

REFERENCE SLIDE DECK FEBRUARY 2026

VELUX®

Living Attic

- transforming hidden spaces



Agenda

1. Strategy backdrop /Lone
2. Challenge and Potential /Sabine
3. The Vision /Ambra & Manon
4. The Approach /Manon
5. The Experiment /Grégoire
6. The Results /Aymeric
7. Communication plan / Shaun & Lorena



Our **STARTING POINT**

Guided by our **Purpose**

Create well-being for people and planet by transforming spaces using daylight and fresh air

We strive to do better as a **Model Company**

Performing better than most others and better than we did yesterday



ReGenerate

Grow the Roof Window category. **Again.**

WHAT we want to achieve

We target our efforts to grow in **customer situations**

New Build

Renovation

Replacements

Upgrades

HOW we will achieve it

We regenerate our **ways of working**

Customer-first mindset

Empower the frontline

Utilise our **scale**

Drive a **performance culture**

Our **STARTING POINT**

Guided by our **Purpose**

Create **well-being for people and planet** by transforming spaces using daylight and fresh air

We strive to do better as a **Model Company**

.... works with **solutions useful to society** and treats its customers, (...) and **the planet better** than most other companies....

Living Places

positions VELUX as industry **leader** to ensure VELUX solutions are an **increasingly desired and critical** part of the homes of tomorrow.

WHAT we want to achieve

We target our efforts to grow in **customer situations**

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Replacements

Renovation
Upgrades

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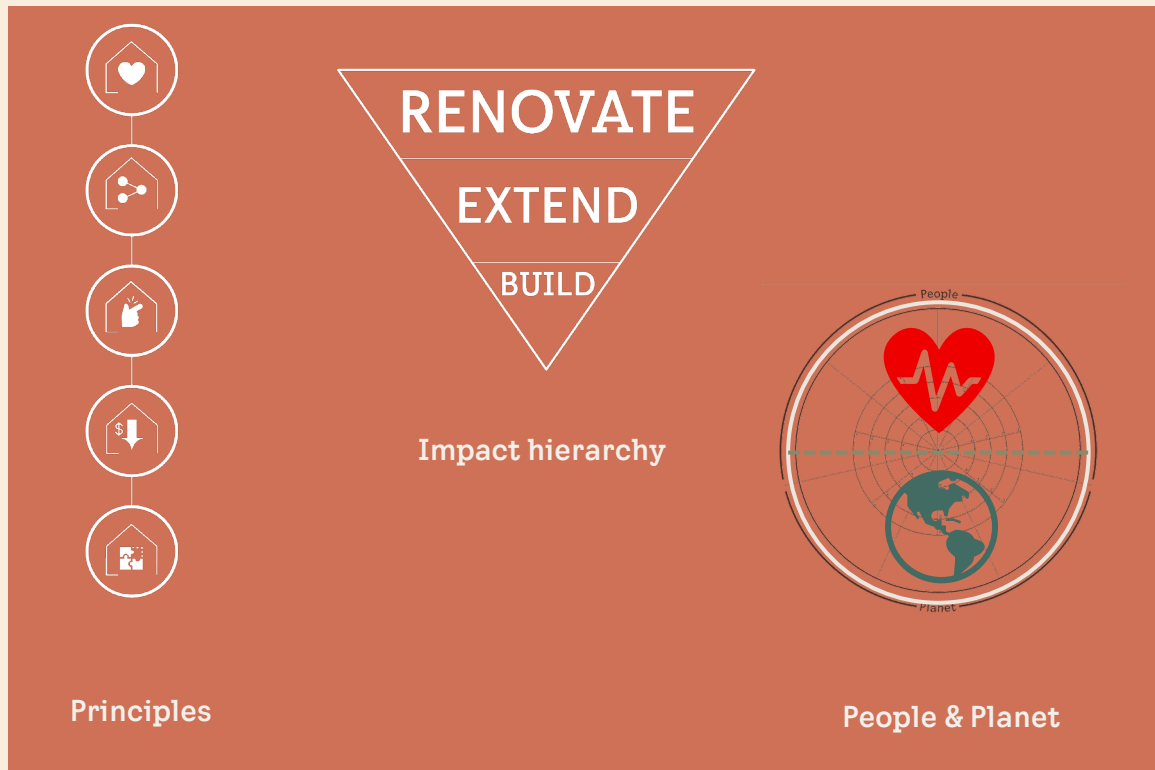
Drive a **performance culture**

We **lead the way** on how to create
the homes we need for the **planet we want**



Living Places Concept & Approach

WHAT - IS THE LIVING PLACES CONCEPT



HOW - OUR 3 STEP APPROACH



PROOF OF CONCEPT

Living Places PROGRAMME



2023: COPENHAGEN, DENMARK



2025: PARIS, FRANCE



2027: GERMANY

Renovation starts with the homeowner



Not with a roof window. Not with a product. But with a need. A problem. A dream.

A leak.
A growing family.
A need for more space.
A plan for renewable energy.
A wish for daylight.

Sunlight access & control
Pollution prevention
Reducing primary resource demand
Solar gain & control
Daily & seasonal light exposure
Circular design
Renewable & recycled content
Spare parts & repair kits availability
More efficient use of m2
Reduced need for artificial light
Efficient production
Natural ventilation
Connection to outside
Reduced need for air conditioning
Design for disassembly & recyclability
Considerable energy savings
Durable design & lifetime
Thermal comfort
Easy repair & upgrade
Upgrade & compatibility
Renewable & recycled content
Spatial daylight provision
Increase the valuable square meters
Responsive design
Reuse
Design for repairability
Refurbishment



Homeowner-Driven Renovation Value



When renovation starts with the homeowner, the outcome is healthier homes, lower impact, and stronger long-term value.

Healthy



- Spatial daylight provision
- Thermal comfort
- Connection to outside
- Natural ventilation
- Daily & seasonal light exposure
- Sunlight access & control
- Pollution prevention



Sustainable

- Reducing primary resource demand
- Responsible sourcing
- Reuse
- Design for repairability
- Durable design & lifetime
- Design for disassembly & recyclability
- Circular design
- Renewable & recycled content
- Easy repair & upgrade
- Efficient production



Affordable

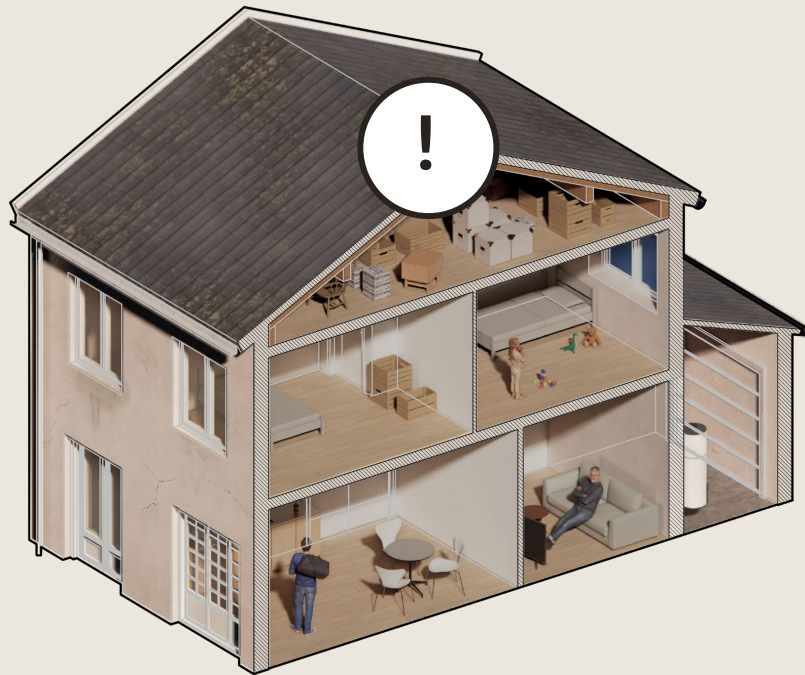
- Solar gain & control
- Reduced need for artificial light
- Increase the valuable square meters
- More efficient use of m2
- Reduced need for air conditioning
- Responsive design
- Considerable energy savings



VELUX solutions respond to these everyday renovation moments.

The Opportunity in France

France has a vast hidden housing reserve in single-family homes.
Over six million are ready for attic conversion.



64% of single-family houses have attics



6.6M already inhabited



6.2M ready for conversion

From thermal kettle to... favourite space



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LIVING ATTIC – Transforming Hidden Spaces

Our Experiment



Healthy - Sustainable - Affordable



90% reduction of overheating



Carbon payback time of 10 years



Energy Label A



Healthy – Sustainable - Affordable



285h overheating /y

Intensive operational carbon emissions

Energy Label F



19h overheating /y and 8 °C less than outdoor during heatwaves 90% reduction

Carbon payback time of 10 years

Energy Label A

Costs – internal info only

Family pays net 85T + 50T loan 0%. Gets new roof and second floor of 35 m2. +80T raise in property evaluation

VELUX Investment T€: **223**

France

- Legal assistance*	16
- Artelia consultancy*	90
- VELUX products	14.5
- Ext coordination	9
- Construction contribution	43
- PR & Events	5
- Total VELUX France	177

Group Total **46**

Artelia baseline* 31

Film, case, animation 15

Cost of renovation T€:

• Total cost:	238.5	(1807 €/m2)
• Flandin family cost	134.1	
• Subsidies	46.8	
• VELUX contribution works	43	
• VELUX products	14.5	

Renovation cost incl subsidies **191.7** **(1450 €/m2)**

• Green Loan, 0% interest **50**

Property valuation after renovation up to **+80** **(+30%)**

The vision



The Broken Equation

Today our built environment fails to integrate Health and Environmental Concerns.

