BuildUPspeed

French Ecosystem: *Mobile On-Site Factory Factsheet*
Truck for Reused Sanitary Equipment

03.06.2026

Terminology

Term	Definition
Pop-up factory (PuF)	Pop-up factories are temporary manufacturing and/or assembling facilities that can be quickly set up and taken down to produce components for construction projects. A factory in the district itself for the time of the district retrofitting program. The factory will develop and assemble industrialized prefab building components that will be installed in the retrofitting projects.
On-site	Refers to the closeness of the pop-up factory to the construction project. Usually, it means that the factory itself is located in close proximity to the construction site (usually up to district or regional level).
Off-site	The opposite of on-site concept, where a factory is located in a different geographical area from the construction site.
Service	Here refers to any type of service that is provided locally, on-site specifically for construction/retrofitting projects. This could be a consultancy service offering advice on retrofitting activities. Could be a platform to bridge the local demand and supply for renovation projects. It could be a non-profit organization to connect local stakeholders and facilitate knowledge sharing about retrofitting, LCA tools or circularity frameworks.
Manufacturing	(Pre-)Fabrication of materials/products used for construction projects.
Assembling	Assembly of (pre-)fabricated materials/products used for construction projects.
Temporary structure	When a pop-up factory is set-up in a temporary way, e.g. housed in a container, industrial tent or modular building.
Permanent structure	When a pop-up factory is set-up in a permanent building, e.g. in an abandoned building, old industrial building.
Just-in-Time (JIT) delivery	JIT is a well-known Lean Management technique that involves small-scale production at the point of demand. The term "Just in Time" is often used in the construction industry to describe the delivery of goods to a job site. It means that materials will be brought to the site of final installation and installed right away, without being delayed by storage in a laydown or staging area.

Overall PuF Concept Background

Table 1: Pop-up Factories Key Features Comparison

Feature	Mobile On-Site	Satellite	District	Assembly	Service
Location	On or very near site	Near site	Regional/district	Near site or district	In community areas
Main Function	Manufacturing & assembly	Adaptation & assembly	Full integration	Assembly only	Support & guidance structure
Type	Modular units	Warehouses/containers	Industrial facilities	Warehouses	Community spaces
Permanence	Temporary	Semi-permanent	(Semi-)permanent	Temporary/semi-perm.	Temporary/semi-perm
Scalability	High (modular setup)	Medium (region-based)	High (multi-project)	Medium	Context-dependent

Categorization Framework

PuFs vary significantly in their setup and purpose, depending on the specific needs of construction projects. To support effective planning and deployment, a categorization framework has been developed based on four defining features and these provide a practical reference for identifying and selecting the most suitable factory model for a given context,

- Purpose: PuFs fulfil a range of functions within the construction value chain. While some are focused on the production of specific components or entire systems, others offer services such as consultancy, design, engineering, installation, maintenance, or end-of-life processing. This includes contributions to circular economy practices, such as repair, reuse, and recycling—aligned with the R-imperatives.
- Design: this refers to the physical configuration and technological setup of the factory. Factors such as mobility, equipment type, automation level, and sustainability measures define the flexibility and complexity of each PuF. Setups can range from compact, fully mobile units to semi-permanent installations with advanced capabilities.
- Scale: the scale dimension considers both production capacity and physical size. Some PuFs are small and portable, ideal for localized or temporary tasks, while others are designed for high-throughput operations and larger footprint requirements.
- Location: the factory's geographical positioning is a key operational consideration. PuFs may be deployed directly on construction sites, at nearby district hubs, or in regional or off-site facilities. Location affects logistics, accessibility, and cost-efficiency.

To facilitate consistent evaluation and comparison of different PuF setups, Table 5 presents classification criteria under each of these four dimensions. It also introduces a fifth element, Factory Scenario, which summarizes the combination of features into the five PuF types: mobile, satellite, district, assembly, and service factories. This categorization tool (see Table 2) serves as a decision-making aid, enabling stakeholders to match factory models with project requirements. By encouraging flexible and context-specific configurations, the framework supports more efficient, scalable, and sustainable construction practices.

