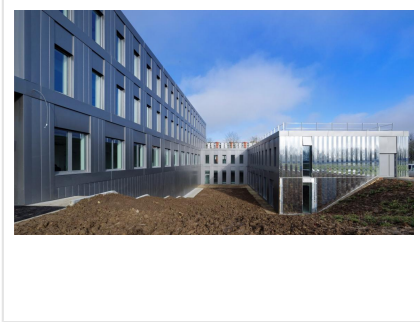


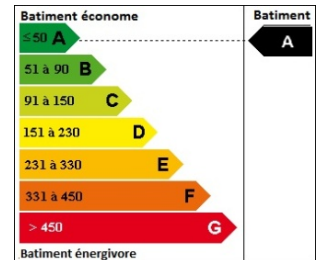
# Zehnder Campus

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**breeam** MINERGIE®  MINERGIE-P®

- Project type : New Construction
- Building Type : Office building
- Construction Year : 2014
- Climate zone : Cfb
- Net Floor Area : 3 500 m<sup>2</sup>
- Construction/refurbishment cost : 8 500 000 €
- Number of Work station : 160 Work station
- Cost/m<sup>2</sup> : 2 429 €/m<sup>2</sup>
- Cost/Work station : 53 125 €/Work station



3, Rue du Bois Briard , 91021 COURCOURONNES, France

## // Description

Building three functions: Offices, Showroom and Training Center. French headquarters of Zehnder Group.

Triple Certified Building:

- MINERGIE P
- LEED Silver
- BREEAM Very Good

Data reliability : 3rd part certified

## // Stakeholders

## Contractor

Name : ZEHNDER GROUP FRANCE  
P. WENDLING, patricia.wendling@zehndergroup.com  
Website : <http://www.zehndergroup.com/fr/home>

## Assistance to the Contracting Authority

Name : AMSYCOM  
JF Couec, jfcouec@amsycom.com  
Website : <http://www.amsycom.com/>

## Construction Manager

Name : BOUYGUES Construction privée  
Philippe Dabretteau, P.DABRETEAU@bouygues-construction.com  
Website : <http://www.bouygues-construction.com/implantation/bouygues-batiment-ile-de-france-construction-privee>

## Designer

Name : SERAU  
sylvain DESON, sdeson@serau.com  
Website : <http://www.serau.com/>

**Contracting method :** General Contractor

**Owner approach of sustainability :** The objectives of Zehnder Group through this building are:

- The quality of indoor environments and comfort of workspaces for employees (it is the headquarters of Zehnder Group in France)
- The construction of a training center for products testing and training of customers and partners
- The implementation and demonstration of Zehnder Group solutions performance on energy efficiency and indoor comfort
- Building certifications (international label)

**Architectural description :** This building is triple function:

- 2400 m<sup>2</sup> of offices and social rooms, partly ERP
- 300 m<sup>2</sup> of exhibition space
- 800 m<sup>2</sup> dedicated to the training center. For more detail, please refer to plans and photos.

**Building users opinion :** Too soon for a return - from the occupation 29/06/2015

## // Energy

### Energy consumption

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**Primary energy need :** 25,00 kWh EP/m<sup>2</sup>/an  
**Primary energy need for standard building :** 50,00 kWh EP/m<sup>2</sup>/an  
**Calculation method :** RT 2012  
**CEEB :** 0 kWh PE / €

## Envelope performance

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Envelope U-Value : 0,20 W.m<sup>-2</sup>.K<sup>-1</sup>

Indicator : DIN EN 13829 - n50 » (en 1/h-1) (l4) m<sup>3</sup>/H.m<sup>2</sup> n50 (Vol/H) Q4

Air Tightness Value : 0,46

## // Renewables & systems

### Systems

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#### Heating system :

- Geothermal heat pump
- Radiant ceiling

#### Hot water system :

- Individual electric boiler

#### Cooling system :

- Geothermal heat pump
- Radiant ceiling

#### Ventilation system :

- Double flow heat exchanger

#### Renewable systems :

- Heat pump (geothermal)

### Smart Building

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BMS : GTB Delta Dore - Web Interface

User's opinion on control systems : too early

## // Environment

## Water, health & comfort

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**Indoor Air quality** : IAQ measurements made at the end of construction phase, before occupation and renewed after occupation. Results not yet available. Collaboration Médiéco - Suzanne DEOUX very early in the design phase and during the construction phase to validate the components used.

**Health & comfort** : Regarding comfort, our ambition is to create a comfortable indoor ambience for our employees and visitors. The principles key are: - Radiant heating, soft and uniform heat, immediately perceptible in all areas - Totally silent operation in summer and winter - no uplift displacement and dust in space. no perceptible air movement by the occupants - The air filtered by a double flow ventilation is blown at room temperature - Management of different components by an intelligent BMS concerning health. Our ambition is to contribute to a perfect in-door quality for the health of occupants. We focus on the quality of air circulation, ambient temperature, decrease odor, dust, pollen and parasites, the humidity and sound level - Daylight brought by exposure of the building and the glass partition to use in interior design - sunscreens - landscaping, choose plants and non-allergenic essences treatment internal acoustic - Heating and rafraîchissement - internal materials selection - Custom IAQ

We brought along throughout the project, from the design by the Cabinet MEDIECO Suzanne DEOUX, recognized expert in IAQ.  
**Calculated thermal comfort** : Simulation thermique dynamique faite - voir notice energie - logiciel Virtual Environment v 6.4.0.5

## Radiant panel heating and cooled ceilings ceiling systems

**Producer :** Zehnder  
**Contact :** Zehnder Group France  
**Website:** <http://www.zehnder.fr>  
**Product category:** HVAC, électricité / heating, hot water

**Description :**  
see manufacturer documentation

**Comments :**  
Aesthetic and energy efficiency, heating + refresh Comfort of radiant heating and cooling; no air mixing and convection



## Ventilation central piece dual flow heat recovery

**Producer :** Zehnder  
**Contact :** Zehnder Group France  
**Website:** <http://www.zehnder.fr>  
**Product category:** HVAC, électricité / ventilation, cooling

**Description :**  
See manufacturer instructions

**Comments :**  
Energetic Efficiency



## Air distribution ducts integrated slab - ComfoTube

**Producer :** Zehnder  
**Contact :** ZEHNDER GROUP FRANCE  
**Website:** <http://www.zehnder.fr>  
**Product category:** HVAC, électricité / ventilation, cooling

**Description :**  
view manufacturer website

**Comments :**  
Space saving: integration slab. Hygiene: distribution ducts with patented principle of "double-skin"; for easy maintenance and limiting the deposition of dust.



## // Costs

Construction/refurbishment cost : 8 500 000 €

### **Construction and exploitation costs**

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Total cost of the building : 8 500 000,00 €

## // Urban Environment

Urban environment : Downtown Courcouronnes, near tramway (300 m) and bus (foot)

Land plot area : 10000 m<sup>2</sup>

Built-up area : 1300 %

Green space : 5000

Parking spaces : yes, outdoor,

## // Building Environnemental Quality

Building Environmental Quality : acoustics

