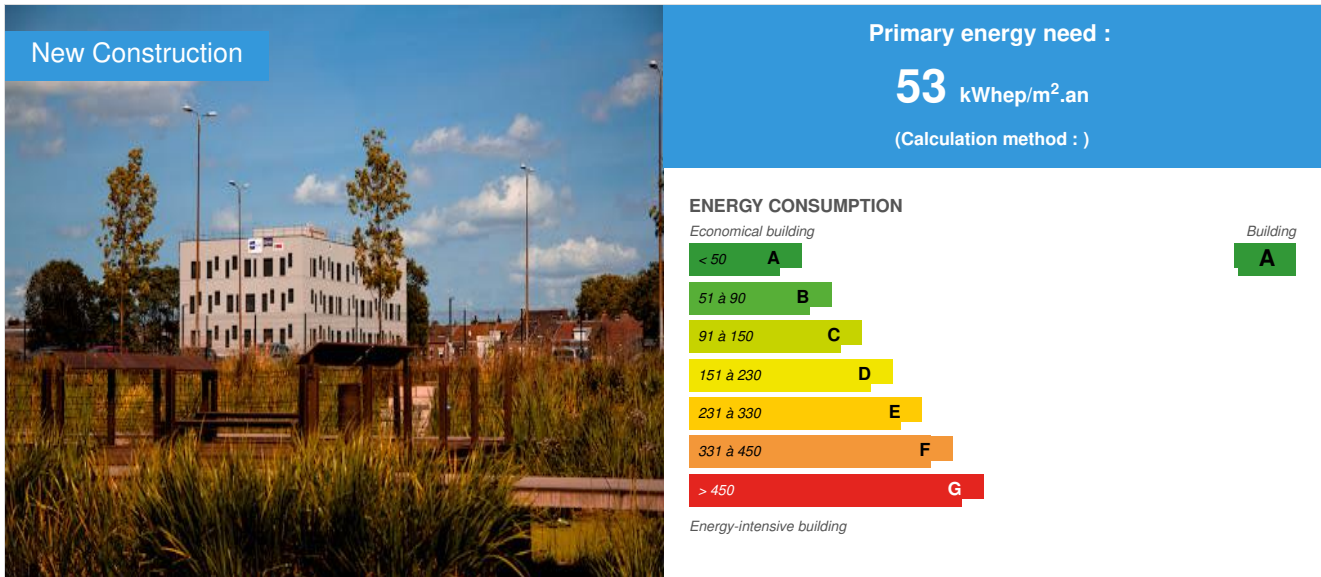


## Urbawood Lille

by Rodolphe Deborre / 2015-05-22 11:20:59 / Francia / 14685 / FR



**Building Type** : Office building < 28m  
**Construction Year** : 2014  
**Delivery year** : 2014  
**Address 1 - street** : 59000 LILLE, France  
**Climate zone** : [Cfb] Marine Mild Winter, warm summer, no dry season.

**Net Floor Area** : 2 587 m<sup>2</sup>  
**Construction/refurbishment cost** : 2 600 000 €  
**Number of Work station** : 299 Work station  
**Cost/m2** : 1005.03 €/m<sup>2</sup>

**Proposed by :**



### General information

URBAWOOD is an innovative project of commercial building 100% wood, "oriented" sustainable development, born from the combination of 3 companies: Gerim, Nacarat Wood Construction and Design.

This concept was realized for the first time on THE urbawood located in Lille. In short:

- Surfaces: 2500 sq.m. / 2,250 m<sup>2</sup> Useful Surface (5 levels)
- Capacity: 299 people
- Level Energy Performance BBC (Low Consumption Building)
- Location: Quai Hegel - ZAC Euratechnologies - Lomme (59)

<https://www.youtube.com/watch?v=KO1Y0GH9-Pg>

[Sustainable development approach of the project owner](#)

Nacarat develops a committed sustainable development approach, based on an exemplary and certified ecodesign tool.

