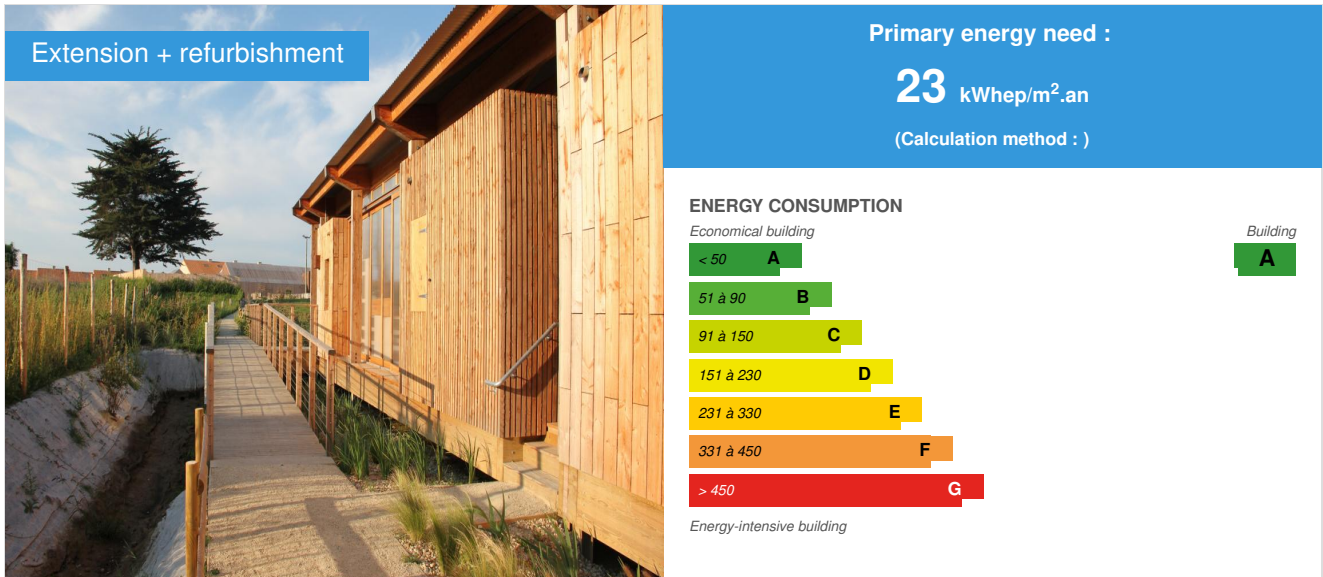


## The "Marais Girard" farmhouse

by [marie PERIN](#) / 2015-06-25 11:19:31 / Francia / 12586 / FR



**Building Type** : Hotel, boarding house  
**Construction Year** : 2013  
**Delivery year** : 2014  
**Address 1 - street** : Le Marais Girard 85470 BRETIGNOLLES SUR MER, France  
**Climate zone** : [Cfb] Marine Mild Winter, warm summer, no dry season.

**Net Floor Area** : 1 300 m<sup>2</sup>  
**Construction/refurbishment cost** : 2 600 000 €  
**Number of Bedroom** : 15 Bedroom  
**Cost/m2** : 2000 €/m<sup>2</sup>

### General information

The old farmhouse "Marais Girard" is located 300 m from the beach, at the joint between a residential area, a rural area of marshes and a beach area. The site, with an area of 1.2 ha includes two existing buildings: the farm house with its barn and a wetland fed by a landscaped valley. The project consists in the creation of an ecological village for holidays composed of 16 villas (3 types) and common buildings (restaurant, bar, pool, participatory kitchen, greenhouse, dryer, hall creations). The program facilities and architecture meet the needs of vacationers affording privacy while providing a strong connection with the natural environment, the urban context and seaside activities. Traffic on the site is done only on foot or by bike. The bias of the villas is to provide a real time spatial experience in a summerstay.

