

PREFABRICATED ENERGY
EFFICIENCY SOLUTIONS



Renovate like never before.

At **Retrofitt**, we breathe new life into your buildings with innovative prefabricated solutions. By modernizing roofs and facades, we significantly reduce energy losses and transform buildings into energy-neutral structures.

ADVANTAGES:



Energy efficiency: Achieve energy neutrality and EU climate targets with innovative renovation techniques.



Sustainability: Reduce the environmental footprint of construction sites with eco-responsible and sustainable solutions.



Social commitment: Improve the comfort of social housing and public buildings by remedying defective insulation and obsolete installations.



Renovating the built environment.

Renovate faster, smarter. With Retrofitt by BuildUp.

We transform existing homes with factory-prefabricated facades and roofs, ready for installation in record time.



There are over **43 million homes to be renovated in Europe by 2050.** Industrializing this process will help us achieve this goal.

IT'S URGENT TO SPEED UP RENOVATION.

The construction sector is not moving fast enough to meet the climate and social challenges. We need to rethink our methods.

At Retrofitt, we have developed a unique approach to support social housing companies, local authorities and private owners. We renovate both single-family homes and apartment blocks using an industrialized, innovative and sustainable method.



Off-site solutions



Digital process






Circular and biosourced solution

Why choose Retrofitt?







FAST, WITHOUT DISTURBING OCCUPANTS

-  Extensive energy renovation without moving tenants.
 -  No need for scaffolding or invasive interior work.
 -  A team of 4 people can install 2 to 3 houses per day.
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OFF-SITE CONSTRUCTION, GUARANTEED QUALITY

-  Factory-prefabricated structures, including windows and exterior finishes.
 -  Fast on-site assembly thanks to 1.5 m x 9 m modules, weighing up to 1.5 tons, easy to install by mobile crane.
 -  No weather impact: quality is controlled at the factory, with no weather-related delays.
 -  Can be built up to 5 storeys high, without transferring vertical loads to the existing structure.
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INTEGRATED SUSTAINABILITY AND CIRCULARITY

-  Structures compatible with the principles of circular construction.
 -  Maximum use of bio-sourced and recyclable materials.
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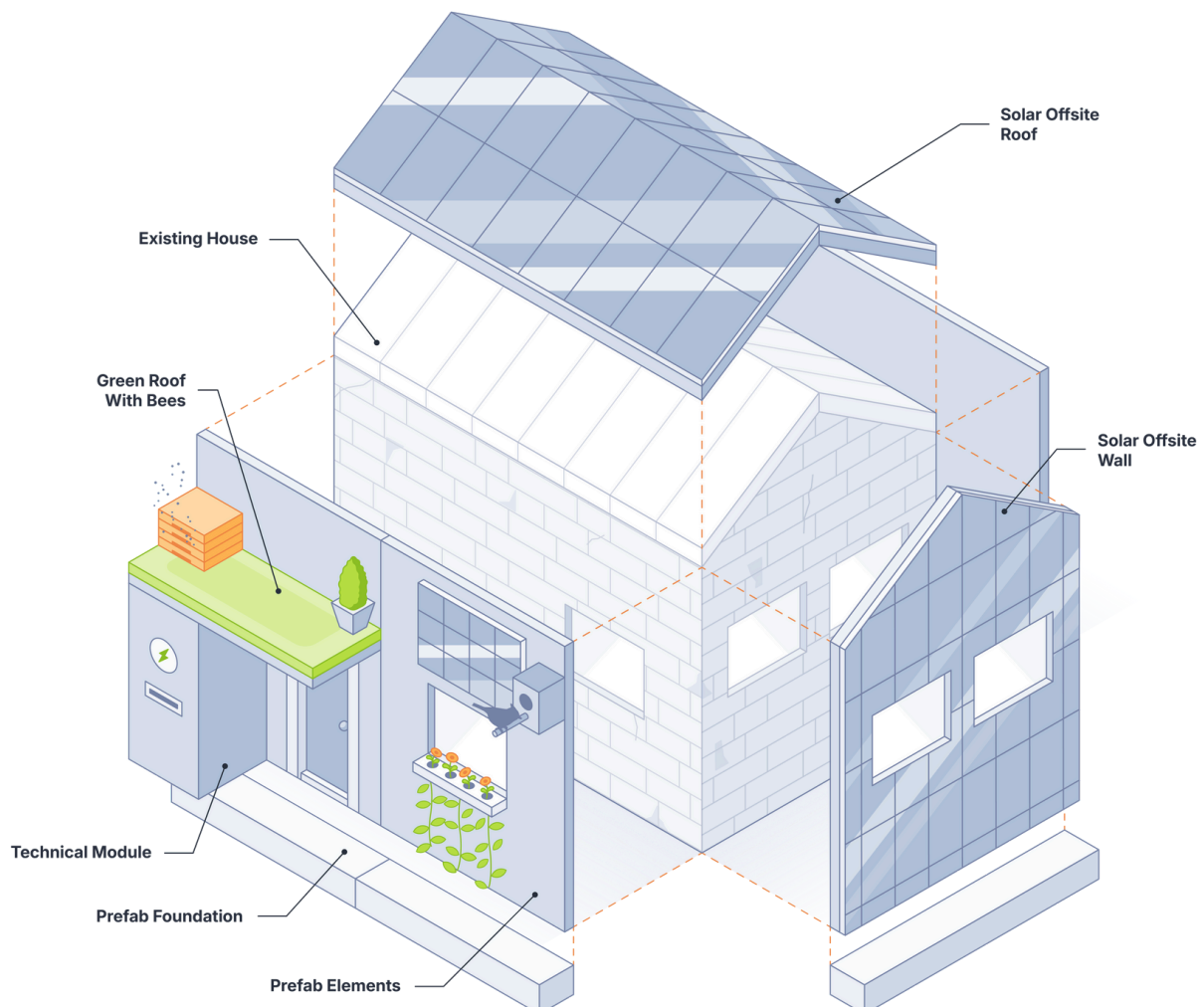
INTEGRATED FEATURES