Table 2: Checklist criterion for Pop-up Factory scenarios

Criteria / Pop-up factory		Mobile on-site factory (m)	Satellite factory (s)	District factory (d)	Assembly factory (a)	Service factory (se)
Purpose						
P1	Provides localised manufacturing and assembly of construction components and systems in a specific region or district			☑		
P2	Supports more extensive manufacturing facilities by producing components or products in a more decentralised manner on a local scale		☑			
P3	Assembles (pre)fabricated components locally				☑	
P4	Provides specific services related to construction and renovation projects					☑
P5	Produces customised components on-site	☑				
P6	It aims to create jobs and boost economic growth locally.			☑		☑
P7	Provides JIT delivery for specific projects	☑				
Design						
D1	Mobile, easily transportable structure	☑	☑			
D2	Semi-permanent structure			☑	☑	☑
D3	Temporary structure	☑	☑		☑	☑
D4	Permanent structure			☑	☑	☑
D5	Uses innovative and flexible manufacturing processes	☑	☑			
D6	High level of automation and precision		☑	☑	☑	
D7	Uses sustainable and eco-friendly solutions			☑		
Scale						
S1	Large-scale manufacturing		☑	☑		
S2	Small-, medium-scale manufacturing	☑	☑			
S3	Large-scale assembling		☑	☑	☑	
S4	Small-, medium-scale assembling	☑			☑	
Location						
L1	Near the construction site (on-site)	☑			☑	☑
L2	District level		☑	☑	☑	☑
L3	Within proximity (regional level)		☑	☑		☑
L4	Off-site (away from the construction site)		☑			

Using the framework and supporting literature, five main PuF types were identified. These categories are based on the four defining features: purpose, design, scale, and location. While each factory type has a general profile, the location is often influenced by local ecosystem conditions. Therefore, we defined proximity thresholds tailored specifically for the BUPS project rather than based on external sources. These thresholds help classify the factories according to their distance from the construction site:

- On-site factories: these include mobile on-site, service, and assembly factories. "On-site" may refer to the exact project location, but due to practical constraints, we consider any location within 15 km as on-site. At this distance, transportation costs and logistics are negligible compared to conventional supply chains.
- District-level factories: located within 30 km of the site, these typically include manufacturing, assembly, or service operations. They strike a balance between mobility and production capacity.
- Regional-level factories: these are usually satellite factories, placed between 30 and 100 km from the site. While still relatively accessible, they may require some logistics coordination.
- Beyond 100 km: at this distance, factories operate as part of a traditional supply chain, with significant reliance on transportation, storage, and logistics infrastructure.

Building on the framework used to characterise and distinguish between different PuF scenarios, the next step is to translate these insights into a practical management tool. This involves setting up a digital environment that supports the design, planning, and coordination of PuFs across their lifecycle. By integrating the checklist criteria into a digital platform, it becomes possible to streamline the configuration and monitoring of tailored factory setups, ensuring they respond effectively to project-specific goals and local conditions. The following section outlines the development of this digital PuF management environment.

The BuildUPspeed project has received funding from the LIFE programme of the European Union under Grant Agreement no. 101075843.

1 French Ecosystem PuF Development Storyline

The French PuF scenario is built around **selective deconstruction linked to rehabilitation**, with a specific focus on the **reuse of sanitary equipment** recovered through careful removal. Building on a pilot rehabilitation activity in social housing, the ecosystem demonstrated that reused sanitary elements can be integrated into a rehabilitation process, with reported cost savings (e.g., around €8,000 for 20 flats). The ecosystem highlights sanitary equipment as a high-potential reuse stream due to the durability of ceramic materials, limited technological evolution over recent decades, and the practical feasibility of cleaning and maintenance, while noting the significant impacts associated with manufacturing and transporting new equipment.

Within the BuildUPspeed PuF typology, France primarily adopts a *Mobile On-site Factory* concept, developed as a **"truck for reused equipment."** The intent of this mobile unit is to connect reuse operations directly to deconstruction sites by enabling reconditioning steps—such as checking, cleaning, and preparation for re-employment—within a mobile setup, rather than relying solely on fixed facilities. This concept is being defined through technical and economic feasibility work, and is motivated by current barriers in the market, including the complexity of careful removal and checking procedures, logistics, a lack of specialized companies able to deliver the full chain, and unresolved insurance considerations.

Depending on site conditions and sequencing between deconstruction and rehabilitation, the reconditioned equipment may be returned to the same project (where intermediate storage or staging is possible), transferred directly to another receiving site, or distributed via marketplace-type platforms. The concept is intended to serve project owners such as social landlords, property developers, and public authorities, and can be extended beyond sanitary equipment to other reusable product streams where feasible.

The project could also be carried out by an organisation from the Social and Solidarity Economy (SSE), involving people in professional integration pathways. This approach would reinforce the social impact of the initiative while contributing to the creation of an innovative and locally rooted economic model.

