Doge

by Rodolphe Deborre / 2018-05-25 10:51:47 / France / 9068 / FR

Primary energy need :

55 kWhep/m².an

(Calculation method : RT 2012)

ENERGY CONSUMPTION

Economical building — *Building*

< 50	A	
51 à 90	B	B
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building Type : Office building < 28m
Construction Year : 2016
Delivery year : 2017
Address 1 - street : 2-4 Avenue des Saules 59100 LILLE, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 5 390 m²
Construction/refurbishment cost : 5 500 000 €
Number of Work station : 500 Work station
Cost/m2 : 1020.41 €/m²

Certifications :

breeam

Proposed by :

NACARAT GROUPE RABOT DUTILLEUL

Rabot Dutilleul Construction

General information

Doge is a new office building developed by Nacarat and built by Rabot Dutilleul Construction at EuraTechnologies, an eco-district of Lille dedicated to start-ups. The building features a unique brick facade designed by architect firm Tarabusi. The program provides its users with eco-designed, modern, integrated, open and particularly environmentally efficient offices. The Doge is indeed the first program in the Hauts-de-France region to be Breeam certified "Very Good".

Sustainable development approach of the project owner

Participating in shaping an intense city that is both environmentally friendly and environmentally friendly is an exciting challenge. Alongside elected representatives, communities and with our partners, we (Nacarat) try to provide answers to societal and ecological issues of the city. While assuming our position as an economic player, we are committed to producing buildings that improve the environment in which they fit: creating economic value (corollary of employment and other social values) and restoration the ecological value of the territories. Evaluated on the basis of the ISO 26000 standard, Nacarat's commitment to sustainable development is based on the ASAP * eco-design tool, developed by the company on the basis of international work on the sustainable city (LEED,

BREEAM, HQE, Living Building Challenge, Positive Economy). To progress and be successful in this area, Nacarat partners with experts specialized in areas such as biodiversity, energy efficiency, renewable energies, pedagogy ... These initiatives develop as many concrete solutions, on 15 specific themes, in particular, to promote urban mixes, create links and add a dose of enthusiasm to the concept of living together. * As sustainable as possible / as sustainable as possible

Architectural description

Inaugurated in June 2017, the "Doge", a tertiary operation of 5 100 m2, is part of the ZAC des Rives de la Haute-Deûle. The development of this sector of the Lille metropolitan area is based on the former spinning mill Le Blan and Lafont, flagship of textiles in the early twentieth century, which closed its doors in 1989, leaving 2,500 people unemployed. Remarkable "château de l'industrie", the factory rehabilitated by Vincent Brossy now hosts a business incubator in the technology and communication sector. The brick ship trades warp and weft fabrics for fibers and nodes of computer networks, within a neighborhood whose name, Euratechnology, affirms the persistence in the mutation of economic activities.

The offices of the "Doge" accompany the growth of this business park. The specifications established during the competition organized by the developer at the request of the developer prescribed the use of terracotta to meet the local context. A constraint that the architect Paolo Tarabusi has interpreted in an original way. Rather than a brick apparatus, Tarabusi chose to use in front a product usually used for the realization of jamb in the individual habitat. Raw and uncoated, this element from the Terreal catalog gives its identity to the project. The approach is not unlike that of another architect, such as Tarabusi, a Genoese living in France, Renzo Piano, who turned clay shingles to pose on the front of a set of housing built rue de Meaux, and then declined the process in several projects.

The application of the catalog product to the tertiary sector required only a minimal adaptation, compatible with a tight construction budget. The jambs are made in pairs, and come out as twinned extrusion lines. The two pieces arranged in a mirror are separated by the breakage of a hollow line. It is precisely this pathway introducing a deliberate fragility that has been removed from the production line. Becoming a monolith of terracotta, the piece has a cavity that has been filled with cement reinforced with two strands. The brackets of the concrete elements were sealed in this concrete. Placed along a gap both full and empty, the terracotta mullion is the only vertical part of the facade. It is cut horizontally by a prefabricated white cement strip that marks each floor height, a mineral evocation of the light stones inserted into the brickwork of the facades of the region. A ceramic piece also available in the Terreal catalog has made the corner fittings, adapting to situations where the facades do not follow a perpendicular geometry.

