



BuildUPspeed Renovating Europe, faster

Industrialised deep renovation, brought to market in five European ecosystems

Austria · France · Italy · the Netherlands · Spain

*INFINITE project (G.A No 958397). Installation of prefabricated modules by FANTI.
Credit: Eurac Research / Ludovica Galeazzi*

About this publication

BuildUPspeed — final results of a European effort, from November 2022 to June 2026, to make deep renovation faster, cheaper and easier to buy.

PUBLISHED BY

ACR Goialde, lead beneficiary, on behalf of the BuildUPspeed consortium.

THE CONSORTIUM

Partners from Austria, France, Italy, the Netherlands and Spain, spanning construction industry, research, housing, local government and finance.



DISCLAIMER

Funded by the European Union. Views and opinions expressed are those of the authors only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

ACKNOWLEDGEMENT

Our thanks to the local advisory boards, housing providers, contractors, manufacturers and public authorities in all five countries who gave their time, data and buildings to this work.

INSIDE THIS PUBLICATION

- 1 Welcome
- 2 Executive summary
- 3 The challenge we set out to solve
- 4 Five countries, one approach
- 5 What BuildUPspeed delivered
- 6 Insight: the Market Activation Platform
- 7 The platform in use
- 8 Insight: the five local pop-up factory models
- 9 District Factory
- 10 Satellite Factory
- 11 Mobile On-Site Factory
- 12 Assembly Factory
- 13 Service Factory
- 14 Pilot: Van Heemskerck flat, Groningen
- 15 Pilot: LBS Knittelfeld, Styria
- 16 Pilot: Pieve Emanuele, Italy
- 17 Pilot: Las Salesas Offices, Pamplona
- 18 Urban mining: Otto-Möbes-Akademie, Graz
- 19 Urban mining: Résidence Palmer, Cenon
- 20 Insight: skills and training
- 21 The ecosystems in action
- 22 Policy recommendations
- 23 What we learned
- 24 Get in touch

Europe cannot meet its climate targets one building at a time.

Renovating Europe's existing buildings is the single largest lever we have for cutting emissions from the built environment. Yet deep renovation remains slow, expensive and disruptive. Every project is treated as a one-off: bespoke design, unpredictable cost, months of scaffolding, and residents forced to live on a building site.

BuildUPspeed was built on a simple conviction — that renovation should behave less like a craft project and more like a product. Prefabricated façades, modular heating and ventilation units, and digitally prepared designs can be manufactured off site, delivered to a schedule and installed in days rather than months, with residents staying in their homes.

Between 2022 and 2026, the project worked across Austria, France, Italy, the Netherlands and Spain to turn that conviction into a functioning market. We built a platform that connects the people who own buildings with the people who can renovate them industrially. We designed local pop-up factories that put manufacturing capacity inside the neighbourhood being renovated. We trained the workforce that has to deliver it. And we tested all of it in real buildings.

This publication sets out what worked, what did not, and what governments at every level can do to make industrialised renovation the normal way Europe upgrades its homes.

“Renovation should behave less like a craft project and more like a product — designed once, manufactured off site, installed in days.”

THE BUILDUPSPEED PREMISE

Executive summary

What four years of work in five European markets showed — and what to do about it.

Between November 2022 and June 2026, BuildUPspeed set out to make industrialised deep renovation something building owners can actually buy. Working with housing providers, industry, public authorities and financiers in Austria, France, Italy, the Netherlands and Spain, the project built a market activation platform, designed local pop-up factories, trained the workforce and tested the approach in real buildings.

KEY FINDINGS

Barriers are not technical. The solutions already exist; what holds deep renovation back is one-off projects, a fragmented value chain and a workforce that is not yet ready.

A platform that stays open. The Market Activation Platform connects owners with proven solutions, experts and success stories, and remains live after the project.

Local production works — in different forms. Five pop-up factory models were designed and tested: physically in Austria, France and the Netherlands, and through feasibility studies in Italy and Spain.

Industrialised façades install fast. About 12,000 m² of façade went up in around 12 weeks at Pieve Emanuele, and 1,815 m² in around 12 weeks at LBS Knittelfeld.

Urban mining pays back. In Graz, 2,314 components were reused and pop-up factory waste fell by 46%; in Cenon, waste fell by 25%.

Demand for skills is real. The Spanish national course drew 287 registrations, with 178 participants completing it.

LESSONS LEARNED

Start from demand, not technology. Map what residents, owners and markets need before choosing a solution.

Nothing transfers unchanged. The same method produced five different factory models in five countries.

Sometimes building from scratch is cheaper. A platform meant to outlive its funding needs foundations designed for that.

Measure from day one. Baseline data must be captured before the first module goes up.

Training reaches further than expected. The workforce is under-served, not resistant.

Convening beats communicating. Local Advisory Boards bringing supply, demand, public and financial actors together moved markets more than events did.

WHAT IT MEANS FOR POLICY

Industrialised renovation becomes competitive through volume and continuity. Governments can make it the normal route by offering stable, long-term finance, harmonising standards and permits, aggregating demand at district scale, buying on lifecycle performance and investing in skills. The recommendations on the following pages set out what each level of government can do.

The challenge we set out to solve

Three barriers keep deep renovation slow — and none of them are technical.

01

Every project is a one-off

Deep renovation is still handled as a craft job. Each building gets a bespoke design, a bespoke price and months of scaffolding. Costs are impossible to predict, timelines slip, and residents live on a building site while the work drags on. Nothing learned on one project carries over to the next.

02

The value chain is fragmented

Building owners, manufacturers, contractors, public authorities and financiers rarely sit at the same table. Proven industrialised solutions had already been developed and tested in earlier European projects — but they stayed inside those projects. There was no single place where someone with a building to renovate could find them. The money was just as fragmented — funding that stakeholders in all five countries called complex, inconsistent or delayed.

03

The workforce is not ready

Industrialised renovation demands cross-trade, multidisciplinary skills: reading digital models, handling prefabricated components, commissioning modular systems. Local labour markets do not yet supply them, and training rarely reaches the trades who would actually install the work.

THE BUILDUPSPEED ANSWER

Treat renovation as a product. Make the proven solutions visible in one place, manufacture them close to the building being renovated, train the people who install them — and prove it works in real pilots across five very different European markets.

Five countries, one approach

BuildUPspeed worked in five national ecosystems — deliberately chosen because they are not alike.

THE FIVE ECOSYSTEMS

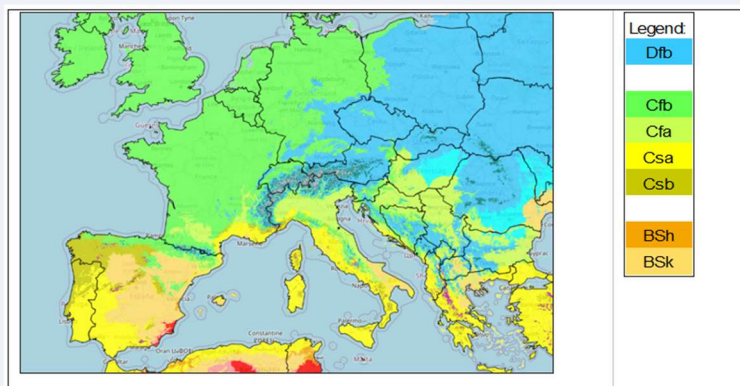


Figure 1. Köppen-Geiger climate classification (year 2020) <https://koppen-earth/> Source: Beck, H.E., T.R. McVicar, N. Vergopolan, A. Berg, N.J. Lutsko, A. Dufour, Z. Zeng, X. Jiang, A.I.J.M. van Dijk, D.G. Miralles-High-resolution (1 km) Köppen-Geiger maps for 1901–2099 based on constrained CMIP6 projections Scientific Data 10, 724, doi:10.1038/s41597-023-02549-6 (2023)

Ecosystem Climate classification			
Austria	Dfb	Cold	no dry season, warm summer
	Cfb	Temperate	no dry season, warm summer
France - Metropole of Bordeaux	Cfb	Temperate	no dry season, warm summer
The Netherlands	Cfb	Temperate	no dry season, warm summer
Italy - Milan area	Cfa	Temperate	no dry season, hot summer
Spain	Dfb	Cold	no dry season, warm summer
	Csa	Temperate	dry summer, hot summer
	Csb	Temperate	dry summer, warm summer
	Cfb	Temperate	no dry season, warm summer
	BSh	Arid	steppe, hot
	BSk	Arid	steppe, cold

Each ecosystem was mapped for climate, building stock, building codes, national and local renovation policy, and the incentives available to investors. Nothing was assumed to transfer unchanged from one country to the next.