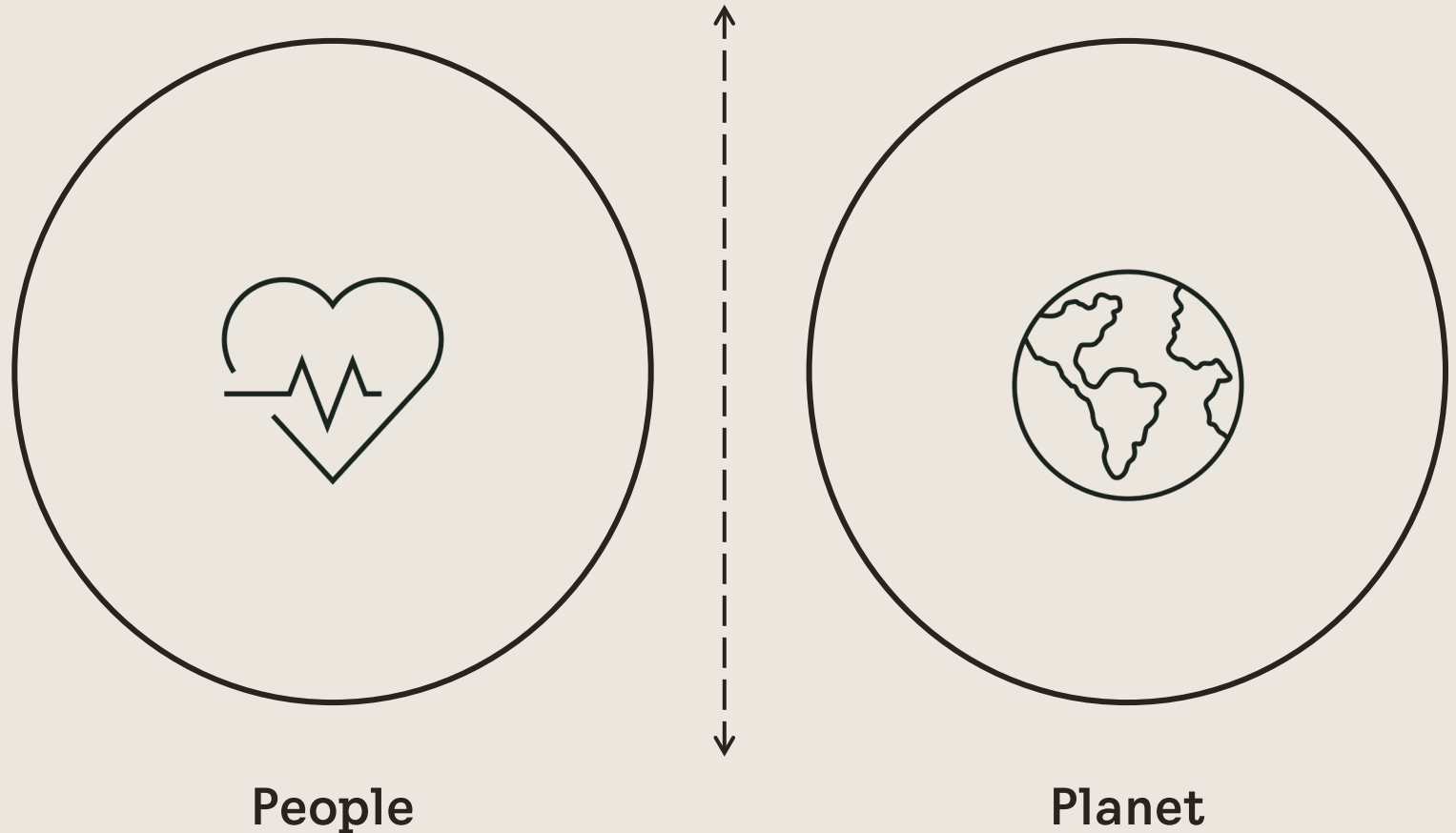
Energy-focused renovations →

Ignore summer comfort and indoor health

Comfort-focused upgrades →

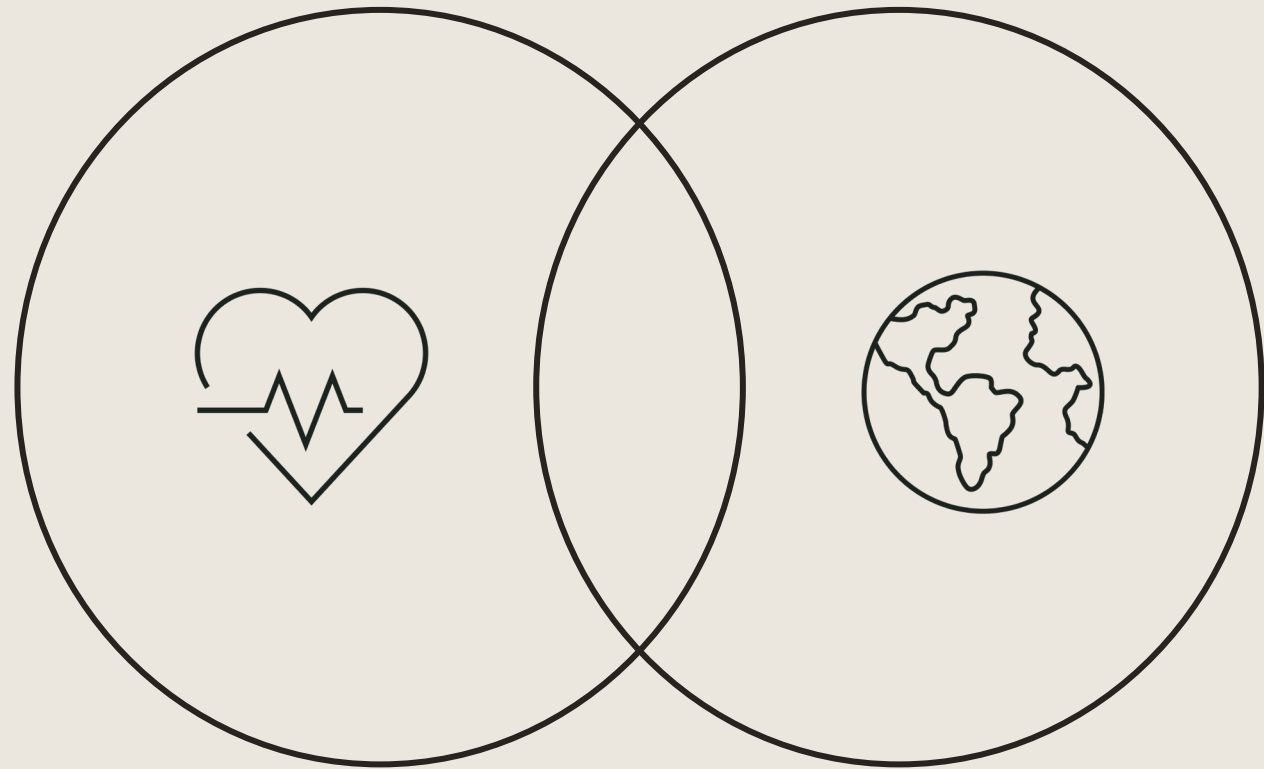
Increase energy consumption and emissions

Result: We optimize for one at the expense of the other



The Integration Imperative

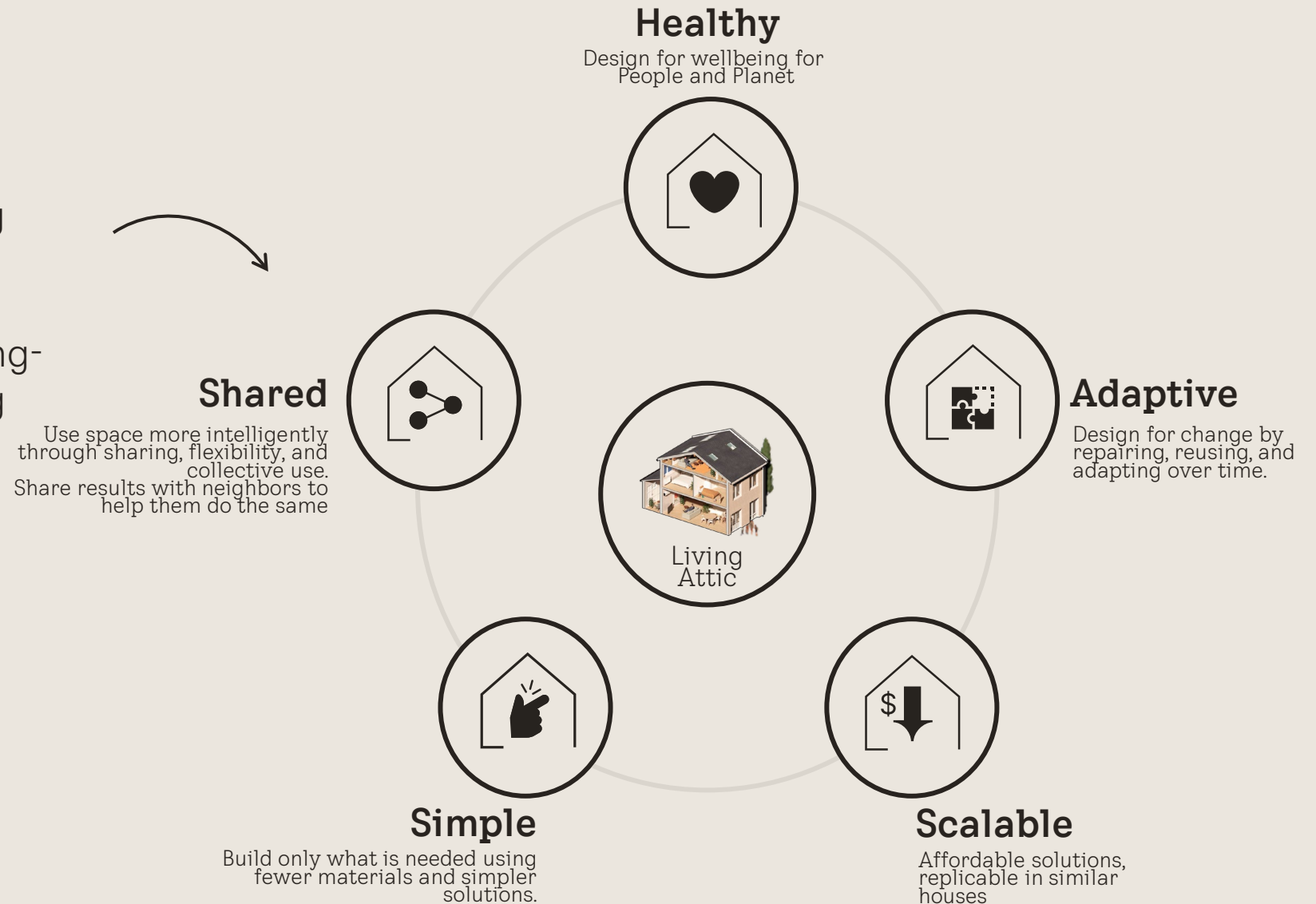
Living Attic is an experiment that applies the Living Places concept to renovation. It is not about the design but the way of thinking about buildings, **where human and planetary health are inseparable and designed, measured, and achieved together.**



Planet + Planet

Living Places Principles

Living Attic has been following the five principles guidance in every decision. They ensure we prioritize people, planet, and long-term resilience while remaining practical and affordable.



