The Circular City Centre – C3

CIRCULAR PUBLIC PROCUREMENT IN CITIES











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Introduction to circular public procurement

1.1 Overview of public procurement in Europe

City governments are responsible for providing public goods and services, such as schools, streetlight and waste management systems, to their residents. All European cities and municipalities procure goods, materials, works and services from companies to deliver on their public responsibilities.

Public procurement procedures have a significant impact. On the global scale, the World Economic Forum estimates that public procurement is linked directly and indirectly to approximately 15% of global greenhouse gas emissions, about 7.5 billion tonnes annually.¹ An estimated 11% of the European Union's greenhouse gas emissions are the result of public procurement procedures.² If governments succeed in eliminating these procurement-related emissions, it could result in annual savings of up to \$930 billion (or approximately €884 billion) in climate-related costs. Transitioning to greener, more circular procurement practices could generate up to \$6 trillion (approximately €5.7 trillion) in global GDP and create three million net jobs by 2050.³

Within the European Union, over 250 000 public contracting authorities spend around 14% of the European Union's GDP, or approximately €2 trillion annually, on the purchase of services, works and supplies.⁴ How and what cities buy can influence the local economy, create jobs and support policy objectives such as the circular economy, waste management, and eco-design. Therefore, public procurement is a strategic tool all cities across Europe can leverage to accelerate the transition towards a circular economy.

Circular public procurement (CPP) is a tool that cities can use to purchase and encourage circular economy and resource-efficient solutions. The European Commission defines it as the "process whereby public authorities purchase works, goods or services that seek to: contribute to closed energy and material loops within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole life cycle." 5

By embedding circular economy considerations into public purchasing decisions, local authorities can drive sustainable practices across supply chains, extend product lifespans, reduce waste and stimulate innovation. For instance, cities can encourage the use of secondary raw materials in construction projects, procure refurbished IT equipment and use shared mobility services.

However, circular procurement remains underutilised across Europe, with most public tenders still prioritising procurement at the lowest price over sustainability considerations. Furthermore, there are concerns about the quality and feasibility of circular solutions and many companies are not yet able to provide circular solutions at scale. While there are many examples of cities that have piloted circular approaches in public procurement procedures, these practices and lessons learned need to be replicated in regions where circular procurement is still emerging. This guidance document aims to bridge this gap by providing practical tools, case studies, and strategies to help cities integrate circular principles into procurement practices more effectively.

1.2 Objectives of the guide

This C3 guide on circular public procurement aims to provide cities with the insights and tools they need to use procurement as a means to accelerate the circular economy transition. It offers practical guidance, tools and case studies tailored to cities at varying stages of circular procurement maturity, enabling them to achieve the goals outlined below.

- Promote circularity through procurement: Provide city governments with examples of tools and circular criteria they can use
 in procurement procedures.
- Use public procurement more strategically: Provide public entities with an understanding of how public procurement can be used to deliver circular economy policies, as well as broader strategic EU policy objectives across sectors.
- Address common challenges: Support municipalities in overcoming barriers such as the focus on the lowest price criterion, limited supplier readiness, and the lack of professionalisation of public procurers.
- Enhance market engagement: Equip local authorities with strategies for market dialogue, supplier collaboration, and fostering innovation in the supply chain.

¹ All references in this document are presented in the References list at the end of the document.



- Align with EU policies and standards: Ensure city procurement practices align with the EU Circular Economy Action Plan (CEAP), the Public Procurement Directives, the Net Zero Implementation Act (NZIA) and other regulatory frameworks.
- **Encourage collaborative procurement models:** Highlight the benefits of joint procurement, framework agreements and cross-city collaboration for circular outcomes.

By following this guide, cities can transform procurement from a compliance-driven process into a strategic instrument for circular local economic development. The guide focuses on how existing public procurement mechanisms and approaches can be adapted and leveraged to achieve circular outcomes.

This guide is published by the Circular City Centre – C3, a competence and resource centre within the European Investment Bank (EIB) that supports EU cities in their circular economy transition. C3 has been established in cooperation with the European Commission, in the context of the <u>Circular Cities and Regions Initiative</u>, under co-funding from the European Union.

More information about C3 is available on the <u>C3 web page</u>, which features other C3 guidance documents to download and information about the <u>Circular City Advisory (CCA)</u> and <u>Circular Project Advisory (CPA)</u> programmes that C3 offers to cities.

For questions about C3, expressions of interest in any of the C3 advisory programmes or comments on this guidance document, please contact the C3 team at C3@eib.org.

1.3 Circular public procurement in the European Union

The EU policy framework enabling circular public procurement

For the past two decades, cities across Europe have leveraged their purchasing power to prevent waste, promote material circulation and stimulate demand for more sustainable products and services. This development has emerged partly as a result of the European Union's policy framework, including several sectoral legislations, which supports the use of circular public procurement. The inclusion of green clauses and requirements in public procurement procedures is gradually becoming an obligation in certain sectors in the European Union.⁶

The EU Public Procurement Directives have set the foundation for how public authorities can integrate environmental, social, and innovation considerations into procurement practices, moving beyond lowest-cost selection towards value-based and best value for money criteria. For instance, Article 18(2) of Directive 2014/24/EU on Public Procurement states that public contracts should comply with relevant environmental obligations.⁷ These obligations can extend to include circular economy considerations such as eco-design requirements, mandatory EPR schemes and waste management regulations across different product categories. These voluntary criteria include circular considerations such as requirements for refurbished, remanufactured, recyclable or repairable products. To support the incorporation of environmental, including circular, considerations into public procurement procedures, the European Commission has developed Green Public Procurement criteria and requirements across different product categories.⁸

Additionally, the Directives allow contracting authorities to award contracts based on the "most economically advantageous tender" or MEAT criteria, which helps to embed environmental and circular economy considerations into procurement decisions. Article 68 of Directive 2014/24/EU on public procurement introduces life-cycle costing (LCC) which enables public authorities to assess and consider costs associated with the entire life cycle of a product, service or work and can encourage the procurement of resource-efficient and environmentally-friendly solutions.

The European Green Deal and the 2020 CEAP have further reinforced the importance of sustainable procurement as a tool to drive systemic change. The CEAP refers to the use of green public procurement, including the use of minimum mandatory criteria, and supports the capacity building of public buyers. The CEAP also encourages the inclusion of "more systematically durability, recyclability and recycled content in the EU Ecolabel criteria".

Moreover, article 65 of the Sustainable Products Regulation encourages public authorities to award contracts that comply with minimum environmental requirements. It also states that the sustainable criteria should account for 15 to 30% of the total evaluation score. The regulation encourages the public procurement of low-impact, durable, and circular products.¹⁰

The Net-Zero Industry Act (NZIA), introduced in 2024, aims to enhance European manufacturing capacity for net-zero technologies, including key components, and supports the scaling-up of production in the EU.¹¹ The act incorporates mandatory non-price criteria into public procurement processes for clean technologies and encourages contracting authorities to prioritise sustainability and

resilience alongside cost considerations. This approach aligns with the principles of circular economy by promoting the selection of products and services that are resource-efficient, environmentally friendly, and support the EU's net-zero objectives. Consequently, the NZIA fosters a procurement environment that not only seeks economic value but also emphasises environmental stewardship and the efficient use of resources throughout the life cycle of procured goods and services.

There are several other circular economy-relevant EU legislations such as the Waste Framework Directive 2008/98/EC,¹² the Farm to Fork Strategy,¹³ the packaging and packaging waste regulation 2025/40,¹⁴ and the batteries and waste batteries regulation 2023/1542¹⁵ which have implications for public procurement. This large EU policy framework enables contracting authorities to use sectoral requirements to integrate circular economy considerations into public contracts. Section 5.1 of this guide discusses in further detail circular economy policies and mechanisms that contracting authorities can leverage to support the circular public procurement.

The scale of circular public procurement in Europe

While there is an existing legislative framework to support the use of circular public procurement, few public authorities leverage their procurement actions for circular outcomes. It is difficult to estimate the number of circular public contracts across the European Union, as there is currently no reliable data on the proportion and number of public contracts that include circular economy considerations.

As a proxy, a search of relevant key works on the EU tender platform TED can help to provide a rough estimate. From a search of the 5 907 118 tender notices published in the European Union on TED between 2015 and 2025, there were 6 480 notices that mention the term "circular economy," 10 357 notices that include the term "circular," 17 and 364 060 notices that include circular economy-related terms such as "remanufactured," "recycled," or "refurbished," 18 These figures suggest that less than 6% of tenders above the EU thresholds over the course of the past ten years have included circular economy considerations. These figures do not include contract notices published on national or regional public procurement portals. The number of public contracts that would qualify as circular public procurement procedures is likely to be significantly lower. Further investigation and more comprehensive analysis would be required to better understand the use of circular public procurement across the European Union and at the local level.

1.4 The role and potential of public procurement in the circular transition

Public procurement plays an important role in the European economy. It can be used to send a signal to the market by stimulating demand for circular goods and services and supporting companies that are scaling their circular operations. Cities as public buyers can use circular public procurement strategically for many purposes, as outlined below.

- **Stimulate demand:** Cities can use their purchasing power to create demand for circular goods and services, encouraging suppliers to innovate and align with a city's sustainability goals.
- **Promote resource efficiency:** Circular procurement prioritises products and services designed for durability, repairability, and recyclability, reducing resource extraction and waste generation.
- **Support innovation:** By embedding circular criteria in tenders and using procurement procedures adapted for smaller companies, municipalities can support startups, small and medium-sized enterprises (SMEs) and social enterprises providing or developing new circular business models or technical solutions.
- Support climate, energy, biodiversity and resilience targets: The procurement of circular products and services can contribute to emission reductions, limit environmental degradation and protect biodiversity. By including requirements in tenders that limit the use of hazardous chemicals, single-use products, and encourage energy and resource efficiency, circular public procurement can support cities' sustainability goals.
- **Deliver long-term value:** Although circular products and services may involve higher upfront costs, they often generate long-term savings through extended product lifespans, lower maintenance costs, increased residual value and reduced waste management expenses.