AUSTRIA

Concentrated on market activation, organising more than twenty market activation events including the country's inaugural national renovation congress, Impact Days, which drew more than 300 participants. Austrian partners also developed the Re-Use Box, a pop-up store on deconstruction sites that resells reclaimed building products instead of paying to dump them. Numerous serial renovation projects were realized or planned during the BuildUPspeed project.

FRANCE

Focused on circularity, developing the Mobile On-Site Factory and Assembly Factory concepts that bring reclaimed materials back into the renovation supply chain.

ITALY

Delivered the most advanced physical pilots. In Pieve Emanuele, 12,000 m² of modular steel-framed façades were installed at 60 m² per day. A Satellite Factory configuration has been analysed for replication in Sicily.

THE NETHERLANDS

Home of the Energiesprong legacy the project builds on. Developed a district-level renovation factory model and led a collaborative mapping of the barriers blocking industrialised renovation across the whole ecosystem.

SPAIN

Activated a broad network through its Local Advisory Board, training, conferences and technical visits. Two renovation pilots tested industrialised solutions, while the Assembly PuF concept, the emerging CINCO cluster and a local market platform laid the foundations for wider market uptake.

What BuildUPspeed delivered

Three kinds of result: something to use, something to learn from, and something to point at.

A TOOL

The Market Activation Platform

A free, public platform where anyone with a building to renovate can find proven industrialised solutions, the companies that supply them, the experts who can advise, and real examples of the work already done. Built from scratch so it could keep growing after the project ended — and it will.

A METHOD

Local Pop-up Factory

Temporary factory set up inside the district being renovated, assembling prefabricated components for the duration of the programme. It cuts transport, shortens installation, and keeps the money and the jobs in the neighbourhood. Five factory models were designed and tested — physically in Austria, France and the Netherlands, and through feasibility studies in Italy and Spain.

THE PROOF

Pilots, skills and market activation

Real buildings retrofitted with modular façades, a national training programme, advisory boards convened in every country, and a sustained programme of events bringing owners, industry, public authorities and financiers into the same room.

Key exploitable results of the project

Market Activation Platform

An online platform connecting diverse stakeholders to share best practices, access funding, find contractors and materials, to accelerate deep renovation projects.

Financial Consulting

Financial consulting services on best ways to finance renovation projects for companies and private owners, with a crowdfunding approach.

Pop-up factories' concepts

For system integrators and intermediaries managing deep-renovation projects across building portfolios to unlock financial, environmental, and social benefits

Re-Use Box

Second hand building materials from deconstruction sites for B2B-clients that help reducing costs and environmental footprint

Re-Use Truck

A mobile refurbishment service for sanitary equipment

Spanish Training programme

Practical insights on offsite fabrication and digital engineering to help construction professionals boost efficiency, quality, and sustainability.

Insight: the Market Activation Platform

The project's main output — a digital environment connecting renovation needs with the solutions and expertise already out there.

The BuildUPspeed Market Activation Platform (B-MAP) was built on the analysis of the five ecosystems, of the digital tools already in circulation, and of what stakeholders on both sides of the market said they needed. Those needs, gathered in stakeholder interviews, were consolidated into a programme of requirements and translated into an operational web platform serving demand and supply alike. Stakeholders everywhere asked for the same things: quick feasibility and cost estimates, up-to-date databases, case studies with real performance data, and comparable EU-wide financial guidance.

What it holds

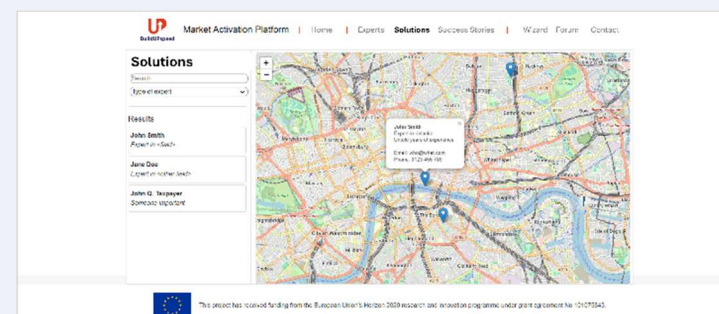
Interconnected catalogues of industrialised renovation Solutions, Experts and Success Stories, complemented by external resources and by the results of the pop-up factory work — the different factory concepts, and guidance on choosing between them. Anyone can browse and search all of it freely.

Guided, not just searchable

Users who do not yet know what they are looking for can use Get Renovation Tips, which narrows the catalogue to the examples and solutions that suit their building's characteristics and constraints. A parallel questionnaire helps identify which pop-up factory concept fits a given local context.

Built with its users, built to keep going

Development ran iteratively — from functional requirements and user journeys through successive prototypes to the final operational release — with continuous testing and validation by partners and stakeholders shaping functionality, usability, content and navigation. Registered users can contribute and maintain catalogue content, so the platform grows as a collaborative knowledge environment rather than a static repository. User and technical documentation was published alongside it to support maintenance and future development.



The B-MAP home page — search by location, or browse Experts, Solutions and Success stories.

WHAT'S INSIDE

Solutions

Industrialised renovation products and systems, with specifications.

Experts

The companies and specialists who can design and install them.

Success stories

Renovations already delivered, documented with their results.

Pop-up factories

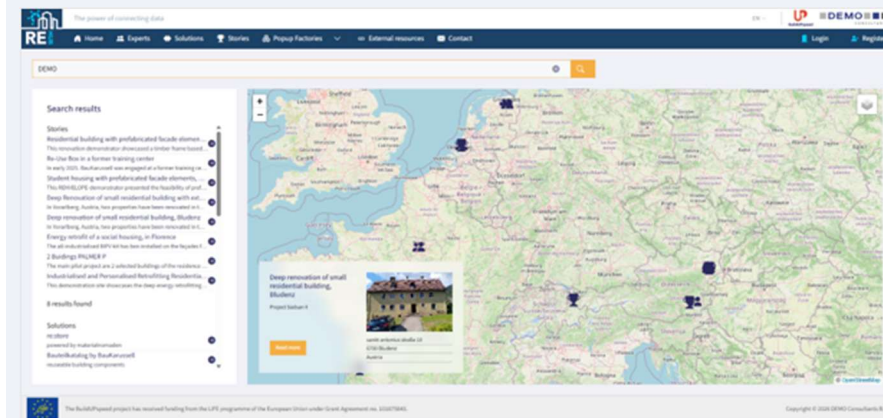
Factory concepts from the project, with guidance on choosing one.

External resources

Related tools, registers and projects from across Europe.

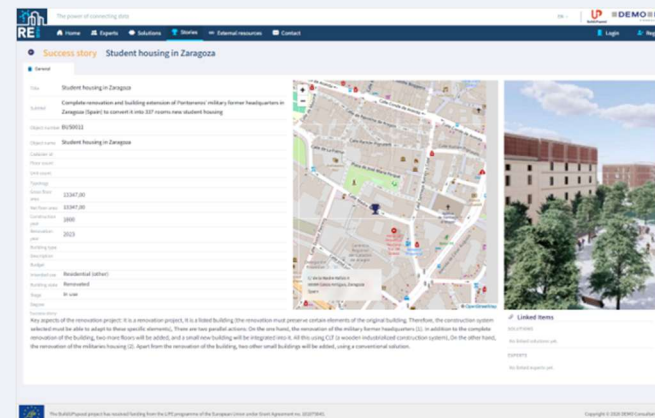
The platform in use

Browse it, search it, or let it ask you questions.



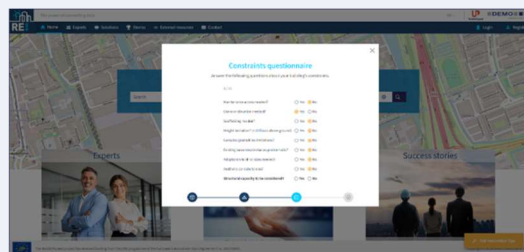
SEARCH AND MAP

Every solution, expert and success story is geolocated, so results can be read as a list or explored on the map.