The French Renovation Gap



64% of building
carbon emissions
= **residential sector**



Current renovation
pace: **0.2% / year**
Required rate:
3% / year



Annual health costs
from poor housing:
€20 billion

The French Renovation Gap

First half
of 2025



53,000
renovations

Target
2030



370,000
renovations/year

Target
2050



700,000
renovations/year

Change of direction by the government:

- Promoting renovations that truly **transform energy performance**
- Making renovation **affordable through subsidies**
- Highlighting the effect of **insulation+ heating+ ventilation**



Renovation focused on insulation and airtightness resulting into **increased overheating during heatwaves** highlighting a **gap between energy goals and thermal well-being**

Unbearable Summers



Homes are not ready for heatwaves



55% of French households uncomfortable in summer



50% increase in cooling demand (2015–2022)



1 in 3 homes are "thermal kettles"



9 in 10 homes unfit for heatwaves, including A and B-rated homes



"We're immensely happy with what has been achieved here and would like to share the experience with our neighbors: there are plenty of houses just like ours, and all of them can become healthy and sustainable"

Jonathan, owner

Our Current Problem

The Cost of Inaction

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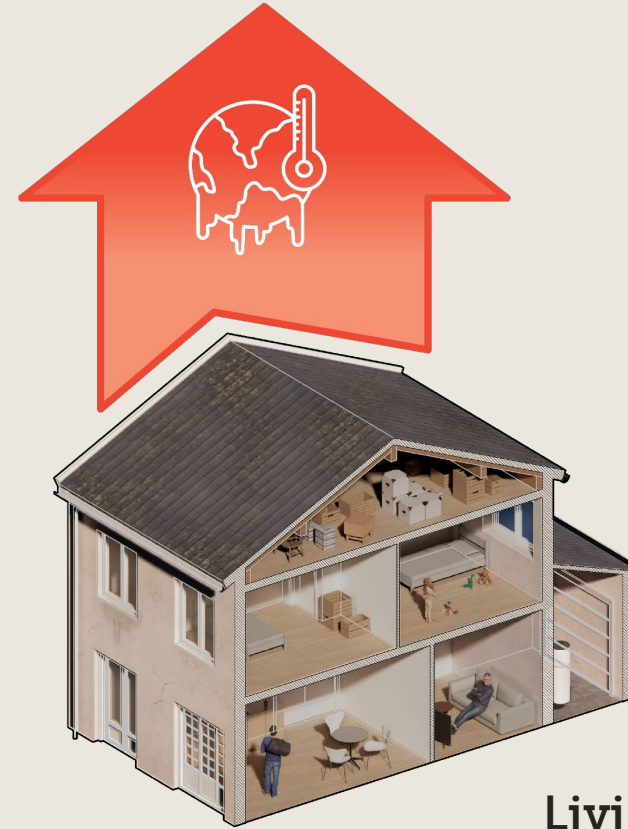
Existing Buildings Today:

- High energy use means high operational emissions every day
- Unhealthy indoor conditions
- Ongoing biodiversity pressure

What Happens If We Do Nothing

- Emissions continue to rise year after year
- Climate targets become unattainable
- Homeowners keep paying high energy bills

→ Inaction means increasing emissions



Living Attic
Before

A possible solution

Renovation as a catalyst for net positive change

Renovated Existing Buildings

- Drastically reduced energy use means reduced operational emissions
- Lower pressure on land and biodiversity
- Healthy indoor environments

What Renovation Enables

- Immediate emission reductions
- Impact on homeowners energy bill
- Alignment with climate science pathways
- Reduced societal cost due to increased health

→ Renovation is essential



The approach

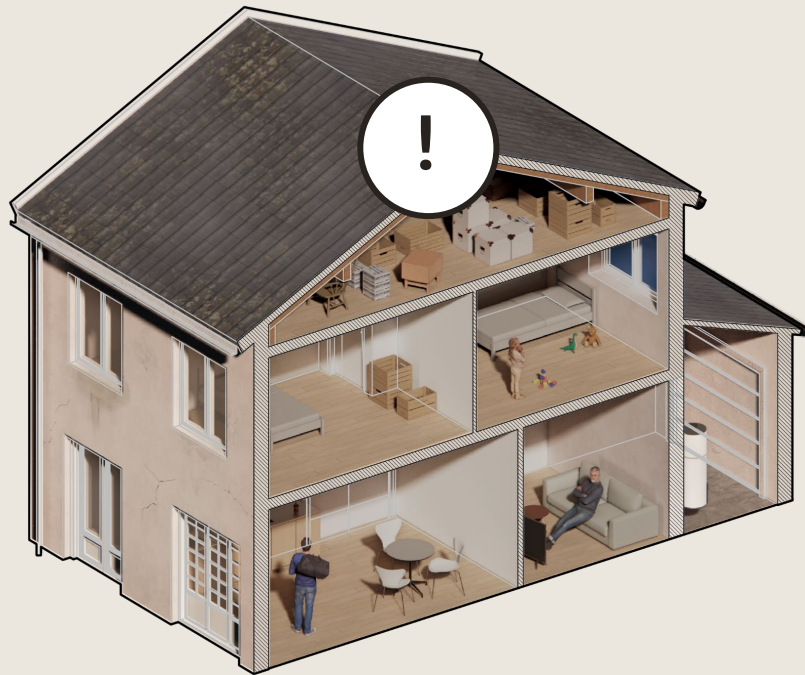
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The Opportunity

France has a vast hidden housing reserve in single-family homes.
Over six million are ready for attic conversion.



64% of single-family houses have attics



6.6M already inhabited



6.2M ready for conversion

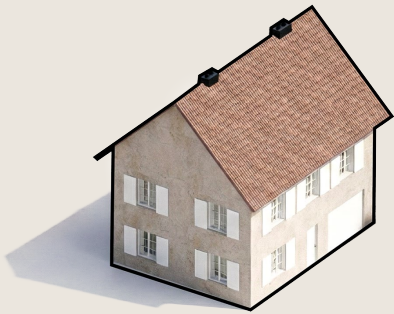
The Target Market

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1/3 of French single-family houses were built in three key periods

1

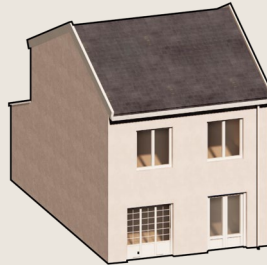
1946-1968



Detached + semi detached houses
= 2.3M houses

2

1982-1989



Detached houses
= 1.9M houses

3

1975-1981

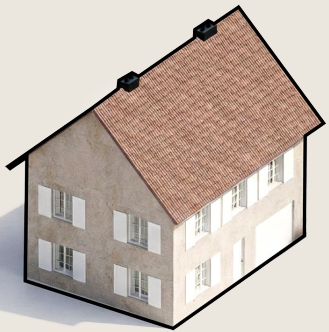


Detached houses
= 1.5 M houses

The benchmark

5.7 Million Homes – how do they perform today?

- ① Individual family house, suburban.
Detached + semi detached from 1946–1968



- ② Individual family house, suburban.
Detached from 1982–1989



The Experiment

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Living Attic Experiment



Before



After

Meet the Flandins

A Real Family, A Real Home.

VELUX®



Family:
The Flandins
(2 adults, 2 children)



Location:
Morangis,
France



Original House:
1968 semi-detached
Area = 82 m²
(Period of Parisian suburb
expansion)



Motivation:
Need space for
growing family and
home working

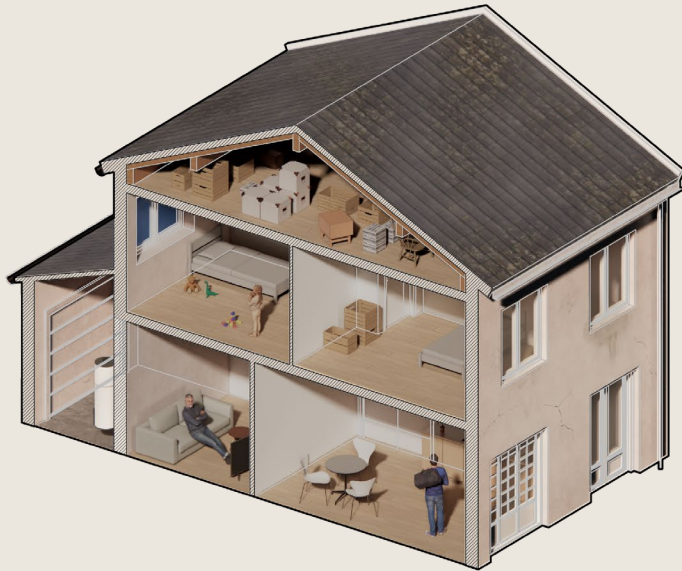


Challenge:
Stay in community
or move away?

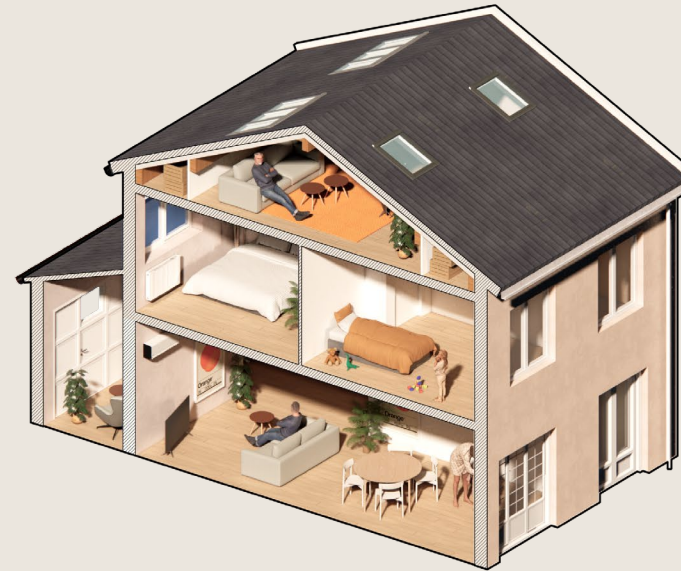
Before & After

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Enabling better living for people and planet by using what was already there

