Interreg North-West Europe

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PREUSE

# The PREUSE project

Public Responses to Enable the Use of Salvaged Building Elements

## Local Action Plan

### City of Mechelen

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*Internal reuse centre, City of Mechelen, 2026. © Mechelen*

# Colophon

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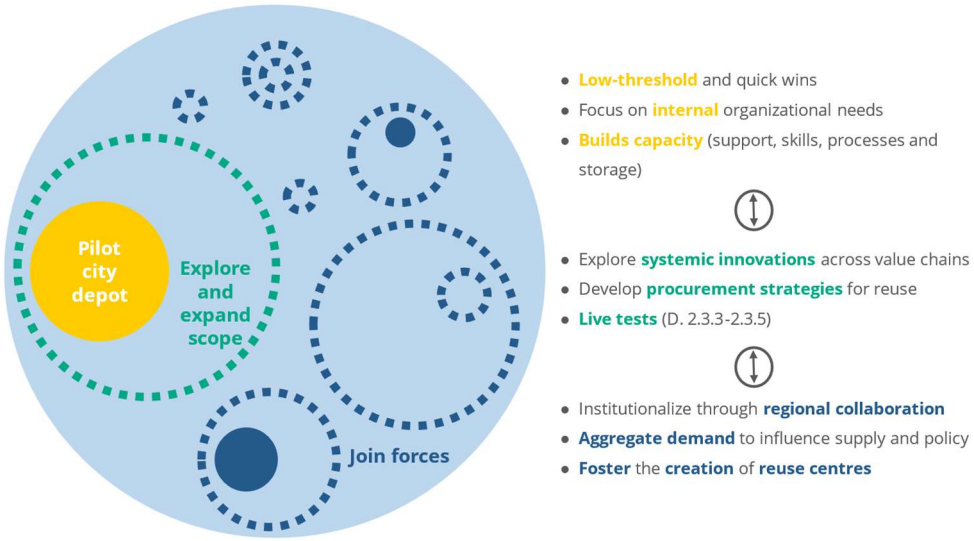
# Summary

This Local Action Plan defines Mechelen's strategy for advancing material reuse. The action plan combines low-threshold results with capacity building, system-level innovation, and regional collaboration. The city begins with a pilot depot to manage robust, high-volume roadworks materials, gradually expands to include more specialized building materials, and ultimately embeds reuse practices across the region. This parallel approach ensures practical learning, the testing of operational and procurement models, and the institutionalization of reuse on a broader scale.

The first phase aims quick wins by addressing internal organisational needs and building capacity in support structures, skills, processes, and storage. By establishing **a small-scale depot for roadworks materials**, Mechelen can create predictable material flows, demonstrate the benefits of reuse, and foster adoption among city departments. This practical foundation ensures that the depot is functional, scalable, and capable of supporting further expansion.

Building on the pilot, the scope of materials is broadened to include more specialized building materials. Through live tests, procurement strategies, and ecosystem work, the city explores **systemic innovations** across value chains. This action cluster strengthens operational knowledge, enables experiments, and prepares the organisation to address more complex reuse challenges.

Finally, local initiatives are extended through **regional collaboration** with other municipalities. By aggregating demand, sharing frameworks, and implementing joint tenders, Mechelen and the Province of Antwerp aim to influence market supply, align procurement policies, and foster the creation of regional reuse centres. This collaborative approach ensures that lessons learned locally are scaled, promoting long-term adoption of reuse practices and reinforcing the broader reuse ecosystem.



I.

# Introduction and Framework

1.1

## About Mechelen

Mechelen is a mid-sized Flemish city of 90 000 inhabitants. Located between Brussels and Antwerp, it benefits from a strategic position within one of Flanders' most urbanised corridors. The proximity of Rumst, a regional centre for recycling and waste processing activities, also forms part of the broader operational environment in which Mechelen functions. At the same time, the city's location near Brussels places it within the sphere of a larger metropolitan market characterised by a higher concentration of circular economy actors, specialised expertise, and investment activity.

The city is connected through the Leuven–Dijle canal, and rail infrastructure provides strong passenger connectivity, while for both the significance for freight transport is more modest. Mechelen shares many characteristics with other mid-sized Flemish cities, including a compact urban form, a service-oriented economy, and a strong degree of integration within regional economic networks. This means that key material flows and circular economy dynamics are largely shaped at a higher regional level, rather than being determined by individual cities.

1.2

## National and regional policy context

### Flemish policy context

In Belgium, waste legislation falls under regional authority, meaning that the Flemish government is responsible for regulations and enforcement related to waste prevention, circular economy, and the reuse of construction materials. Key actors include OVAM (Public Waste Agency of Flanders), which support municipalities and the construction sector in implementing circular practices, Tracimat, VLAIO (Flanders innovation and entrepreneurship) and Buildwise.

Flemish circular construction policies, including the Circular Construction Policy Plan and the Circular Construction Work Agenda, provide strategic guidance for integrating circularity into the building sector[1]. While most initiatives are regional, there are limited federal collaborations, such as Ad Vitam Material, which aim to support reuse and circular economy initiatives across Belgium. In addition, the GRO tool, developed through cooperation between the three Belgian Regions, provides a shared reference framework for sustainable and circular building design. It integrates environmental and material criteria into the planning and assessment of buildings and infrastructure projects and is increasingly used as a common baseline by public clients. GRO incorporates reuse as an explicit topic, incentivising public clients and designers to prioritise reclaimed materials and to consider disassembly and material recovery from the earliest design stages. In doing so, it embeds reuse logic into mainstream procurement practice.

[1] *https://www.vlaanderen-circulair.be/nl/bouw/bouw-circulariteit-in-vlaanderen*

## Tracimat & SOP

Tracimat vzw was established in 2017 with the primary aim of improving the quality of recycled aggregates and promoting safer demolition practices in Flanders. Its work initially centred on controlling the quality of mineral fractions and minimising the presence of hazardous substances, including asbestos, in demolition and deconstruction processes. As a recognised certification body, Tracimat oversees the traceability of demolition materials through a system that documents selective dismantling and the subsequent processing of construction waste.

Central to this system is the Demolition Follow-Up Plan (sloopopvolgingsplan, or SOP), a mandatory instrument under VLAREMA [2] regulations for demolition, renovation, infrastructure and deconstruction works that meet defined thresholds. The SOP requires detailed documentation of the materials present on a site, the methods to be applied during demolition, and the intended destination of materials to certified processing facilities. Its purpose is both to improve traceability of construction and demolition waste and to stimulate more circular approaches to material processing.