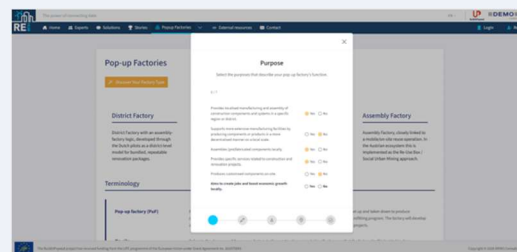
SUCCESS STORIES

Delivered renovations documented with building data, typology, renovation year, and the linked solutions and experts.



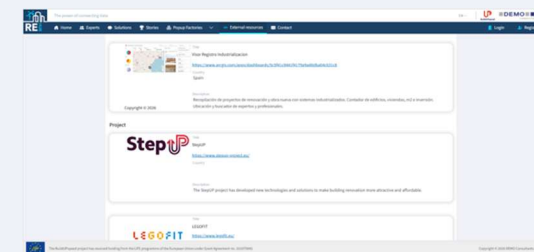
GET RENOVATION TIPS

A guided questionnaire on the building's constraints — access, crane, scaffolding, geometry, structure — narrows the catalogue to what fits.



CHOOSING A FACTORY

The pop-up factory selector asks what the factory is for, then points to the concepts that match the local situation.



EXTERNAL RESOURCES

Links out to related registers, tools and European projects, so the platform sits inside the wider ecosystem.

Insight: the five local pop-up factory models

Bringing renovation capacity closer to buildings, neighbourhoods and local markets.

Industrialised renovation can make building upgrades faster and more predictable, but the right delivery model depends strongly on the local context. Renovation demand may be spread across a neighbourhood, concentrated in a large housing programme, constrained by limited site space, or linked to opportunities for reuse and circular construction.

Local Pop-up Factories (PuF) are flexible ways of organising renovation production, assembly, reuse and support closer to where renovation happens. They are not necessarily conventional factories or permanent industrial buildings. Depending on the need, a local factory can coordinate renovation across a district, connect large-scale production with local companies, bring a mobile refurbishment workshop directly to a site, turn a building into a temporary reuse hub, or provide digital guidance and matchmaking.

BuildUPspeed developed five complementary factory models, each suited to a different combination of renovation scale, location, supply chain and implementation need:

01

DISTRICT FACTORY

Renovate a neighbourhood, not one building at a time.

02

SATELLITE FACTORY

Industrial production at scale, finished close to where renovation happens.

03

MOBILE ON-SITE FACTORY

Bring reuse directly to the renovation site.

04

ASSEMBLY FACTORY

Turn the building itself into a temporary reuse hub.

05

SERVICE FACTORY

A digital gateway to find and organise the right renovation approach.

One concept, different local responses

There is no single factory model that fits every renovation project. The appropriate approach depends on factors such as the number and type of buildings, available renovation pipeline, local suppliers and skills, site and logistics constraints, reuse opportunities, investment capacity and governance.

The following pages show when each model is most useful, how it works, what it takes to establish it, its economic logic and what BuildUPspeed learned from developing, applying and testing the approach. Full implementation guidance is available through the BuildUPspeed Market Activation Platform.

EXPLORE THE FULL DEVELOPMENT AND TECHNICAL DETAILS: [Deliverable 4.1 - Report on the activities for the design and implementation of the Local PuF Concept.](#)

District Factory

Renovate a neighbourhood, not one building at a time.

36 / 145

apartments in reference projects

~1 day

per apartment in one façade reference

WHAT IS IT?

The District Factory brings together the renovation of multiple similar buildings within a neighbourhood, district or housing portfolio. Instead of treating every building as a separate project, demand is bundled into repeatable renovation packages. Prefabricated components can be prepared off site or close to the district and installed through coordinated local delivery.

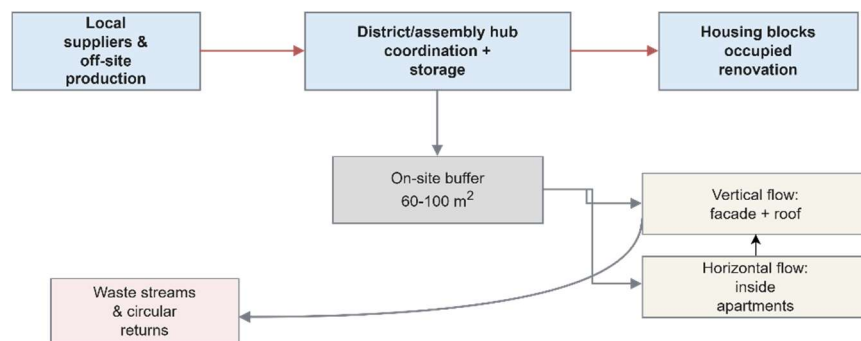
The model is particularly relevant for housing providers, municipalities and other owners managing portfolios of similar residential buildings. It is designed to make industrialised renovation easier to scale while reducing fragmentation between individual projects.

BEST SUITED FOR

Repeated residential building types, clustered renovation demand and occupied housing where on-site space and disruption need to be limited. The approach works best when local suppliers can deliver standardised or modular components and when procurement allows several buildings or projects to be coordinated as a programme.

HOW IT WORKS

1. Bundle demand – identify similar buildings and combine them into a larger renovation programme.
2. Standardise and prepare – develop repeatable façade, roof, window, ventilation, energy and selected interior solutions.
3. Produce and coordinate locally – manufacture or pre-assemble components off site and organise them through a coordinated supply chain.
4. Install efficiently – deliver components when needed and coordinate assembly, installation and resident-facing activities on site.



JIT deliveries reduce large intermediate storage and keep disturbance low during occupied works.

Figure 1. Indicative District Factory site and logistics setup

WHY USE IT?

- Creates scale by aggregating renovation demand.
- Makes repeated building types suitable for standardised renovation packages.
- Supports faster installation and lower disturbance at the building.
- Strengthens coordination between housing providers, contractors and local suppliers.
- Provides a basis for long-term renovation programmes rather than isolated projects.

WHAT DOES IT TAKE?

A committed portfolio owner is essential. A main contractor or similar coordinating organisation is needed to connect designers, manufacturers, specialist installers and logistics. Early planning of permits, tenants, site access, product availability and workforce capacity is particularly important. Only a relatively small local buffer may be available, making coordinated delivery critical.

ECONOMICS AT A GLANCE

There is no single factory investment benchmark for this model: costs depend strongly on building type, renovation scope, procurement and the industrialised products selected. The business case is therefore mainly created through demand aggregation, process standardization, economies of scale, shared coordination and reduced fragmentation. Financing can be embedded in the normal investment model of the building owner, complemented where applicable by renovation subsidies or other public support.

EVIDENCE FROM BUILDUPSPEED

The concept was developed from Dutch social-housing renovation experience, including reference projects of 36 and 145 apartments. In one reference façade application, installation was reported at approximately one day per apartment, illustrating the potential of highly prepared and repeatable façade systems.

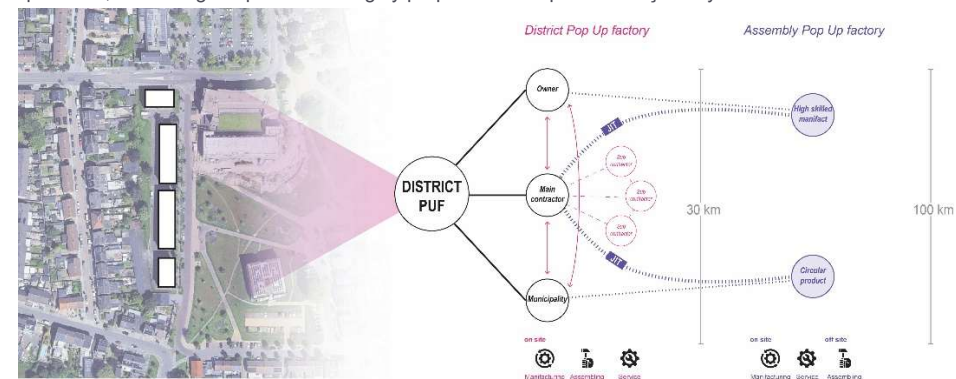


Figure 2. Organisation of the hybrid District/Assembly PuF

EXPLORE THE FULL BLUEPRINT: <https://busmap.demobv.nl/platform/popup-factories/district-factory>

Satellite Factory

Industrial production at scale, finished close to where renovation happens.

200 m²/day
estimated panel installation

~21 months
estimated full setup and commissioning

WHAT IS IT?