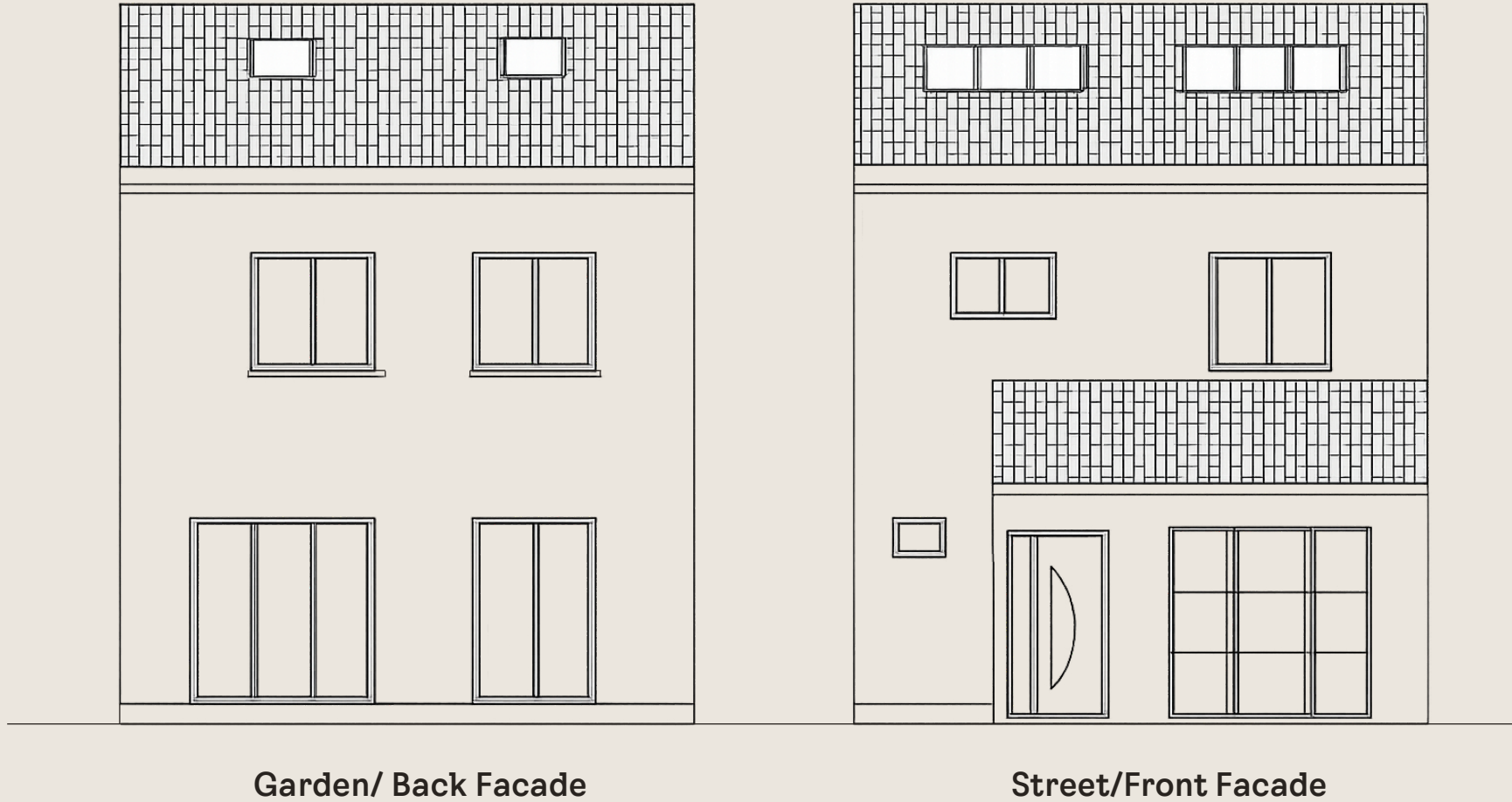


Before 82 m²
Overheated
Energy EPC Rating F
Intense operational carbon emissions

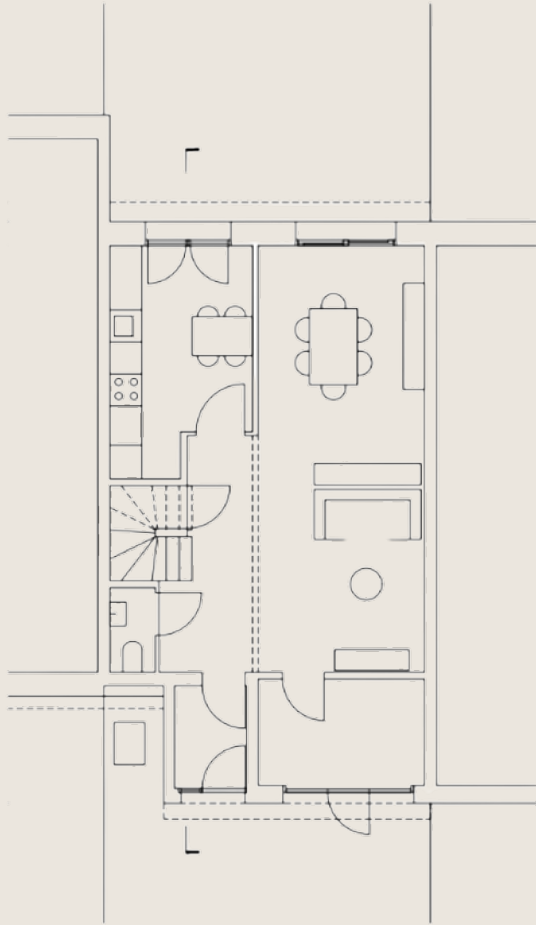


After 107 m²
Naturally Cool
Energy EPC Rating A
Carbon payback time of 10 years

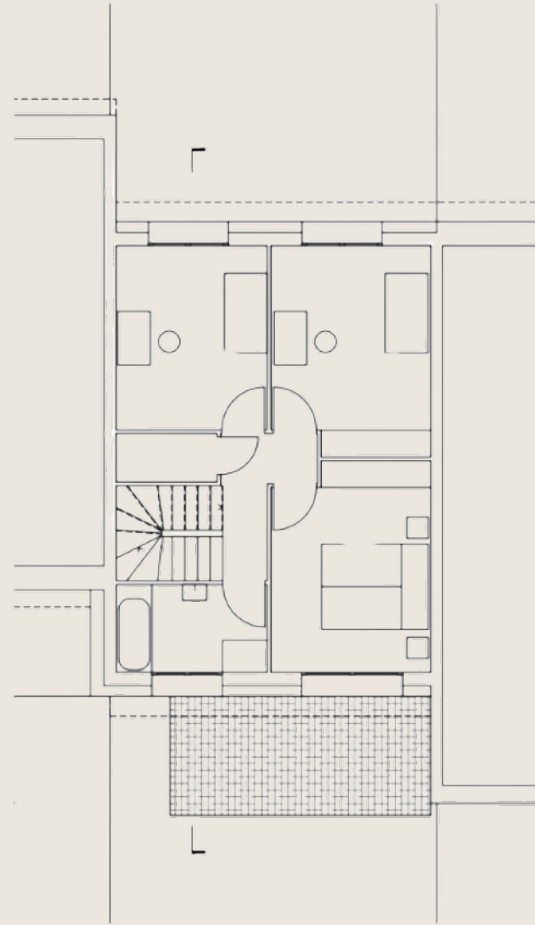
The house



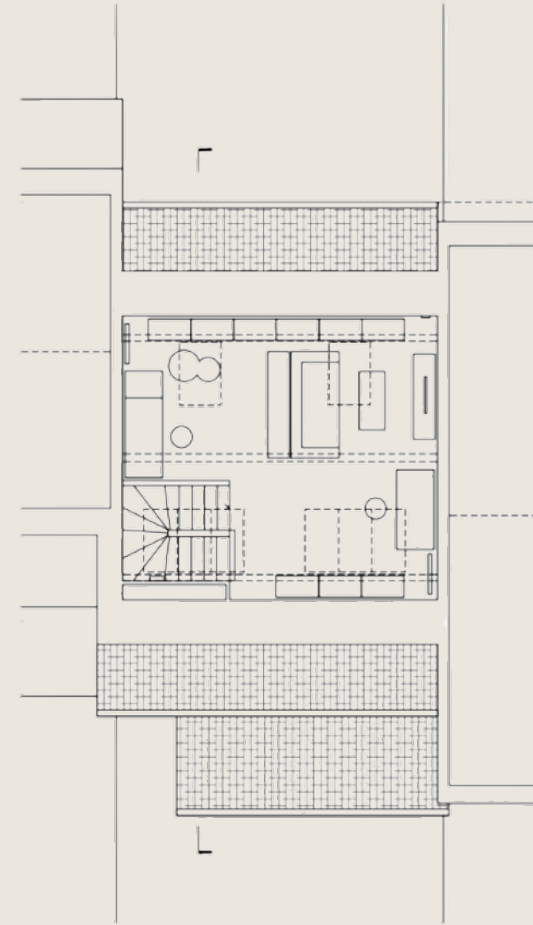
The house



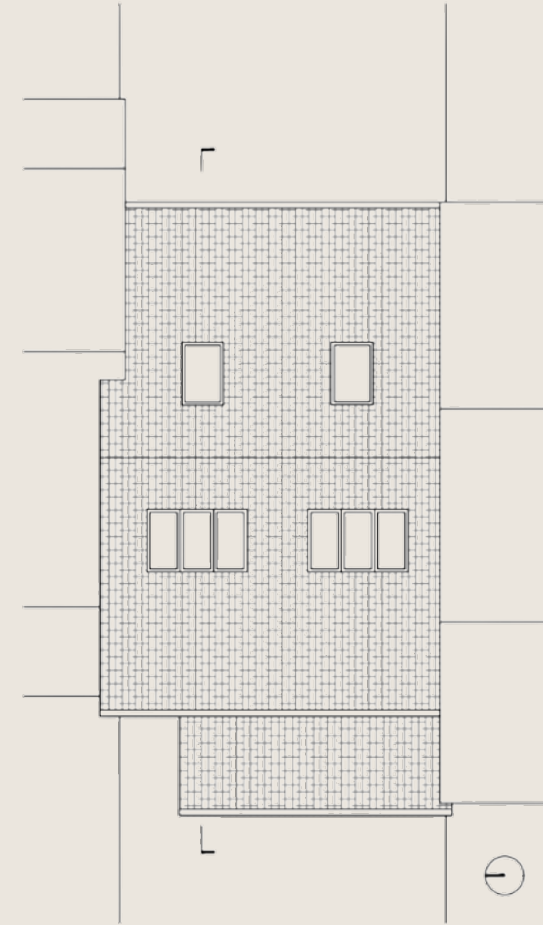
Ground Floor