• Stimulate circular skills: To have more circular goods and services, it is important that the workforce has the skills, know-how and knowledge to develop and provide these solutions. By embedding requirements for past experiences and training clauses in tenders, contracting authorities can encourage companies and workers to develop circular skillsets. This can include the ability to incorporate secondary materials in products or works, provide take-back, repair and maintenance services, or meet circular standards.

However, for procurement to be a true catalyst for circular transformation, cities need to move beyond isolated pilot projects towards systemic adoption of circular criteria across several procurement categories, from infrastructure and goods to services and utilities.

1.5 Cities as circular public procurers

Cities are uniquely positioned to lead the circular transition due to their proximity to residents, local businesses and resource and waste management infrastructure. Furthermore, most public procurement decisions are done at the sub-national level.²⁰ As service providers and asset and infrastructure managers, local governments can influence value chains by embedding circular principles into public contracts. From school catering services to large-scale infrastructure projects, cities can set goals for sustainable consumption and production patterns.

Several European cities have already demonstrated leadership in circular procurement. For instance, the Metropolitan Region of Amsterdam committed in 2020 in its Roadmap Circular Procurement & Commissioning Towards 100% to apply circular principles for at least 50% of their procurement procedures by 2025 and apply circular considerations to 100% of their tenders as soon as possible.²¹ In the context of the EU-funded CityLoops project, the City of Porto developed Circular Procurement Guidelines, including circular criteria to be incorporated into public procurement processes of school meals, catering services, the tourism sector and the maintenance of green spaces.²² In December 2024, Riga's first Circular Economy Hub was inaugurated, where the Riga Energy Agency procured interior design and furbishing services to create the multifunctional space using second-hand and reused furniture, products and materials. The multifunctional space aims to help residents get acquainted with the principles of a circular economy and provides a free workshop where local residents can borrow tools to repair their items.²³

By leveraging circular public procurement, cities can stimulate demand for sustainable goods and services, foster local circular business models, and reduce environmental impacts across multiple sectors. Integrating circular criteria into procurement strategies and procedures allows local governments to prioritise durability, reparability, resource efficiency and waste prevention in purchased goods and services. In the construction sector, cities can require the use of secondary raw materials, pre-used components, modular design principles and deconstruction plans that facilitate reuse. In food procurement, municipal contracts for school catering or public canteens can emphasise locally sourced, organic, and seasonal ingredients while minimising food waste through innovative redistribution schemes. Similarly, ICT and office furniture procurement can promote remanufactured or refurbished equipment, while waste management contracts can incentivise closed-loop solutions such as product-as-a-service models or deposit-return schemes. By embedding circular economy principles into procurement across these sectors, cities can drive systemic change, support green and circular innovation, and accelerate the transition towards a more sustainable and circular urban economy.



2 Challenges and ways to mitigate these

Many cities face challenges with the use of circular public procurement due to limited internal capacity, lack of understanding of the circular economy, perceived risks around competition and limited market readiness. To overcome these barriers, local authorities can adopt a variety of approaches such as market engagement, joint procurement agreements, and professional development programmes for procurement teams. By collaborating with regional and national policymakers and aligning with EU frameworks, cities can create a supportive ecosystem where circular procurement becomes standard practice.

This chapter outlines some of the common challenges local governments experience and presents solutions that some procuring authorities have used to address these challenges.

2.1 Competition effects of circular innovation and procurement

Local governments frequently encounter challenges when considering the impact of circular public procurement on market competition. A key concern is the limitation of the competition and the risk of single bidding, as embedding circular economy requirements in tenders can be perceived as restrictive, limiting the pool of qualified bidders. Often, a limited number of companies have the capacity to meet circular criteria. This is exacerbated by the fact that across the European Union as a whole, the European Court of Auditor's special report on public procurement also points to the fact that strategic public procurement (environmental, social and innovative) aspects are rarely considered in public tenders.²⁴

Striking a balance between ambitious circular objectives and ensuring fair market access can be complex, and overly stringent criteria may inadvertently favour larger or more specialised companies or lead to single bidding. To mitigate these risks, local governments can adopt strategies such as early market engagement, capacity-building initiatives and a phased introduction of circular requirements, ensuring procurement remains both competitive and supportive of sustainable practices. Below are some recommendations for how cities can address challenges related to competition.

- Communicate the city's circular economy ambitions: Communicating the city's circular economy and circular procurement strategy upfront, explaining expectations, and making businesses and SMEs aware of upcoming opportunities will encourage more potential suppliers to participate in procedures. It can also be useful to draft a circular procurement roadmap and communicate to suppliers how circular requirements will be introduced in upcoming tenders. For instance, the Metropolitan Region of Amsterdam's Roadmap Circular Procurement & Commissioning Towards 100% outlines how their circular ambitions will evolve over time and how this will impact tender requirements and criteria. Providing a mid to long-term view of how a city's public procurement strategy will evolve can help companies prepare and progressively adopt circular economy practices and business models.
- Conduct market research: Conducting market research helps to identify the circular solutions available on the market as well as the feasibility of circular projects and solutions. Insights gathered from market research can also help inform requirements and criteria used in procurement documents. For instance, when Niort City Hall decided in 2022 to refurbish the obsolete furniture of 350 of its workstations, they conducted a market consultation to assess the feasibility of each step of the project and assess whether potential suppliers could undertake the required logistical operations. The market research confirmed that there were enough potential bidders to ensure fair competition and meet the circular and sustainability requirements of the city.²⁶
- Conduct preliminary market dialogues: Preliminary market dialogues help to identify available circular solutions and the criteria and requirements that companies can meet. It can also help to grasp the challenges that companies face. For instance, in 2022, Region Halland in Sweden aimed to procure reused furniture and initiated a structured preliminary market consultation to understand the market's capacity and readiness. This engagement fostered broader supplier engagement, clarified requirements and reduced administrative burdens. The experience underscored the importance of early market engagement in aligning procurement objectives with market capabilities.²⁷ Engaging existing suppliers to discuss possible sustainable and circular solutions can help inform public procurement procedures and increase the chances of more companies bidding. Preliminary market dialogues can be used on an ongoing basis as more complex procurement procedures or needs arise. The Sustainable Public Procurement (SPP) Regions' Market Engagement Best Practice Report²⁸ and the Make ICT Fair guide on How to engage the market²⁹ provide guidance and examples of best practices on how to engage suppliers.

• Develop a platform or catalogue of circular suppliers: Developing a platform, catalogue, or supplier list of companies that meet circular standards or certifications can help public procurers identify sustainable alternatives. For example, the Municipality of Haarlem in the Netherlands launched its Innovation Platform (Kennemer Inkoop Platform) in 2020. This online platform provides an overview of social entrepreneurs, sustainable companies and innovators in the Region of Haarlem. This platform helps public authorities and other organisations to make sustainable, circular, socially responsible and innovative procurement decisions.³⁰

Similarly, Catalonia Trade & Investment has developed an <u>interactive catalogue showcasing the 100 most innovative circular economy practices</u> in the region.³¹ Such a catalogue of existing solutions can help public procurers identify sustainable alternatives. Using insights gathered through supplier surveys, market research to support the development of such a platform or catalogue of circular suppliers can help public buyers invite relevant companies to bid for tenders, thereby ensuring fair competition.

2.2 Balancing short-term costs vs long-term benefits

Local governments often face a dilemma between balancing the short-term costs of procurement procedures and the long-term benefits of circularity. Circular solutions, such as products or services designed to extend lifespans or circular buildings, may involve higher upfront costs compared to conventional alternatives. This can be a barrier, particularly for municipalities operating under constrained budgets or that are encouraged to use the lowest price criterion, where immediate cost savings are prioritised. Yet, circular solutions can provide cost savings over the long term as products, infrastructure and buildings are maintained, repaired and refurbished, preventing the need to buy new and recovering value at end of use. Furthermore, they can bring indirect savings through broader social and environmental benefits such as resource efficiency, reduction in waste generation and carbon footprint reduction.