### Sustainable development approach of the project owner

The client wanted a global sustainable development approach so induced in all areas of the project from its planning to its operation. Therefore, we participated in creative workshops on this topic to determine most relevant fields of action to develop and how to prioritize the project. The sustainable development approach is therefore built on programming, integration into the site, design of buildings, construction processes and materials, recovery, equipment, renewable energy, usage, maintenance ... even the choice of detergents to laundry services.

### Architectural description

The old farmhouse "Marais Girard" is located 300 m from the beach, at the joint between a residential area, a rural area of marshes and a beach area. With a

total area of 1.2 ha the site includes two existing buildings: the farm house and barn and the wetland fed by a landscaped valley. The project consists in creating an ecological holiday village composed of 16 villas (first phase:pontoons villas made), 5 guest rooms, a company housing and communal buildings (restaurant, bar, pool, kitchen participatory, greenhouse, dryer, hall creations). The program, facilities and architecture meet the needs of privacy of vacationers while providing a strong connection with natural environment, urban context and seaside activities. Circulation on the site is done only on foot or by bike. The bias of the villas is to provide a real time spatial experience in a summer stay. Public areas are partly formed by the old farmhouse rehabilitation and partly by the new construction. The program draws its originality from close collaboration between the main contractor and the client in feasibility phase / programming. This architectural program was developed after creative workshops and includes:

- A hall that will host the creations of temporary events such as designers markets, flea markets, organic markets. - A "collective kitchen" restaurant is designed in a close relation with a garden of flavors and a vegetable greenhouse that will host school groups to introduce them to organic food.
- A "natural laundry service" for washing and natural drying for the hotel and families staying at the villas. This device incorporates the features of "local dryers" and reduces the carbon footprint while ensuring an educational and recreational tool.
- The "pontoons villas" were created for seasonal use from April to October. These habitats are exploring the boundary between inside and outside by a set of sealed and insulated modules, as the rooms and the bathroom, which define a common living space with the possibility to completely open to the outside. These spaces are allocated on a levitating pontoon where are placed the private and public terraces, accesses and outdoor showers. - An intermediate level between the level of housing and land allow seats in the South directly related to the protected area of the reed bed and avoid the installation of railings. These spaces are deployed under a common protection of roof solar panels. The other patio perched Villas will be conducted in a second phase of construction.

## Building users opinion

Information to be collected for managers.

## If you had to do it again?

Convincing the owner to build all the Villas at once and not in two different phases due to the difficulties for landscape regeneration and constraints of seasonal activity.

## Stakeholders

### Stakeholders

Function : Designer

TICA

marie Périn

<http://www.ticarchitecture.fr>  
design and production

### Contracting method

Other methods

## Energy

### Energy consumption

Primary energy need : 23,00 kWhep/m<sup>2</sup>.an

Primary energy need for standard building : 45,00 kWhep/m<sup>2</sup>.an

Calculation method :

Breakdown for energy consumption : Too complex because several buildings and seasonal use

Initial consumption : 150,00 kWhep/m<sup>2</sup>.an

### Real final energy consumption

Final Energy : 23,00 kWhf/m<sup>2</sup>.an

### Envelope performance

Envelope U-Value : 0,43 W.m<sup>-2</sup>.K<sup>-1</sup>

[BET ALBDO](#)

## Systems

### Heating system :

- Electric radiator
- Wood boiler

### Hot water system :

- Solar Thermal

### Cooling system :

- No cooling system

### Ventilation system :

- Natural ventilation
- Free-cooling
- Humidity sensitive Air Handling Unit (Hygro B)

### Renewable systems :

- Solar Thermal
- Wood boiler

### Solutions enhancing nature free gains :

conception bioclimatique

## Environment

### Urban environment

Land plot area : 12 000,00 m<sup>2</sup>

Built-up area : 30,00 %

Green space : 8 000,00

The old farmhouse "Marais Girard" is located 300 m from the beach, at the joint between a residential area, a rural area of marshes and a beach area. The site with 1.2 ha, includes two existing buildings: the farm house and barn and a wetland fed by a landscaped valley.