1500 pieces were laid on the entire building using dry assembly methods. A rationalist at heart, Paolo Tarabusi wanted to reveal to the aware eye the non-wearing nature of the façades, by creating a hollow between the terracotta and the concrete. The wood joineries have been set back, and their vertical uprights are concealed by the facade elements. Vibrating vertical lines of "combing" intended to hang the coating on the jambs, the Doge can appear closed in its radicality. An impression of fortresses that dissipates once inside, largely open to the neighborhood.

source: https://archicree.com/realisations/doge-a-lomme-grand-dournournement-version-terre-cuite/

Building users opinion

Green Lease

If you had to do it again?

Yes, with even more precision in the use of home automation Effipilot .. and more circular economy.

See more details about this project

http://corporate.nacarat.com/fr/corporate/presentation/actualites/detailactu/87/a-lille-euratechnologies-nacarat-pose-la-1ere-pierre-de-doge.html
https://www.batiactu.com/edito/briques-terre-cuite-geantes-un-immeuble-bureaux-lillois-51163.php

Stakeholders

Contractor

Name : Nacarat
Contact : Anthony Ponthieux
http://corporate.nacarat.com/fr/corporate/realisations/detail/48/lille---lomme-lomme-3.html

Construction Manager

Name : Tarabusi
Contact : Paolo Tarabusi
https://www.tarabusi.net/

Stakeholders

Function : Other consultancy agency

PROJEX

http://www.projex.fr/

Function : Construction company

Rabot Dutilleul Construction

Patrice Vasse

http://www.rabotdutilleulconstruction.com/

Contracting method

Off-plan

Energy

Energy consumption

Primary energy need : 55,00 kWhep/m^2.an

Primary energy need for standard building : 77,00 kWhep/m^2.an

Calculation method : RT 2012

Breakdown for energy consumption : Heating: 44% To: 18% Lighting: 25% ECS: 13%

Envelope performance

Envelope U-Value : 0,24 $W.m^{-2}.K^{-1}$

More information :

The facade of the building will be made of earthenware - concrete with interior insulation. The roof will be insulated under waterproofing. Low floors are isolated in the underside. In order to achieve RT2012 compliance, the thermal bridges created by the intermediate floors are treated. The office area is not air-conditioned, it is category CE1 in the sense of the thermal regulations.

Indicator : EN 13829 - q50 » (en m3/h.m3)

Air Tightness Value : 0,90

Renewables & systems

Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Other information on HVAC :

The building will be heated via gas condensing boilers. The heat emission is carried out using radiant hot water panels.

The air treatment of the building is carried out using CTA Double flow with high recovery. Networks of
outdoor ventilation will be isolated
The production of DHW will be obtained by balloons of 50 Liters at the rate of one balloon per sanitary group.

The lighting will be of the low-energy lamp type, and the management will be adapted to the needs of users and the provision of natural light.

Smart Building

BMS :

EffiPilot software for data management and energy optimization

Environment

Urban environment

Land plot area : 2 165,00 m^2

Built-up area : 80,00 %

Green space : 433,00

DOGE fits into the larger context of the new district of Euratechnologies, on the edge of the Deûle, in the metropolis of Lille.

This center of excellence contributes to the renewal of a rapidly changing neighborhood. By 2020, there will be 1600 more inhabitants, and 3,200 jobs will be occupied in the 97,000 m² of tertiary sector in the area.

Products

Product

Effipilot

Effipilot

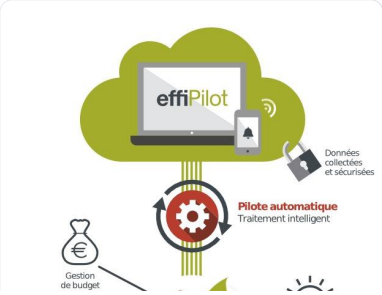
Jean-Thibaut Gay

http://www.effipilot.com/

Product category : Management / Others

GTP piloting software for automatic optimization

The company is occupying the building



Costs

Construction and exploitation costs

Cost of studies : 500 000 €

Total cost of the building : 5 250 000 €

Health and comfort

Indoor Air quality

Cf Breeam Very Good

Summer comfort

The openings of the bays of the same room other than temporary occupancy, and category CE1, open at least 30% of their total surface. This limit is reduced to 10% in the case of premises where the difference in altitude between the lowest point of its lowest opening and the highest point of its highest opening is greater than or equal to 4m.