To overcome budgetary constraints and short-term financial horizons, local governments can explore strategies such as whole-life costing models, which account for the total cost of ownership and ensure more informed and sustainable long-term decision-making processes. Cities can achieve this through the following approaches:

- Assess needs and procure what is needed: When procuring circularly, it is important to first understand what is needed. It is also necessary to consider whether the purchase is necessary in the first place.³² By assessing the needs of the municipality, endusers and residents, alongside understanding what needs should be fulfilled, public procurers can make better procurement decisions. For instance, the <u>City of Bremen</u> Senate Department for Environment contracted an external consultant to conduct a needs assessment of the mobility demands of the city's municipal fleet. This assessment aimed to optimise the use of 11 municipal vehicles. As a result of this assessment, the department decided to switch to a local car-sharing service with an online booking system. Instead of owning the cars, employees gained access to a more flexible and efficient fleet of vehicles, including electric vehicles. This model helped the city save on servicing and parking costs.³³ By reassessing their mobility needs and considering a service instead of procuring a product, Bremen and other cities that have opted for a mobility-as-a-service (MaaS) model have procured a solution that better fulfilled their staff needs and in turn led to cost savings.
- Consider life-cycle costing: Life-cycle costing (LCC) can help municipalities achieve cost savings by considering the total cost of a product or service over its entire lifespan rather than just the initial purchase price. By integrating durability, reparability, energy efficiency, and end-of-life value into procurement decisions, municipalities can reduce long-term expenses associated with maintenance, energy consumption and waste disposal. When the Supreme Audit Office (SAO) of the Czech Republic undertook the construction of its first permanent headquarters in Prague, it aimed to achieve a net-zero energy building with the lowest life-cycle costs and longest service life. The project conducted an LCC study to ensure sustainability and cost efficiency. This tool helped to minimise long-term financial and environmental costs by assessing not only the initial construction expenses but also the operational, maintenance and energy consumption costs over 30 years. 34



2.3 Resistance to change and lack of political will

Resistance to change and a lack of political will can impede the adoption of circular public procurement practices. Established procurement practices, which often prioritise the lowest price criterion, can cause institutional inertia, making the adoption of circular principles seem complex or burdensome. Misconceptions about increased costs, concerns over limited supplier readiness or a lack of familiarity with the principles of a circular economy can impede adoption. Additionally, sustainability and circular economy goals can sometimes be perceived as secondary to more immediate political priorities. Overcoming these challenges requires strong leadership, clear communication of the benefits, and the demonstration of successful case studies that highlight the economic, social and environmental benefits. Building cross-departmental collaboration and providing capacity-building initiatives for procurement teams can also help shift mindsets and encourage a culture of innovation, ensuring greater buy-in for circular public procurement practices. Different approaches to consider in countering resistance to change are outlined below.

- Learn from other cities: There are a number of cities across Europe that have piloted a circular approach to public procurement.
 Exchanging with other cities, learning from their experiences, and finding ways to replicate good practices can support the adoption of circular procurement. There are many resources and platforms such as the <u>EU Green Public Procurement (GPP)</u> <u>Helpdesk</u>, the <u>Public Buyers Community</u>, the <u>Sustainable Procurement Platform</u>, the <u>PROCURA+ Network</u>, the <u>Circular Procurement Learning Network</u> LinkedIn group, among others, that showcase case studies and help public procurement professionals connect with each other.
- **Promote cross-departmental collaboration:** Forming a cross-departmental circular economy working group can support the exchange of best practices and guidelines and foster the uptake of sustainability practice. The <u>municipality of Høje-Taastrup</u> (Denmark), for example, established an internal sustainability group to exchange across departments information and knowledge on the different sustainability projects that the city has implemented. One colleague from every municipal department attended the meetings, and the group helped the departments work together in a more interdisciplinary way. This exchange of knowledge between circular economy and sustainability experts and public procurement professionals can support the integration of circular economy requirements in public procurement procedures.
- Align the city's public procurement strategy with its circular ambitions: Most European cities have a climate, sustainability, decarbonisation, energy or circular economy strategy. Public procurement is a strategic tool that can support a city's ambitions. By aligning the city's public procurement strategy with its existing circular economy or other relevant strategies can ensure that the goods, works and services it procures support its ambitions. The Circular Cities Declaration Report 2024 profiled 54 European towns and cities and found that the majority (78%) had circular economy strategies in place, either explicitly designed for a circular transition or embedded within other strategies, such as climate action plans. Having a mandate for a circular economy can give public procurers the support they need. Alternatively, a city can develop a circular strategy. From instance, Bodø Municipality developed a circular procurement strategy, in the context of the EU-funded CityLoops project. Qualitative and quantitative data gathered from accountancy, workshops, interviews, three master theses and tender assessments helped the municipality to identify gaps in their procurement strategy and develop a new one. He is a strategic tool that can support a city's ambitions.



2.4 Involving and connecting full value chains

To achieve a circular economy at scale, it is important to engage all the stakeholders from the design to the end-of-use phase of a product or building. Products should be designed to be durable, repairable and reused multiple times, and then their materials and components should be reused or recycled. Yet, procurement processes often focus narrowly on the purchase phase and the performance of the supplier. For some product categories, such as textiles or ICT equipment, value chains are complex and span several countries. It is often difficult for a public authority to engage the first or second tier suppliers and ensure compliance.

The <u>International Working Group on Ethics in Public Procurement</u> brought together leading European public buyers of IT, including city governments, to exchange and discuss actions to promote the ethical procurement of IT equipment.³⁸ There are several measures relevant for circular public procurement that cities can take to increase transparency across value chains, as outlined below.

- Engage in market dialogue to understand the supply chain: Collaborating with potential bidders ahead of a procurement procedure can help cities state their expectations regarding durability, reparability, and resource efficiency transparently. This engagement allows buyers to gain insights into complex supply chains, particularly in sectors like ICT and textiles, where suppliers operate across multiple countries. This dialogue can help understand whether and to what extent Tier 1 suppliers can engage their suppliers and ensure compliance with circular requirements at the various stages of production. For instance, by preventing the use of composite materials or blended textiles in the production processes, the goods procured by local governments can be more easily recycled at the end-of-use phase. The municipality of Stavanger in Norway procured Chromebooks to be used in schools. The procurement focused heavily on ethical and social responsibility and sustainability criteria, with quality criteria weighted at 60% and price at 40%. The municipality engaged with suppliers in market dialogues to discuss technical, environmental and responsible supply chain requirements. The winning bidder committed to ethical supply chain management by conducting risk assessments, auditing its supply chain partners, and improving transparency at various production stages. While this contract focused on ethical considerations in global value chains, such an approach can be used to promote circular practices among suppliers along the production line.³⁹ The European Commission's GPP training toolkit module 6 on market engagement provides guidance on how to brief potential suppliers on sustainability requirements.⁴⁰
- Engage in joint procurement: Joint procurement is a process where multiple public authorities collaborate to purchase goods
 or services together, leveraging collective buying power to achieve better pricing, efficiency, and sustainability outcomes.
 Furthermore, participating in joint procurement procedures or engaging in networks of cities or procurement professionals can
 help cities to collectively send a signal to the market. The <u>iProcureNet Joint Cross-Border Public Procurement and Innovation
 Toolbox</u> provides a step-by-step guide on the legal, practical and financial aspects of joint and cross-border public procurement.⁴¹
- Conduct due diligence: Cities can use risk assessments to identify environmental risks in the supply chain. By working with third-party auditors, cities can verify compliance. These due diligence mechanisms can help to trace the source of materials and require that suppliers to report on this. The German federal government passed in 2021 the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz (LkSG)).⁴² This Act aims to protect human rights and manage material environmental risks across supply chains. It requires companies of more than 1 000 employees registered in Germany to protect human rights and manage material environmental risks across supply chains. Local governments in Germany can use the Act's requirements as a framework for ensuring transparency and sustainability in supply chains.
- Use certifications and digital tracking mechanisms: Cities can require sustainability certifications or Ecolabels in procurement contracts. Environmental management systems (such as ISO 14001)⁴³ and Environmental Product Declarations (EPDs) can also be used to verify suppliers' environmental practices and the life-cycle impacts of products. Blockchain or digital material passports can be introduced to track resources and components across the supply chain to track circular performance. Supplier ESG risk mapping tools can also be leveraged. As part of its Circular Strategy, Amsterdam aims to halve the use of new raw materials by 2030 and become fully circular by 2050. To achieve this, the city partnered with Circularise, a Dutch software company, to implement digital product passports in its procurement processes. These passports enable end-to-end traceability of materials, enabling the city to monitor environmental impacts, such as CO₂ emissions, throughout the supply chain. This approach ensures transparency without compromising sensitive supplier data.⁴⁴

- Encourage supplier transparency and accountability: Cities can require suppliers to provide information about the recycled materials used in products, as well as repairability scores. Contracting authorities can require factory-level monitoring and audits and require the full disclosure of supply chain partners. The City of Ghent developed a toolbox for the public procurement of workwear. This toolbox aims to support local, regional and national governments to use their purchasing power in the textile sector to foster transparency and sustainability in the value chain. The Association of Flemish Cities and Towns (VVSG), a learning network and the City of Ghent collaborated to promote fairer and more transparent raw materials and workwear production chains, including in non-EU countries. The toolbox recommends including corporate social responsibility (CSR) aspects in public contracts to promote the use of recycled and renewable materials. Furthermore, the use of certificates, labels, management systems and audits related to the product or the social and environmental impact of the production in the value chain can be leveraged to increase supplier accountability.
- Address transparency in the end-of-use stage: Cities can ensure that waste management and recycling supply chains comply with ethical labour and environmental standards. By engaging stakeholders involved in the end-of-life management of products and materials, cities can promote reuse, refurbishment and closed-loop recycling. Contracting authorities can require that suppliers take responsibility for post-use product collection and provide transparent reporting on material recovery rates. The City of Helsinki has developed a set of instructions, checklists and template documents to be used for all public demolition and refurbishment contracts to ensure environmental quality and occupational safety for the different phases of demolition projects, including procurement of expert services and procurement of demolition contractors. The city requires that a minimum of 70% of the waste generated on site should be recycled or reused as a material.⁴⁶

2.5 Public procurement capacity building

Local governments often face challenges with building circular public procurement capacity. Procurement professionals may lack the necessary expertise in circular economy principles as traditional training programmes often focus on compliance, cost efficiency, and risk management, with limited emphasis on sustainability. This knowledge gap can result in uncertainty about how to integrate circular criteria into tenders effectively or assess the long-term benefits of circular solutions. Furthermore, procurement is not always a fully formalised profession across all municipalities, leading to inconsistencies in skills and approaches. Limited access to tailored training resources, mentorship and peer learning opportunities further exacerbates these challenges. To overcome these barriers, local governments can invest in continuous professional development programmes, establish knowledge-sharing platforms, engage with and learn from more experienced cities and collaborate with expert organisations to develop standardised guidance and tools. Strengthening the procurement staff's understanding of circularity can empower municipalities to implement more effective and sustainable procurement practices.