Here, URBAWOOD is a turn key solution made out of wood to the creation of tertiary spaces. This efficient concept of modular building makes possible the construction of RT2012 office buildings within weeks. The surfaces keep all the promises made in terms of construction reliability, deadlines ...

The first 4 level building (representing 2,600 m<sup>2</sup>) was built in less than 6 weeks!

## Architectural description

Developed by Nacarat and designed with the architecture firm Agence A, this new 2,600m<sup>2</sup> large building was built with an industrial 100% wood process (European and PEFC certified), for the production of the two facades, floors, the partitions and the elevator shaft. From the foundations on March 12, 2012 to the end of the envelope on June 10th, it took only three months for regional construction companies Gérim and Création Bois to achieve the construction.

The well-being of future occupants is also one of the ambitions of the project, because beyond the warmth and natural look provided by wood, they will benefit from a high level of thermal and visual comfort, enhanced by integration of sunscreens on exposed facades.

## Building users opinion

"The Urbawood building was built in record time, with an innovative process. We have installed on the first three levels, our ADICODE® spaces (innovation and co-design workshops). Installing innovative spaces in an innovative building, what a coincidence and a symbol for us to use in promotion!"

The completion of construction was done in excellent collaboration - and in a very united way - with teams from Nacarat, who were able to meet our deadlines and our ... "quirks"!

It is a building where it feels good to be, wooden construction gives a real cozy dimension. Several months after we moved in, the scent of the wood still exhales into the stairwell, it reminds itself to us with each pass, it's a nice touch for the "inhabitants" of the "house." "

Céline Dubois-Duplan, Marketing Manager / Corporate Relations Group HEI ISA ISEN, pilot ADICODE®

## If you had to do it again?

Other Urbawood concept projects are currently in design in 2015. Other 100% wood projects or with wood facade / concrete core are under construction, while others have already been delivered.

## See more details about this project

<http://www.urbawood.fr/>

## Stakeholders

### Stakeholders

Function : Others

Diagobat

Bertrand André

<http://www.diagobat.fr/>

Function : Company

Creation bois construction

<http://www.creationbois.fr/>

Function : Others

Gérim

Rodrigue Lescaillet

<http://www.gerim.com/fr>

Function : Others

Effigénie

Camille Thiriez

<https://www.effigenie.com/>

Function : Designer

cabinet d'architectes Agence A

## Contracting method

Off-plan

## Energy

### Energy consumption

Primary energy need : 53,00 kWh<sub>ep</sub>/m<sup>2</sup>.an

Primary energy need for standard building : 115,00 kWh<sub>ep</sub>/m<sup>2</sup>.an

Calculation method :

Breakdown for energy consumption : Heating: 12 kWh<sub>EP</sub> / m<sup>2</sup> / year

Lighting: 27

Hot Water ref: 0

Auxiliary: 14.4

### Envelope performance

Envelope U-Value : 0,35 W.m<sup>-2</sup>.K<sup>-1</sup>

More information :

100% Wood, including the elevator shaft.

## Renewables & systems

### Systems

Heating system :

- Condensing gas boiler
- Water radiator

Hot water system :

- No domestic hot water system

Cooling system :

- No cooling system

Ventilation system :

- Nocturnal Over ventilation
- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

### Smart Building

BMS :

To provide optimum control of the installation, EFFIPILOT takes into account daily occupancy data, comfort, related to weather forecasting and to the building inertia. These data are then introduced into algorithms

## Environment

### Urban environment

Land plot area : 1 200,00 m<sup>2</sup>

Built-up area : 60,00 %

Green space : 40,00

Located in Euratechnologies, a many times national award-winner eco-district, Urbawood® is part of an innovative, mixed urban project designed by Soreli. This new district of Lille -where Nacarat is also developing three other Programmes - will eventually include 1,600 residents and 3,000 jobs in the ICT sector.

