



PRESS RELEASE



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Bouygues Construction introduces BYSprong, an innovation that will massify the energy renovation of buildings

BYSprong is an offer from Bouygues Construction that meets the challenges of renovating the building stock in the context of the European EnergieSprong initiative. Its priority target is social housing, but it will be extended to educational buildings, 3rd sector buildings and private housing. The innovative nature of the project consists of industrialised solutions intended to reduce both the costs and the duration of the work while increasing the energy performance of the building.

Developed by the Bouygues Construction Research & Development department, **BYSprong provides an industrialised answer to the need to speed up the energy renovation of the building stock.** It is an offer that enables customers to transform an energy-intensive building into a positive-energy building, and enables occupants to maintain their comfort, because the work is completed in an optimised timeframe.

How? The BYSprong offer is based on 5 major solutions. These industrialised and standardised renovation solutions deliver economies of scale to customers. They can be implemented collectively or separately, depending on needs:

- 1/ **Automated engineering studies:** the building is scanned, and the resulting 3D data is processed to produce a carbon footprint, a thermal study, a cost analysis and a manufacturing schedule.
- 2/ **Factory prefabrication of the insulating shell:** BYSprong uses local partners and bio-sourced materials to produce a tailor-made shell ready for assembly onsite.
- 3/ **Optimisation of energy production and consumption:** an all-in-one energy module is integrated, which produces heating, domestic hot water and ventilation and ensures the management of any photovoltaic installation. It can be accessed for maintenance without disturbing the occupant.
- 4/ **Compensation of energy consumption** by the production of electricity from photovoltaic panels.
- 5/ **Control and management of consumption:** the tenant, landlord and maintenance contractor can monitor and optimise consumption; real-time detection of any malfunction allows extremely rapid repairs.

Watch a video of the BYSprong offer: <https://www.youtube.com/watch?v=2N8EtmhtwWs>

Nicolas Borit, Deputy CEO of Bouygues Construction, said: “The French social housing stock represents five million homes, 25% of which are classed as ‘energy inefficient’. The rehabilitation of this stock is an essential part of responding to the climate emergency. Our desire with BYSprong is clearly to help to meet this key challenge.”

First implemented in several operations (see example in the box below), the BYSprong offer can now be rolled out on a massive scale. In particular, two projects, both in northern France, are due to start in 2022: 207 housing units for Vilogia and 318 housing units for Maisons & Cités.



A CONCRETE EXAMPLE OF ENERGY RENOVATION WITH BYSPRONG IN LONGUEAU, NEAR AMIENS, NORTHERN FRANCE



The first BYSprong renovation project consisted of retrofitting twelve 1960s houses near Amiens, making them energy self-sufficient.

The project, which covered the design, installation, operation and maintenance phases, was carried out by teams from Bouygues Bâtiment Grand Ouest and by Dalkia (EDF Group) for maintenance.

The teams carried out a 3D scan of the original cladding to enable the production of a prefabricated, 40 cm thick shell adapted to the existing cladding.

Energy systems were installed in modules externally. Each one is shared by a cluster of three houses.

Thanks to these improvements, the homes now have a level A Energy Performance Diagnosis, compared with D or even E before the project.

The annual production of electricity by the photovoltaic collectors on the roof (7,000 kWh per unit) covers the residents' energy consumption.

Key figures:

- 7,000 kWh per home is the annual electricity production of the photovoltaic collectors.
- 30-year guarantee on energy performance.

For more information on this project:

- <http://www.energiesprong.fr/decouverte-des-coulisses-de-la-renovation-pilote-de-longueau/>
- [http://www.energiesprong.fr/wp-content/uploads/2018/06/Communiqu%C3%A9-de-presse-EnergieSprong-France- -Coulisses-Longueau-VF.pdf](http://www.energiesprong.fr/wp-content/uploads/2018/06/Communiqu%C3%A9-de-presse-EnergieSprong-France--Coulisses-Longueau-VF.pdf)

About Bouygues Construction

With 52,800 responsible and committed employees in more than 60 countries, Bouygues Construction designs, builds and operates projects in the sectors of building, civil works and energies and services. A leader in sustainable construction, the Group sees shared innovation as its primary added value and ensures that health and safety are its top priorities. It has pledged to cut its greenhouse gas emissions by 30% by 2030 and offers its customers a wide range of low-carbon solutions.

In 2021, Bouygues Construction generated sales of €12.8 billion.

Press contacts

Hubert Engelmann +33 6 9905 4666 – h.engelmann@bouygues-construction.com

Marie Pinot +33 7 6164 2281 – m.pinot@bouygues-construction.com

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