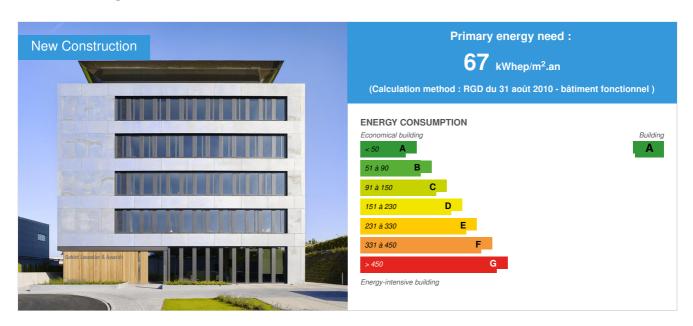


Office building Goblet Lavandier & Associés Ingénieurs-Conseils S.A.

by Elisabeth Krier / (1) 2019-06-07 09:15:50 / Luxembourg / ⊚ 7643 / ▶ FR



Building Type : Office building < 28m

Construction Year : 2016 Delivery year : 2017

Address 1 - street: 53, rue Gabriel Lippmann 6947 NIEDERANVEN, Luxembourg

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

Net Floor Area: 3 m² Useful area (it)

Construction/refurbishment cost : 6 000 000 €

Cost/m2: 2000000 €/m²

Certifications:



Proposed by :



General information

Goblet Lavandier & Associés Ingénieurs-Conseils is installed in its new office building, in energy class AAA and certified DGNB Platinum, since January 1, 2018.

The building has been designed as an enearlylyzero *energy building*, with an innovative, robust and easy-to-use technical concept, and in compliance with all currently recognised sustainability criteria. It is also a workspace designed as a full-scale laboratory.

The net ceiling heights are higher than usual, namely 3.20 m on the ground floor and 2.89 m in the

offices on the floors, which provides a feeling of increased interior space. The doors are made of wood, but a lateral glass part allows visual contact with the occupants, while allowing natural light to pass through the corridor.

The challenge of careful acoustics was addressed by installing micro-perforated wooden panels in meeting rooms, acoustic panels in partitions and absorbent furniture in workspaces.

Data reliability

Assessor

Stakeholders

Contractor

Name : GOLAV IMMO S.A. Contact : Lavandier André

Construction Manager

Name : GOLAV IMMO S.A. Contact : Lavandier André

Stakeholders

Function: Designer

Bureau d'architecture Bauer Christian & Associés

NICOLAS Louis Edmond

Contracting method

Separate batches

Owner approach of sustainability

The DGNB Platinum certified building is designed as an AAA and Nearly Zero Energy Building. Particular importance was given to the quality of the working environment and the reduction of energy consumption. Thus, the building envelope has been optimized in terms of airtightness, thermal insulation, solar protection, natural lighting in relation to window surfaces and night freecooling. The all LED lighting and related controls have been designed to respond to the intuition of the users. The building is equipped with controlled hygienic ventilation with efficient heat recovery and is supplied with heat and cooling by reversible heat pumps supplied by geothermal boreholes. Rooftop photovoltaic panels cover a large part of the electricity needs of the building's technical installations and the car park's electrical terminals.

The building was planned by GL&Ass engineers, inclose collaboration with GL&Ass management and without forgetting the opinionoftheemployees, as the main users of the premises. From the beginning of the design phase, we discussed with our employees and launched internal surveys. The concept finally adopted, with offices for small groups of 3 to 4 employees, may run counter to current *trends in open space* or even *desk sharing*, but it best reflects the way GL&Ass works, and guarantees an intimate and calm environment for our employees.

From a human point of view, we have seen that our employees are happy and proud of their workplace, which translates into a low rate of departures to other employers. Our team of approximately 135 employees is finally gathered in a single building, and not as before, where GL&Ass staff were located inthree different buildings. Now we have the feeling of a team spirit, in which communication and human integration are much easier. In addition, we have very positive *feedback* from our employees during surveys on indoor winter and summer temperature.

With the move, GL&Ass decided to migrate the entire IT system to the cloud and promote paperless. All engineers/technicians who go to the site are equipped with an iPad. Thanks to the cloud, the connection to the iPad via Wifi, anywhere, is the same as at the office. Thanks to the introduction of a DMS D(ocument Management System), the search for documents on site is now possible and easy viaiPad, so printing documents is no longer necessary. The result is a significant reduction in paper consumption.

Architectural description

The building has a simple and functional cube-shaped architecture, among other things in order to shorten paths and catalyse internal communication. Meeting rooms on each floor allow project teams to hold meetings in a flexible and spontaneous manner.