Key implementation needs identified include a workable business model defining ownership and transfer of recovered equipment between project owners and reuse operators, clarity on transport and handling constraints (notably where chemical cleaning processes are involved), and an insurance approach that covers the risks of the reuse process. The French PuF scenario is therefore positioned as a scalable mobile implementation model aimed at strengthening the sanitary equipment reuse chain and supporting circular renovation practices by bridging selective deconstruction and reuse in a more operationally integrated way.

2 Mobile On-Site Factory Factsheet

2.1 Scenario & Strategy

PuF type	Mobile On-Site Factory, developed as a truck/container-based service for reused sanitary equipment.
PuF purpose	Careful removal, checking, cleaning, disinfection, refurbishment, packaging, temporary storage and re-employment of sanitary equipment directly linked to rehabilitation projects.
Deep renovation / reuse scope	Not a conventional whole-building deep retrofit package. The PuF focuses on the interior sanitary-equipment stream within rehabilitation works, especially bathrooms/toilets in social housing.
Priority components	WC units, sinks, baths, stainless sinks and other ceramic or sanitary elements that can be cleaned, checked and prepared for reuse.
Target building typology	Residential buildings and public housing, especially multi-family apartment blocks, social housing and similar community/public residential assets.
Design intent	Bring reconditioning close to the deconstruction or rehabilitation site, reduce intermediate storage, support just-in-time local reuse, and maximise the quantity of sanitary equipment re-employed.
Best-fit conditions	Occupied or fast-track renovation where apartments are renovated sequentially, sanitary equipment must be removed/replaced quickly, local storage is limited, and nearby receiving projects or marketplaces can absorb reusable equipment.

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2.2 Factory Layout & Production Logic

Factory typology	Mobile workshop truck or ISO-container module transported to site. A 20-foot container provides roughly 15 m² and a 40-foot container roughly 30 m²; additional modules can be added for storage.
Production workflow	1) Diagnostic and assessment; 2) analysis to decide re-employment; 3) careful removal by a specialised company; 4) cleaning, disinfection, checking and refurbishment; 5) packaging and temporary storage; 6) reinstallation, transfer to another site or marketplace distribution.
Component handling	The process replaces or checks items such as flush mechanisms, drains, siphons and mounting kits where required, while equipment that is too deteriorated is routed to recycling or waste treatment.
Dimensions / space allocation	Indicative working module: approx. 30 m². Storage modules can range from about 15 to 50 m². A storage and staging area of about 50 m² around the truck is identified for on-site operation.
Operational scale	Expected processing capacity is about 3 apartments per day, corresponding to roughly 10-15 sanitary elements per day. A scalable threshold of about 60 units per week per mobile unit is indicated.