Provide circular procurement training to staff: Providing training to staff on the circular economy, circular public procurement and relevant sectoral knowledge can help build capacity and promote the adoption of circular procurement practices. This training can be done in-house, by leveraging the knowledge and competencies of sustainability staff in various departments through train-the-trainer or mentoring programmes. Furthermore, training can draw on existing resources, guidelines, and training programmes such as: the <u>Green Public Procurement Toolkit</u> of the European Commission,⁴⁷ the <u>Circular Public Procurement Training</u>, <u>Masterclass for Champions</u> developed by the Dutch Ministry of Infrastructure and Water Management,⁴⁸ and the <u>Circular public procurement</u>: a framework for cities guide by the Ellen MacArthur Foundation⁴⁹ among others.



- **Promote multidisciplinary collaboration:** Public procurers may benefit from the expertise of circular economy, sustainability and sectorial experts. Encouraging collaboration between experts from across departments and public procurement officers will help to tackle the technical aspects and ensure the development of appropriate criteria and requirements. These exchanges can be ad-hoc to support the development of a tender, or as part of a working group composed of staff from across departments in the municipality. In the context of the EU-funded <u>Circular PP project</u>, the City of Malmö piloted a circular approach to the tender of non-new furniture with the aim of reusing the existing furniture in the municipality. To conduct this pilot, the procurement officer in charge of developing the tender and the project manager from the Environmental department formed the "Circular PP team". The procurement officer involved public procurement expertise and expressed interest in learning about the circular economy. Providing training to staff on the circular economy, circular public procurement and relevant sectoral aspects can also help to raise awareness and build internal capacity. In <u>Vienna</u>, a Municipal Coordinator for circular economy in the construction industry was appointed. This person was responsible for coordinating and leading the development of a circular economy strategy for buildings and infrastructure in cooperation with other municipal departments, companies, and other stakeholders. This type of multidisciplinary cooperation across departments can help adopt a circular approach to public procurement across different sectors and product categories.
- Create a circular procurement criteria database and templates: Having a database, or guidelines of relevant circular requirements and criteria, can help employees be aware of and choose relevant circular criteria in their procurement procedures. Examples from this guide, other existing <u>case studies</u> and reports can support the development of a criteria database. The <u>EU GPP Criteria</u> list environmental and circular criteria across several product categories⁵² The Dutch Government developed the <u>MVI criteria</u> tool which collects the most recent sustainable public procurement criteria. The tool lists selection criteria, technical specifications, award criteria and contract performance clauses, classified by ambition levels.⁵³ In the context of the EU-funded <u>CityLoops project</u>, the City of Porto developed <u>Circular Procurement Guidelines</u>, including circular criteria to be incorporated into public procurement processes of school meals, catering services, the tourism sector, and the maintenance of green spaces.⁵⁴ Cities can also develop standard tender documents for different product categories that include a list of relevant circular criteria, thereby helping procurement staff to include circular criteria by default.
- Promote the professionalisation of public procurers: One common challenge seen across Europe, at different levels of governance, is the lack of professionalisation of procurement professionals. Procurement is often not perceived as a career path and many contracting authorities across Europe experience high workloads and turnover of staff. To procure goods and services circularly, staff need to be equipped with the knowledge, skills and capacity to conduct circular procurement procedures. Professionalising public buyers can help in the long term to address these challenges. Several initiatives across Europe are supporting the professionalisation of public procurers such as the European competency framework for public procurement professionals ProcurCompEU,55 the European Commission's recommendations on professionalisation of public procurement.56 and the OECD's Methodology for Assessing Procurement Systems (MAPS) supplementary module on professionalisation.57 Several countries such as Malta, Estonia and Portugal have developed training programmes and qualifications to support the professionalisation of public procurement professionals at the national level. While professionalisation processes and the development of the underlying qualifications schemes tend to be a national level competence, these programmes can support public buyers in municipalities. Such initiatives require coordination with public authorities at the national level and with competence centres.



3 Circular public procurement in practice

Circular public procurement is still nascent across Europe, as most cities still procure works, goods, and services using conventional procurement approaches. In some countries, such as the Netherlands, France and Sweden, many cities are showing leadership in the field and using a circular approach to public procurement across various sectors and product categories. This section highlights examples from across Europe of local and regional governments that have used a circular approach to the procurement of goods, services, construction and infrastructure works. Each section highlights examples of circular criteria and requirements that have been used in tender documentation. The examples and resources mentioned in this guide are not exhaustive. Some examples refer to contracting authorities which are not city governments, such as hospitals, universities, and regional and national governments. These examples have been included because they can be replicated at a city level and highlight some of the best practices in the field of circular public procurement.

The guidance below is complemented by a detailed list in <u>Annex 1</u> of circular criteria that contracting authorities can embed in procurement documents for works, goods and services.⁴⁶

3.1 Circular procurement of works

The built environment is responsible for 40% of global CO₂ emissions and more than 30% of the European carbon footprint. It is also one of the highest consumers of raw materials, accounting for about 63% of total material consumption globally. Adopting a circular approach in the construction sector can help to reduce resource consumption and the negative environmental impact of the built environment by taking a different approach to design, use, reuse and material choices.

By embedding circular considerations in procurement processes, public authorities can procure construction, renovation, and selective demolition works that support circularity in the built environment. Tenders for such works can include requirements for modular or cradle-to-cradle design, the use of pre-used components and secondary raw materials in buildings, or pre-demolition audits to identify components and materials fit for reuse or recycling.

Several cities across the European Union have integrated circularity into their construction projects. The following points outline examples of measures and requirements that city governments have included in their tender processes.

- Map abandoned or unoccupied buildings across the city: Developing a map of abandoned or under-used buildings or sites can help local authorities predict possible future construction or renovation projects. This can help with urban planning, identify possible sources of secondary raw materials, and plan circular interventions ahead of time. The City of Brussels developed a webbased GIS database to map abandoned buildings, 59 while the Czech City of Brno has mapped its brownfield sites. 60 This mapping and planning can inform upcoming tenders for construction services and works.
- Engage contractors: Market engagement and preliminary market dialogues are key to ensuring the success of a project. Consulting contractors ahead of a procurement procedure can help contracting authorities understand what circular solutions contractors are able to provide and which standards or criteria they can meet. The City of Brno, Czech Republic, has conducted three rounds of preliminary market consultations for its RE:Špitálka project. The project aims to redesign and build a smart city district based on the principles of redesign, rebuild, reuse, resource, resilience, responsibility and responsiveness. The consultations helped the public authority assess the project's feasibility and engage companies and stakeholders ahead of the procurement procedure.⁶¹
- Procure pre-demolition audits and services: When buildings cannot be renovated or retrofitted, they can be selectively demolished and deconstructed. Pre-demolition audits help to identify building components and materials with reuse or recycling potential for other projects. City governments can hire professionals to conduct these audits. For instance, four cities Bodø (Norway), Mikkeli (Finland), Roskilde and Høje-Taastrup (Denmark) have used pre-demolition inventories and material audits in their CityLoops demonstration projects.⁶² Moreover, when the Rázsochy Faculty Hospital in Bratislava's Lamač district was demolished, the contracting authority required that the building materials be recycled. The award criteria gave points for the percentage of materials that could be recycled and reused, and the contract performance clauses required the use of the ISO EN 9001:2009 standard in demolition and earthworks and construction debris recycling (or equivalent). As a result, the winning bidder offered to recover 100% of the construction and demolition waste. A total of 150 000 tonnes of concrete recycled materials and 6 000 tonnes of metal scrap were reused. To conduct these works, contracting authorities can require that bidders

demonstrate proficiency with 3D visualisation tools, life-cycle analysis (LCA) and LCC, material passports, building information models (BIM) and online material marketplaces.⁶³ Asking for proof of experience with delivering similar services, certifications or competencies with these tools can help ensure that the contractor has the know-how to identify and reuse secondary components and materials in construction projects. Relevant criteria on pre-demolition audits are presented in Annex 1.

Include training clauses in tenders: To increase the number of circular buildings and infrastructure projects, it is important that the construction workforce is equipped with the skills, knowledge and know-how to deliver a circular construction project. A city can ask bidders to demonstrate proof of experience with delivering a circular construction project. If it is unlikely that many companies can meet the circular requirements of a project, city governments can consider requiring training programmes in the form of contract performance clauses. Cities can stimulate demand for circular construction skills and support the upskilling and reskilling of the workforce by including training requirements in tenders. When the winning contractor is awarded a contract, these clauses ensure that they commit to training their staff during the project implementation on circular construction. For instance, <u>Dublin City Council</u> piloted a passive house project in St Bricin's Park. To achieve the EnerPhit standard, the contracting authority required that the contractor complete a Passive House Tradesperson's training course. The winning contractor's construction team undertook a bespoke Passive House Tradesperson's Course, along with members of Dublin City Council's design and maintenance staff.⁶⁴ The City of Gabrovo in Bulgaria used training clauses in the contract for the renovation and transformation of its Summer Theatre Complex into a multifunctional youth centre. The workers involved in the project had to participate in a theoretical and practical training programme provided by the Center for Energy Efficiency - EnEffect, an organisation specialised in energy efficiency. To support the winning contractor with the upskilling of their workers, the municipality of Gabrovo covered the costs of these training sessions.⁶⁵ The City of Paris developed a "Circular building pathways" training programme aimed at developing material reuse, and construction waste management skills among construction professionals.66 The City of Brussels, through its Be Circular initiative,67 provided skills development programmes with various circular construction training modules. It also launched a programme to train and guide Brussels companies towards circular construction, called **Build Circular.Brussels**.68

Resources

• Stimulating demand for circular construction skills - a guide for public authorities - BUS-GoCircular

The EU-funded <u>BUS-GoCircular</u> project aimed to address and overcome the challenges inherent in stimulating demand for and ensuring the availability of a workforce with circular construction skills.