-  Technical systems can be integrated into the facade:
 - Ventilation pipes, shutters, BIPV (building-integrated photovoltaic panels)...
-  Installation on metal anchors in the foundation, supported by a rail at the top.
-  Once installed, existing windows are removed from the inside and properly replaced.

Understanding the method.

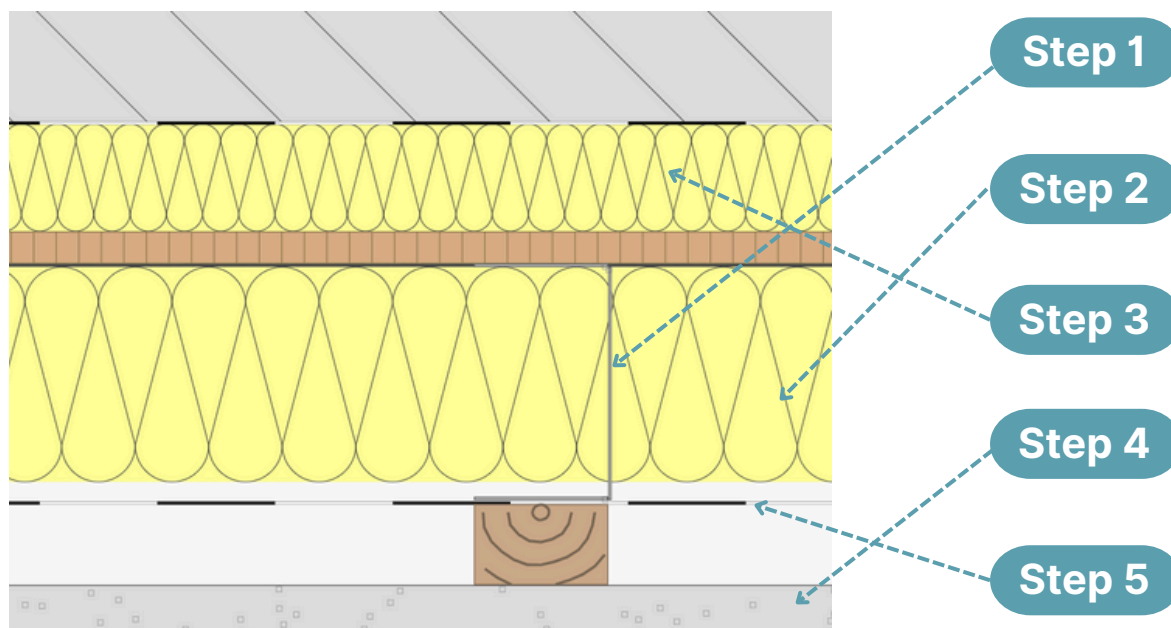
We follow the **EnergieSprong** method, an innovative approach that originated in the Netherlands and enables rapid, standardized, energy-neutral renovations.

See the diagram below for a quick overview.



Price indication.

Create a wall composition to suit your needs and budget.



Step 1

C89-1.2 or
C150-1.2?

Thickness of metal framing according to stability:

- **C89-1.2:** Wall heights up to 3.6m
- **C150-1.2:** Wall heights up to 4.8m

Step 2

💡 **Eco** or
🔥 **Bio** insulation?