More recently, Tracimat aims to expand its role towards actively supporting the reuse of building materials. A notable development in this direction is the introduction of optional reuse and recycling sheets, which can be incorporated into the SOP. These sheets provide demolition experts with a structured method to identify and document the reuse potential of materials. By embedding this assessment within an already established regulatory instrument, the approach aims to support more efficient demolition processes and contributes to building a local supply of reusable construction materials.

1.3

# Executive summary

| | |
|---|---|
| **Territory** | *Mechelen's Local Action Plan (LAP) has been developed within the framework of the PREUSE project. Rooted in Mechelen's local context as a mid-sized Flemish city of approximately 90 000 inhabitants located between Brussels and Antwerp, the plan addresses challenges that extend beyond municipal boundaries. Given the city's spatial constraints, fragmented material storage practices, and the regional nature of construction material flows, the LAP adopts a territorial perspective that includes the wider Rivierenland region and the Province of Antwerp. Mechelen positions itself as both a local test environment and a regional partner in the transition toward public circular material management.* |
| **Main challenge** | *Mechelen faces a combination of operational, spatial, and governance barriers that hinder the structural integration of material reuse. Limited land destined for craft or logistic purposes, dispersed storage practices, and siloed procurement and project management frameworks restrict the city's ability to manage material flows efficiently. At the same time, the regional reuse market remains fragile (except for a few well-established actors), with uncertain supply and demand and insufficient long-term signals from public procurers. The core challenge is therefore to build internal capacity and predictable* |

[2] https://www.tracimat.be/nieuws/vlarema-9-wat-verandert-er-voor-slopers/

| | |
|---|---|
| | *material flows, while preparing the institutional and operational conditions for regional collaboration.* |
| **Strategic priorities** | *Mechelen's strategic priorities focus on embedding reuse within municipal operations and creating the foundations for regional scaling. These priorities reflect the city's ambition to move from fragmented, project-based reuse toward a coordinated, system-level approach:*<br>• *Establish a small scale, functional internal depot to consolidate material flows, improve traceability, and build organisational confidence.*<br>• *Align procurement, governance, and operational processes to enable systematic reuse across departments.*<br>• *Strengthen collaboration with contractors, social enterprises, and regional partners to harmonise standards and stabilise supply and demand.*<br>• *Prepare the transition toward inter-municipal cooperation, including connected infrastructure and joint tendering frameworks.* |
| **Key actions** *(hereunder referred to as work packages)* | ***Pilot Internal Depot for Roadworks Materials:*** *Establish a small-scale, operational depot to consolidate material flows, test storage and logistics processes, and develop internal governance and procurement frameworks.*<br>***Ecosystem Engagement, Capacity Building and Quality Assurance:*** *Strengthen collaboration across municipal departments, contractors, social enterprises, and regional partners to align standards, share operational knowledge, and build the skills required for expanded reuse. In parallel, develop and test quality protocols, traceability systems, and procurement instruments that ensure efficient, and scalable reuse of construction materials. This combined effort supports consistent practices across projects, increases organisational readiness, and lays the groundwork for interoperable processes within a broader regional ecosystem.*<br>***Regional Scaling and Institutionalisation:*** *Prepare the transition toward a regional reuse model by exploring joint tenders, shared depots, and inter-municipal agreements, ensuring long-term viability and broader market impact.* |
| **Expected outcomes (vision 2030)** | By 2030, Mechelen aims to have established a **functional, scalable, and regionally embedded reuse ecosystem** through four progressive steps:<br>• **Operational foundation:** A functioning internal depot with clear governance, predictable material flows but scalability capacity and integrated data systems supporting municipal reuse.<br>• **Organisational embedding:** Increased reuse across municipal projects, strengthened collaboration with contractors and social enterprises, and improved internal skills and processes.<br>• **Systemic innovation:** Established quality standards, interoperable procurement frameworks, and digital tools enabling traceability, planning, and cross-project coordination.<br>• **Regional integration:** A mature, scalable model for material reuse, supported by inter-municipal agreements, connected infrastructure, and a stable market for reclaimed materials. |

II.

# Context and Problem Statement

## 2.1 Local policy context

This action plan is closely aligned with Mechelen's broader sustainability objectives. The city has committed to reducing its material footprint by 30% by 2030, as a signatory of the European Circular Cities Declaration. Within its overarching circular strategy (2022–2030), three key sectors are prioritised in view of their environmental and economic impact: food, construction, and manufacturing industry. During the first phase of this strategy (2022–2025), efforts focused on fostering circular entrepreneurship. In the current phase (2026-2031), the emphasis shifts to embedding circular principles across all municipal operations.

In the field of construction and roadworks, this transition involves integrating lessons learned from ecosystem-building initiatives and adapting procurement and tendering practices accordingly. The objective is to systematically incorporate circular principles into public construction and renovation projects.

Since 2020 reuse principles have been integrated into public renovation and urban renewal projects, such as the transformation the former city library, the public-private partnership on Impact Factory[3], the demolition of a hospital, the renovation of culture facilities. These pilots demonstrated both the opportunities and systemic gaps in circular construction: successful reuse of materials requires more than ambition, it needs a certain maturity in asset management, infrastructure, coordination, and physical space for storage on the side of the city and a mature ecosystem of construction actors.

This action plan builds on earlier action plans[4] developed under Resourceful cities (2022) and CECI (2022). It aims to take the next step: establishing a construction material reuse hub, supported by the necessary spatial, organisational and contractual frameworks.

[3] *More information about Impact Factory, Mechelen's social circular hub: https://www.mechelen.be/wonen-en-verbouwen/stadsvernieuwing/impact-factory*

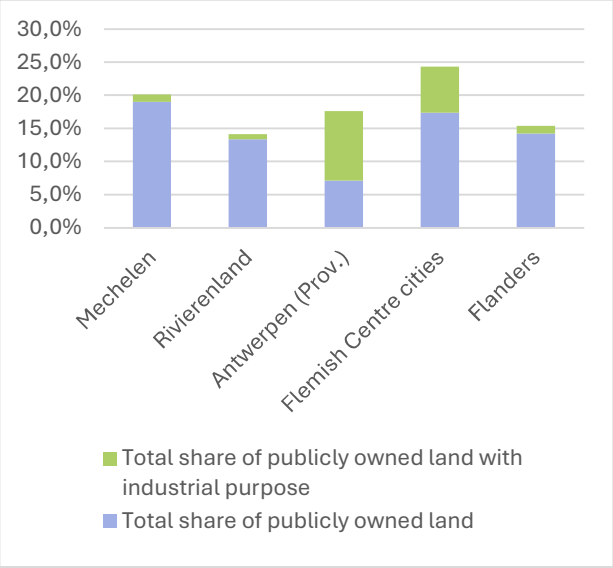
[4] *Available online: https://www.mechelen.be/stad-en-bestuur/beleid/klimaatbeleid/circulaire-doelstellingen*

2.2
# General context

## Built environment

Mechelen is characterized by a rather old building stock compared to other Flemish cities. This historic urban fabric presents both challenges and opportunities: many buildings require deep renovation to meet modern standard, but they also contain valuable native materials, suitable for recovery and reuse. Stimulated through regional legislation and local incentives, renovation activity has risen notably in recent years, strengthening the potential for material salvage and reuse.