Using good practices and replicable examples from Europe and beyond, the guide on stimulating demand for circular construction skills for public authorities aims to raise awareness among practitioners and policymakers about their ability to promote a more circular construction sector and upskill professionals. It also highlights the various policy levers, such as public procurement, available to local and regional governments and public administrations to support this transition. The project also developed training material for public procurers to help public procurers and policymakers better understand how they can stimulate demand for circular construction and related skills through public procurement.⁶⁹



- Require circular buildings by design: If a new building or infrastructure needs to be built from scratch, there are several ways that contracting authorities can ensure circularity by design. Circular design of buildings includes a range of techniques and designs. Modularity and multifunctional design can help to extend the lifespan of a building by ensuring that it can be adapted to suit changing needs. These design requirements can be specified in the technical specifications of tender documentations. When the City of Brummen procured the extension of its city hall, the winning proposal offered a 20-year service contract for a modular extension that could also pilot "building as material banks" practices. The extension was designed for disassembly and reuse, and made use of high-quality, renewable, and prefabricated components. It also ensures responsibility for materials remaining with suppliers, enabling take-back and reuse mechanisms at the end of the contract. At the end of the contract, building components can be returned to their suppliers for repair and reuse.
- Contracting modalities to support circular design: The choice of procurement modalities can significantly influence the ability to deliver on circular objectives. For example, traditional design-bid-build approaches may limit circular outcomes if circularity is not fully integrated into the design brief. In contrast, design and build or integrated project delivery models can foster closer collaboration between designers and contractors from the outset, enabling circular principles, such as modularity, reuse, or material traceability, to be embedded throughout the project lifecycle. Public-private partnerships (PPPs) or long-term performance-based contracts (such as design-build-maintain or design-build-operate) can also align incentives for durability, maintainability and end-of-life reuse. The Götafors School in Sweden has been awarded the BREEAM in-use outstanding certification for the construction of a modular, energy-efficient and environmentally-friendly school. The school was built and is owned by Parmaco, a Finnish construction company, which leases the premises to Vaggeryd Municipality. The municipality was actively involved throughout the construction process, contributing to decisions on the school's location, transport links, green spaces, design, and colour scheme.
- Procure maintenance, retrofitting and refurbishing works: The most circular buildings are those that are not demolished.
 Repair, maintenance, retrofitting, refurbishing and, if needed, repurposing works help to extend a building's lifespan. When the City of Paris renovated Les Canaux, a building hosting social and solidarity companies, it aimed at incorporating 100% reused materials, bio-geo-sourced and/or containing 15% recycled material. This renovation project involved over 40 local companies to handle and transform the different materials, which comprised metal structures, floors, sanitary fittings, interior elements, etc.⁷³
- Use circular certifications for construction: There are several building certifications such as Cradle to Cradle Certified®, 74 EPD, 75 LEED, 76 or BREEAM, 77 that can help ensure the circularity of a building. Public procurers can embed requirements for these certifications, or equivalent ones, in the technical specifications to ensure that the materials and building design meet a certain standard. Consultations with sectoral experts can help contracting authorities decide which certifications can ensure that the building or infrastructure project will meet the desired sustainability objectives. The City of Venlo required that their new city hall be cradle-to-cradle (C2C) certified. The Cradle to Cradle Certified® Product Standard assesses the safety, circularity and responsibility of materials and products across five categories: material health, product circularity, clean air and climate protection, water and soil stewardship, and social fairness. 78
- Require the use of secondary materials: Reusing materials and building components across construction projects reduces resource use and waste generation. Promoting material circularity also helps to ensure that the embodied energy used to produce construction materials is preserved thereby reducing the carbon footprint. Contracting authorities can require that a certain percentage of materials used are recycled materials. When the French municipality of Quimper decided to renovate its railway station, it aimed to reuse on-site as much of the materials as possible and, use recovered materials from other sites. The tender specified which elements of the site were to be reused but allowed flexibility regarding the non-essential characteristics of the materials. Palto University is developing a pioneering warehouse concept, Closing Loops, for the City of Helsinki, using only recycled materials, except for its foundations. Initially designed by Aalto students in a competition, the project has grown into a collaborative research initiative involving the university, the City of Helsinki, and industry stakeholders. The warehouse, to be built in Mustikkamaa in 2025, will serve as a functional space for city sports facilities while also testing the long-term durability of recycled materials. By integrating materials from historic Helsinki buildings, Closing Loops not only lowers carbon emissions but also redefines sustainable architecture, proving that recovered materials can create both practical and aesthetically valuable structures. Relevant criteria on the use of circular materials in buildings are presented in Annex 1.



Examples of circular buildings procurement

Case studies

• Circular procurement policy - Amsterdam, Netherlands

The Municipality of Amsterdam has included circular economy criteria in tendering procedures for area developments and individual buildings. Many building projects that applied circular public procurement are influenced by the Amsterdam Circular Strategy 2020-2025, which sets the ambitious target of having all the city's invitations to tender in the built environment circular by 2032. Although some projects started at a small scale, circular principles are now widely applied in many procurement processes.

As one example, the municipality of Amsterdam developed the Roadmap Circular Land Issue. This roadmap was successfully applied in four circular tenders, including the development strategy of the city-port area, and can now be applied in other areas as well.81 Since January 2020, the city has also adopted circular procurement for all

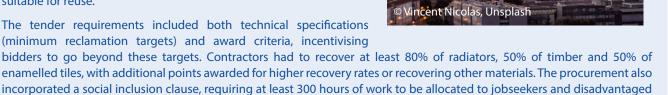


office furnishing. Many new developments in the Zuidas area are now used as pilot projects to implement circular criteria for buildings, such as the use of bio-based materials, and a mandate that at least 30% of these new homes should be social housing.82

• Adopting circular economy principles: setting reclamation targets in a redevelopment tender - Strasbourg, France

For the redevelopment of the Technoparc Nextmed in Strasbourg, public developer SERS (Société d'Aménagement et d'Equipement de la Région de Strasbourg) integrated circular economy principles into procurement by setting ambitious reclamation targets for building materials. In collaboration with Rotor, and in the context of the FCRBE project, an inventory of reusable materials was conducted, followed by market engagement with professional reclamation dealers. These assessments confirmed that a significant proportion of materials, such as cast-iron radiators, structural timber and enamelled tiles were suitable for reuse.

The tender requirements included both technical specifications (minimum reclamation targets) and award criteria, incentivising



The winning contractor, SAS Lingenheld, met all minimum reclamation targets, later exceeding them by securing buyers for additional materials, such as antique floor tiles and timber. In total, 51 tonnes of materials were recovered, preventing waste and reducing emissions associated with new material production. The project demonstrated how early reclamation audits, market engagement and contractual monitoring can embed circularity in public procurement and promote material reuse in the construction sector.83



individuals.

Examples of circular buildings procurement

Case studies

Competitive dialogue for a circular and sustainable bridge -Province of North Holland, the Netherlands

The Province of North Holland adopted a circular procurement approach for the renewal of the Cruquius Bridge, aligning with its sustainability objectives of circularity, energy neutrality, and low maintenance. Using a competitive dialogue procedure, the procurement team engaged extensively with the market. The tender prioritised high-quality material reuse, requiring material passports, and reducing environmental costs throughout the bridge's life cycle (EN15804 standards). To ensure innovation, tenderers were required to demonstrate the development of solutions from Technology Readiness Level (TRL) 7 to 9. The award criteria weighted circularity (55%), collaboration effectiveness (30%), and execution planning (15%), with a particular focus on Environmental Cost Indicators (MKI in Dutch).⁸⁴



Introducing circular economy procurement in road construction - Tampere, Finland

The City of Tampere used a circular approach to the renovation of Yliopistonkatu street, Finland's first circular infrastructure project. Extensive market dialogue informed the procurement process, ensuring alignment with industry capabilities. The criteria prioritised material reuse, waste minimisation and low-emission equipment. Contractors were awarded points based on: (1) the percentage of recycled materials used; (2) the amount of excavated materials reused on-site; and (3) compliance with EU GPP criteria for road construction. The winning bidder Turtolan Kaivin Ltd committed to reusing at least 70% of excavated materials on-site, integrating up to 50% recycled asphalt, thereby reducing reliance on virgin raw materials. The project demonstrated the viability of circularity in road construction works, and the need for clear sustainability criteria to drive industry-wide change.⁸⁵

From trees to streets: using bio-resin in road-marking works -Helsinki, Finland

In 2022, Helsinki's municipal service provider Stara launched a sustainable road marking procurement process to reduce microplastic pollution and promote the use of renewable materials. This three-year contract (2022–2024) required contractors to use bio-resin-based road-marking materials instead of petroleum-based alternatives. Market engagement with suppliers ensured feasibility, confirming that bio-resin could meet durability standards while reducing environmental impact. The procurement awarded contracts based on the most economically advantageous tender (MEAT), with 60% weighting for price and 40% for quality. The quality criteria assessed bio-resin content (up to 30%) and the use of advanced road-marking technology, such as next-generation printer cars that optimise material use and improve application efficiency. Compliance with environmental management systems (ISO 14000, EMAS, or EcoCompass) was a prerequisite.



The winning bid used bio-resin derived from forest industry by-products, reducing microplastic emissions by an estimated 151 tonnes. The tender also encouraged domestic R&D, leading to further product development in Finland's road-marking sector. The initiative demonstrated the feasibility of circular procurement, proving that sustainable alternatives do not necessarily increase costs and can generate positive market-wide effects.⁸⁶

The guidance and examples above are complemented in <u>Annex 1</u> by a detailed list of circular criteria that contracting authorities can embed in procurement documents for works.