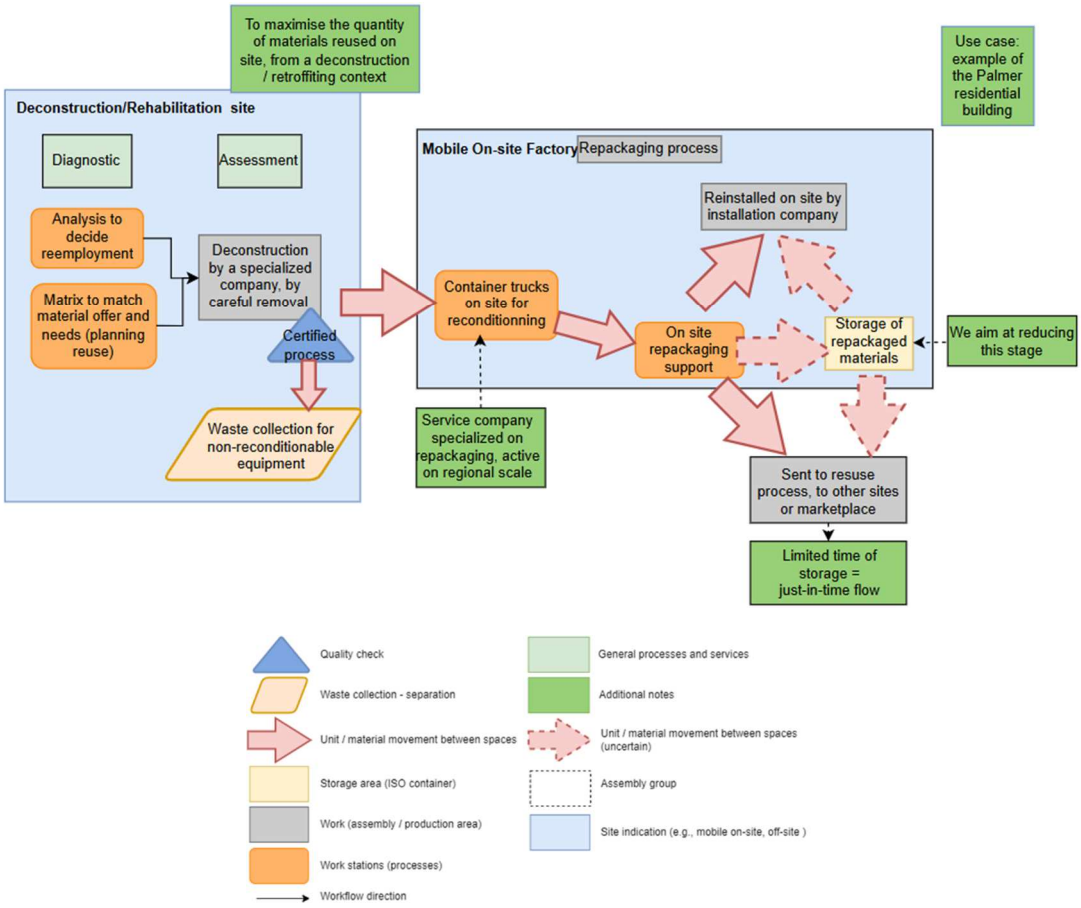

Figure 1: Mobile On-Site Factory - Tailored Design

2.3 Resources & Utilities

Power & electricity	Connection to the construction-site power grid is required. A plug-and-play electrical connection is recommended; no fixed kW value is specified in the available pilot data.
Water & sanitation	Clean water access and water drainage/wastewater evacuation are required for washing, disinfection and operational hygiene.
Digital infrastructure	Internet is not mandatory for basic operation, but digital traceability, FDES documentation and communication between mobile units are needed for scaled deployment.
Equipment and materials	Workbench, shelving, power supply, wastewater evacuation, lifting and handling equipment, high-pressure cleaner, hand tools, PPE, cleaning/disinfection products and replacement mounting/plumbing kits.

2.4 Site & Logistics

Site preconditions	Dedicated area for truck/container deployment without disrupting site operations, access for container truck, power grid connection, clean water access, drain/wastewater route and around 50 m² storage/staging area.
Access constraints	The site must allow container-truck access. Authorisation to deploy the mobile unit on the site may be required from the public authority, site owner or project owner, with around one month indicated as lead time.

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Supply chain integration	The model links local source sites and local demand sites through just-in-time matching. Reconditioned equipment can return to the same project, go to another receiving site or be distributed through marketplace-type platforms.
Waste handling	Waste from refurbishment is treated as construction waste and should be integrated into the project owner's waste-management plan. Equipment too deteriorated for refurbishment is handled by the refurbishment company through an appropriate recycling route.
Last-mile logistics	The mobile-unit operator provides the reconditioning equipment; the construction/project owner provides power and water access. Container transport is outsourced to transport companies where needed.

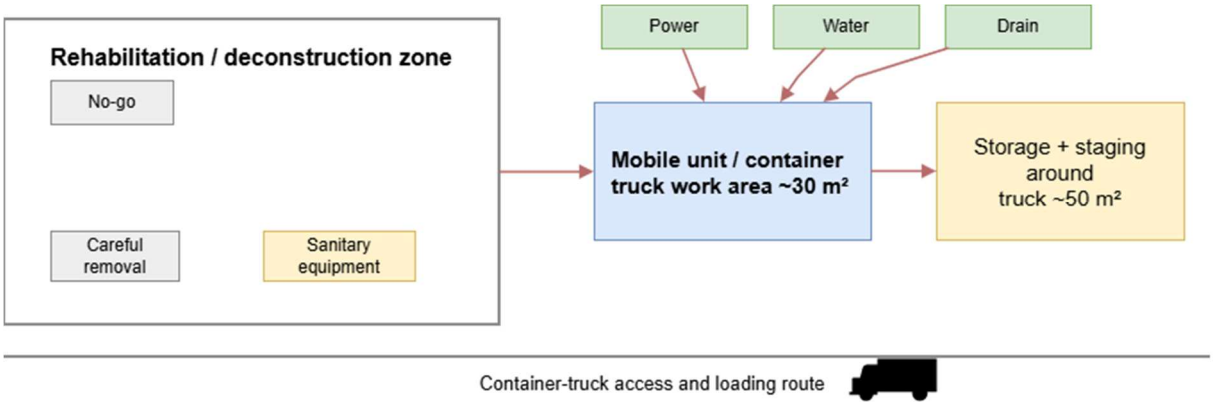

Figure 2: Indicative mobile-unit site setup showing the rehabilitation zone, truck/container work area, storage/staging space, utilities and access route.