The Satellite Factory combines the efficiency of a large industrial production facility with the flexibility of smaller facilities and local companies closer to renovation sites. Major building components are produced centrally under controlled factory conditions, while windows, services, finishes or other locally supplied elements can be integrated closer to the construction site before final delivery.

The model is designed for renovation programmes large enough to justify industrial production capacity and a stable long-term project pipeline.

BEST SUITED FOR

Large portfolios of buildings, repeated façade or structural solutions, major social-housing programmes and regions where renovation demand can be aggregated over several years. It is particularly suitable where industrial production can be combined with capable local companies for finishing, integration and installation.

HOW IT WORKS

1. Aggregate a project pipeline – secure sufficient renovation demand to justify industrial production.
2. Manufacture centrally – produce standardised prefabricated panels or other major components in a high-capacity facility.
3. Complete locally – use local companies or smaller facilities to integrate sensitive or project-specific elements close to the site.
4. Deliver when needed – coordinate production, local integration, transport and installation to minimise intermediate storage and site disruption.

WHY USE IT?

- Brings industrial quality and repeatability to large renovation programmes.
- Combines economies of scale with local flexibility.
- Creates opportunities for regional SMEs to participate in industrialised renovation.
- Reduces unnecessary movement of individual component suppliers.
- Supports predictable production and fast on-site installation.

WHAT DOES IT TAKE?

This is a capital-intensive model. It requires a stable multi-year renovation pipeline, suitable industrial land and utilities, manufacturing expertise, local integration partners, skilled workers and tightly coordinated logistics. Public authorities, housing providers and major developers can play an important role by aggregating demand and providing investment certainty.

ECONOMICS AT A GLANCE

The Italian reference model estimated an industrial investment of approximately €35 million, covering land, buildings, production lines, automation and commissioning. Reported production-cost assumptions were around €510/m² for retrofit panels, with a reported price basis around €790/m² for panels leaving the main factory and including transport to local facilities. These figures are reference assumptions rather than universal European benchmarks and depend strongly on scale, capacity utilization and local market conditions.

A central lesson is that high upfront investment only becomes viable when the facility has a sufficiently stable project pipeline and continuous utilization.

EVIDENCE FROM BUILDUPSPEED

The model was developed around the Italian renovation context. The reference production concept envisages large-scale factory output followed by local integration and coordinated delivery. Prefabricated renovation panels were estimated to be installable at approximately 200 m² per day; for a 2,000 m² façade this corresponds to roughly ten panel-installation days, excluding preparation and finishing works. Establishing the full production facility was estimated at approximately 21 months from funding and permitting through commissioning.

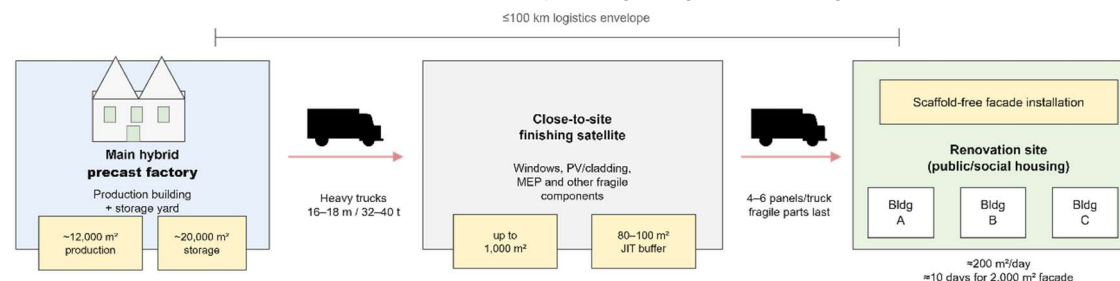


Figure 3. Indicative Satellite Factory logistics setup linking the main hybrid precast factory, close-to-site integration facilities and the renovation site.

EXPLORE THE FULL BLUEPRINT: <https://busmap.demobv.nl/platform/popup-factories/satellite-factory>

Mobile On-Site Factory

Bring reuse directly to the renovation site.

€62k

reference mobile-unit investment

3 apartments/day

expected reference processing rate

WHAT IS IT?

The Mobile On-Site Factory is a transportable workshop that brings refurbishment and reuse activities directly to construction and renovation projects. The BuildUPspeed model focuses on sanitary equipment such as toilets, sinks and baths that can be carefully removed, cleaned, checked, refurbished and prepared for reuse instead of automatically becoming waste.

The workshop can operate from a truck or modular container and move between projects according to demand.

BEST SUITED FOR

Residential and social-housing renovation where bathrooms are renovated in sequence, reusable sanitary equipment becomes available regularly, local storage is limited and there are nearby projects, marketplaces or other users able to receive the recovered products.

HOW IT WORKS

1. Identify reusable equipment – inspect sanitary elements before or during renovation.
2. Remove carefully – dismantle suitable components without damaging them.
3. Clean and refurbish on site – check, disinfect, repair and prepare components in the mobile workshop.
4. Return them to use – reinstall them on the same project or transfer them directly into local reuse channels.



Figure 4. French ecosystem: Mobile On-Site Factory

WHY USE IT?

- Keeps usable building products in circulation.
- Brings refurbishment capacity to the place where materials become available.
- Reduces the need for large intermediate storage facilities.
- Creates a practical link between deconstruction and new demand for reused products.
- Can move between projects and expand through additional mobile units.

WHAT DOES IT TAKE?

The site needs truck or container access, electricity, clean water, wastewater drainage and a modest working/storage area. Skilled workers are required for careful removal, plumbing-related refurbishment, quality control and handling. Successful operation also depends on predictable flows of reusable products and sufficient local demand for them.

ECONOMICS AT A GLANCE

The reference mobile workshop was estimated at approximately €62,000 for the initial unit and its equipment. An indicative reconditioning cost of approximately €1,200 per housing unit was reported, together with a revenue assumption of approximately €1,800 per housing unit. These values are pilot-based assumptions; the final business case depends on product condition, number of dwellings, avoided purchase costs, demand for reused equipment and the amount of refurbishment required.

EVIDENCE FROM BUILDUP SPEED

The model was developed in France around sanitary equipment reuse in housing renovation. The reference setup was expected to process around three apartments per day, corresponding to approximately 10–15 sanitary elements per day, with a scalable capacity of around 60 units per week per mobile workshop. The concept demonstrates how circular renovation can become an operational service rather than a separate waste-management activity.

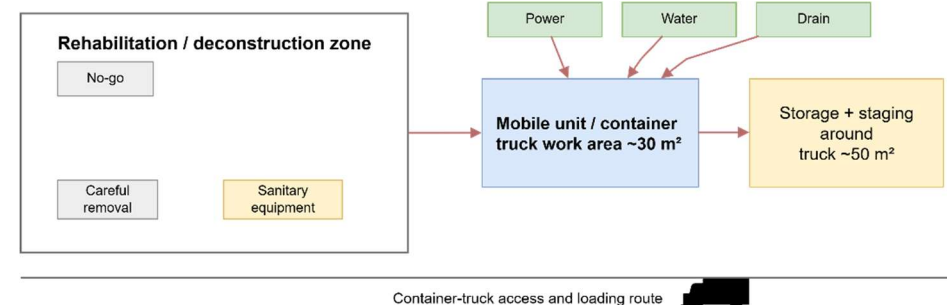


Figure 5. Indicative mobile-unit site setup showing the rehabilitation zone, truck/container work area, storage/staging space, utilities and access route.

EXPLORE THE FULL BLUEPRINT: <https://busmap.demobv.nl/platform/popup-factories/mobile-on-site-factory>

Assembly Factory

€1–2/m²
initial building analysis

WHAT IS IT?

The Assembly Factory can take different forms. The BuildUPspeed blueprint is primarily based on the Austrian Re-Use Box / Social Urban Mining approach, in which a building scheduled for demolition or major redevelopment temporarily becomes the operational base for recovering reusable building components. It also incorporates relevant lessons from the Spanish ecosystem's work on prefabrication, constrained urban sites and heritage/public-building conditions.

Instead of demolishing first and sorting afterwards, valuable components are identified in advance, matched with potential buyers and carefully dismantled. The building itself provides temporary working, exhibition and storage space until the products leave for their next use.

BEST SUITED FOR

Buildings with meaningful reuse potential, sufficient preparation time before demolition and an owner willing to integrate reuse into the project programme. The approach is particularly valuable where local second-hand markets, circular-economy companies and social enterprises can participate.