1st Floor



2nd Floor



Roof



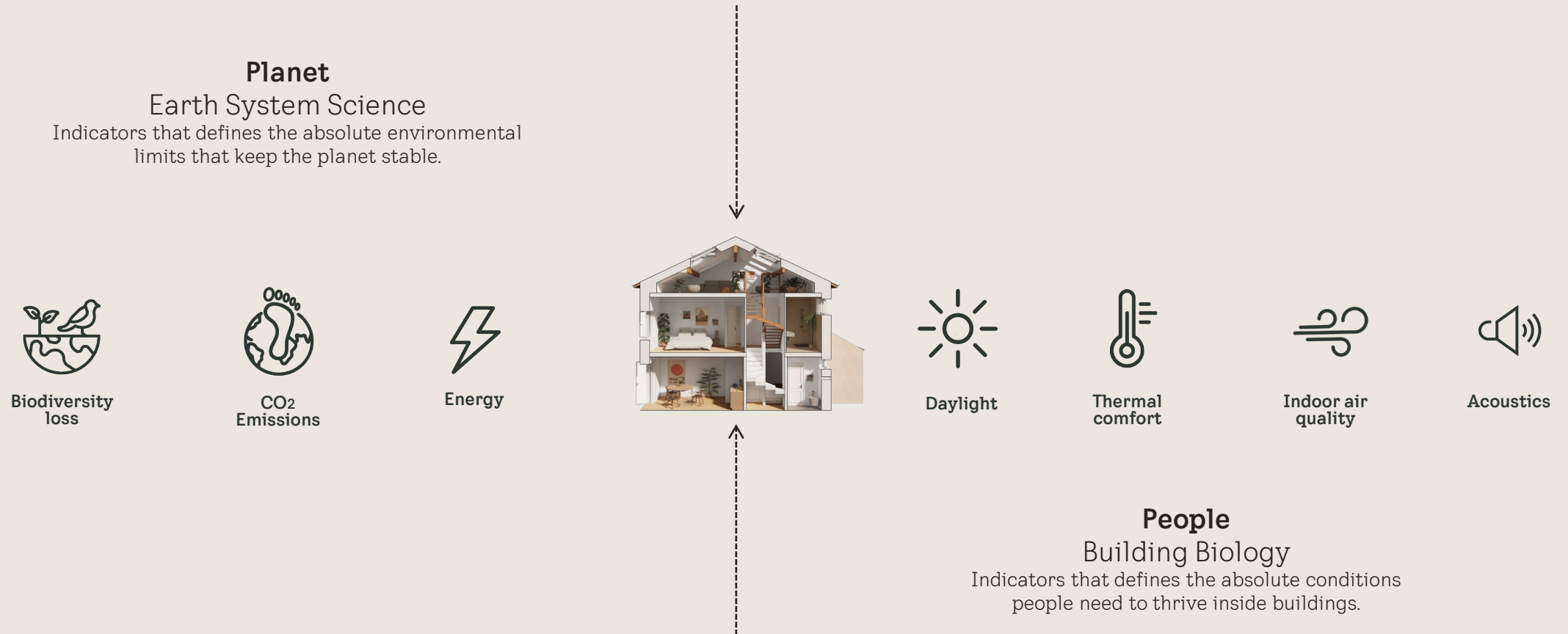
Before



After

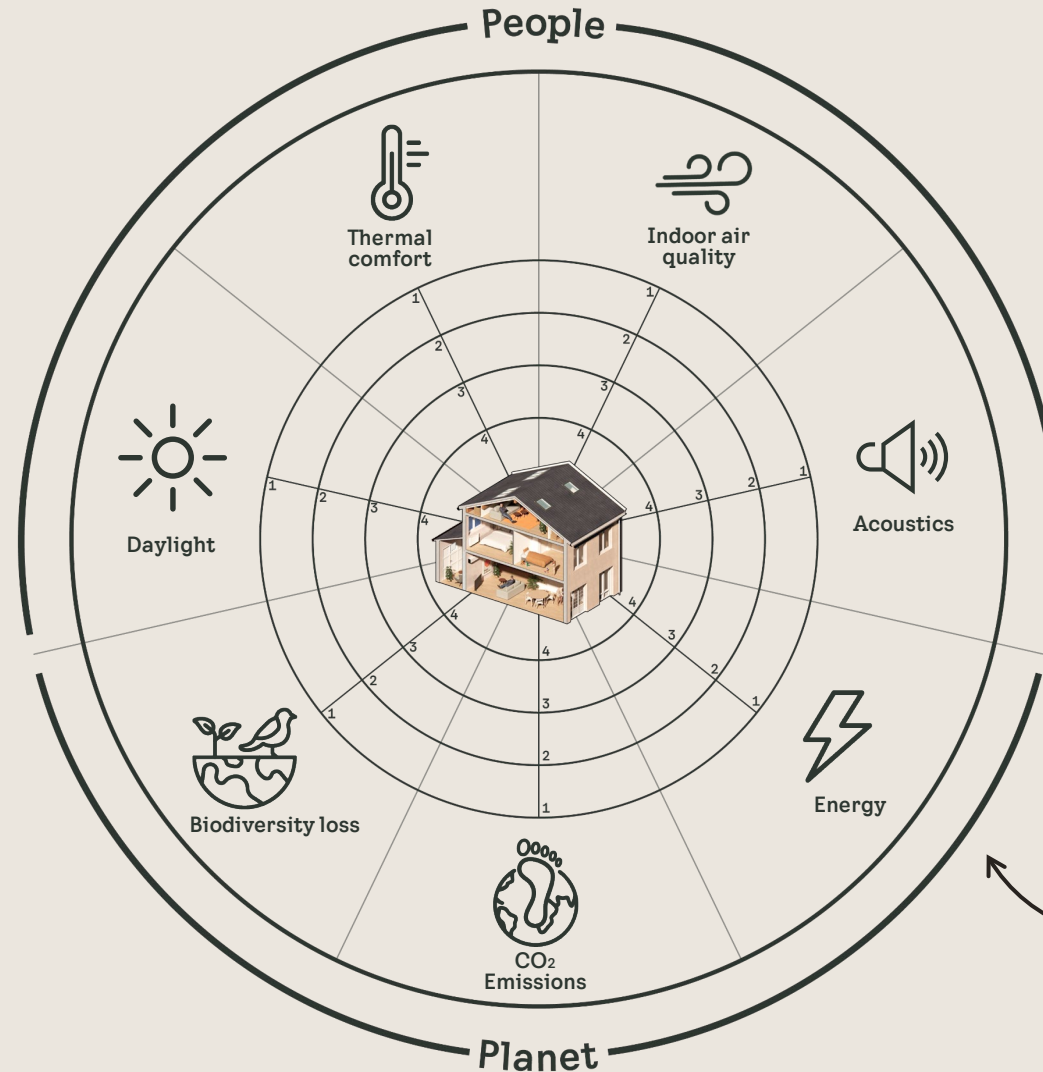
Method

Measuring What Truly Matters



People & Planet model

One Integrated Framework

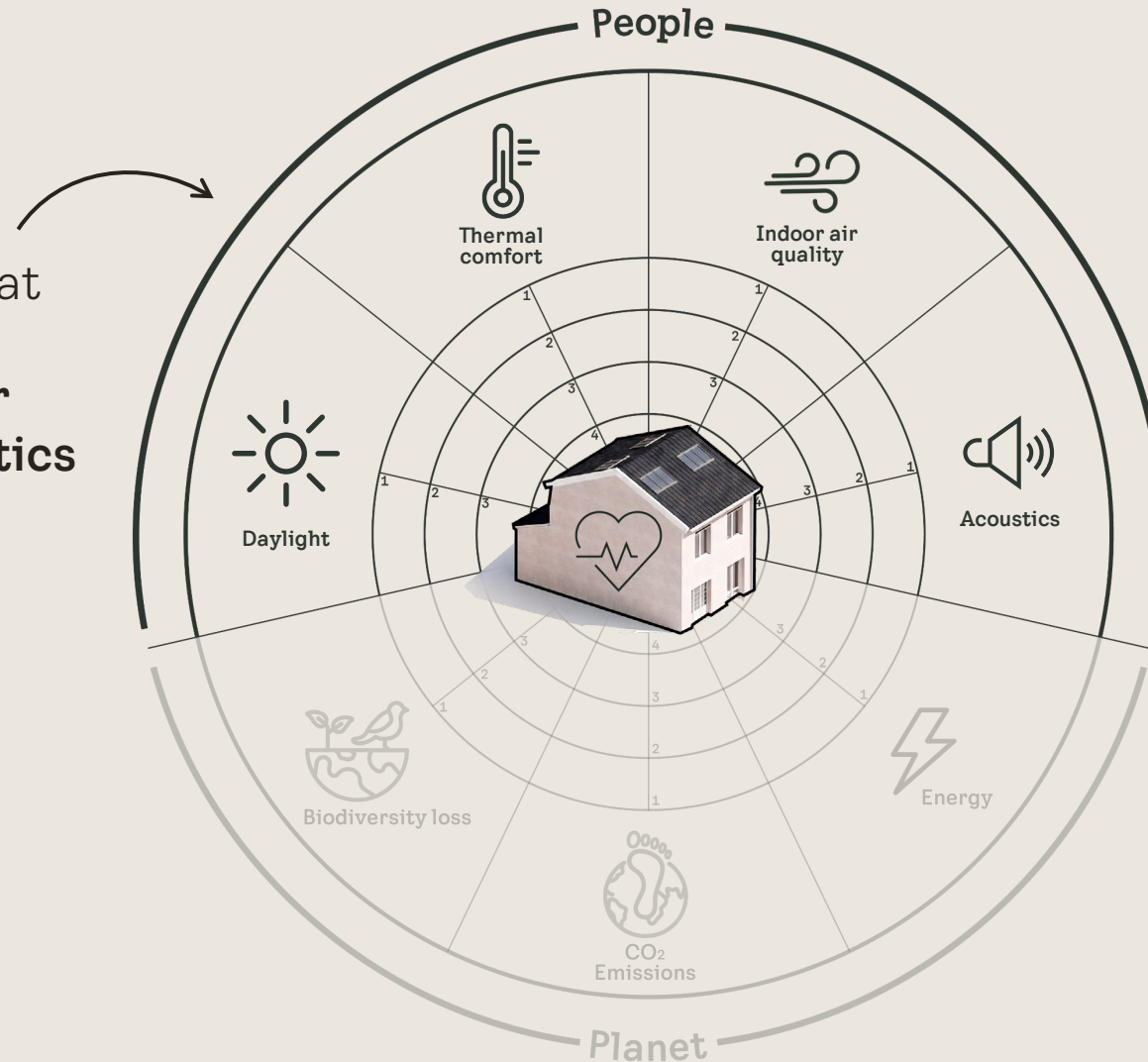


We combine Earth System Science and Building Biology into a single holistic benchmarking model called the **People and Planet Model**.