3.2 Circular procurement of goods

With examples like furniture for public institutions, IT equipment and uniforms for healthcare workers, there is a wide range of products that cities procure. Such procurement of goods has an impact on a city's consumption-related emissions, with 80% of a product's environmental impact influenced by decisions made at the design stage.^{87 88} By procuring circular products and extending their use phase, municipalities can reduce their consumption-based emissions.

Public procurers in municipalities can use a range of circular strategies for goods such as buying long-life, repairable or refurbished products, using take-back schemes, or procuring goods made of recycled materials. Through *circular supply chains*, companies design products with recycled or renewable materials and ensure that products can be repaired and materials can be recovered at the end-of-use stage for reuse. *Industrial symbiosis* can be leveraged as a model where the waste from one company is reused as a resource in the production operations of another company. While each product category has its specificities, some general circular economy principles can be applied to the procurement of most products. The following points outline examples of measures, and requirements that city governments have included in their tender processes.

- Consider whether buying a new product is necessary: Before considering the purchase of new products, municipalities can first consider how they can make the most of the products they already have. By making an inventory of products such as furniture or IT equipment that different departments have, municipalities can extend the lifespan of their stock of products. For instance, when offices at various Flemish government authorities were redesigned and shrank, there was a large amount of unwanted furniture. To facilitate reuse of the furniture, the Flemish Government's Facility Services Agency drew up an inventory of all the surplus office furniture from the various departments to be reused across offices. The agency conducted two framework contracts: one to refurbish the existing furniture for reuse, and the second for the collection and reuse of unwanted furniture.⁸⁹
- **Procure refurbished or remanufactured products:** Procuring refurbished or remanufactured products can provide cities with cost savings, lower their environmental impact, help to extend product lifespans and minimise landfill disposal. To ensure that bidders can supply enough products of the required quality, public procurers can ask for proof of past experience of providing such products and the quality control procedures applied to ensure minimum quality of the remanufactured or refurbished equipment. Niort City Hall decided in 2022 to replace the obsolete furniture of 350 of its workstations. They decided to refurbish the furniture and upgrade it to new ergonomic standards, using its existing furniture as a material bank in a closed loop. Furthermore, to comply with the French Anti-Waste and Circular Economy Law, the suppliers had to take back old furniture waste through the VALDELIA EPR scheme for furniture and to make these secondary materials available via a material bank. Similarly, the Office of Government Procurement of Ireland has established a national framework contract for remanufactured notebook computers. Relevant procurement criteria on remanufactured products are presented in Annex 1.







Illustration of how old furniture can be converted to meet new ergonomic requirements.

- Require the use of secondary materials in products: A circular economy prevents waste by design. By requiring suppliers to use recycled materials in products they supply, public buyers can help to close the loop. Public buyers can require that a minimum percentage of recycled, or reused materials be used, or give points in the award criteria based on the percentage or volume of recycled materials included in a product. The City of Malmö, when procuring furniture that met universal design standards, required that 50% of materials be recycled, that furniture be free from hazardous chemicals, and that suppliers provide repair, repainting, and component replacement services to extend product lifespan, as further detailed in the example box below. Malmö has also used a circular approach to the procurement of road and navigation signs used in public buildings and on streets. The municipality aimed to reuse these signs as much as possible, with recycling considered as the last resort option. For each square metre of reused aluminium, 56 kilos of CO₂ are saved. The tenders had to demonstrate experience with storing products for customers and reusing old products, and access to optimal recycling processes for different materials such as plastics, aluminium, glass and electronics. Hence the General Petronics of the procured new hospital uniforms for its 4 000 employees, it procured textiles made of rPet, polyester made from recycled PET bottles, and Lyocell, a fabric made from wood pulp in an environmentally-friendly production process.
- Eliminate the purchase of single-use products: Cities can reduce demand for single-use products that are harmful for the environment and procure more sustainable alternatives. The City of Paris adopted a comprehensive responsible purchasing strategy with circular economy objectives for the 2024 Olympic and Paralympic games. The Paris 2024 organising committee procured an estimated €2.5 billion worth of goods and services or €5 billion including the contracts that SOLIDEO was awarded for the Games. The Games aimed to be free of single-use plastics, and catering services for the Games prioritised returnable packaging and biodegradable cutlery.⁹⁵ The city also adopted a charter of eco-responsible events which promotes the purchase of reusable products and eliminates single-plastics in events organised in the French capital.⁹⁶ This approach has also been applied in the healthcare sector. Skåne Regional Council in Sweden has decided to no longer procure protective disposable aprons and instead source aprons made from renewable, bio-based materials.⁹⁷
- Consider the packaging of products: Often when a product procured by a municipality is delivered, it is packaged. To reduce the environmental impact of the purchase, and eliminate unnecessary packaging, public procurers can include requirements in tender documentation for the packaging of the products. The Italian Region of Lazio invested €12 million to plant and maintain six million new trees and shrubs in the whole region. For the delivery of these plants, the public authority required that the containers and packaging, if made of plastic, must have a minimum recycled content of 30%, be returned to the supplier at the end of use, and be recyclable. If made of other materials, the packaging had to be biodegradable if intended to remain with the plant in the soil, or compostable and sent to a composting process at the end of their life. Paris-Saclay University required that the packaging for the delivery of reusable menstrual protection for students in precarious financial situation, be recyclable. For the menstrual cups, it required that the winning bidder takes back the packaging and ensures that it is recycled. Paris Saclay University required that the menstrual cups, it required that the winning bidder takes back the packaging and ensures that it is recycled. Paris Saclay University required that the winning bidder takes back the packaging and ensures that it is recycled.
- Consider the use of take-back schemes: A product can be procured with a circular take-back scheme where the product is returned to the supplier at the end of the use phase of a product. This clause in public contracts helps to ensure that products are reused or recycled after they are no longer needed by a municipality. The Municipal Institute of Information Technology (IMI) of Barcelona City Council launched in 2019 a contract for the supply, deployment and installation of desktop and laptop equipment. The tender embedded circular and socially responsible criteria, including provisions for the reuse and donation of still functioning ICT devices to local circular and social economy networks, such as eReuse and Pangea. Similarly, the City of Malmö set up a take-back system for ICT hardware, including computers and smartphones, where the municipality receives financial compensation when the products are resold. And the Municipality of Leiden has used a take-back scheme for their office furniture, where the suppliers make the products available for other users.

Resources

• Circular public procurement: a framework for cities - Ellen MacArthur Foundation

The Ellen MacArthur Foundation's framework aims to assist local governments in implementing circular economy procurement for goods and services. This circular public procurement framework can be applied to buildings, furniture, food, packaging and other items.

Since public procurement procedures vary from city to city, this guidance cannot be used as a universal guide. Instead, it offers a broad framework that must be customised to each city's specific circumstances and conditions. The framework includes resources, questions for consideration and examples from other cities that can provide inspiration. The framework includes recommendations for the procurement of circular products.¹⁰³

Examples of circular buildings procurement

Case studies

Promoting accessibility through universal design - Malmö, Sweden

In 2021, the City of Malmö introduced universal design principles into a four-year furniture procurement framework to enhance accessibility and circularity. Covering 12 furniture categories, the framework ensured that municipal furniture, used in schools, offices and public spaces, accommodated people of all abilities while adhering to circular economy principles.

The tender requirements mandated that all furniture comply with at least two of the <u>seven universal design principles</u>, equitable use and flexibility in use, with additional principles encouraged. Suppliers had to demonstrate a systematic commitment to accessibility (SS-EN 17161:2019), providing evidence of responsible staff, integration into design processes, and long-term accessibility goals. The environmental



criteria required that 50% of materials be recycled, that furniture be free from hazardous chemicals, and that suppliers provide repair, repainting, and component replacement services to extend product lifespan.

Despite initial reluctance, 20 suppliers were admitted to the framework. Follow-up enquiries showed that many had integrated accessibility into their standard design processes, while others developed new procedures to meet requirements. To further engage stakeholders, Malmö conducted workshops with disability advocacy organisations and introduced 'variety cards' to guide public buyers in embedding accessibility in future tenders.

This initiative demonstrates how public procurement can drive inclusivity and sustainability, ensuring long-term accessibility improvements in the furniture sector while advancing circular design principles.¹⁰⁴

• Reuse and recycling of government ICT equipment - Norway

In 2023, the Norwegian Central Procurement Body (DFØ) launched a nationwide framework agreement for the reuse and recycling of government ICT equipment, aiming to extend product lifespan, reduce e-waste generation and promote social inclusion. The agreement covers the collection, secure data deletion, refurbishment, resale and material recovery of computers, mobile phones and audiovisual equipment from 155 government entities.

A profit-sharing model was introduced, ensuring that state enterprises received financial reimbursement when their ICT devices were resold. The framework was divided into four regional lots, facilitating local participation and cost efficiency. Environmental requirements included compliance with Norwegian waste regulations, the use of Euro 6/VI vehicles for transport, and traceability of devices throughout the process.



The award criteria weighted quality (70%) and price (30%), prioritising circular economy goals, user-friendly service delivery and profit allocation transparency. Social inclusion was embedded through a requirement that at least 20% of the workforce have reduced functional capacity, a target that was exceeded, reaching 50% in the first quarter.