- 💡 **Eco** => mineral wool, made from **74% recycled materials**.
- 🔥 **Bio** => Wood fiber insulation, from sustainable regional forestry and **FSC-certified**.

Step 3

Based on insulation
thickness

Ranges from **0.24 W/m²K** to **0.15 W/m²K**, lower U-values are also possible.

Step 4

Different cladding
materials

Thermobois cladding, Equitone panelling or ceramic brick slips, or more to be discussed together.

Step 5

Fire protection

For public buildings and collective housing, we comply with fire regulations:

- 🔥 **K2 -10** for low and medium-rise buildings
- 🔥 **K2 -30** for high-rise buildings

Step 2 Eco or bio

Step 1

Type of steel framing according to height

Retro C89-1.2

Maximum wall height: 3.6m

Retro C150-1.2

Wall height: from 3.6m to 4.8m

Step 3

Insulation value

U value

0,24 W/(m²K)

0,20 W/(m²K)

0,15 W/(m²K)

RC value

4,17 m² K/W

5,0 m² K/W

6,67 m² K/W

Step 4

Facade options

Thermowood

+90 €/m²

Equiton panelling

+118 €/m²

Brick shims

+185 €/m²

Step 5

Fire resistance options

None

Fire K2-10

Fire K2-30

+0,00€/m²

+26,59€/m²
Thick: 12 mm

+46,77€/m²
Thick: 20 mm

- Prices for insulated prefabricated facade furniture.
- Installation is not included in this price. Must be provided by local contractor.

Cladding materials.

THERMOWOOD® OF LDC WOOD

Thermowood® is a durable wood cladding material created through a controlled thermal modification process. This process enhances the natural properties of wood, making it highly durable, stable and rot-resistant, without the need for chemical treatments.

ADVANTAGES:

- Durability:** Thermowood® is highly resistant to rot, insects and fungal growth.
- Stability:** It presents minimal warping, shrinking or swelling, guaranteeing long-term performance.
- Aesthetics:** Retaining the beauty and warmth of wood, it adds a natural, timeless charm to buildings.
- Low-maintenance:** Requires minimal maintenance, reducing long-term maintenance costs.
- Sustainability:** Sourced from responsibly managed forests, it's an ecological choice for sustainable construction.
- Energy efficiency:** Its insulating properties help improve the energy efficiency of buildings.



EQUITONE [TECTIVA] BY ETEX

EQUITONE [tectiva] is a facade material colored in the mass, characterized by a sanded surface and natural shades in the material. Each tectiva panel is unique, strongly expressing the raw texture of the fibrocement base material.

ADVANTAGES:

- Fire-retardant** (no fire ignition, no fire propagation)
- Soundproofing**
- Resistant to extreme temperatures and frost**
- Water-resistant** (if in compliance with application guidelines)
- Resistant to many living organisms** (fungi, bacteria, insects, vermin, etc.)
- Resistant to many chemicals**
- Environmentally friendly**, no harmful gas emissions
- Strong, rigid panels**



VETABRICK INSULATING BRICK

Kess insulating bricks are a composite thermal insulation system with inserts manufactured in France. Brick façades are based on an interlocking system. This means that the bricks of the new facade are simply glued together, rather than glued together as in conventional brick facades.

ADVANTAGES:

- **Speed of installation:** Prefabricated brick facades are quicker to install than traditional masonry.
- **Cost-effectiveness:** The simplified installation process and reduced labor requirements make prefabricated brick facades a cost-effective choice for cladding buildings.
- **Versatility:** They can be customized to different brick styles, colors and patterns, enabling versatile design options that cater to different architectural aesthetics. The system is used from various brands of brick slips, e.g. Fledhause, Wienerberger ...
- **Lightweight:** Prefabricated systems are lighter than traditional masonry, which can help reduce the structural load and foundation requirements of our renovation elements.
- **Longevity:** These facades are designed to be weather-resistant and durable, ensuring long-term protection against the elements.
- **Appearance:** With brick facades, you enjoy the design advantages of traditional masonry: you can execute with the look of a modern bonded brick or a traditional cottage style.



**LOOKING FOR A DIFFERENT KIND OF FAÇADE CLADDING? IT'S POSSIBLE.
CONTACT US TO CHECK THE COMPATIBILITY OF YOUR CHOICE.**

And even more ...



BUILDING INTEGRATION PHOTOVOLTAIC (BIPV)

We supply prefabricated BIPV facades.