2.5 Actors, Roles & Governance

Factory owner / operator	FAVRE / the mobile-unit leader is indicated as the concept developer and initial operator of the mobile on-site factory.
Client / contracting authority	Domofrance acts as the pilot social-landlord client and provides the residential building and sanitary equipment to be reconditioned.
Contracting and payment	The intended contract chain is between the project owner, such as Domofrance, and the mobile-unit leader. FAVRE invests financially in the concept and is indicated as owner of revenue/inventory.
Demand-side partners	Social landlords, housing companies, public authorities, property developers and other project owners with residential renovation assets suited to sanitary-equipment reuse.
Supply-side partners	Plumber companies / FAVRE, rehabilitation specialists, Compagnons Bâtisseurs for workforce or implementation capacity, transport companies, installation companies and reuse marketplaces.
Governance lead	FAVRE leads the mobile-unit operation; Domofrance leads the pilot demand side; Ecominéro is identified as a potential funding supporter for reuse initiatives.

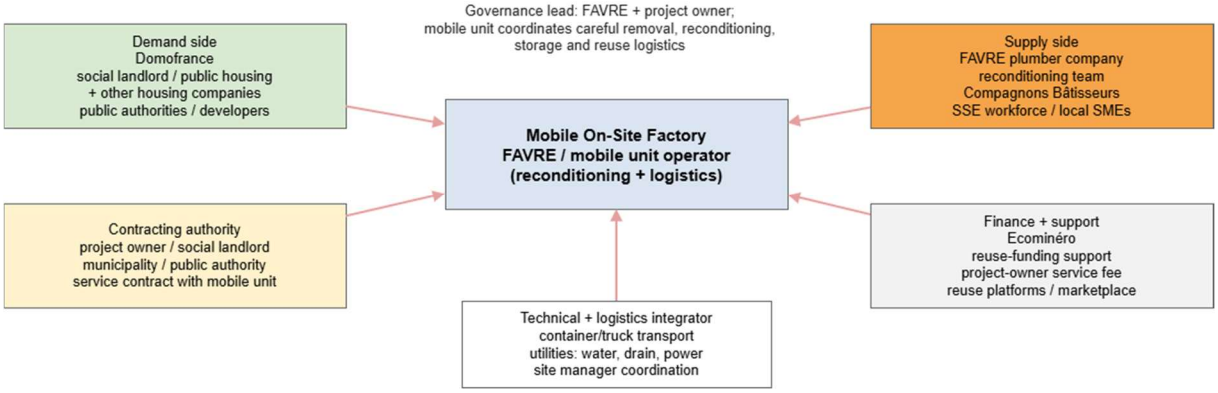

Figure 3: Stakeholder and governance structure of the French Mobile On-Site Factory.

2.6 Labour Force & Required Skills

Typical team	One site/factory supervisor per project or deployment, supported by about four technicians per unit depending on demand and building size.
Core roles / indicative FTE	Supervisor: 1 per deployment. Maintenance/refurbishment technicians: about 4 per unit, with two for careful removal and two for reconditioning. QA/QC inspector: periodic checks.

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Skills and certifications	Manual handling and lifting, plumbing and sanitary-equipment maintenance, refurbishment process knowledge, quality control and traceability, logistics/project management and ADR awareness if chemical products are transported or stored.
Training needs	Initial onboarding and safety training: about 2 days. Process and tooling training for refurbishment operations: about 1 week. Periodic HSE refresher training depending on regulations and cleaning products used.
Labour sourcing	Mixed model using local hires, subcontractors, partner workforce and potentially Social and Solidarity Economy organisations or professional-integration pathways.
Shift model	One-shift / flexible deployment model adjusted to the construction-site schedule and apartment-by-apartment renovation cadence.