People & Planet model

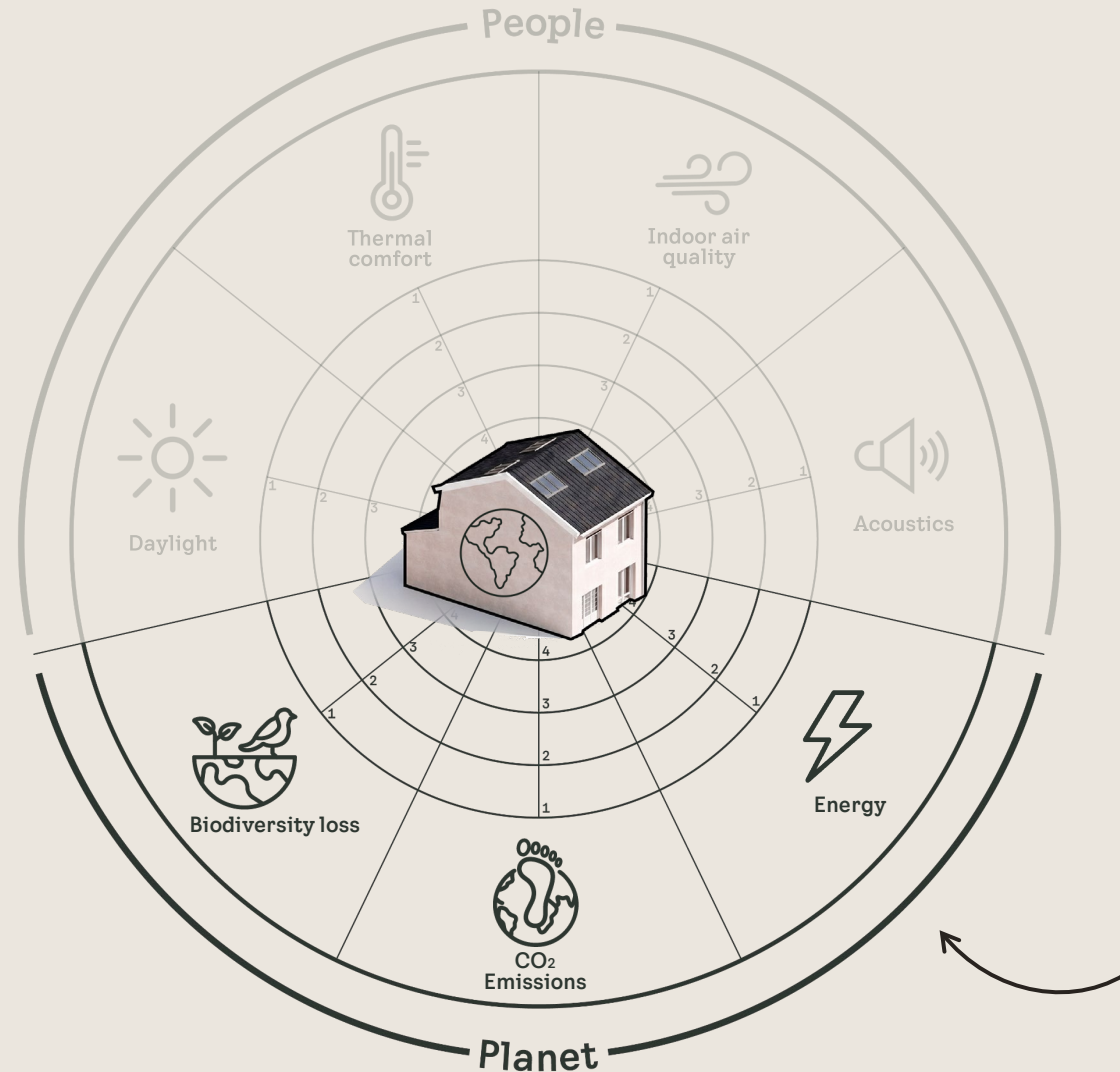
One Integrated Framework

Research shows that **daylight, thermal comfort, indoor air quality, and acoustics** are key to health, productivity, and wellbeing.



People & Planet model

One Integrated Framework



These indicators matter because **climate, biodiversity loss, and energy** capture the main pressures buildings place on the planet across emissions, land use, and resource flows.

Indicators



People & Planet model



CO2 Emissions

Calculated through a full life cycle assessment (LCA) covering all building phases. Benchmarked against IPCC 1.5°C scenarios to ensure projects stay within the safe operating space for global climate stability.



Biodiversity Loss

Accounts for off-site biodiversity loss across the entire life cycle. Projects are evaluated by how much of their biodiversity loss is compensated through restoration or protection of equivalent natural areas.



Energy

Represents the building's total energy demand, measured through national energy labels. Evaluates efficiency and renewable energy use to ensure low operational impact and alignment with building code requirements.



Daylight

Assesses daylight levels, distribution, and connection to the outdoors to support comfort, health, and circadian rhythm. Based on EN 17037 and Active House specification 3.0.



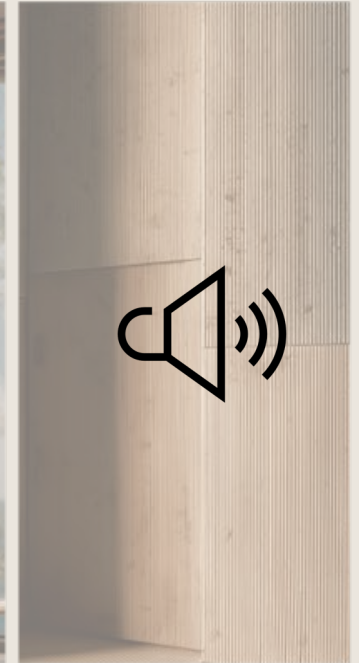
Thermal Comfort

Evaluates indoor temperature conditions to prevent overheating and ensure comfort across seasons without unnecessary energy use. Based on EN 16798-1 and Active House specification 3.0.



Indoor Air Quality

Monitors CO₂, humidity, and particulate matter to maintain a healthy indoor environment that prevents respiratory issues and enhances well-being. Based on EN 16798-1 and Active House specification 3.0.



Acoustics

Measures the quality of the sound environment by minimizing unwanted noise and ensuring privacy and comfort across rooms. Based on ISO 140-4, EN 12354-5, and Active House specification 3.0.

The results

41



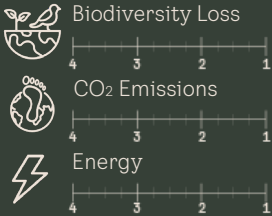
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Living Attic - Before

Following Villum Kann Rasmussen’s motto “One experience is worth more than a thousand expert opinions.”, Living attics is an experiment, aiming to prove the multiple social and environmental benefits of attic conversion and ambitious renovations of houses.

People



Score:
 1 Highest
 2
 3
 4 Lowest

Before



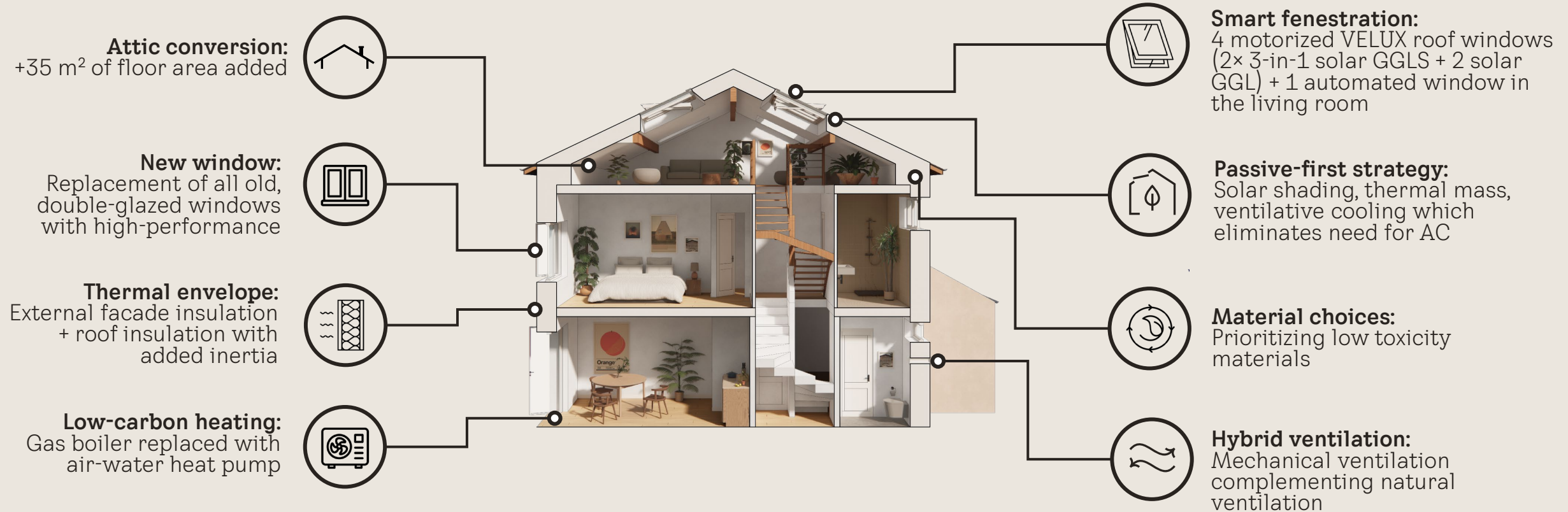
After



The Living Attic Recipe



What was done





Living Attic After

Following Villum Kann Rasmussen’s motto “One experience is worth more than a thousand expert opinions.”, Living attics is an experiment by the VELUX group, aiming to prove the multiple social and environmental benefits of attic conversion and ambitious renovations of houses.



before renovation

after renovation



Score:

1 Highest

2

3

4 Lowest

Optimizing for Planet

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Maximum Climate Impact with Minimum Carbon Investment

Before Renovation



Score -

Biodiversity impacts unaccounted for.



Score -

Continuous operational CO₂ emissions with no reduction pathway and embodied carbon emissions from maintenance.



Score -

- 250 kWh/m²/year
- High heating demand and poor energy performance
- EPC F

Roof Insulation



Glass wool internal insulation



Wood fiber internal insulation



Wood fiber external insulation



Polyurethane external insulation



Glasswool external insulation

Facade external insulation



Glass wool



Mineral wool



Polystyrene

Windows



VELUX GPL 2-layer glass



VELUX GGL Integra 2-layer glass



VELUX GPLS 3in1



VELUX GGLS 3-in-1 Integra



PVC window 2-layer glass

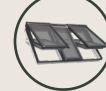


Motorised PVC sliding window 2-layer glass

Sunshading



SSLS 3-in-1 solar roller shutter



MSLS 5060 3-in-1 solar awning blinds



SSSS 3-in-1 soft shutter



SSL solar roller shutter



MSL solar awning blinds

Ventilation



Natural ventilation



Hybrid ventilation



Demand controlled mechanical ventilation

Heating



Electric heater



Heat Pump

After Renovation



Score 2

Biodiversity impact offsite assessed.



Score 1

CO₂, embodied carbon repaid in 10 years, net positive impact thereafter.