HOW IT WORKS

1. Inspect before demolition – identify potentially reusable components and assess technical and legal requirements.
2. Find the next user – document products and begin buyer matching before dismantling wherever possible.
3. Dismantle selectively – remove valuable components carefully using trained workers and specialist support where needed.
4. Store and transfer locally – temporarily organise products within the building and transfer sold components to their next use.



Figure 6. Left: Re-Use Box in Vienna 2025 (© Joanna Planka); Right: Re-Use Box (© Villach)

Turn the building itself into a temporary reuse hub.

€1.5–2.5/m²
reuse operation

WHY USE IT?

- Prevents reusable components from becoming demolition waste.
- Improves separation and recovery of valuable materials.
- Creates local circular-economy activity around building projects.
- Can provide employment and training opportunities through social enterprises.
- Makes reuse visible and tangible to building owners, contractors and the public.

WHAT DOES IT TAKE?

Early preparation is decisive. A pre-demolition assessment, clear agreement with the building owner, adequate time for buyer matching, safe storage and suitable local partners are required. Product testing, certification, warranties and insurance may be needed depending on the component. Local social enterprises can undertake part of the dismantling and operational work under professional coordination.

ECONOMICS AT A GLANCE

The Austrian experience provides several practical reference values:

- Initial building analysis: approximately €1–2/m²
- Reuse operation: approximately €1.5–2.5/m²
- Detailed Social Urban Mining concept: approximately €5,000–10,000
- Project personnel costs: approximately €15,000–30,000, depending on building size and condition

Income from reused components and avoided disposal costs can partly offset implementation costs, although the value depends on product quality, market demand, certification requirements and successful buyer matching.

EVIDENCE FROM BUILDUP SPEED

The Austrian Re-Use Box represents one of the project's physically implemented local factory approaches. A typical preparation period is at least several months, while the active on-site operation may range from approximately two weeks to two months, depending on building size, available materials, storage conditions and the demolition schedule. The model also demonstrates how circular construction can generate both environmental value and local social benefits.

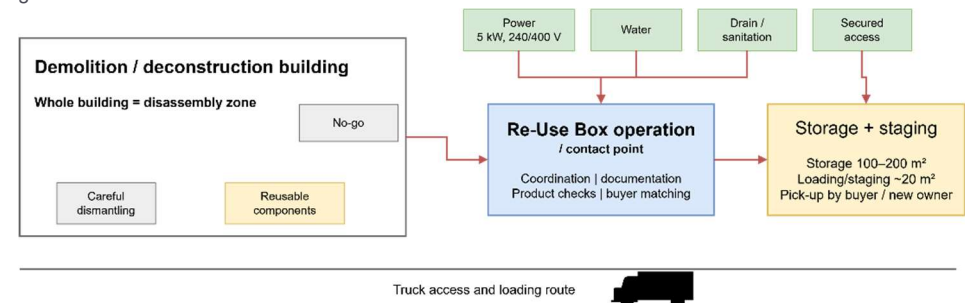


Figure 7. Indicative Re-Use Box site setup showing the whole-building disassembly zone, controlled entry, no-go areas, storage, office/contact space, loading/standing area, and required truck access.

EXPLORE THE FULL BLUEPRINT: <https://busmap.demobv.nl/platform/popup-factories/assembly-factory>

Service Factory

A digital gateway to find and organise the right renovation approach.

WHAT IS IT?

Not every local renovation factory needs to be a physical production facility. The Service Factory is represented by the BuildUPspeed Market Activation Platform (B-MAP): a digital guidance and matchmaking environment that connects renovation needs with relevant solutions, experts, success stories, local factory concepts and external resources.

Rather than carrying out physical renovation itself, it supports users during the exploration, preparation and decision-making stages of industrialised renovation.

BEST SUITED FOR

Building owners and homeowners, housing managers and housing associations, public authorities, architects and engineers, contractors, manufacturers and solution providers, financial actors, researchers and organisations coordinating renovation activities. Because the Service Factory is web-based, it can be accessed independently of location and can support both local market exploration and wider European knowledge exchange.

HOW IT WORKS

1. Enter through a catalogue, search function or Wizard – start from the information or guidance route most relevant to the renovation need.
2. Describe the context – provide a location, project characteristics or renovation needs.
3. Receive relevant matches – the platform filters and connects information and provides recommendations or ranked results.
4. Explore the options – access linked renovation solutions, experts, success stories, Pop-up Factory types and external knowledge resources.

WHY USE IT?

- Reduces fragmentation of renovation information.
- Makes industrialised renovation solutions and relevant market actors easier to find.
- Supports connections between renovation demand and available expertise.
- Provides practical examples through linked success stories.
- Helps users identify suitable local factory approaches.
- Provides an initial basis for further planning, collaboration or feasibility assessment.

WHAT DOES IT TAKE?

Unlike the four physical factory models, the Service Factory does not require production premises or manufacturing equipment. It requires a maintained digital platform, reliable and regularly updated content, clear content ownership, technical hosting and security, and people able to manage the platform, data, user support and renovation-domain content.

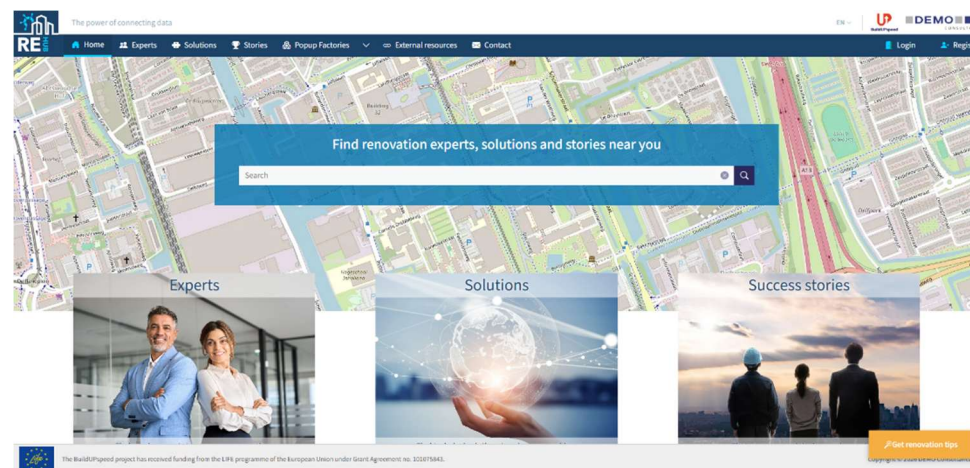
ECONOMICS AT A GLANCE

There is no physical-factory investment figure for this model. Its main cost categories are software development, hosting and infrastructure, technical maintenance, security and backups, content validation and moderation, user support, database updates and future functional development.

Its economic value comes from reducing information fragmentation, search effort and coordination barriers while increasing the visibility of industrialised renovation solutions and relevant market actors.

EVIDENCE FROM BUILDUP SPEED

The final B-MAP has been deployed and includes the main catalogues, map-based navigation, authentication, external resources, dedicated local factory pages and guided Wizards. The platform also includes the PuF Wizard, which helps users identify the factory model most relevant to their context, renovation needs and implementation conditions.



EXPLORE THE FULL BLUEPRINT: <https://busmap.demobv.nl/platform/popup-factories/service-factory>

RENOVATION PILOT FACTSHEET

Van Heemskerck flat

Industrialised deep renovation of student housing

THE NETHERLANDS

Groningen
Province of Groningen



Before renovation | Source: van Wijnen



Prefabricated façade module hoisted into place | Source: WEBO



Renovated façade installation | Source: WEBO



Bathroom installation | Source: Portisa

 **Dormitory**
TYPE OF BUILDING

 **2,640 m²**
PREFAB FAÇADE

 **9,600 m²**
GROSS FLOOR AREA

 **500 MWh/a**
PRIMARY ENERGY SAVINGS

PROJECT PROFILE

Location

Van Heemskerckstraat, Groningen, the Netherlands

Building type

Student housing / public residential high-rise

Construction period

1966

Scale

10-storey high-rise; approx. 265 students

Renovation scope

Total / deep renovation

Status

Construction; completion estimated mid-2027

On-site duration

Approx. 71.5 weeks on site

DELIVERY HIGHLIGHTS

1966 structure stripped to concrete core

Two-meter floor extension with lightweight steel substructure

New tenth floor added on the roof

Prefabricated wood-frame façade with BIPV

Prefabricated bathroom pods and upgraded systems

RENOVATION APPROACH

The Groningen pilot retains the original concrete structure while upgrading and extending the building through industrialised façade renovation. Digital surveying, BIM-based planning and just-in-time assembly support precise off-site production.