2.7 Legal & Regulatory Requirements

Chemical transport / use	Transport or storage of cleaning/disinfection products must comply with relevant chemical-safety requirements, including REACH and ADR awareness where applicable. The concept seeks to avoid hazardous chemical products where possible.
Site deployment authorisation	Deployment of the truck/container on a specific site area may require authorisation by the public authority, site owner or project owner. Lead time: around one month. Conditions include utility access and no disruption to site operations.
Construction and labour rules	Temporary construction-site structures may be exempt from building permits under defined conditions, but the working area remains subject to labour-code health and safety requirements.
Electrical / product documentation	Power supply must follow applicable electrical standards such as NF C 15-100. Disinfectant products and reused components may require documentation through FDES/INIES and traceability procedures.
Incentives / policy context	No direct subsidy is identified in the pilot data. However, French circular-economy policy, AGEC/PEMD diagnostic requirements, PMCB extended producer responsibility, RE2020 and CSRD/taxonomy create a favourable reuse-policy context.

2.8 Cost Structure

CAPEX	Approx. 62,000 EUR for the container/mobile factory, including container, workbench, interior layout, shelving, power supply, wastewater evacuation, lifting/handling equipment, tools, PPE and consumables.
OPEX	Approx. 1,200 EUR per housing unit for reconditioning-related work, including careful removal, disinfectant application, replacement of flush mechanism/drain/siphon and mounting kit.
Cost basis	No €/m² basis is used. Costs are expressed per housing unit / per mobile unit and depend on number of dwellings, equipment condition and the amount of reconditioning required.
Revenue / value logic	Revenue assumption: approx. 1,800 EUR per housing unit. Value is generated through avoided purchase of new sanitary equipment, reuse sales/service fees and reduced disposal/waste impacts.
Financing model	Grant and equity-type financing are indicated, with FAVRE identified as investor/operator. The final business model and payback logic require validation.

2.9 Lifecycle & Time Schedule

Setup & commissioning	Approx. 3 months for project leader/funding, mobile-unit or truck adaptation and operational preparation. Earlier workshop input noted up to one year as an optimistic period for project leader/funding and adaptation.
Operational phase	On-site/project duration depends on the number of housing units in the building; approx. 6 months is indicated for a representative project.
Decommissioning / relocation	Approx. 0.5 day to remove the mobile unit from site, plus about 0.5-2 days to clear out or renovate the interior of the module.
Milestones	Funding secured and permits approved are indicated as done; design freeze/testing around May 2026; procurement around June 2026; start of operations around July 2026.
Main dependencies	Funding/project leader, worker motivation and availability, site authorisation, utility readiness, transport scheduling, equipment stream availability and insurance/business-model clarification.

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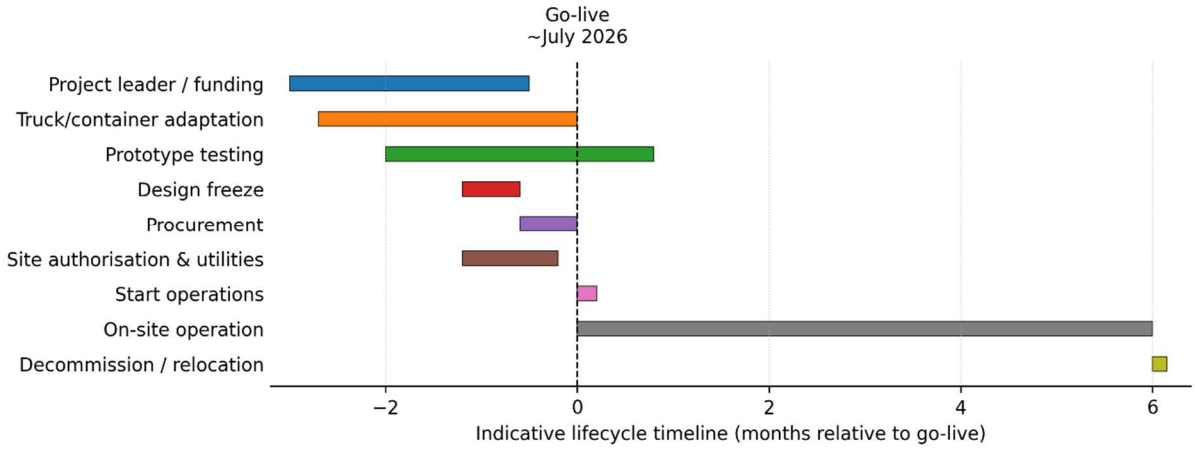

Figure 4: Indicative lifecycle timeline for the French Mobile On-Site Factory, from preparation and testing to on-site operation and relocation.