## Products

### Product

ISONAT more 55 Flex

BUITEX

ZA Le Moulin - 10, rue Pierre Giraud BP 23 - 69470 COURS-LA-VILLE Tél. 04 74 89 95 96 Fax 04 74 89 88 89  
contact@buitex.com

<http://www.buitex.fr/fr/batiment/>

**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 = '9'

Wood fiber for insulation between wooden posts of 145mm



Difficulty in its acceptance by the control office. As a public establishment, high fire resistance standards were required. So, percentages of wood used for interior coatings were negotiated and firewall (as fermacell) screens were implemented to mix with interior finishes.

Rexolatte The wood fiber plaster M0 ERP

UNILIN

info.insulation.fr@unilin.com Tél: + 33 (0) 148 94 96 86 UNILIN INSULATION SAS Immeuble Estreo 1-3 rue d'Aurion 93110 Rosny-sous-Bo

<http://www.unilininsulation.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 = '7'

Insulating sandwich panels with integrated chevrons to isolate existing buildings over the frame and leave well apparent.

Difficulty in acceptance by the control office for the fire resistance + project economics.



## Costs

### Construction and exploitation costs

Renewable energy systems cost : 90 000,00 €

Cost of studies : 206 000 €

Total cost of the building : 2 600 000 €

## Carbon

### GHG emissions

GHG in use : 13,00 KgCO<sub>2</sub>/m<sup>2</sup>/an

Methodology used :

2005 BBS software CLIMAWIN SLAMA

### Life Cycle Analysis

Eco-design material : Wood fiber insulation, insulating lime-hemp materials recovery site as tiles or rafters, ...

## Contest

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

The purpose of this construction was to make maximum use of bio-based and site materials such as materials coming from the deconstruction. Thus, an original and efficient reuse despite the difficulties of standards and regulations related to public buildings and construction in general.

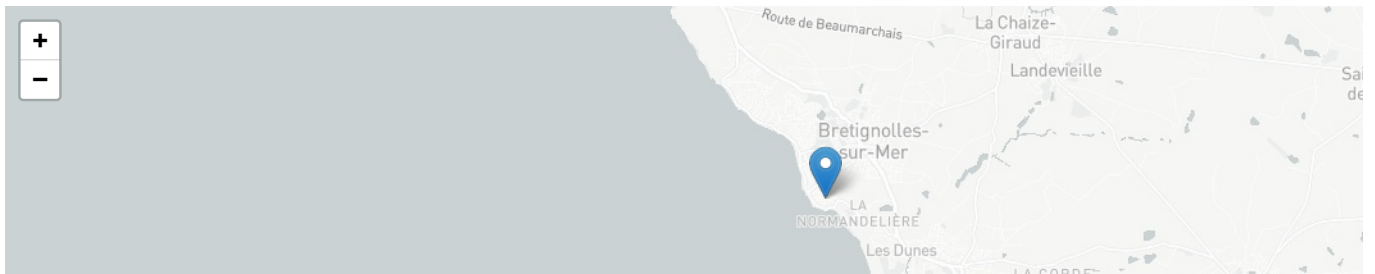
- All insulators are natural and all timber and finishing wood are certified.
- Internal linings in old renovated building of the farm are lime / hemp.
- The wood coming from the deconstruction of a barn have been reused in partition walls and in rooms and public areas decoration. The rafters were cut and used as external coating for the reception shaping a patchwork.
- Old tiles were re-used in walls to build a natural dryer for hotel laundry services.

This realization came about through a convinced project management, committed companies and a determined team of architects to follow their common objectives of this exemplary project.

### Building candidate in the category



Matériaux bio-sourcés et recyclés





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