Nanterre Coeur University is the [first dual Smart Grid in France](#). The eco-district was envisioned as a living organism, within it the elements interact and create **energy solidarity**. For example, providing cold for offices also produces heat, it is stored and sent to homes that need it.

To feed this smart and sustainable network, the eco-district uses 5 renewable energy sources:

- Photovoltaic panels use the sun
- The 90 geothermal probes draw heat from the earth
- The aerothermal system makes it possible to use the outside air on the roofs
- Heat recovery from wastewater for preheating sanitary water
- Biomass combines heat and electricity

For an even more virtuous network, the electricity produced is **100% self-consumed** with zero energy waste.

To this local renewable energy production is added a building design inducing low consumption: the offices aim for a BEPOS (GreenOffice) level.

To orchestrate this network, a system of sensors feeds the information back to the smart cabinets located in each building. They are themselves linked by fiber to an artificial intelligence. So every variation brings about a reaction.

Result, **better cost control for users with -20% of charges** for occupants. The rate of renewable energy is consumed up to 40% of all of its consumption combined (hot water, heating and electricity) and 65% of ENR for heating and domestic hot water on a temperate water loop.

Consult the case study on the Double Smart Grid: <https://www.construction21.org/france/infrastructure/h/le-double-smart-grid-de-nanterre-coeur-universite.html>

## Energy sobriety

Following an innovative and committed approach, Nanterre Coeur University is a district designed for the long term, to better adapt to energy constraints.

Committed to the eco-district approach, it tends to give a preponderant place to nature and biodiversity, to favor healthy and sustainable materials as well as soft and alternative transport. With strong environmental ambitions, the district follows a requirement of 40% renewable energy throughout the site.

## BUILDINGS

### Buildings

**Particular attention was paid to the design of the buildings**, carried by all the actors involved in the framework of architectural competitions. This design is based on the quality of the materials used, on the vegetation, on the ancillary spaces and on the use values and on the intrinsic performance of each of the buildings with :

- BEPOS level desks on the desks (GreenOffice)
- passive level housing (heating energy needs of 15 kWh / m<sup>2</sup> / year. NF HQE housing certification).

**Architect ZAC Nanterre Coeur University:**

- François Leclercq Agency

**List of residential / housing architects:**

- **Connec'T**: Farid Azib (Randja firm)

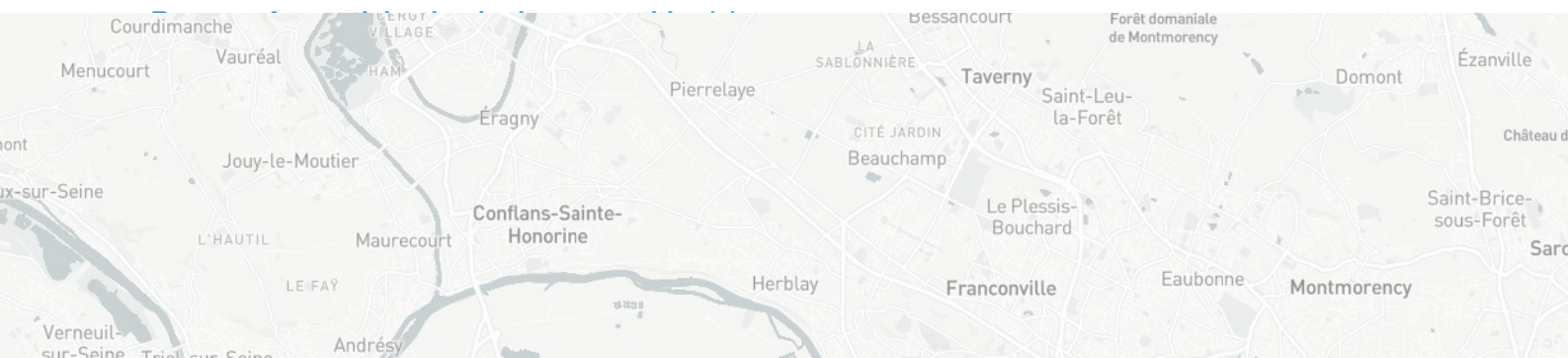
- **IconiK and Apogé**: Manal Rachdi (OXO architects)

- **Initial**: François Leclerc (architect and town planner) and Samuel Delmas (architect)

**Office architects:**

- Offices: **UPSIDE** : Agence AAAB, Anthony Bechu; **HUB 247** : François Leclerc

## Contest



Building candidate in the category



Quartier Durable