A strong local ecosystem of salvage dealers further supports this potential. The Mechelen region has long been home to specialised salvage dealers who source high-quality materials from renovation and demolition sites. Their longstanding expertise in bricks, cobblestone, antique elements, and other reclaimed materials provides a solid foundation for a future reuse centre that builds on existing craftmanship and recovery networks. At the same time the position of some of the region's salvage dealers is vulnerable, as many of them are small scale businesses, without assured succession, and in some cases outdated infrastructure.




## Spatial challenges

Despite policy ambitions and targets imposed by the Flemish Region, a shortage of suitable space remains one of the largest obstacles for reuse practices. Areas designated for craft businesses are scarce, as residential and commercial developments have expanded significantly over the past decades. Several business parks in Mechelen are well connected to the road network, yet their strategic accessibility and the resulting elevated land prices create a highly competitive environment for companies seeking to establish or expand activities. Even though the city's territory contains a relatively large amount of public land (not specified by which public authority), only a small share is designated for industrial or craft uses, making it difficult to reserve space for storage, processing, and logistics.

Budget constraints have further led the city to sell or repurpose underused sites, resulting in fragmented and temporary storage solutions for reusable materials. Longterm success will require securing stable, well-located space through rezoning, temporary use strategies, and collaboration with private landowners. The city's spatial policy framework acknowledges the need to safeguard room for circular activities such as material storage, processing, and remanufacturing.

*"In the context of the transition to a circular economy, sufficient space must be made available for the storage and processing of materials into raw materials for reuse or high-quality recycling, as well as for manufacturing activities…"*
***Spatial Policy Plan Mechelen*[5]**

[5] *Mechelen's Spatial Policy Plan:* https://www.assetsmechelen.be/beleidsplan-ruimte-2024.pdf

## Local construction sector

Mechelen's construction sector presents a dual profile. Although the city hosts fewer construction firms than the wider region, it has a notably high density of micro-enterprises active in finishing, interior works and specialised renovation trades. This pattern is consistent with available company-level data, which shows that Mechelen-based firms are predominantly micro-scale operators in finishing and specialised construction activities. This concentration of small, craft-oriented firms aligns with Mechelen's historical development: the city's former furniture industry (characterised by woodworking ateliers, finishing workshops and later mechanised production) embedded long-standing local expertise in material processing, repair and detailed finishing. These capabilities continue to shape the contemporary profile of Mechelen's construction ecosystem.

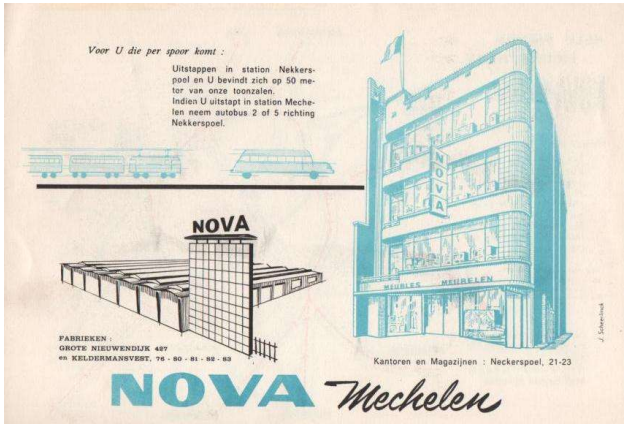
On the Mechelen territory, medium and large construction firms are comparatively less numerous, yet they remain highly active in the city's major development projects. The available business records show that most locally registered firms are small enterprises, with no large construction companies headquartered in the city. This supports the interpretation that medium and large firms involved in Mechelen's large-scale developments are typically based outside the city (e.g., Antwerp, Brussels, Kempen region), operating in Mechelen because of its strategic location in the Antwerp–Brussels corridor rather than as local employers. This configuration reinforces a dual pathway for circular construction: locally rooted micro-firms are well positioned to support project-level reuse and refurbishment, while externally based medium and large firms contribute through regional-scale coordination, particularly in logistics, material-flow management and large-volume reuse operations.

## Demolition rates and construction waste flows

Recent improvements in reporting have provided a clearer view of Mechelen's construction and demolition waste dynamics. The city experiences substantially higher demolition activity than new construction, partly due to several large ongoing city development projects but also due to broader long-term trends. This results in large outflows of materials that currently exceed local demand for reuse.

Construction and demolition waste volumes are correspondingly high. Some of this relates to improved registration and the presence of local waste processors that report regional inflows under Mechelen's name. Nevertheless, the trend reveals a strong potential for material recovery, suggesting that provided infrastructure and services must be capable of:

- Managing periodic high-volume inflows rather than steady streams.
- Prioritizing high-value, reusable materials for renovation and public works.
- Ensuring efficient coordination between demolition sites, municipal projects, and local salvage networks.
- Leveraging data-driven planning to optimize storage, logistics, and material prioritisation.




*Historic advertisement for NOVA Mechelen, a mid-century furniture manufacturer near Nekkerspoel station. It illustrates Mechelen's legacy of woodworking and finishing industries*

2.3

# Methodological approach: 3 trajectories

To establish a robust and practice-based action plan for circular material reuse, the City of Mechelen conducted several complementary analyses between 2024 and 2025. Transitioning to a circular approach for reuse in Mechelen requires coordinated action across different actors. Success depends not on a single organisation or policy, but on the interplay of political commitment, operational capacity, and market readiness. The development of this action plan was therefore informed by three participatory processes. These were deliberately sequenced to move from market exploration to internal feasibility, and finally to inter-municipal scaling discussions.