Score 2.9

- 86 kWh/m²/year
- 66% better energy performance
- No mechanical cooling needed
- EPC A

Optimizing for People

Designed for Human Health

VELUX®

Before Renovation



 **Score 3,6**
Dark attic, non-habitable space.
Poor daylight penetration

 **Score 3,8**
Summer overheating above 26–28°C

 **Score 1,3**
Fair CO₂ levels but presence of mold and allergy reaction

 **Score 2,5**



Daylight



Thermal comfort



Indoor air quality



Acoustics



Daylight autonomy



Ventilative cooling



Fresh air (CO₂ concentration)



Noise insulation



Daylight from multiple directions



Draught control



Low-emitting building materials



Controlled sound transmission



Daylight following the circadian rhythms



Dynamic shading



Particle removal and filtration



System noise



Glare and reflectance management



Operative temperature



Dampness (cross and stack ventilation)



Acoustic privacy



Views towards the outside and sky

After Renovation



 **Score 1,8**
Abundant daylight provision*

 **Score 2,0**
Category II, for thermal comfort (EN 16798)

 **Score 1,3**
Category II, Indoor Air Quality (EN 16798)

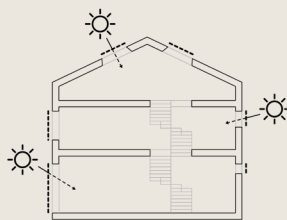
 **Score 2,2**

*Final figures under scrutiny

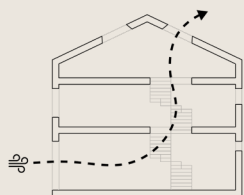
Living Attic Monitoring Data

Thermal comfort

(Measured during the warmest four days with outdoor temperature peaks up to 35°C)

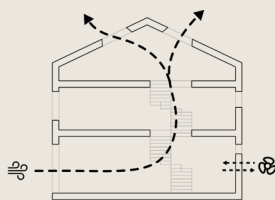


The attic temperature was up to **8°C cooler than outside** at the warmest time of the day



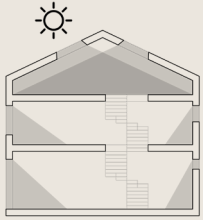
3.5°C temperature decrease at night mainly thanks to ventilative cooling

Indoor air quality

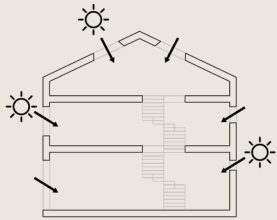


Average **CO₂ level below 800 ppm** (threshold recommended by the French HCSP, High Council for Public Health)

Daylight



Daylight
autonomy



Daylight
from multiple directions



Daylight following
the circadian rhythms

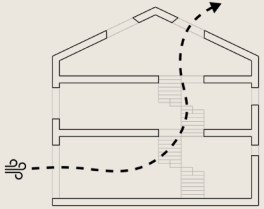


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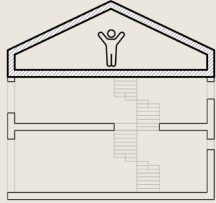
**“In the attic, the light
stays with us until sunset;
we make the most of the
end of the day.”**

Nathalie, owner

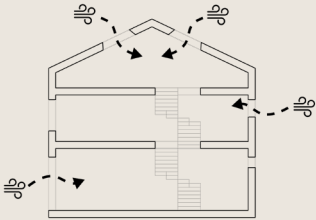
Thermal comfort and energy



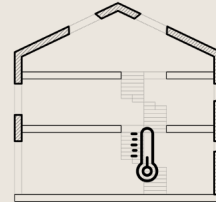
Ventilative cooling



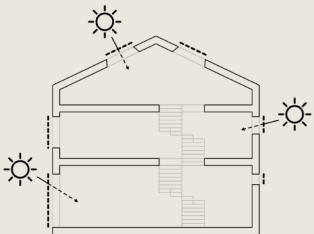
Unlock the attic



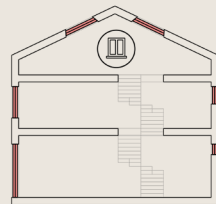
Draught control



Upgrade Exterior
Wall Insulation



Dynamic shading



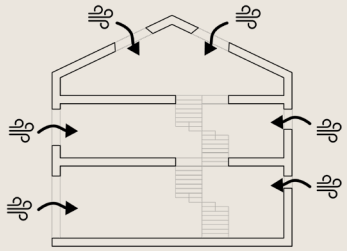
Install
High-Performance
Windows



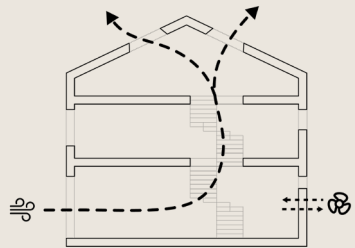
"In August, during the heatwave, the house stayed up to 10°C cooler than outside—we were never too hot."

Nathalie, owner

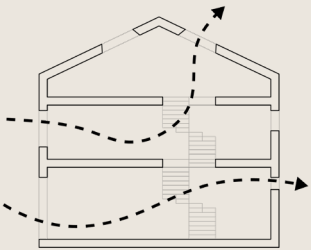
Indoor air quality



Fresh air
(CO₂ concentration)



Hybrid ventilation



Dampness
(cross and stack ventilation)



“My children and I were allergic to mold and dust mites, but thanks to the combination of mechanical and natural ventilation, we finally breathe healthy air indoors... and our allergies have disappeared!”

Nathalie, owner





From Energy Sieve

Inefficient Home:
250 kWh/m²/year

CO₂ emissions:
High operational emissions



To Net Positive Reduction

Efficient home:
86 kWh/m²/year
(66% better energy performance)

Net positive emissions:
Carbon payback: 10 years;
thereafter net positive emissions
reduction.

From “thermal kettle”

Frequent overheating:
285 hours/year overheating

Poor indoor air quality:
Presence of mold and allergic reactions

Daylight deprived:
Dark spaces and limited daylight



To Exceptional

Great thermal comfort:
19 hours/year overheating
(-90% reduction no AC needed)

Excellent indoor air quality:
CO₂ < 800 ppm on average

Daylight filled: abundant daylight provision*

Affordability

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From Expense

Poor Energy rating:
EPC F

Small home:
4 adults (82 m²)

Market value:
€280,000

Expensive alternative:
Buying a new home costs
3,000–3,500 EUR per m²



To Investment

Optimal Energy rating:
EPC A

Spacious home:
4 adults (107 m²)

Increased market value:
+ up to €80,000

The Scalable Solution

Millions of homes can follow.

6 million attics ready for conversion.
A proven solution.
**France's climate future is hiding in
plain sight, right above our heads.**

One renovation can change a home,
Millions can change the world.

Communication Plan

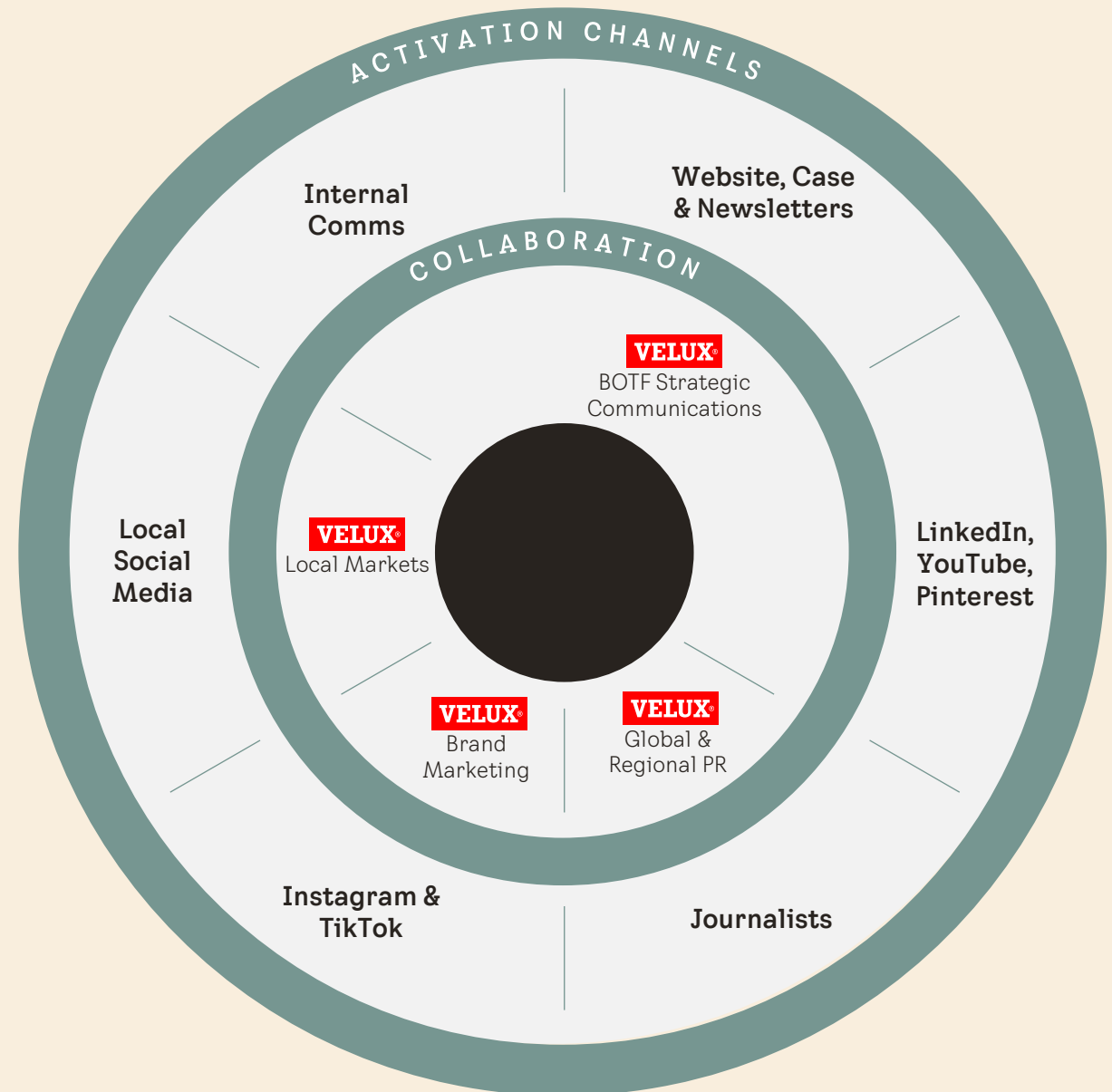
With Living Attic we share an experimental step showing the impact and scaling potential of a holistic renovation in France.

Our aim is to lead towards the Re:Living launch in summer 2026 by validating and sharing how the Living Places principles, applied holistically to a renovation project, can improve everyday comfort, reduce energy use and lower environmental impact.

This multi-channel, organic activation continues the Living Places conversation on renovation initiated at the Exchange for Change. We will highlight measurable improvements in daylight, ventilation, thermal comfort and energy performance, and show a real-life example, how working with what already exists can add usable space without expanding the carbon footprint.

Staying true to the experimental spirit of Living Places, we are collaborating across teams to share the communication across channels and target groups. Together we will publish a new website (EN, FR), case films, before and after moments and a full pdf architectural case study.

By connecting with architects, builders and homeowners, we will inspire viewers to explore a new perspective on renovation while inviting in practical perspectives and questions.



Living Attic - Activation Timeline

2 0 2 6

F E B

M A R

A P R

Societal

Why healthy, sustainable buildings matter.