The net ceiling heights are higher than usual, 3.25 m on the ground floor and 2.89 m in the offices on the upper floors, providing a feeling of increased interior space. The doors are made of wood, but a lateral glass part allows visual contact with the occupants, while allowing natural light to pass through the corridor.

If you had to do it again?

Energy

Energy consumption

Primary energy need: 67,00 kWhep/m².an

Primary energy need for standard building: 182,00 kWhep/m².an Calculation method: RGD du 31 août 2010 - bâtiment fonctionnel

Renewables & systems

Systems

Heating system:

- Heat pump
- Low temperature floor heating
- Radiant ceiling

Hot water system :

- Individual electric boiler
- Heat pump

Cooling system:

- Geothermal heat pump
- Floor cooling
- Radiant ceiling

Ventilation system :

- Natural ventilation
- Nocturnal ventilation
- Free-cooling
- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic
- Heat pump

Products

Product

Product category

The main aim of the construction of the new headquarters is to create better working conditions and to ensure that the well-being of our employees. It is a priority for GL & Associates that they feel comfortable and can work ina pleasant and

functional environment. To this end, the workstations are located along the facades, providing an excellent view to the outsi de and a lot of natural light.

The cafeteria with relaxation area allows teams to meet for a coffee or to spend a relaxed lunch break together. This restaurant and relaxation area overlooks a terrace to the south of the building, adjacent to the green area.

From a human point of view, we have seen that our employees are happy and proud of their workplace, which translates into a low rate of departures to other employers.

Our team of approximately 135 employees is finally gathered in a single building, and not as before, where GL & Associés' staff were spread over3 different buildings. Now we have the feeling of a team spirit, in which communication and human integration are much easier.

In addition, we have very positive feedback from our employees during surveys on indoor winter and summer temperature.

Costs

Located in an activity zone, our employees can enjoy the buses, restaurants and shops in the surrounding area. In order to have better public transport connections, we have participated in a mobility plan.

Building Environnemental Quality

Building Environmental Quality

- acoustics
- comfort (visual, olfactive, thermal)
- · energy efficiency
- mobility

Contest

Reasons for participating in the competition(s)

Certification DGNB (Deutsche Gesellschaftfür Nachhaltiges Bauen) niveau platine(meilleure classification)

Efficacité au niveau de la consommation énergétique. Il nous importe grandement de limiter au maximum la consommation d'énergie et de ressources du bâtiment, et cela entre autres par un choix judicieux du concept d'éclairage et des luminaires mis en place.

Le bâtiment est très bien isolé et ne dispose pas de chaudière, mais d'une pompe à chaleur réversible, qui permet et de chauffer et de refroidir le bâtiment. Au centre du bâtiment, un puits de lumière apporte à la fois de la lumière naturelle, mais sert également de puits de rafraîchissement, assuré par une ventilation nocturne naturelle.

L'ensemble de la surface de la toiture est recouvert de panneaux photovoltaïques.

Les eaux de pluie sont récupérées en toiture et utilisées pour les sanitaires et l'arrosage des alentours.

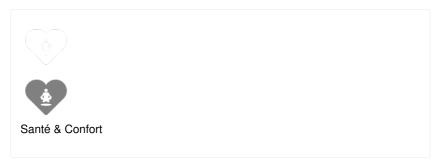
Le bâtiment se développe en sous-sol sur trois niveaux. On y trouve une centaine de places de parking, dont certaines sont équipées de bornes de recharge pour véhicules électriques.

Un emploi rigoureux de matériaux de construction sains ; le résultat ayant été validé par des mesures de la qualité d'air et du contrôle de non-présence de substances polluantes.

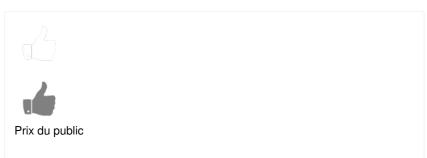
Le bâtiment a permis à GL&Ass de réaliser certains principes que nous défendons et que nous conseillons à nos clients.

Un système élaboré et exhaustif de *monitoring* permet le suivi et le contrôle des consommations énergétiques, avec plus de 700 points de mesure. Ces données sont analysées par les équipes responsables pour l'exploitation du bâtiment et vont permettre à la fois d'optimiser la consommation d'énergie du bâtiment tout en assurant le confort et bien-être des collaboratrices et collaborateurs, et *lastbut not least* d'améliorer le service à nos clients par un retour d'expérience très concret.

Building candidate in the category











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