## Mapping circular construction ecosystems

The first trajectory (2023 – 2024) consisted of ecosystem workshops [6] focused on priority material streams, notably construction timber and paving materials. These workshops brought together a broad spectrum of stakeholders, including architects, contractors, demolition firms, circular advisors, public agencies and infrastructure partners, to map the existing actor landscape and assess the technical, logistical and economic feasibility of material reuse. They enabled a shared understanding of systemic bottlenecks, liability concerns, market dynamics and innovation opportunities. Beyond identifying concrete reuse potential, the sessions clarified the conditions required for scaling, including predictable material flows, quality assurance mechanisms and structured storage infrastructure. This phase provided an external validation of reuse opportunities and highlighted the need for stronger municipal coordination.

## Assessing internal needs

The second trajectory (August 2024 – November 2024) weights these ecosystem insights against **an internal needs and capacity analysis** within the City of Mechelen.

Municipal departments involved in infrastructure, maintenance, procurement, property management and climate policy assessed current material flows, storage practices, data systems and governance structures. This internal diagnosis revealed fragmented storage, limited traceability, unclear ownership frameworks and procurement procedures not yet aligned with circular objectives. At the same time, it confirmed operational willingness and identified concrete leverage points for embedding reuse structurally within municipal processes. This phase marked a shift from external feasibility to internal implementation readiness.

*Workshop with stakeholders from the timber reuse ecosystem*

## Exploring inter-municipal cooperation

The third trajectory (March 2025 – June 2025) was initiated from the main findings of the first two trajectories and expanded the scope through **inter-municipal workshops** with neighbouring municipalities and public agencies. These discussions explored shared challenges in public-domain material management, opportunities for standardisation and joint procurement, and the potential for regional cooperation in storage and logistics. While maturity levels differed across municipalities, the exchanges demonstrated clear interest in knowledge sharing and economies of scale, laying the groundwork for future regional alignment.

[6] *See Annex A and B*

2.4

# Identified barriers and levers

The insights generated across the three methodological trajectories revealed the systemic barriers that currently limit the scaling of material reuse, and the strategic levers that can unlock or accelerate progress. The ecosystem workshops, internal capacity assessment, and inter-municipal exchanges together exposed where governance, operations, markets, and regulations fall short, and where concrete opportunities exist to strengthen alignment, build capacity, and unlock regional cooperation. The following sub-chapters synthesise these findings into a set of barriers and levers that shape Mechelen's action plan.

## Governance and strategic alignment

**Fragmented governance**: Responsibilities, budgets, and decision-making remain siloed across departments, limiting cross-functional coordination and preventing integrated material management or long-term planning.

**Low political and public visibility**: Resource-efficiency benefits unfold slowly and often conflict with short political cycles, reducing political capital for multi-year institutional reforms.

**Weak long-term commitment:** Infrastructure investments, maintenance, and internal capacity building are deprioritised in annual budgeting, undermining continuity and institutional learning.

**Political and strategic alignment:** Material reuse directly supports Mechelen's climate, circular economy, heritage, and cost-efficiency objectives. This alignment provides a strong mandate to embed reuse structurally in long-term strategies, investment cycles and the organisation's priorities.

**Inter-municipal coordination potential:** Collaboration with neighbouring municipalities enables shared policy frameworks, harmonised standards, and joint procurement. Such cooperation can generate economy upscaling, accelerate higher-level policy development, and strengthen regional capacity for storage, logistics, and knowledge exchange.

## Operations and infrastructure

**Dispersed and uncoordinated material storage:** Without a central spatial strategy or coordinated asset management system, reusable materials are stored ad hoc across sites and buildings. This creates inefficiencies, unclear responsibilities, space conflicts, and a perception that reuse generates clutter rather than value.

**Lack of standardisation and interoperability:** Project-based tendering and isolated budgets create structural lock-ins. Varying processes and procurement requirements prevent materials from being transferred across projects.

**Limited operational capacity:** Reuse requires expertise in stock management, quality assessment, logistics and tendering. These tasks are added to already overstretched teams without dedicated roles or training, reducing continuity and embedding reuse only where individual motivation exists.

**Internal depot as a learning lab:** Establishing a low-threshold pilot depot allows the city to test reuse workflows, build internal expertise, and demonstrate feasibility. A clearly mandated material manager can coordinate material flows and develop operational agreements, initiating a shift toward structured material management.

**Process optimisation through data systems**: Centralised stock management improves planning and enhances coordination across departments. Making potential material-cost savings visible helps build internal support..

**Shared inter-municipal infrastructure:** Regional or joint depots can stabilise supply and demand and stimulate professionalisation of reuse related logistics. Over time, material management can evolve into an inter-municipal service comparable to waste collection or renovation advisory.

## Market and economic factors

**Immature market and weak public demand signals**: Contractors face uncertainty about the volume and continuity of reuse demand. Without a credible long-term signal from the public sector, firms rationally fall back to conventional demolition and virgin material use.

**Procurement misalignment:** Standard tendering instruments are designed for uniform, predictable inputs and cannot accommodate variable quality, uncertain availability, or non-standard valuation of reclaimed materials, effectively excluding circular options.

**Investment barriers for SMEs:** Smaller firms and social-economy actors face disproportionate financial risk due to unpredictable material flows, lack of guaranteed off-take, and limited access to storage or processing infrastructure.

**Municipal demand aggregation as a stabilisation mechanism:** A publicly anchored central purchasing body can act as an intermediary between public contracting authorities and the (circular) building sector, reducing uncertainty on both demanding and offering sides and creating predictable transaction volumes. This strengthens market confidence and supports SME and social-economy actor investment.

**Collective risk distribution:** Inter-institutional agreements on quality thresholds, liability, and performance expectations reduce transaction costs and lower the entry barrier for contractors. Shared risk frameworks make participation more attractive and scalable.

## Legal and administrative factors

**Ambiguous ownership and liability**: Unclear rules on ownership transfer, liability for reused components, and performance guarantees create legal exposure for both municipalities and contractors.

**Inert administrative culture:** Long-standing workflows, norms, and performance metrics are aligned with linear procurement. Resistance arises not from attitudes but from institutional routines that make circular practices appear risky, heavy, or incompatible with established processes.

**Risk-averse budgeting and accounting rules:** Traditional budgeting frameworks prioritise lowest upfront cost, discouraging reuse, refurbishment or long-term value retention. Accounting rules rarely recognise the residual value of materials, making circular options appear financially unattractive even when they are cost-neutral or beneficial over time.

**Institutional embedding of circular criteria**: Revising tender specifications, contract templates, and asset-management protocols to include reuse requirements and residual material valuation provides the regulatory legitimacy needed for consistent implementation.