RENOVATION MEASURES

High-performance prefabricated wood-frame façade with BIPV, floor extension, new roof level and aluminium window replacement

Redesigned shared apartments with prefabricated bathroom pods, ventilation upgrade and asbestos remediation of old shunt channels

KEY TECHNOLOGIES AND IMPLEMENTATION

Prefabricated façade elements

BIPV, aluminium windows and high-performance insulation

Water-water heat pumps and municipal district heating connection

3D scanning, BIM coordination and construction logistics

ENERGY AND ENVIRONMENTAL PERFORMANCE

0.24 GWh/y	0.50 GWh/y	63.6 t/y	0.09 GWh/y
FINAL ENERGY SAVINGS	PRIMARY ENERGY SAVINGS	GHG EMISSIONS REDUCTION	RENEWABLE ENERGY GENERATION

REPLICATION POTENTIAL

The pilot shows how a 1966 high-rise can gain a second life through structure retention, floor-area extension, industrialised façade renovation, BIPV and upgraded building services. The approach is transferable to comparable post-war student and social housing buildings.

RENOVATION PILOT FACTSHEET

LBS Knittelfeld

Serial renovation of a vocational school during operation

AUSTRIA
Knittelfeld
Styria



Before renovation | Source: AEE INTEC

 **School**
TYPE OF BUILDING



Prefabrication of façade modules | Source: Klimafond/Krobath

 **1,815 m²**
PREFAB FAÇADE



Renovated façade | Source: AEE INTEC

 **4,074 m²**
GROSS FLOOR AREA

 **652 MWh/a**
PRIMARY ENERGY SAVINGS

PROJECT PROFILE

Location

Knittelfeld, Styria, Austria

Building type

Public vocational school / educational building

Construction period

1983

Scale

3 floors school building; >4,000 m² GFA

Renovation scope

Total / deep energy renovation

Status

Renovation completed November 2024; monitoring since summer 2025

On-site duration

Approx. 12 weeks (July–November 2024)

DELIVERY HIGHLIGHTS

1,815 m² multifunctional façade installed
Implementation during ongoing school operation
No relocation or container classrooms required
Prefabrication shortened and organised site work
Improved thermal comfort and indoor-air quality

RENOVATION APPROACH

The demonstrator applied a serial, minimally invasive renovation approach based on multifunctional timber façade modules. Off-site prefabrication and coordinated installation enabled deep renovation during normal school operation without interrupting lessons.

RENOVATION MEASURES

Thermal upgrade using prefabricated timber façade elements
Triple-glazed windows, external shading and façade cladding
Decentralised ventilation with heat recovery and photovoltaic generation

KEY TECHNOLOGIES AND IMPLEMENTATION

Multifunctional timber-frame façade modules
Integrated insulation, windows, shading and ventilation
Façade U-value below 0.15 W/m²K
PV: 45.92 kWp roof + 35.7 kWp façade; heat-pump cascade, automation and digital building twin

ENERGY AND ENVIRONMENTAL PERFORMANCE

0.323 GWh/y

0.652 GWh/y

130 t/y

FINAL ENERGY
SAVINGS

PRIMARY ENERGY
SAVINGS

GHG EMISSIONS
REDUCTION

REPLICATION POTENTIAL

The demonstrator confirms that serial façade renovation can combine energy efficiency, indoor-air quality and short, predictable site processes in occupied educational buildings. The modular concept was subsequently adapted for the adjacent dormitory and kitchen wing.

RENOVATION PILOT FACTSHEET

Pieve Emanuele

Industrialised deep renovation of a residential complex

ITALY
Metropolitan City of Milan
Lombardy



Before renovation | Source: EDERA and Isopan

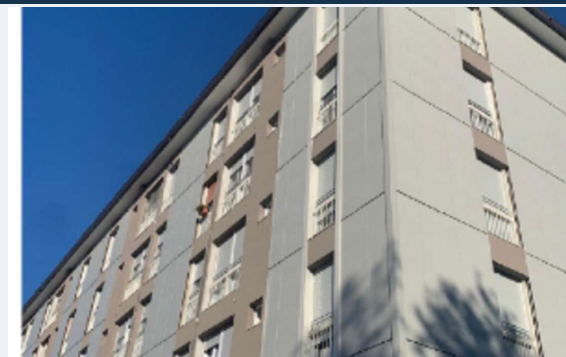
 **Residential**
TYPE OF BUILDING



During renovation | Source: EDERA and Isopan

 **12,000 m²**
PREFAB FAÇADE

 **22,300 m²**
GROSS FLOOR AREA



Renovated façade | Source: EDERA and Isopan

 **2,110 MWh/a**
PRIMARY ENERGY SAVINGS

PROJECT PROFILE

Location

Pieve Emanuele, Italy

Building type

Private multifamily residential buildings

Construction period

1970

Scale

Five storeys; five buildings; 238 dwellings

Renovation scope

Total / deep renovation

Status

Completed; operation and monitoring

On-site duration

Approx. 12 weeks for façade installation

DELIVERY HIGHLIGHTS

Approx. 12,000 m² of façade installed

Approx. 60 m² installed per day

Three-person installation team

No scaffolding or cranes required

Works undertaken with residents remaining in place

RENOVATION APPROACH

The Pieve Emanuele pilot applied an integrated, building-wide approach that combines off-site production with rapid on-site assembly. The concept was developed through coordination between building owners, the manufacturer, designers and installers, allowing a new industrialised solution to be implemented while limiting disruption for residents.

RENOVATION MEASURES

Deep upgrading of the building envelope using prefabricated façade elements

Combined improvement of energy and seismic performance

Large-scale installation across the five-building residential complex

KEY TECHNOLOGIES AND IMPLEMENTATION

Industrialised steel-framed modular panel system, project-specific façade panel product developed by Isopan

High degree of off-site prefabrication, installation from scissor lifts, avoiding conventional scaffolding and crane logistics

ENERGY AND ENVIRONMENTAL PERFORMANCE

2.01 GWh/y

FINAL ENERGY
SAVINGS

2.11 GWh/y

PRIMARY ENERGY
SAVINGS

402 t/y

GHG EMISSIONS
REDUCTION

REPLICATION POTENTIAL

The completed first phase demonstrated that the industrialised approach can deliver deep renovation at district scale with short on-site times. Its successful application led to continuation of the programme in a second phase within the same district.

Las Salesas Offices

Industrialised renovation of a heritage administrative building

SPAIN
Pamplona
Navarra



Demolition and structural works | Source: ACR



Office

TYPE OF BUILDING



CLT beams on steel frame, detail | Source: ACR



1902

CONSTRUCTION YEAR



Renovated inner courtyard after completion | Source: ACR



2,968 m²

GROSS FLOOR AREA



380 MWh/a

PRIMARY ENERGY SAVINGS

PROJECT PROFILE

Location

C. Navas de Tolosa 29, Pamplona, Navarra, Spain

Building type

Public body headquarters / administrative building

Construction period

1902

Scale

2,968 m² gross floor area; heritage building

Renovation scope

Total / deep renovation

Status

Operation & monitoring

On-site duration

Approx. 42 weeks on site

DELIVERY HIGHLIGHTS

Former monastery transformed into public body headquarters
Main stone façades retained in dense historic city centre
Structural and conservation works combined with energy upgrade
CLT prefabricated floor system and internal partitions
Assembly PuF logic explored for close-to-site adaptation

RENOVATION APPROACH

The Salesas pilot transforms a heritage building in Pamplona into an administrative public body headquarters. The approach combines preservation of the main façades with deep interior renovation, CLT-based industrialised timber construction and close-to-site assembly logic adapted to limited space, irregular geometries and heritage constraints.