NATURE-FRIENDLY FACADES

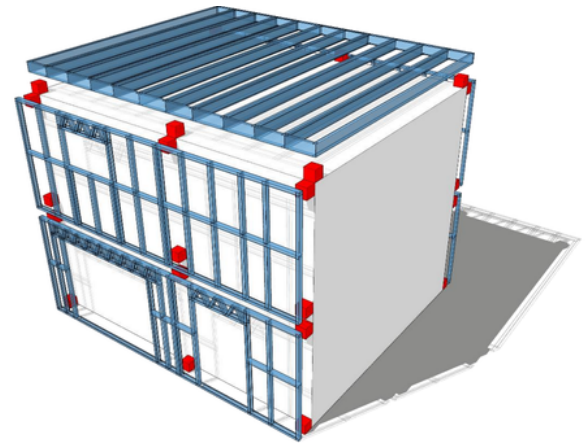
We supply green prefabricated facades.

Structural constraints.

TAKEOVER OF LOADS ON EXISTING STRUCTURE

In the case of Retrofit projects, one of the most important points to consider is the **existing structure** and the ability of this structure to support the **loads derived from the new structure** with which it is planned to modernize the housing envelope.

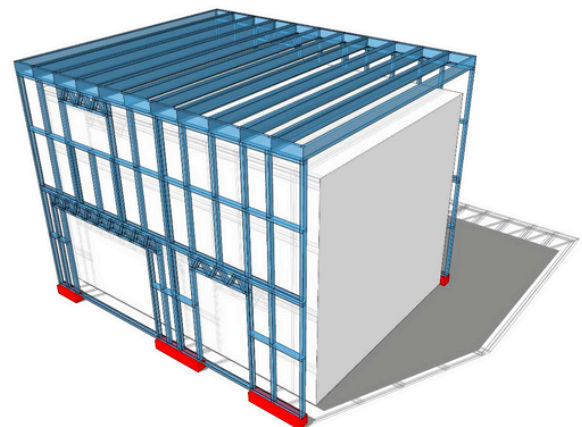
On the one hand, if the existing structure can be used to take on the loads of the new structure, **the lightweight steel panels of the walls and roof can be designed as non-load-bearing** and hooked onto specific points of the existing building.



TAKEOVER OF LOADS ON THE BUILDING FOUNDATION

On the other hand, if the existing structure cannot be used to take the loads of the new structure, the use of a light steel load-bearing structure made up of wall panels and roof panels **allows loads to be taken only on the building's foundation**.

In addition, where linear loads cannot be used due to constraints in the existing foundation, **walls designed with trusses allow point loads to be taken up at points where the foundation permits or a reinforcement for this load has been provided**.



Installation on an occupied site.

TRANSPORT AND LIFTING POINTS

WALL LIFTING

The wall panels are transported vertically by truck.

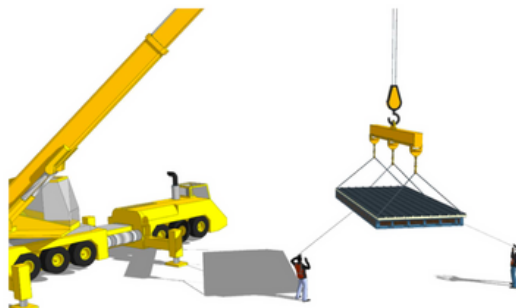
Wall lifting elements (CE-certified straps and reinforced rubber protectors) are included in the prefabricated panels.



ROOF LIFTING

The roof panels are transported horizontally by truck.

M10 rivets are included in the prefabricated panels.



A unique expertise.



Wattrelos - France - 154 houses
2021-2022

- Total surface area - 13,000 m²
- Time of completion - 10 months
- Price (m² facades) - € 290/ m²



Roubaix - France - 32 apartments
2022

- Total surface area - 1551 m²
- Time of completion - 3 months
- Price (m² facades) - € 310/ m²



Lille - Phase 1 - 3 - 2/6 schools completed
2023 - 2025

- Total surface area - 9000 m²
- Time of completion - 2 schools per summer
- Price (m² facades) - € 370/ m²

Simplify your building experience.

RETROFITT IS A DIVISION OF THE BUILDUP GROUP.

Our mission: To make a positive impact on global humanitarian challenges through the built environment.

BUILDUP IS TODAY 3 BRANDS AND OFFERS:

Customized prefabricated construction solutions ranging from lightweight steel frames with **beSteel** to energy-efficient renovations with **Retrofitt** and modular buildings with **Kitt**, with a focus on architectural freedom, industrialization, digitization and BIM.





**EXTREMELY
FAST AND
EFFICIENT
RENOVATION**

**BUILDING, BUT
BETTER FOR
THE PLANET**

**INDUSTRIALIZED
PRODUCTION
PROCESS OF
UNRIVALLED
QUALITY**

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SCAN THE CODE FOR MORE
INFORMATION ON OUR SOLUTIONS