**Internal capacity building:** Targeted training, cross-departmental pilots, and embedded learning trajectories strengthen technical competence and institutional confidence. Practical experimentation accelerates the shift in professional norms.

**Formation of multi-stakeholder coalitions**: Structured engagement across public authorities, contractors, designers, knowledge institutions, and social-economy actors creates the collaborative governance needed for system-level change. These coalitions function as transition engines rather than communication add-ons.

III.

# Strategic Priorities

Building on the findings from the context analysis and stakeholder consultations, the city of Mechelen has structured its local action plan around three interlinked action clusters. These clusters translate identified needs, opportunities, and barriers into a coherent set of actions that progressively strengthen the city's capacity for circular material management, from internal operations to regional collaboration.

**Cluster 1** lays the foundation: creating internal organisational capacity, a temporary, functioning pilot depot.

**Cluster 2** acts as the bridge: translating internal learning into new procurement, pilot projects, engaging external actors.

**Cluster 3** provides scaling mechanisms: formal collaboration, shared tools, policy and market influence.

Operational readiness > Organisational integration > Systemic regional scaling

PRIORITY 01

## Create internal organisational capacity by test running a functioning pilot depot

PRIORITY 02

## Translate internal learning into new procurement, pilot projects, engaging external actors

PRIORITY 03

## Provide scaling mechanisms: a formal regional collaboration, shared tools and tenders, policy and market influence

IV.

# Action Plan

PRIORITY 01

## Create internal organisational capacity by test running a functioning pilot depot

*The first priority is to focuses on low-threshold implementation and internal capacity building. By establishing an internal reuse depot that will initially serve the public domain (roadworks), Mechelen aims to achieve quick, visible results while improving internal skills and confidence, workflows, and infrastructure. This provides a practical foundation for managing and reusing materials within city projects.*

### STEPS

#### Step 1. Establish a solid physical and strategic foundation for the city's first internal reuse depot

Set up a structured internal process with infrastructure, maintenance, and facility teams to establish the strategic and spatial foundation of the depot. This involves three parallel workstreams:

- defining which material categories will be prioritised based on technical reuse potential, frequency of occurrence, logistical manageability and environmental impact;
- assessing city-owned properties against a set of feasibility criteria covering ownership status, zoning compatibility, site accessibility, safety standards, and proximity to active worksites;
- getting formal support so the depot has clear backing and recognition from the start.

#### Step 2. Estimate the depot's turnover and align the findings with the evolving design and working methodology

Develop a multi-year material flow forecast by cross-referencing the city's project planning pipeline with the validated material priority framework, estimating the volumes, timing, and locations of material inflows and outflows over the period 2026–2031. Use this forecast to align to the developing practical roadworks and infrastructure handbook that translates reuse ambitions into concrete technical prescriptions for project managers, designers, and project managers. Pilot the integration of reuse clauses and quality criteria into a selection of upcoming contracts, testing the contractual prescriptions under real procurement conditions before full rollout.

#### Step 3. Demonstrate practical reuse potential through a functioning pilot depot with a limited material scope

Appoint a Depot Site Manager with a formally defined mandate covering authority over material intake and dispatch decisions, responsibility for developing inter-departmental working agreements around material flows, and accountability for the depot's operational performance. Prepare the physical site, including site zoning for different material categories, safety infrastructure, access logistics, and signage, and conduct an initial stock registration exercise in accordance with the material priority framework, applying consistent condition assessment criteria to each registered item.

### Step 4. Professionalise depot operations and ensure transparent, data-driven management

Develop and document standard operating procedures covering the full material lifecycle within the depot: intake inspection and condition grading, registration and labelling, reservation by internal project teams, dispatch and handover agreements, and quality dispute resolution. Implement a digital inventory platform that tracks each item or material batch by type, quantity, location, reservation status, and estimated reuse value. Deliver structured training for all relevant staff, ensuring that the system is used consistently across departments and that workflows between the depot, infrastructure teams, and procurement are formally aligned.

### Step 5. Ensure accountability, visibility, and policy integration of reuse performance

Establish a cross-departmental steering group (including Climate, Infrastructure, Procurement, Finance, and Facility departments) with defined decision-making authority, meeting frequency, and escalation protocols. Develop a monitoring framework that identifies the performance indicators for depot operations, assigns data collection responsibility to specific roles, and sets reporting cycles. Integrate reuse performance indicators into existing management dashboards (Power BI or equivalent), ensuring that depot outputs are visible at senior management and political level alongside other operational performance data.

### Step 6. Secure a sustainable financing model and long-term operational continuity for the depot

Conduct a structured cost-benefit analysis covering the full operational period of the pilot depot, quantifying both direct cost savings (avoided purchase costs, reduced disposal costs) and avoided costs that do not appear in project budgets but represent real public value ($CO_2$ abatement, reduced procurement lead times). Use this analysis to develop a sustainable internal financing model that does not depend on project-specific subsidies or one-off budget allocations, but instead identifies how depot operations can be structurally funded through existing departmental budget streams, cost recovery mechanisms, or inter-departmental charging arrangements. In parallel, define concrete options for scope expansion and regional collaboration, drawing on the material flow forecasts and pilot results from earlier actions, and translate these into a long-term continuation strategy that identifies the depot's future site, its governance model at scale, and the investment requirements for the transition from pilot to permanent infrastructure.

| ACTION / DELIVERABLE | KEY MILESTONES | TIMELINE |
|---|---|---|
| **Define the material scope and secure a pilot depot location** | · **A validated material priority framework** with minimum quality and quantity thresholds.<br>· **A site selection report** comparing assessed locations against feasibility criteria.<br>· **A formal mandate** from the decision-making body for the pilot depot. | Q2 2024 – Q3 2025 |
| **Prepare depot site and set the baseline for stock management** | · **A depot site with a documented baseline stock**, recorded by material category, estimated quantity ($m^2$/$m^3$/units), condition grade, and estimated reuse or residual economic value, providing the first baseline for stock management and performance.<br>· **A formally appointed Depot Site Manager** with a mandate that specifies decision-making authority, and the scope to develop operational agreements, ensuring that the depot's functioning does not depend on informal goodwill but on a defined role.<br>· **An initial condition assessment** methodology, validated through the baseline registration exercise, that can be applied consistently to future intake operations. | Q4 2025 – Q12026 |