Results show that 15 000 ICT devices were processed in the initial phase, with laptops achieving a 90% reuse rate and 2 000 tonnes of CO₂ emissions avoided. The contract also generated significant financial returns, with €430 000 reimbursed to public entities in the first year. The initiative was recognised as Sustainable Procurement of the Year at the Procura+ Conference 2024, demonstrating that public procurement can drive circularity, cost savings, and social impact simultaneously.¹⁰⁵

The guidance and examples above are complemented by a detailed list in <u>Annex 1</u> of circular criteria that contracting authorities can embed in procurement documents for goods.

3.3 Circular procurement of services

In a circular economy, companies develop systems and ways of operating that support circularity, and new circular business models emerge.

In product-as-a-service (PaaS) models, instead of selling products such as vehicles, printers or lighting, companies provide municipalities with access to them as a service. Life extension models provide refill, repair or refurbishment services or rental resale that help to extend a product's longevity and reduce resource consumption and waste generation. Sharing economy models such as car-sharing and libraries of things are platforms that facilitate access to goods and services.¹⁰⁶

By procuring circular services such as leasing or sharing platforms, repairs or remanufacturing, local authorities can play a key role in facilitating and supporting the adoption and upscaling of these business models. Furthermore, a municipality can outsource the end-of-use life management of the products procured to ensure that products or materials are reused, refurbished or recycled.

There are a variety of ways that cities can procure circular services, as outlined below.

- Embed circularity in food procurement services: Whether it is for public school canteens, hospitals or catering for events, food procurement is not just the purchase of edible goods, it also includes services. Food services offer a unique opportunity to reduce environmental impact, stimulate local economies and embed circular principles, such as resource efficiency, waste prevention and regenerative food production methods, into everyday public service delivery. The Department of Dordogne in France aims to procure 100% organic, local and homemade school meals. Central to the strategy is the relocalisation of food supply chains, achieved by designing tenders in small, product-specific lots made more accessible to local producers small and medium sized businesses. The project also promotes the procurement of minimally processed, seasonal and raw ingredients, thereby reducing packaging waste and energy use associated with industrial processing. The procurement procedures are supported by digital sourcing platforms (such as Agrilocal), which enhance transparency and match demand with local supply. The initiative also promotes capacity-building through training for kitchen staff and nutrition education for students and aligns with the French ECOCERT En Cuisine certification. By 2022, 20 schools had achieved certification, with several reaching the 100% organic goal.¹⁰⁷ Furthermore, cities can procure dedicated services to support the design of menus that align with circular economy principles. For instance, in Torres Vedras, Portugal, a nutritionist designs healthy food menus for school canteens. The municipality sends out a tender months before the school year starts to ensure that all suppliers and services are in place by the time the school year starts. The municipality works directly with farmers and suppliers to ensure the freshness and quality of the food served in school canteens. 108 109 Food service contracts can also take into consideration the transportation and delivery of meals. The City of Helsinki's Service Center provides food for over 100 000 people every day including schools, daycare centres and nursing homes. In 2018, the city issued a tender that covered all food delivery logistics aspects to reduce waste generation and pollution in line with the city's Carbon Neutral 2035 strategy. The new contracts cut transport emissions (by 22% for carbon monoxide emissions, 67% for nitrogen oxide emissions and up to 92% for particulate emissions) and achieved cost savings of up to 25% compared to previous contracts.¹¹⁰
- Procure a service instead of a product: Cities can shift to service-based models where ownership of products remains with the service provider. In these cases, the service provider retains ownership and responsibility for maintaining, repairing and upgrading equipment, ensuring that products are designed for longevity and reducing the need for frequent replacements. This PaaS approach has been used by local authorities for the provision of mobility services, access to a product, or utilities contracts. A classic example of a PaaS model is Schiphol Airport, where the authority paid for the lighting provided rather than for the lamps and fittings.¹¹¹¹ The City of Porto opted for a mobility-as-a-service (MaaS) procurement model and switched to a 75% electric fleet. This contract helped Porto save €600 000 in fuel per year, and decreased CO₂ emissions by 2 300 tonnes over four years. This MaaS model also helped to better meet the municipal staff's mobility needs which usually needed a car for short journeys across the city.¹¹² The Belgian City of Mechelen implemented a lighting-as-a-service (LaaS) model for multiple public buildings. Instead of purchasing lighting systems, the city procured lighting as a service under a 15-year contract. The winning bidder, Trilux, was responsible for maintaining ownership of the lighting infrastructure, guaranteeing light levels, and providing energy-efficient LED solutions. This initiative resulted in an estimated 50 477 kWh of annual energy savings, reducing CO₂ emissions by nearly ten tonnes per year, with projected savings of about €15 000 annually on energy costs.¹¹¹³
- Extend product lifespan through services: Cities can prolong the use phase of products through rental, maintenance and repair services. For instance, the Danish municipality of Høje-Taastrup procured a rental and maintenance of reused uniforms service. The tender required that as many uniforms as possible be reused, with systematic repairs for minor damage and more information provided in the example box below.

 114 The City of Zurich leases printing equipment rather than buying printers and scanners, only paying per page printed and incentivising better printer performance and energy use.

 115 The Region of Veneto rented 500 multifunctional devices including a hardware and software system for their network management.

- Procure end-of-use stage services: To close the loop, municipalities can ensure that products and materials are treated and recovered at the end-of-use phase. In Ireland, the <u>Irish Prison Service (IPS)</u> conducted a mini tender for the collection and recycling services of 1 200 discarded mattresses from their facilities. The €15 000 contract required bidders to separate and recycle mattress components. The two social enterprises that won the contract diverted 100% of the mattresses and recycled up to 80% of their components, with more details provided in the example box below.¹¹⁷
- Hire workers and experts with circular skills: To have circular outcomes, it is important the service providers have knowledge about the circular economy and related know-how and skills. To ensure that the winning bidder has the necessary competences and skills, public authorities can include in tender documentation requirements for relevant training, degrees, certifications, or experience working on a circular economy-related project. For instance, when the Riga Energy Agency established its first Circular Economy Hub, it hired a team to provide interior design services. The contract required bidders to source or create furniture from secondary materials to furnish the multifunctional space, ensuring that the design was both aesthetic and functional. To ensure the project team had the necessary expertise, the procurement documents included competency and qualification requirements. The project team had to demonstrate that they had experience in circular economy and sustainable design, the competences and ability to develop creative and functional solutions with secondary materials and deliver refurbishing services.

 118 (See more information in the example box below and see relevant skills requirement for services in Annex 1).

Examples of circular services procurement

Case studies

• Designing a circular economy hub - Riga, Latvia

In December 2024, Riga inaugurated its first Circular Economy Hub, transforming an old post office into a multifunctional space for repair workshops, training, and circular innovation. The Riga Energy Agency led the initiative, inspired by the European Climate Initiative (EUKI) CURE+ project, which promotes urban resource centres for reuse, repair, and upcycling. To create this hub, the agency procured circular interior design services.

To embed circularity, the procurement process prioritised second-hand, repurposed, and upcycled materials. In April 2024, interior design students contributed concepts for the hub, later integrated into the procurement tender for interior design and furnishing services. The \in 30 000 contract required bidders to source or create furniture from secondary materials, ensuring that the design was both aesthetic and functional.

To ensure the project team had the necessary expertise, the procurement documents included competency and qualification requirements. They had to have experience in circular economy and sustainable design, as well as the ability to develop creative and functional solutions with secondary materials. The interior designer needed a relevant degree, experience in circular economy and sustainable design, and had to provide examples of three public space projects incorporating circular principles from the last three years. The workshop master was required to have education and experience in carpentry or woodworking, expertise in furniture restoration using secondary materials, and had to present at least seven refurbished or modified furniture pieces from the past three years.





The winning bid by Tandeems Society, a non-profit team of architects and carpenters, delivered a space furnished with reused furniture, a green wall, acoustic panels made from paper waste, and soft furniture crafted from recycled toys. Additionally, the hub provides free access to repair tools, encouraging residents to extend product lifespans and reduce waste.

This initiative highlights how cities can integrate circular procurement into urban development, fostering resource efficiency, waste reduction and skills development. The hub serves as a pilot, offering insights into public repair needs and potentially expanding urban resource centres across Riga.¹¹⁹

• Rental of reused uniforms for elder and home care, dental care, and canteen workers – Høje-Taastrup municipality, Denmark

In 2020, Høje-Taastrup Municipality introduced a circular procurement model for the rental and maintenance of reused uniforms, aligning with its Climate Plan 2030 and goal of achieving net-zero emissions by 2050. The initiative sought to reduce textile waste, lower CO_2 emissions and conserve water, while demonstrating the cost effectiveness of circular solutions.

A negotiated procedure was conducted, including market consultations with sustainable textile suppliers and input from <u>Tekstilrevolutionen</u>, a circular economy think tank. The tender required that as many uniforms as possible be reused, with systematic repairs for minor damage and Nordic Swan or equivalent ecolabel certification for laundering services. 80% of uniforms had to be OEKO-TEX certified, with extra points awarded for additional sustainability certifications (such as GOTS, Fairtrade, EU Ecolabel). A key requirement was the removal of logos, allowing garments to be repurposed beyond their original use.

The six-year contract was awarded to De Forenede Dampvaskerier for €282 000, covering 1 100 t-shirts, 1 100 cardigans, 110 chefs' coats, and 1 210 pairs of trousers. The procurement resulted in €1.6 million in savings, while diverting 3 520 unusable garments to local schools for reuse in textiles education. The estimated water savings totalled 31 million litres, significantly reducing the environmental footprint of municipal uniforms.