RENOVATION MEASURES

Thermal envelope and airtightness improvements
Window and door renewal, solar shading and comfort upgrades
Ventilation with heat recovery, efficient HVAC/DHW and controls, structural upgrade, accessibility, fire safety and layout reconfiguration

KEY TECHNOLOGIES AND IMPLEMENTATION

Cross-laminated timber (CLT) for internal flooring and partitions
BIM-supported component preparation and assembly coordination
Local SME and supplier coordination in Navarra
Assembly PuF logic for storage, checking, adaptation and installation

ENERGY AND ENVIRONMENTAL PERFORMANCE

0.118 GWh/y

FINAL ENERGY
SAVINGS

0.380 GWh/y

PRIMARY ENERGY
SAVINGS

0.93 t/y

GHG EMISSIONS
REDUCTION

REPLICATION POTENTIAL

The pilot demonstrates how industrialised timber components and Assembly PuF principles can support complex renovation of heritage administrative buildings. The approach is transferable to protected or dense urban buildings where limited site space, irregular geometry and conservation requirements demand precise coordination and adaptable prefabrication.

Otto-Möbes-Akademie (OMAK)

Social urban mining before comprehensive modernisation

AUSTRIA
Graz
Styria



Conference venue before works | Source: BauKarussell



Construction meeting and temporary storage | Source: BauKarussell



Recovered door-frame components | Source: BauKarussell

Education & Events

BUILDING USE

PROJECT PROFILE

Location

Stiftingtalstraße 240, Graz, Austria

Building type

Conference, education and events centre

Construction period

Oldest section from the 1920s; later extensions

Building configuration

Three interconnected buildings

Project status

Urban-mining phase completed; modernisation underway since January 2026

Allocation period

11 weeks for viewing, brokerage and dismantling

DELIVERY HIGHLIGHTS

More than 500 component types catalogued while the building was still occupied

Fully digital recording and brokerage introduced

Qualified third parties dismantled allocated components

Social enterprise separated materials into clean waste streams

Interface plan handed over to subsequent trades

4,400 m²
GROSS FLOOR AREA

2,314
REUSED UNITS

RE-USE APPROACH

Before comprehensive modernisation, reusable building components and movable assets were surveyed, catalogued and brokered through a structured Re-Use Box process. The extended allocation window combined selective dismantling, social employment, transparent documentation and direct transfer to new users.

RECOVERED COMPONENTS AND MATERIALS

Complete parquet floor from the dining hall

Commercial kitchen equipment and sanitary fittings

Aluminium-timber windows, door frames and door leaves

External railings, canopies and timber decking

Sports equipment, designer furniture and a sauna

KEY PERFORMANCE RESULTS

2,314	€6,100	46%
REUSED UNITS	DISPOSAL / REUSE SAVINGS	WASTE REDUCTION IN PUF

REPLICATION POTENTIAL

The case shows how early inventories and a sufficiently long brokerage window can unlock high reuse potential in occupied tertiary buildings. The Re-Use Box can be transferred to schools, offices and event venues before refurbishment or demolition.

Résidence Palmer

Circular deconstruction integrated into social-housing renovation

FRANCE
Cenon
Nouvelle-Aquitaine



Palm P before renovation | Source: DomoFrance

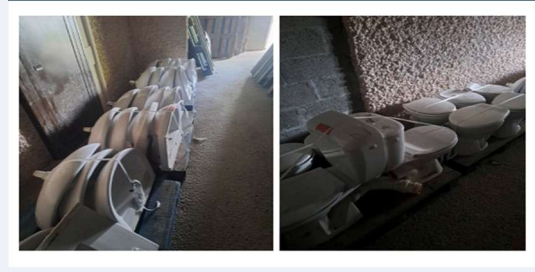
 **Social Housing**
BUILDING USE



Carefully removed sanitary components | Source: DomoFrance

 **98**
DWELLINGS

 **6,783 m²**
GROSS FLOOR AREA



On-site storage for reuse | Source: DomoFrance

5,543 t
WASTE PREVENTED/RECYCLED

PROJECT PROFILE

Location

Résidence Palmer, 33150 Cenon, France

Building type

Multi-family social housing

Construction period

1966

Scale

5 floors; 98 dwellings; 6,783 m² GFA

Project scope

Total renovation with selective deconstruction and circular reuse

Project status

Commissioning and handover; works reported for 2022–2024

DELIVERY HIGHLIGHTS

Reuse targets embedded in demolition specifications
Materials stored on the ground floor for project reuse
Digital traceability through the Upcyclea platform
Circular measures combined with energy and comfort upgrades
Two local businesses documented in the reuse process

RE-USE APPROACH

Selective deconstruction was coordinated with the rehabilitation of two Palmer residence buildings. Components were carefully removed, checked, stored and tracked digitally for reuse in the building and its surroundings, turning the construction site into a temporary recovery and redistribution hub.

RECOVERED COMPONENTS AND MATERIALS

Balcony railings reused as façade pergolas and climbing supports
Timber suspended ceilings reused in situ or on gabions
Roof railings and roof gravel retained and reused
Rubble converted into gabions for public spaces
Sanitary equipment, windows, electrical equipment and hall mirrors recovered

KEY PERFORMANCE RESULTS

100	€2,400	25%
REUSED UNITS	SAVINGS: SANITARY EQUIPMENT	WASTE REDUCTION IN PUF

REPLICATION POTENTIAL

Palmer demonstrates that urban mining can be integrated into a large social-housing renovation: reuse requirements, on-site storage and digital traceability preserve value while reducing waste. The approach is replicable across phased residential-estate renewal.

Insight: skills and training

A prefabricated façade is only as good as the crew installing it.

Industrialised renovation asks something different of the workforce. It is not a single new trade but a cross-trade discipline: reading a digital model, handling components made somewhere else, commissioning modular systems, and coordinating with people whose work used to happen weeks apart and now happens in the same fortnight.

That capability does not appear on its own. BuildUPspeed built training alongside the factories and the platform, developed with local businesses, colleges and public authorities rather than delivered to them, and drawing on the groundwork laid by earlier European construction skills programmes.

A national course in every ecosystem, plus one international programme

BuildUPspeed structured its training around a national course in each of the five ecosystems, complemented by a shared international programme coordinated by PTEC. In Spain, the national course developed by IVE attracted 287 registrations, with 178 participants completing the course, including the final assessment—strong evidence of interest in industrialised renovation. The national training offer also continues beyond the project through a short, fully online introductory programme for architects, building engineers, surveyors and public-sector technicians supporting the transition to industrialised renovation. A series of videos was also produced to support the training and extend its reach beyond the project. The programme is sustained through course fees and industry sponsorship.

An international course was developed alongside them and ran towards the end of the project: an 8-hour programme covering all aspects of the work, open to every kind of public rather than to sector professionals alone.

An AI-based online training platform was also developed, giving professionals and the general public access to a parameterised course with videos, written material and tests. Certification is to be assessed after the project.

Why local matters

Establishing a local presence turns out to be decisive. Renovation programmes that involve residents and draw on local firms build capacity that stays behind when the project leaves — supporting the deep-renovation market, creating jobs, and making the next programme easier to start than the last.

WHAT THE COURSE COVERS

The Market Activation Platform

Finding and specifying industrialised solutions.

Pop-up factory concepts

Setting up and running local production.

Prefabricated systems

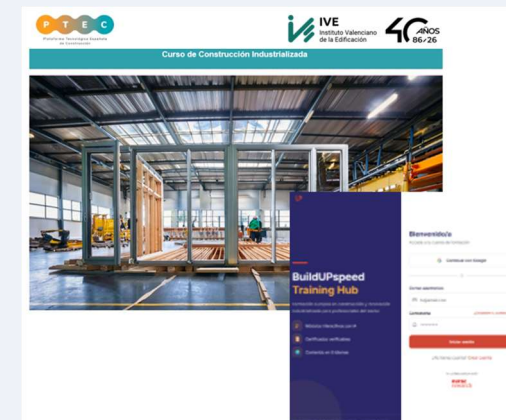
Handling, installing and commissioning modules.

Urban mining

Recovering and reusing what is already there.

Social housing renovation

Working in occupied buildings, with residents in place.



287 registrations

registrations for the Spanish national course on industrialised construction.

National and international

Training courses both for professional and general public.

The ecosystems in action

A market does not activate itself. Someone has to get the right people into the room.

Each of the five countries was treated as a market to be opened, not an audience to be informed. In every one, a Local Advisory Board was convened and deliberately balanced across the four groups whose agreement any renovation ultimately needs: those who supply the solutions, those who buy them, the public authorities who permit and often part-fund them, and the financiers who make them possible.