| ACTION / DELIVERABLE | KEY MILESTONES | TIMELINE |
|---|---|---|
| **Forecast material flows and integrate reuse into design and procurement** | · **A quantified material flow forecast** covering the 2026-2031 project pipeline, identifying which projects are likely to generate or require which material categories, in what volumes and at what points in time, providing the planning basis on which depot sizing, staffing, and logistics can be designed.<br>· **An approved infrastructrure handbook** that embeds reuse as a default consideration in project design and tendering and saveguards reusability.<br>· **Evidence from pilot contract integration** showing reuse clauses regarding delivery to and purchase from the depot. | Q4 2025 – Q2 2026 |
| **Integrate workflows involving the depot and implement a supporting digital system** | · **A complete set of documented operating procedures** that any trained staff member can follow, reducing operational dependency on individual knowledge and enabling continuity across personnel changes.<br>· **A functioning digital inventory system** that provides real-time visibility of available stock, active reservations, and completed transactions, and that generates the cost-saving and material-flow data needed to make the internal business case for reuse visible to budget holders and senior management.<br>· **A trained user base** across relevant departments, with documented workflows that formally integrate the depot into standard project preparation and procurement processes, rather than leaving it as a parallel system that project teams may or may not consult. | Q1 2026 – Q4 2026 |
| **Establish governance structure and integrate performance monitoring** | · **A functional cross-departmental governance structure** with documented roles, responsibilities, and decision-making procedures that provides the institutional architecture that prevents the depot from being deprioritised when budget cycles tighten or personnel change.<br>· **A monitoring framework** with defined indicators covering material volumes, financial value of reused materials, cost savings per project, $CO_2$ avoided, and departmental participation rates.<br>· **Reuse performance integrated into standard management reporting**, making circular material management visible and accountable at board level rather than confined to the operational teams who implement it. | Q4 2025 – Q4 2027 |
| **Ensure financial viability of the depot** | · **A cost-benefit and avoided-cost analysis** covering the pilot period, structured so that it is legible to management and political decision-makers rather than only to operational teams, providing the financial evidence base needed to justify continued and expanded investment in depot operations<br>· **A proposed sustainable internal financing model**, with defined funding streams, cost recovery logic, and inter-departmental arrangements, that removes the depot's dependence on time-limited external funding and gives it the financial standing of a permanent city service.<br>· **A set of defined options for scope expansion and regional collaboration**, evaluated against operational feasibility and resource requirements, giving decision-makers a structured basis for choosing the depot's next development phase rather than leaving expansion to ad hoc opportunity<br>· **A long-term continuation strategy** with a secured future site, ensuring that the operational and institutional investment built up during the pilot is not lost to a gap in physical infrastructure between the pilot phase and permanent operations. | Q4 2026 – Q4 2027 |

PRIORITY 02

# Translate learnings from the pilot depot, live tests and ecosystem engagement into new procurement and workflows

*The second cluster takes the replicable model of the pilot depot as its blueprint and scales it outward across the organisation. Stimulated by structured market dialogue through ecosystem engagement, and procurement pilots across a diverse range of building and renovation contexts, it spins salvage and reuse measurements into standard project management and tendering workflows. A GRO-aligned audit protocol, a tested modular clause library, and a living organisational knowledge system provide the practical base for this transition.*

## STEPS

### Step 1. Enable collaborative experimentation and system level learning

Organise multistakeholder workshops bringing together city departments, regional departments, demolition companies, contractors, and designers to map reuse opportunities across building and infrastructure material streams, define the market barriers that currently constrain uptake (including liability allocation, logistical complexity), and identify suitable pilot projects for following action. Complement these external-facing workshops with internal roundtables designed to translate workshop outcomes into concrete procurement planning decisions, ensuring that market insights reach the staff responsible for tendering and project management.

### Step 2. Enable salvage and reuse through procurement and the organisation's asset management

Position procurement and asset management as the primary levers for scaling material reuse across city projects. Require all project teams to integrate circular criteria from the outset, ensuring that reuse potential is identified early, documented consistently and translated into binding contractual obligations. Use the GRO sustainability framework as the organisation's standard, embedding the reuse theme into design briefs, material inventories and contractor responsibilities. Establish clear legal and procedural pathways for transferring materials from public assets to other public actors, reuse organisations, social-economy partners and community initiatives, so that salvage becomes a legitimate and routine outcome rather than an exception. Drive this transition through targeted pilot tenders that test reuse-oriented evaluation criteria and generate evidence on feasibility, market response and environmental impact. Consolidate insights from these pilots into refined procurement templates and asset-management procedures, ensuring that reuse becomes structurally embedded in how the organisation plans, tenders and manages its built assets.

### Step 3. Arrange internal communication, learning and knowledge building

Create the structures that keep reuse in building and infrastructure project visible, understood and consistently applied across the organisation. This step strengthens organisational learning by ensuring that knowledge from projects, pilots and collaborations is captured, shared and translated into daily practice. It establishes stable channels for internal communication, a shared knowledge base, and recurring learning moments so that reuse remains high on the agenda and staff can build confidence over time. By organising experience exchange, documenting good practices and making tools easily accessible, the organisation develops a collective capacity to recognise reuse opportunities and act on them in a consistent, informed way.

| ACTION / DELIVERABLE | KEY MILESTONES | TIMELINE |
|---|---|---|
| **Mobilise ecosystems and organise market dialogue** | · Three workshop reports documenting identified reuse opportunities, market barriers, and agreed pilot priorities<br>· A report synthesising findings from the internal needs analysis and market consultation process<br>· A final report on innovative procurement approaches and the findings for pilot projects | Q4 2023 – Q2 2027 |
| **Build internal capacity and confidence to reuse materials out of the scope of the pilot depot for roadworks** | · Reuse-stimulating procurement strategies adopted.<br>· Framework for public sales and donations finalised, defining legal and procedural pathways for transferring materials from public assets to other public actors, reuse organisations, social-economy partners and community initiatives.<br>· Pilot tenders launched (3–5 projects) applying reuse-oriented procurement, including evaluation criteria on residual material value, $CO_2$ reduction and the share of reused components.<br>· Pilot performance report delivered, synthesising tender outcomes, contractor responses and lessons learned for scaling.<br>· Internal alignment note completed, translating pilot insights into updated procurement workflows and asset-management practices. | Q1 2024 – Q4 2026 |
| **Institutionalise reuse and offer learning structures** | · Institutionalise reuse through the implementation of a sustainability framework (the Belgian GRO framework) and teach project coordinators to use it.<br>· Create an online knowledge base that includes reference projects, technical prescriptions, tender documents<br>· Organise learning and exchange sessions to keep the city services (and organisations affiliated with the city) up-to-date about new developments | Q4 2025 – Q4 2026 |