## Products

### Product

Effipilote

Effigénie

Camille Thiriez

<https://www.effigenie.com/>

**Product category :** Table 'c21\_italy.innov\_category' doesn't exist SELECT one.innov\_category AS current,two.innov\_category AS parentFROM innov\_category AS oneINNER JOIN innov\_category AS two ON one.parent\_id = two.idWHERE one.state=1AND one.id = '27'

Control and optimization of the Building Management System

The system seems to pose no concern.



## Costs

### Construction and exploitation costs

Cost of studies : 160 000 €

Total cost of the building : 2 600 000 €

## Health and comfort

### Water management

Phytoremediation on Euratechnologie area for rainwater

### Indoor Air quality

An air quality study was conducted by the Ecole des Mines de Douai, specifically to test the methodology on a wooden building. The results of the methodology are satisfactory ... and the measurements of air quality too.

### Comfort

**Acoustic comfort :** Despite the acoustic qualities recognized by the user, the building has not passed the theoretical level requested by Certivéa. This gap prevents the building to get the BBC label Effinergie although it has the required energy potential

## Carbon

### GHG emissions

Rabot Dutilleul realized 3. Scope 3 carbon footprint more than 2/3 of broadcasts from reinforced concrete used in our constructions. Obviously, a building 100% (European PEFC) can only be favorable in comparison to a more technical conventio

### Life Cycle Analysis

**Eco-design material :** -210 M3 of glulam (poles beams)Massive wood

-60m3 (floors and skeleton poles framing wall)

-8 M3 of cross-laminated timber (KLH elevator shaft)

-30m3 Cladding

-4m3 Lathing

-63 M3 bracing wall panels and flooring.

- Not Counted: baseboards, interior doors, ...

More than 375 m3 of wood approx / 2587 sq.m. = 145 dm3 / m² SHON.

<https://www.construction21.org/france/data/sources/users/4713/121012vgradiellos-nacarat.xlsx>

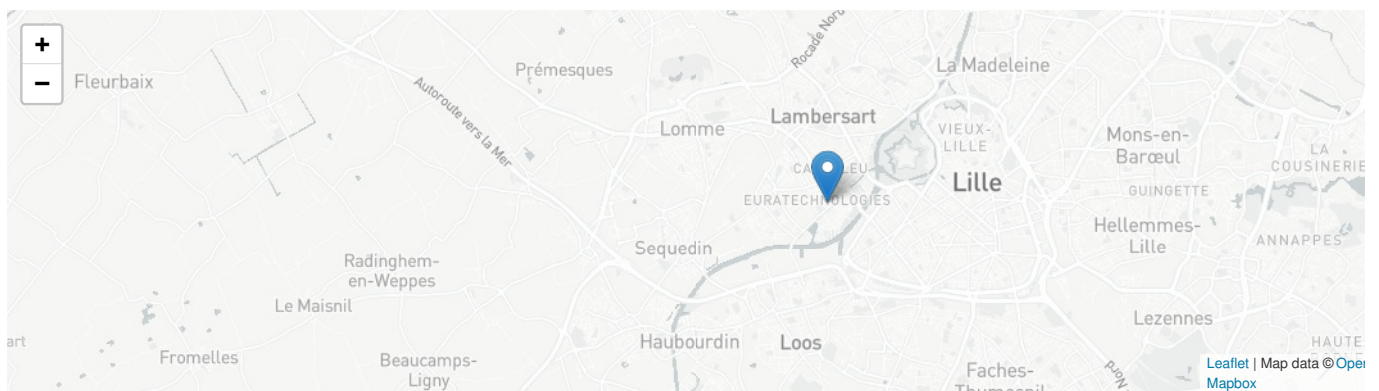
## Contest

### Reasons for participating in the competition(s)

Biobased materials : 100% wood  
Smart Buildings : Adopted solution is Effipilote, a pioneer for building management systems  
Health & Comfort : 100% wood inside and outside; awarded with AMO 2014 for the quality of work, the specific indoor air quality analysis (wood building) by the Ecole des Mines de Douai.

Third Industrial Revolution:

- Energy efficiency
- Circular economy
- Smart Grids



Date Export : 20230627000512