Built Environment

What defines a healthier, lower-carbon home

Re:Living Agenda

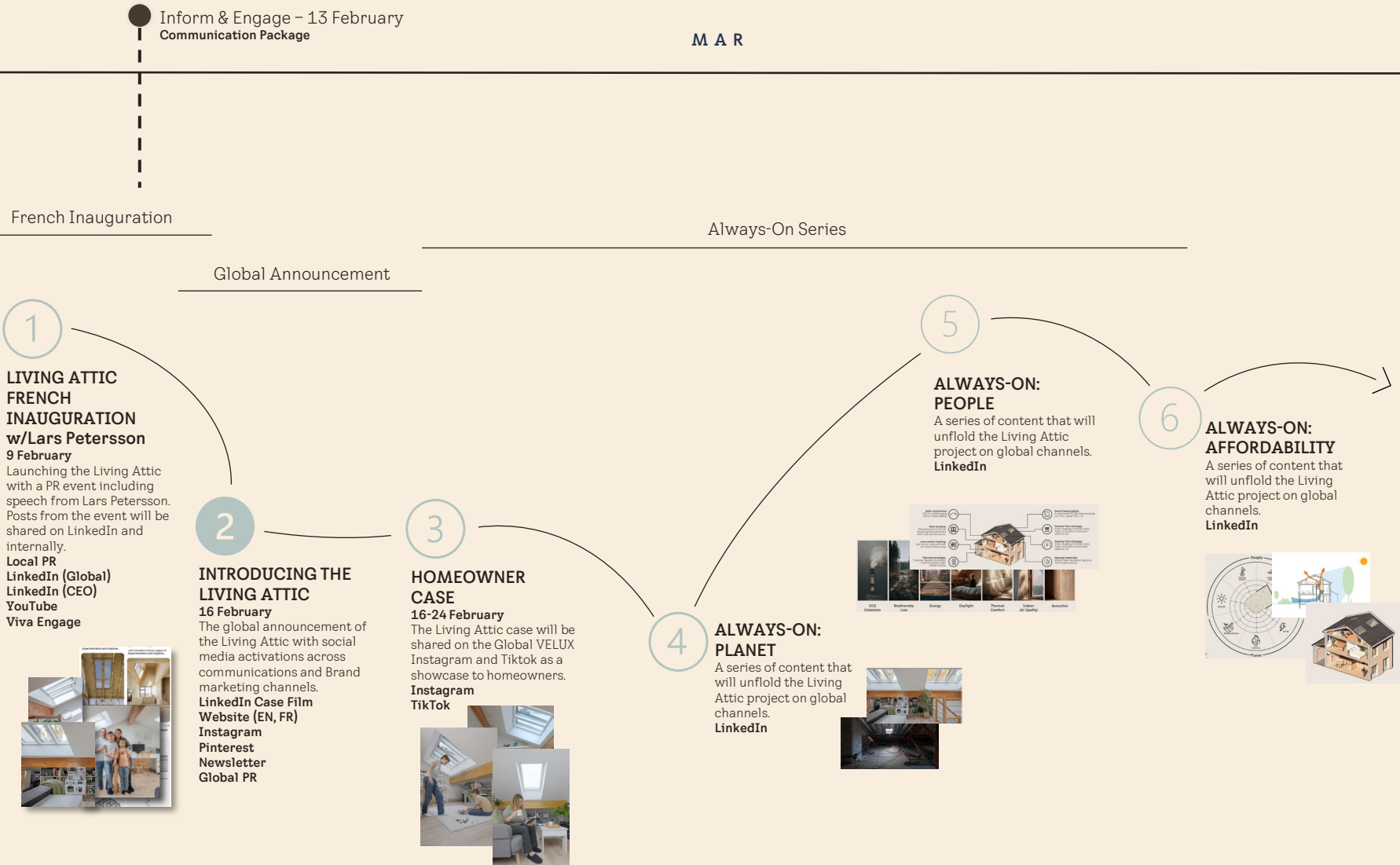
How to improve what already exists.

Living Attic

An experimental, real world case

VELUX Solutions

Showing how VELUX products contribute to a healthy building.



[illegible]



A Living Attic Content package for you to adapt and activate

Sharing and localising Living Attic content helps create a strong ripple effect across our markets. When we activate the same strong story in many places, with relevant local perspectives, we build recognition, reinforce the value of holistic renovation and bring the Living Places principles closer to homeowners, builders and professionals.

You can access the full content package on Strategic Communication's SharePoint and on the VELUX Content Hub. All photo assets, films, social media materials, presentations and the architectural case PDF are available for download.

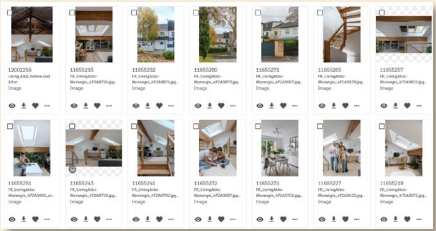
The materials are ready to adapt. Markets can translate and localise the messaging, select the visuals that fit local needs, adjust formats for specific channels and tailor the story with national context.

Each asset is designed to be flexible across web, social, PR and other touchpoints.

You can download all assets:
[Living Attic Communications SharePoint](#)

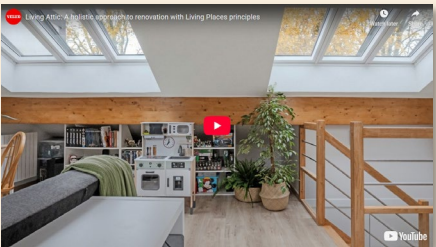
LIVING ATTIC PHOTOS

A full and comprehensive set of images from the Living Attic including before/after and the family. We have full usage rights for the images.



LIVING ATTIC CASE FILM

A full homeowner case film has been produced which includes shots of the home and insights on the transformation from the homeowners. The film is in French but includes an English SRT file you can translate.



LIVING ATTIC SOCIAL MEDIA PACKAGE

A set of image and video content + copy that can be adapted and published on your local channels. Content has specifically produced for Instagram, LinkedIn, YouTube and Pinterest but can be adapted for other channels.



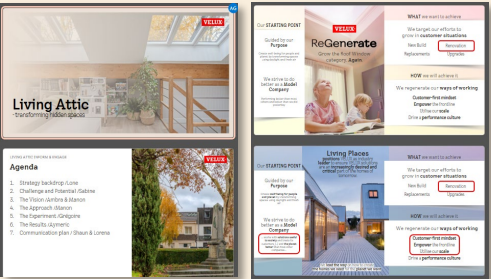
LIVING ATTIC CASE PDF

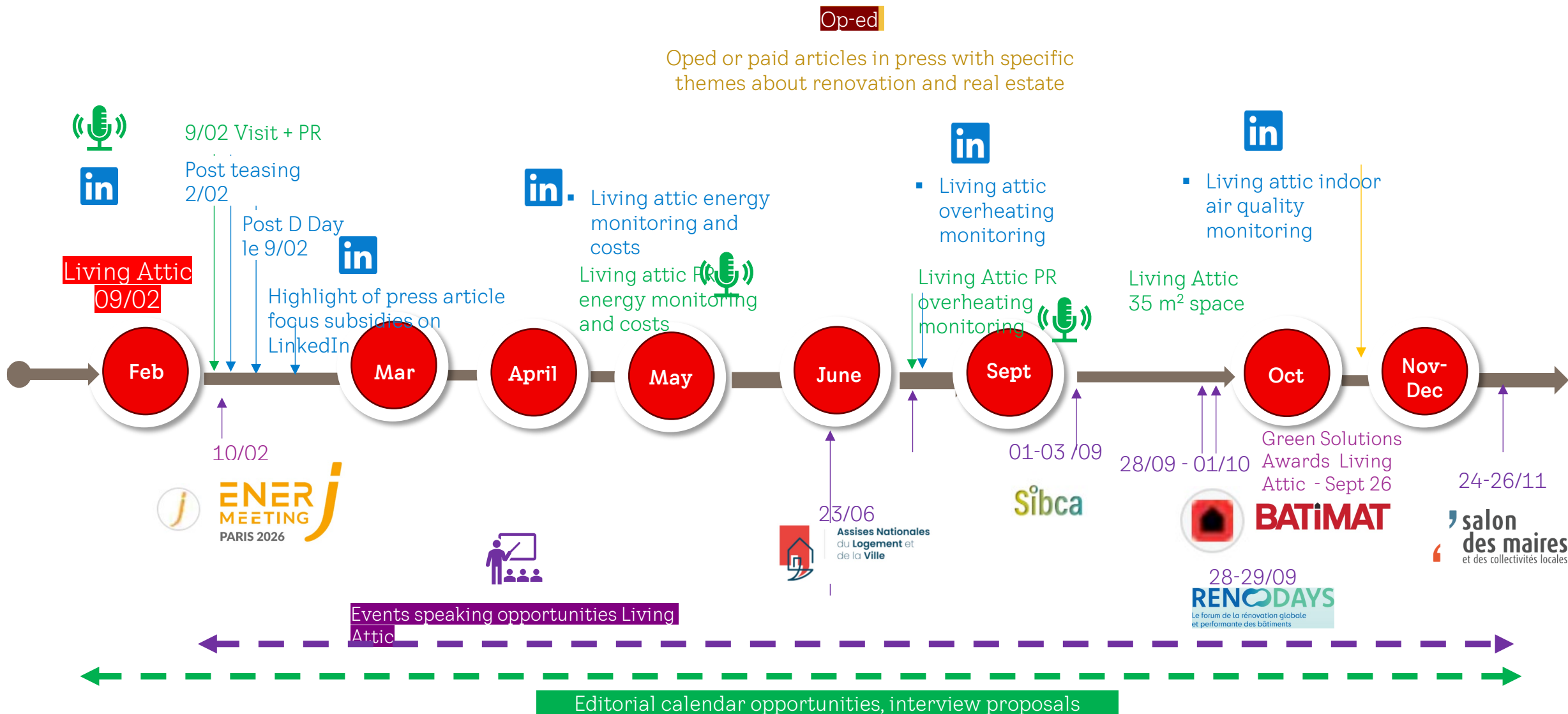
A compressed and visual story of the Living Attic case directed towards architects. This case is in PDF form and includes a mix of renders, drawings and images from the project.



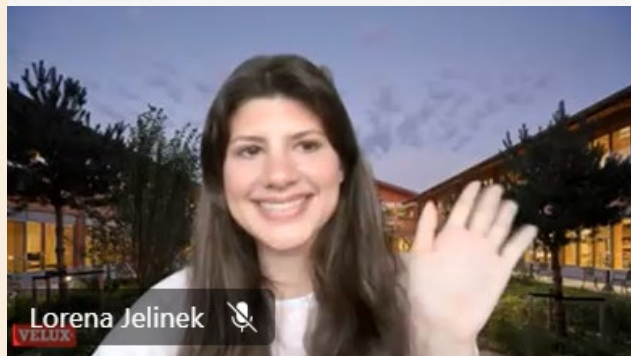
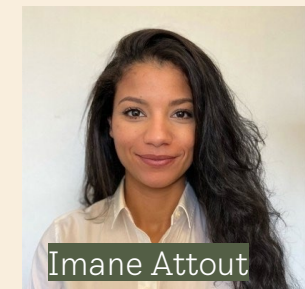
LIVING ATTIC PRESENTATION

An in-depth presentation of the Living Attic project that shares the vision, approach, project and key results. The presentation includes infographics, visualizations and renders.





True team effort 😊



Q&A