PRIORITY 03

# Provide scaling mechanisms: a formal regional collaboration, shared tools and tenders, policy and market influence

*The last cluster of actions scales circular material management from the local level to a durable, region-wide system. It consolidates the operational and procurement learnings from different local authorities into shared inter-municipal governance structures, common procurement and logistics frameworks, and evidence-based policy recommendations. By collaborating with neighbouring municipalities and regional actors, this cluster aims to create a collectively anchored market framework and standardises reuse-oriented tendering and market questions. This generates a stronger, more predictable market signal for suppliers of reused materials and salvage, enabling them to invest in reuse services and materials with greater confidence. The cluster supports the network development of intermunicipal depots and ensures that smaller municipalities can access circular practices without building full internal capacity. The ambition is to embed reuse structurally at the Flemish and regional levels, transforming scattered initiatives into an integrated circular ecosystem.*

## STEPS

### Step 1. Detect and prioritise regional reuse opportunities based on the shared experiences and needs of public authorities

Conduct a structured needs and asset assessment across participating organisations combining a targeted survey of existing reuse practices, procurement procedures, and organisational bottlenecks with a series of inter-municipal workshops designed to move beyond information exchange toward shared prioritisation. Alongside this, conduct a systematic inventory of sites across participating territories (public depots, industrial zones, underused municipal properties, vacant buildings) that could realistically serve as intermediate storage or refurbishment locations, assessed against consistent criteria of ownership clarity, spatial suitability, accessibility, and regulatory status. Use the workshop process explicitly to build the political and administrative basis for formalised collaboration: participating civil servants should leave with a mandate from their respective organisations to engage in inter-municipal reuse cooperation, not merely a record of having attended.

### Step 2. Launch a shared regional framework agreement to give all participating municipalities low-threshold access to reuse expertise

Develop and launch a regional framework agreement for reuse expertise (covering services including pre-demolition inventories, material quality assessment, circular design integration, and logistical planning for reuse flows) structured so that all participating municipalities, including the ones with limited procurement capacity, can access it through a simplified call-off procedure without needing to run their own tender processes. Design the framework explicitly to lower the threshold for smaller local authorities: search for co-funding mechanisms or project subsidies for pilot applications, develop pre-populated call-off templates that require minimal procurement expertise to use, and offer facilitated intake support so that municipalities without in-house circular expertise can nonetheless participate meaningfully. Use the Province of Antwerp's coordinating role and procurement infrastructure as the institutional anchor for framework management, drawing on the existing collaborative relationship between Mechelen and the Province.

### STEP 3. Institutionalise collaboration and aggregate demand to influence regional supply chains

Formalise the inter-municipal collaboration network into a structured buyer group, governed by a collaboration agreement that defines participation obligations, decision-making procedures, cost-sharing arrangements, and a shared quality and standards framework for material exchange. Appoint a dedicated transition broker, an independent facilitating role responsible for maintaining momentum across organisations, managing the knowledge and communication infrastructure of the group, and ensuring that smaller municipalities are actively supported rather than passively included. Develop a collective vision statement for regional reuse that is formally agreed upon by all participating organisations and provides the normative framework within which individual procurement decisions and pilot projects are oriented. Conduct at least one structured market consultation per year, bringing the buyer group into dialogue with contractors, material brokers, demolition specialists, and logistics providers to co-develop the supply-side conditions on which circular procurement depends.

### Step 4. Share regulatory and procurement insights from inter-municipal material reuse and collaborations

Develop inter-municipal material-exchange demonstrators that generate the evidence base for Flemish regulatory and procurement reform. Pilot two to three cases across different material streams and logistical setups, and use the operational insights — including regulatory, accounting,

and procurement barriers — to formulate targeted recommendations for OVAM, Departement Omgeving, and other competent authorities. Clearly distinguish measures requiring legislative change, those solvable through administrative guidance, and those implementable through standardised contractual frameworks.

| ACTION / DELIVERABLE | KEY MILESTONES | TIMELINE |
|---|---|---|
| **Map regional needs, assets and collaboration readiness for upscaling reuse practices among public authorities** | · A comparative baseline assessment across participating municipalities documenting current reuse practices, procurement maturity, organisational capacity, and priority material streams.<br>· A regional site inventory identifying potential buffer and depot locations across the participating territories, assessed for feasibility and ranked by strategic value for cross-municipal material flows.<br>· A formal mandate from the competent decision-making bodies to engage in inter-municipal reuse cooperation. | Q1 2025 – Q2 2025 |
| **Launch a collective framework tender for reuse expertise** | · A legally compliant and operational regional framework agreement, open to all municipalities in the defined territory.<br>· A minimum of ten supported pilot project applications within the first 24 months of the framework's operation, representing a diversity of municipal sizes, material types and project contexts, providing the portfolio of reference cases needed to demonstrate regional uptake.<br>· A structured learning feed between pilot project experiences and the framework's terms and conditions, establish a review mechanism that allows the framework to be updated. | Q3 2025 – Q3 2030 |
| **Establish an inter-municipal buyer group and transition governance** | · **A signed Memorandum of Understanding (MoU)** among all participating municipalities, with legally reviewed provisions covering decision-making authority, financial contribution arrangements, data sharing protocols, quality standards for inter-municipal material exchange, and explicit provisions for how smaller municipalities with lower capacity are supported within the group's governance — not merely named as participants but given defined rights and facilitation commitments<br>· **A functioning transition broker role**, with a clear mandate, defined accountability to the buyer group, and sufficient operational independence to facilitate difficult inter-organisational negotiations: the dedicated human capacity to hold the coalition together across electoral cycles, budget pressures, and personnel changes<br>· **A collective vision and standards document** that has been formally adopted by each participating organisation's competent authority (not merely produced by the project team) providing the normative basis from which individual procurement choices and pilot investments can be justified internally within each organisation. | Q2 2027 |
| **Draft policy recommendations based on regional implementation** | · A portfolio of two to three documented inter-municipal showcase projects, each with a structured case description covering material types and volumes exchanged, logistical configuration, contractual arrangements, regulatory constraints encountered, financial outcomes, and $CO_2$ impact, structured for external communication to policymakers and replication by other municipalities rather than for internal project reporting only<br>· A policy brief addressed to the mandated authorities that contains specific, actionable recommendations, distinguished by the type of intervention required (legislative, administrative, or contractual) and accompanied by the evidence from the showcase projects that supports each recommendation providing policymakers with the implementation pathway | Q4 2027 |

V.