What each country did with that

Austria concentrated on visibility, running more than twenty market activation events and taking BuildUPspeed into the country's first national renovation congress. Italy pushed hardest on demand and finance, advancing the Energiesprong model and holding annual Renovation Days in Milan that drew around two hundred participants in 2023 and over three hundred in 2024. Spain was the most active of the five, pairing its training programme with sector conferences, standardisation work and a new regional innovation cluster. The Netherlands built capacity through the education system and two live pilots testing the District and Assembly Factory models. France, Spain and the Netherlands presented jointly at Sustainable Places 2023.

Beyond the five

Dissemination reached well past the pilot countries — into Belgium, Portugal, Germany and Switzerland — and the project closed with a fully online final conference on 22 June 2026, “Accelerating Deep Renovation in Europe through Industrialised Solutions”, opened by the European Commission and putting the results in front of a European audience of practitioners, policymakers and industry.

THE FOUR SIDES OF EVERY BOARD

Supply side

Manufacturers, contractors, technology providers.

Demand side

Housing providers, building owners, residents.

Public side

Municipalities, regional and national authorities.

Financial side

Banks, funds and alternative finance mechanisms.

Behind each board, a national soundboard group widened the feedback loop.

AUSTRIA

More than twenty market activation events, including Impact Days — the country's inaugural national renovation congress, 300+ participants.

ITALY

Two editions of the Energiesprong Italy Renovation Days in Milan, drawing 200 and 300+ participants.

SPAIN

The most active ecosystem of the five: a national training programme, sector conferences, standardisation work and a new regional innovation cluster.

EUROPE-WIDE

Sustainable Places 2023, outreach to Belgium, Portugal, Germany and Switzerland, and the online final conference of 22 June 2026.

Policy recommendations

What each level of government can do to make industrialised renovation the normal route, not the exception.

EUROPEAN UNION

1. Harmonise standards and modernise regulations

Accelerate the new Construction Products Regulation to create a single market for renovation kits, and guide Member States to update codes and digitalise permitting around off-site timelines.

2. Fund market activation, not only technology

Successive programmes have produced solutions that never reached the market. Knowledge hubs, platforms such as the MAP and their long-term maintenance should be eligible for funding in their own right.

3. De-risk through common benchmarks

EU-wide safety and performance benchmarks and harmonised data protocols would standardise insurance risk assessment and make results comparable across borders.

4. Establish regulatory sandboxes

Let Member States test industrialised solutions under simplified, performance-based rules to learn which requirements are essential.

NATIONAL GOVERNMENT

1. Make incentives predictable and multi-year

Local manufacturing capacity cannot be justified against stop-start subsidy regimes. Pipeline visibility matters more than headline generosity.

2. Adapt codes and approvals to off-site construction

Update building codes and streamline permitting for industrialised solutions — Germany's "Building Type E" shows how simpler standards can cut complexity.

3. Embed industrialised construction in vocational training

Use ESF+ and national funds to scale training and certification in modular assembly, prefabrication and digital tools, and bring them into VET curricula.

4. Address the split incentive

Support models where renovation is repaid from the energy savings it generates, such as ESCO schemes, so owners and landlords have a viable business case.

REGIONAL AND LOCAL GOVERNMENT

1. Aggregate demand at district scale

A pop-up factory is viable across a neighbourhood programme and never across a single building. Scale is a policy choice.

2. Make space and permits available for temporary production

Local production needs a site near the buildings and a permitting route that does not take longer than the renovation itself.

3. Procure on whole-life cost and speed

Lowest tender price systematically disadvantages industrialised solutions that pay back through pace, quality and running cost.

4. Convene the local value chain and keep it convened

Independent facilitators, regional competence centres and One-Stop Shops link owners, municipalities and the supply chain, and guide co-owners through decisions.

Priorities from the five pilot ecosystems

Where national and regional action would unlock the most, based on what each pilot ran into.

AUSTRIA

1. Harmonise codes across the nine states

One federal rulebook lets an approved solution scale nationally.

2. Fund the up-front premium

Targeted grants bridge higher initial investment and long-term savings.

3. Clarify the status of reused components

Guidance on fire safety, liability and CE-labelling reduces perceived risk.

FRANCE

1. Standardise insurance and warranty frameworks

Protocols agreed with insurers set clear rules for reused components.

2. Reward reconditioned products through tax

Reduced VAT makes certified reused materials cost-competitive.

3. Scale up regional material hubs

Deposits and digital platforms cut the cost of sourcing reused elements.

ITALY

1. Update the official price lists (Prezzario)

List off-site components so public buyers can procure them.

2. Bundle renovation into district-level tenders

District volume is what makes a satellite factory viable.

3. Formalise regional competence centres

Fund hubs such as EDERA that link industry, administrations and housing.

THE NETHERLANDS

1. Reconcile ecology rules with renovation

Pre-approved mitigation for standard building types avoids delays.

2. Reuse data between similar projects

Similar building classes should skip redundant planning phases.

3. Institutionalise renovation facilitators

Independent facilitators keep owners, municipalities and suppliers aligned.

SPAIN

1. Reform financing and mortgage rules

Treat off-site components as property from fabrication, unlocking finance.

2. Aggregate renovation at neighbourhood scale

District programmes give pop-up factories the volume they need.

3. Harmonise permits for temporary production

National guidance on noise and traffic gives assembly sites a clear route.

POP-UP FACTORIES AND PLATFORMS

1. Give temporary production a clear legal place

EU permitting guidance gives decentralised factories legal certainty.

2. Fund pop-up factories through LIFE

Back replication that cuts carbon and builds local supply chains.

3. Keep platforms alive after the grant

Shared data standards and long-term funding keep the MAP running.

What we learned

Six things we would tell anyone starting a project like this one.

01

Start from demand, not technology

The instinct in an innovation project is to lead with what the technology can do. Everything that worked in BuildUPspeed came from the opposite direction — mapping what residents, owners and local markets actually needed first, and only then deciding which solution fitted. Needs varied by location in ways no technology roadmap would have predicted.

02

Nothing transfers unchanged

Five ecosystems were assessed against the same five readiness dimensions and produced five different factory models. Assuming a concept proven in one national market will land in another — with different codes, incentives and building stock — is the fastest way to waste a pilot.

03

Sometimes building from scratch is the cheaper option

The consortium reviewed the existing platforms carefully before deciding to build its own. Adapting something already built looks like the low-risk choice, but a platform that has to keep growing after the funding ends needs foundations that were designed for that.

04

Measure from day one, not from the middle

The performance monitoring framework was set up in the project's second half. That is too late. Baseline data has to be captured before the first module goes up, or the evidence that would persuade the next investor simply does not exist.

05

Appetite for skills is bigger than expected

A national course on industrialised construction drew 287 registrations. The workforce is not resistant to new methods — it is under-served by training that reaches the trades who do the installing.

06

Convening beats communicating

Events and publications inform people. What actually moved markets was putting supply, demand, public authorities and finance around one standing table in each country and keeping them there.

Get in touch

The platform stays open, the guidance stays published, and the people who built them are still available.

ABOUT THIS PUBLICATION

This publication sets out the results of BuildUPspeed, a European project running from November 2022 to 30 June 2026, coordinated by ACR Goialde with partners in Austria, France, Italy, the Netherlands and Spain.

Its purpose is not to report on a project but to hand something over. The Market Activation Platform remains live and open to anyone with a building to renovate or a solution to offer. The pop-up factory blueprints, the readiness assessment framework and the training curriculum are all published for reuse. Six results carry on after the funding ends, each with a partner who owns it: the Market Activation Platform (DEMO), financial and crowdending advisory for renovation projects (Ener2Crowd), the pop-up factory scenarios (DEMO with ZUYD), the Re-Use Box (Austrian Institute of Ecology and BauKarussell), the Re-Use Truck (Nobatek), the Spanish training programme (IVE) and a training for professionals based on the project results. The policy recommendations set out earlier in this publication are addressed to the institutions that can act on them.

If any of it is useful to you — as a housing provider, a manufacturer, a municipality, a trainer or a policymaker — we would rather you took it and used it than cited it.



The BuildUPspeed project has received funding from the LIFE programme of the European Union under Grant Agreement no. 101075843. Views and opinions expressed are those of the authors only and do not necessarily reflect those of the European Union or CINEA.

CONTACT

Website

[Home - BuildUpspeed](#)

Market Activation Platform

[Market Activation Platform- BuildUPspeed](#)

<https://busmap.demobv.nl/platform>

Email

Innovacion@acr.es

Coordinator

ACR Goialde

Follow

[[LinkedIn](#)]