2.10 Risks & Contingencies

Chemical handling	Risk: transport and handling of cleaning/disinfection products. Mitigation: avoid hazardous chemicals where possible, use only easily transportable products, apply strict HSE procedures and operator training.
Workforce availability	Risk: limited availability or motivation of skilled workers. Mitigation: dedicated refurbishment-process training, multi-skilled teams, local partners and social-integration pathways.
Equipment-stream variability	Risk: variable quantity or quality of recovered sanitary equipment. Mitigation: early assessment, contracts with housing providers/deconstruction actors, flexible planning and recycling route for unsuitable items.
Site access / utilities	Risk: insufficient space, truck access, power, water or drain connection. Mitigation: pre-check deployment area, define responsibility for utilities, and make site deployment authorisation a decision gate.
Business / insurance uncertainty	Risk: unclear ownership, liability or insurance coverage for reused products. Mitigation: define inventory ownership, acceptance criteria, traceability and liability boundaries in the service contract.

2.11 Scalability & Impact

Scalability approach	Replicate mobile units, increase capacity by adding supplementary modules, and coordinate multiple sites through local just-in-time matching between source and demand sites.
Distance threshold	Approx. 20 km between deconstruction site and receiving site is indicated as a practical local-reuse threshold; no fixed limit is defined between different PuF units.
Storage threshold	Around one to two months of storage is indicated, depending on storage price. The model aims to avoid large-scale or long-distance storage by using JIT flows.
Volume threshold	Approx. 60 sanitary-equipment units per week per mobile unit. Throughput can increase with additional or stacked modules, but site space becomes the key limiting factor.
Environmental impact	Reuse of sanitary equipment improves material efficiency, diverts waste, reduces the need for new ceramic/sanitary products and supports CO2e, waste-diversion and reuse-rate KPIs.
Social impact	The model can involve Social and Solidarity Economy actors and professional-integration pathways, while creating local skills and a locally rooted circular renovation service.
Digital tools	Digital traceability, FDES documentation, stock/control records and communication between units are needed to support replication and multi-site coordination.

2.12 Contextual requirements for PUF application

Table 3: Contextual requirements as identified through the comparative analysis, retrieved from ecosystem's report Task 4.5.

Characteristic	Description
Multi-purpose Assembly PUF	The assembly PUF is applicable in various environments, such as stimulating re-use, stimulating efficiency and standardisation, and industrialising production whilst maintaining flexibility.
Energy performance	Improvements of energy performance of buildings is a consistent objective across PUF applications in various ecosystems.

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Material re-use	Re-using materials during deep-renovation is difficult in traditional approaches due to logistical problems. The PUFs lend itself to stimulate re-use of materials and thereby avoiding additional embodied carbon emissions by the low proximity and extra logistical services it provides.
Institutional organisation of renovation	Important in the application of PUFs is the role of the government in facilitating large-scale renovations and projects, stimulating the need for adoption and application of the PUF.

2.13 General implementation of PUFs

Table 4: The general deduction of all ecosystem's business model canvasses, retrieved from the ecosystem's Task 4.5 report.

		Pop-up Factory
Value creation	**Value proposition**	*The core value delivered by the PuF, typically improving efficiency, reducing waste, enabling circular construction, and delivering renovation or construction services closer to the site.*
	Customer relationships	*The way the PuF interacts with clients (e.g. housing associations, contractors), often involving long-term collaboration, co-creation, and close coordination during projects.*
	Channels	*The means through which the PuF delivers its services and communicates its value, including direct project partnerships, procurement processes, and digital tools or platforms.*
	Customer segments	*The main users of PuF services, such as housing associations, construction companies, municipalities, and developers involved in renovation or new-build projects.*
Value delivery	**Key activities**	*The main operations of the PuF, including prefabrication, assembly, logistics coordination, material recovery, and on-site or near-site production.*
	Key resources	*The essential assets required, such as skilled labour, temporary manufacturing facilities, digital tools (e.g. BIM), machinery, and access to materials or components.*
	Key partners	*The organisations involved in delivering the PuF model, including contractors, suppliers, SMEs, logistics providers, housing associations, and public authorities.*
Value Capture	**Revenue streams**	*The ways the PuF generates income, typically through project-based contracts, service fees, or integrated renovation and construction services.*
	Cost structures	*The main cost drivers, including labour, equipment, logistics, temporary facility setup, and coordination across the supply chain.*

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3 Evaluation Questions for Assembly Factory Factsheet

Please review the attached PuF factsheet and answer the questions below. The aim is to assess whether the PuF concept is understandable, feasible, useful, and replicable in different local contexts.