Comfort

Health & comfort :

See Breeam

During the construction phase, at the initiative of a Rabut Dutilleul Construction construction worker, the installation of a temporary poultry house was a real meeting point for the entire construction site. This initiative has been replicated on several other projects since.

Carbon

GHG emissions

GHG in use : 6,00 $KgCO_2/m^2/an$

Methodology used :
RT2012

Building lifetime : 50,00 année(s)

Life Cycle Analysis

Eco-design material :

As part of our BREEAM certification (Very Good level), all the wood used on the construction site, including formwork, billboards and other temporarily used wood has been legally harvested and marketed:

- Harvesting of wood according to the legislation applicable in the country of harvest,
- Legal marketing:

- Export in accordance with the laws of the exporting country,

- Import in accordance with the laws of the importing country, OR in accordance with the laws of the exporting country,

- Wood not listed in CITES (Convention on International Trade in Species of wild fauna and flora threatened with extinction). FSC, PEFC, or equivalent certified wood recognized by BREEAM and validated by the CCP were required to meet this requirement.

Contest

Reasons for participating in the competition(s)

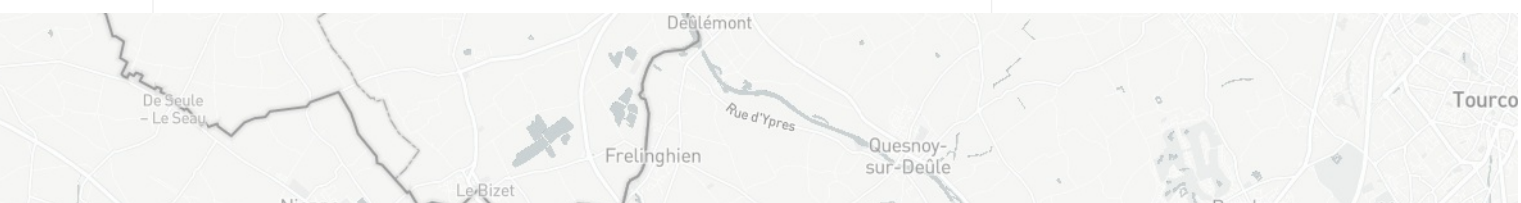
Breeam Effinergie + pilotage domotique Effipilot

Building candidate in the category

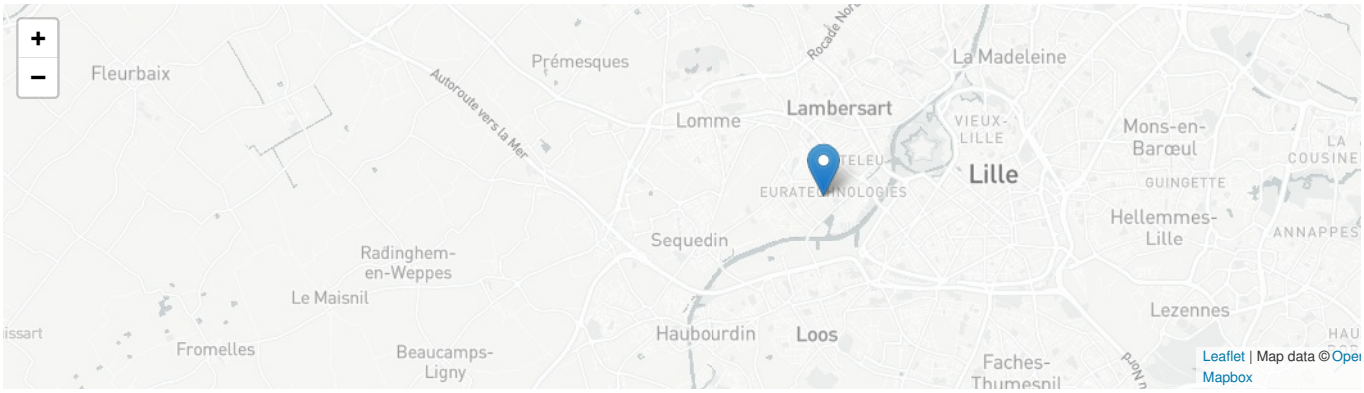
Energie & Climats Tempérés

Coup de Cœur des Internautes

Grand Prix Construction Durable



Prix des Etudiants



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