# Implementation and Governance

## 5.1 Lead team

*Climate and procurement team of the City of Mechelen: Ahmed Machbouâa, Eva Neefs and Julie Poppe*

## 5.2 Key partnerships

- *Province of Antwerp – Intermediate regional government authority acting as central purchasing body for reuse expertise and co-funding the PREUSE project collaborating on the inter-municipal tender;*
- *Werecircle – consultancy firm commissioned to guide and report the workshops to explore inter-municipal collaborations;*
- *VLAIO (Flanders Innovation and Entrepreneurship) – Central government agency of the Flemish Region that collaborated on the organisation of ecosystem workshops carried out between 11/2023 and 06/2024 and partly funding the needs analysis and market survey through the Innovative Tendering Programme;*
- *OVAM/Circular Flanders (Public Waste Agency in the region of Flanders) – Central government agency of the Flemish Region and associated partner of the PREUSE project;*
- *The consortium of the Sloopteams project (Embuild Flanders, Buldwise, Tracimat, NAV, Aclagro, Resulation, Rockwool) – exploring new value chain collaborations to drive salvage and high-quality recycling;*
- *The consortium of the MatchMatter project (Embuild Flanders, Buldwise, Tracimat, VSOR, SURA impact) – spin-off of the Sloopteams project, developing a roadmap for enhanced information exchange between demolition actors.*

## 5.3 Resources

*The development and implementation of this action plan was funded by a budget allocation of 687.975,00€ from the PREUSE project, co-financed by the Interreg North-West Europe Programme through the European Regional Development Fund. It also benefited from the recruitment of an employee on a project contract.*

VI.

# Long-term Perspective

## 6.1 Lessons learned

The development and initial implementation of this action plan have generated several important insights so far for accelerating reuse enabling procurement and material reuse within the City of Mechelen:

- Circular procurement is most effective when it is supported by a robust asset management approach. To enable the strategic reuse of materials and components, organisations need a clear overview of their assets, future and current spatial needs, renovation pipelines and material stocks. This requires coordination across departments and the gradual integration of circular principles into existing asset management practices. Providing internal services with practical tools, templates and step-by-step procedures that are compliant with procurement legislation can significantly lower implementation barriers and facilitate adoption.

- Starting with material categories that combine a relatively high residual value with limited dismantling and processing costs has proven to be an effective strategy to convince the organisation's sceptics. Early successes create confidence among project managers and operational staff, demonstrating the feasibility of reuse in practice. A gradual expansion towards additional material categories allows the organisation to build knowledge, refine procedures and strengthen internal support over time.

- The experience confirms that a municipal reuse depot does not need to be fully developed before it can generate value. Simply reserving a dedicated space for the temporary storage of reusable materials and establishing a limited set of operational agreements removes one of the most common barriers to internal reuse. Even modest storage infrastructure can act as a catalyst for behavioural change by making reuse a practical and visible option within day-to-day operations.

- The presence of a dedicated contact person who connects project coordinators, operational services and decision-makers is essential. Such a role lowers the barrier for project managers that are typically operationally overloaded, facilitates knowledge sharing, identifies opportunities for reuse across projects and helps embed circular practices into routine workflows.

- External frameworks, guidance documents and standardised procedures play an important enabling role. Regional, national and European frameworks provide legitimacy and mandate for reuse practices, helping project teams justify new approaches and secure management support. The availability of proven templates and reference documents also reduces uncertainty and accelerates implementation across the organisation.

## 6.2 Scaling up

The actions proposed in this Local Action Plan constitute a first step towards embedding circular material management within the City of Mechelen's daily operations. While the initial focus is on establishing internal processes, piloting material reuse practices and creating a municipal reuse depot, the long-term ambition is to mainstream circular principles across all municipal investment, maintenance and redevelopment projects.

In the medium term, the approach can be scaled by expanding the range of material categories managed through the reuse system, building on the experience gained with the most straightforward and economically viable material flows. The gradual integration of material inventories, asset management systems and procurement procedures will allow reuse considerations to become a standard element of project preparation, decision-making and enabling conditions for reuse market actors.

The model also offers opportunities for replication beyond individual municipal services. By strengthening collaboration between departments and developing common procedures, Mechelen can establish a coherent organisational approach to material reuse. In the longer term, this approach could be extended to intermunicipal cooperation, enabling neighbouring municipalities and public organisations to exchange materials, share storage capacity and jointly develop circular procurement practices.

Ultimately, the experience gained through the implementation of this action plan can contribute to the development of a broader regional ecosystem for construction material reuse, in which public authorities act as both facilitators and leading customers for circular solutions.

## 6.3 Dependencies

The successful implementation of this action plan depends on several key enabling factors:

- **Organisational commitment to asset management and cross-departmental collaboration.** Circular material reuse requires visibility of future projects, available materials and spatial needs across municipal services. A continued cooperation between procurement, public works, facility management, urban development, financial department and other relevant departments is therefore essential.
- **Availability of basic infrastructure and operational coordination.** The effectiveness of the approach relies on maintaining a dedicated space for storing reusable materials and on the presence of a coordinating function that connects project managers, operational staff and decision-makers throughout the organisation.
- **Supportive policy and regulatory frameworks.** The integration of reuse into procurement and project delivery depends on the availability of guidance, templates and legal frameworks at regional, national and European levels. Continued development of circular procurement policies and practical implementation tools will help reduce uncertainty and facilitate wider adoption.

# Annexes

## Annex A — Ecosystem workshops reports for participants

## Annex B — Final Report: “Circular Material Management in the public domain”

## Nine project partners

Interreg Co-funded by the European Union
North-West Europe
PREUSE

2024-2027

BELLASTOCK
City of Utrecht
La fabrique des quartiers
LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY LIST
MECHELEN
Métropole du Grand Paris
R T O
Wiltz Capitale des Ardennes

## Plus 22 associated organisations

LUXINNOVATION #MakingInnovationHappen
ekopolis
ADEME
KIT Karlsruhe Institute of Technology
ICLEI Local Governments for Sustainability
morbihan habitat
CRTI-B
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SAMEN MAKEN WE MORGEN MOOIER OVAM
RWTH AACHEN UNIVERSITY
recuplan
Atelier Circulaire Urban Mining
Embuild
plaine commune GRAND PARIS
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CD2e
L'UNION SOCIALE POUR L'HABITAT
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Wiltz Capitale des Ardennes