For Questions 1–8, please use the scale:
1 = Very low / strongly disagree
2 = Low / disagree
3 = Moderate / neutral
4 = High / agree
5 = Very high / strongly agree

3.1 Concept clarity and relevance

1. **Clarity:** How clear and understandable is the PuF concept described in the factsheet?
   Score: [1–5]
   Optional comment:
2. **Relevance:** How relevant is this PuF concept for renovation, deep renovation, or circular construction activities in your context?
   Score: [1–5]
   Optional comment:
3. **User need:** Does the PuF concept respond to a real need or bottleneck in the renovation market?
   Score: [1–5]
   Optional comment:

3.2 Implementation feasibility

4. **Technical feasibility:** How feasible does the proposed PuF setup seem from a technical and operational perspective?
   Score: [1–5]
   Optional comment:
5. **Partner and governance feasibility:** Are the required actors, roles, and responsibilities realistic and complete enough for implementation?
   Score: [1–5]
   Optional comment:
6. **Legal and regulatory feasibility:** Are the legal, permitting, compliance, and policy aspects sufficiently clear for implementation?
   Score: [1–5]
   Optional comment:
7. **Economic feasibility:** Are the cost structure, financing logic, and value proposition convincing enough to support implementation?
   Score: [1–5]
   Optional comment:

3.3 Replication and scalability

8. **Replicability:** How easy would it be to replicate or adapt this PuF concept in another region, project, or market context?
   Score: [1–5]
   Optional comment:
9. **Main conditions for replication:** Which conditions are most important for this PuF concept to work?
   Please select up to three:
   ☐ Sufficient renovation demand / project pipeline

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- ☐ Similar building typologies
- ☐ Available local partners / SMEs
- ☐ Skilled labour availability
- ☐ Suitable site space and logistics
- ☐ Permits and supportive regulations
- ☐ Access to financing or subsidies
- ☐ Digital tools / data availability
- ☐ Market demand for circular or industrialized solutions
- ☐ Other: [please specify]

10. **Main barriers:** What are the most important barriers or risks for implementing this PuF concept? Please select up to three:
    - ☐ High upfront costs
    - ☐ Unclear business model
    - ☐ Lack of skilled workers
    - ☐ Lack of suitable partners
    - ☐ Legal or permitting uncertainty
    - ☐ Limited site space
    - ☐ Logistics complexity
    - ☐ Low market demand
    - ☐ Lack of standardization
    - ☐ Difficulties with resident/user acceptance
    - ☐ Other: [please specify]

3.4 Impact and added value

11. **Expected added value:** What do you see as the main added value of this PuF concept? Please select up to three:
    - ☐ Faster renovation process
    - ☐ Lower renovation costs
    - ☐ Better quality control
    - ☐ Reduced disruption for residents/users
    - ☐ Lower transport or logistics impact
    - ☐ Higher circularity / reuse
    - ☐ Lower CO_2 emissions
    - ☐ Local employment or skills development
    - ☐ Better coordination between stakeholders
    - ☐ Other: [please specify]
12. **Most useful factsheet information:** Which parts of the factsheet were most useful for evaluating the PuF concept? Please select up to three:
    - ☐ Scenario & strategy
    - ☐ Factory layout and production logic
    - ☐ Resources and utilities
    - ☐ Site and logistics
    - ☐ Actors, roles and governance
    - ☐ Labour force and skills
    - ☐ Legal and regulatory requirements
    - ☐ Cost structure
    - ☐ Lifecycle and time schedule
    - ☐ Risks and contingencies
    - ☐ Scalability and impact

3.5 Improvements and platform relevance

13. **Missing information:** What information is still missing or unclear in the factsheet to properly assess the PuF concept?

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14. **Suggested improvements:** What should be improved in the PuF concept, factsheet, or blueprint to make it more useful for future users?

15. **Digital platform support:** Which functionalities should a digitized market activation platform provide to support this PuF concept?
    Please select up to five:
    - ☐ Match renovation demand with PuF solutions
    - ☐ Identify suitable local partners / SMEs
    - ☐ Compare PuF scenarios and suitability
    - ☐ Estimate costs and financing options
    - ☐ Support permit and regulatory checks
    - ☐ Support logistics and site planning
    - ☐ Provide standard templates / blueprints
    - ☐ Track sustainability KPIs
    - ☐ Support circular material or product matching
    - ☐ Support stakeholder communication
    - ☐ Other: [please specify]
16. **Final recommendation:** Would you recommend further development or testing of this PuF concept?
    - ☐ Yes
    - ☐ Yes, but only with major adaptations
    - ☐ Not sure
    - ☐ No

    Please briefly explain your answer:

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