This pilot project has gained international attention, with other municipalities considering similar tenders. The negotiated approach enabled innovative sustainability solutions, proving that pre-owned uniforms can maintain quality while reducing costs and environmental impact.¹²⁰

Social and environmental criteria in the Irish Prison Service's mattress recycling initiative – Ireland

In 2021, the Irish Prison Service (IPS) introduced a circular and socially responsible procurement approach for the recycling of 1 200 discarded mattresses annually across its 12 prisons. The initiative aimed to increase recycling and divert waste from landfill, reduce hazardous environmental impacts, and support the employment of former offenders, in alignment with Ireland's 'Working to Change' social enterprise and employment strategy (2021–2023).

The €15 000 contract was awarded through a low-value tender process, evaluated on cost (60%), environmental compliance (20%), and employment of former offenders (20%). The IPS required bidders to separate and recycle mattress components, ensuring compliance with EU GPP criteria. Bidders were awarded points for hiring ex-offenders, with additional points for providing training and career development. The contract was heavily promoted on social media, expanding its reach beyond private businesses to social enterprises.

Two social enterprises, Eco Mattress Recycling (Dublin) and Bounce Back Recycling (Galway), were awarded regional contracts. Their operations achieved 100% diversion of mattresses from landfill, with 80% of materials reintroduced into the circular economy. This initiative directly supported four full-time jobs for ex-offenders, reduced prison reoffending rates, and lowered costs compared to previous waste management contracts. The success of the project has influenced further social and green public procurement strategies within the IPS and demonstrated how even small-scale tenders can drive circularity and social impact.¹²¹

The guidance and examples above are complemented by a detailed list in <u>Annex 1</u> of circular criteria that contracting authorities can embed in procurement documents for services.





Tailoring procurement procedures for circular outcomes

Circular public procurement is not a standalone process; it should be integrated into existing procurement procedures rather than treated as a separate process. To scale its implementation, circular principles must be embedded into current procurement mechanisms. While pilot projects show that incorporating circular considerations may require additional time and stakeholder consultations, contracting authorities do not need to develop new procedures. Instead, they can leverage innovative approaches like pre-commercial procurement and joint procurement to achieve circular outcomes.

4.1 Using pre-commercial procurement processes

Local authorities can leverage pre-commercial procurement (PCP) processes to drive circular economy outcomes by stimulating innovation and supporting the development of circular solutions that are not yet widely available on the market. PCP is a procurement approach that focuses on the research and development (R&D) of innovative goods, services or processes, allowing public authorities to collaborate with suppliers during the early stages of solution development. This mechanism enables cities to address unmet needs in the circular economy by investing in experimental or prototype solutions that promote product longevity, resource efficiency and waste reduction. PCP can play a pivotal role in advancing circularity by encouraging the creation of products and services designed for circularity from the outset. Local authorities can also use PCP strategically to create market demand for circular innovations while simultaneously reducing long-term procurement costs.

PCP falls outside the scope of the EU Public Procurement Directives (2014/24/EU and 2014/25/EU), provided certain conditions are met. Specifically, PCP is limited to the R&D phase before commercialisation where the benefits do not accrue exclusively to the contracting authority and where the services are fully paid for by the contracting authority. This legal framework is outlined in the European Commission's 2007 Communication on PCP (COM(2007) 799), which offers guidance for public buyers on how to procure R&D services in a way that complies with EU law while encouraging innovation.¹²²

Ghent University Hospital used a five-stage process for the procurement of new work uniforms for 4 000 employees. From the outset, the contracting authority wanted to procure sustainably sourced textiles while ensuring the comfort of its workers. A five-stage procurement process was conducted to identify the most durable and ethical materials. The price was only considered at the final stage. To ensure the durability of the textiles, a quality test of 120 wash cycles was conducted on sample textiles. The hospital also asked its employees to test sample clothing and rank them based on how functional and comfortable they were. The procured hospital uniforms were made from Ecogreen© fabric, composed of rPet, polyester made from recycled PET bottles, and Lyocell, a fabric made from wood pulp in an environmentally-friendly production process. The proposed solution saves water and protects soil and oil.¹²³



The <u>CircularPSP project</u> brought together eight cities to invest €5.64 million in R&D to support the acceleration of the transition towards a circular economy.¹²⁴ The funding was offered as part of a multi-stage PCP procedure where interested parties were invited to participate in <u>Open Market Consultation (OMC)</u> events in eight countries.¹²⁵

This approach strengthens the link between public investment and market transformation, helping cities across the European Union to meet both their environmental and economic objectives.

4.2 Leveraging procurement procedures for circular innovations

Certain public procurement procedures can support circular economy outcomes by encouraging the development of novel, sustainable solutions that go beyond conventional market offerings. While the European Union typically refers to "innovation procurement" as PCP and Public Procurement of Innovation (PPI), there are also other procedures, such as innovation partnerships, dynamic purchasing systems and competitive dialogues, which can also support the uptake of circular innovations when applied strategically.¹²⁶

These various procedures are outlined below. Firstly, there are the approaches that fall under the EU definition of innovation procurement:

- PCP: A public procurement approach that focuses on acquiring R&D services to create innovative solutions not yet available in the market. This process unfolds in competitive phases, where multiple suppliers compete in parallel through stages such as solution design, prototype creation, and field testing, allowing for the selection of the best proposals.
- PPI: A procurement procedure where public authorities act as early adopters of innovative goods or services that are not yet available on a large-scale commercial basis.

Secondly, there are the additional procedures that can support the procurement of innovative solutions:

- Innovation partnership: A procedure which allows contracting authorities to establish a partnership with one or more suppliers to develop innovative products, services or works not yet available on the market, and subsequently purchase the resulting outputs.
- Competitive procedure with negotiation: A procedure where contracting authorities negotiate contract terms with selected suppliers after an initial tender, suitable when requirements cannot be met without adaptation of readily available solutions.
- Competitive dialogue: A procedure used when contracting authorities are unable to define the technical means to satisfy their needs or to specify the legal or financial make-up of a project.
- **Dynamic Purchasing System (DPS):** A fully electronic procurement process used for commonly available purchases (such as supplies, services or works) that meet the needs of contracting authorities. It is open to any supplier that meets the selection criteria throughout its duration, allowing new entrants to join at any time.

These procedures enable public authorities to seek market-driven solutions that align with circular principles. For example, innovation partnerships enable public buyers to collaborate with suppliers in the co-creation of circular products or services, from the design phase through to implementation.

DPS for contracts for works, services and goods commonly available on the market can be used to encourage the market to develop circular solutions. For example, the <u>City of Helsinki</u> has 75 artificial pitches in its stadiums and sports facilities. The city replaces five to ten pitches annually, often with non-recyclable materials. To find a sustainable alternative, the city used a DPS, allowing suppliers meeting or exceeding sustainability criteria to join. The system prioritises circular solutions, with environmental criteria weighted at 80% in evaluations. Points are awarded to suppliers that can provide circular alternatives such as recycling plastics into oil or raw materials and reusing rubber granulates and sand, enabling Helsinki to gradually increase its sustainability standards.¹²⁷



Competitive dialogue is a procedure suited for complex projects where the public authority outlines its circular goals but allows suppliers to propose innovative solutions that can be used by local authorities. For instance, the <u>Province of North Holland</u> used a competitive dialogue procedure when procuring the renewal of the Cruquius Bridge. The procedure was divided into three phases. A first dialogue phase to discuss the vision and select suppliers who could deliver on the circular objectives, a second dialogue phase around the assignment, and a financial tender and the final award phase. This dialogue helped establish a common understanding of the circular economy objectives and engage the market.¹²⁸

Furthermore, instead of traditional cost-focused procurement procedures, some cities have introduced performance-based contracts, rewarding suppliers who achieve circular economy goals. For instance, Nantes' Responsible Purchasing Promotion Scheme guides procurement decisions and includes circular economy, energy transition, environment (pollution) and organic food ambitions. The scheme includes social, environmental and economic criteria and encourages companies to promote their overall performance when responding to a public tender.¹²⁹

By using innovation procurement procedures effectively, local authorities can address circular economy challenges where standard market procurement approaches fall short.

4.3 Using joint procurement procedures

By aggregating demand, joint procurement can stimulate the market for circular products and services that might not be economically viable for individual cities acting alone. Joint procurement involves multiple public authorities collaborating in a single procurement process, enabling greater market influence and shared knowledge. This approach encourages suppliers to develop innovative, sustainable solutions while achieving cost efficiencies and reducing administrative burdens. It also allows participating authorities to develop shared sustainability criteria that reflect circular principles.

In the context of the ProCirc project, the <u>City of Malmö</u> invited public and private organisations, as well as the industry, to several workshops and open meetings with the goal to produce a joint statement of demand on sustainable electric vehicle chargers (EVCs). The aim was to develop an understanding of how EVC procurement can become more circular and reduce the risk of increasing environmental impacts being overlooked.¹³⁰

A <u>coalition of European cities</u> is also leveraging procurement to drive circular and fair smartphone production, aiming to improve worker conditions and environmental sustainability across the entire supply chain.¹³¹ By 2025, they commit to harmonised procurement criteria, increased supply chain transparency, longer product lifespans, and expanded second-life and recycling initiatives. Malmö, Oslo, Helsinki and Copenhagen collectively procure thousands of smartphones annually. Together, these cities developed a <u>Joint Statement of Demand</u> which pushes for fair and circular smartphones. This collaborative approach allows suppliers to invest in scaling circular production models, while ensuring more sustainable purchasing across multiple municipalities.¹³²

Joint procurement can also drive circular innovation by allowing participating authorities to develop shared sustainability criteria that reflect circular principles. By adopting joint procurement strategies, local authorities can reduce costs, mitigate procurement risks, and amplify their impact on the circular economy. This collaborative approach not only fosters market transformation towards more sustainable products and services but also ensures consistent and strategic implementation of circular procurement practices across the European Union.



4.4 Using circular procurement for SMEs

The European Union counts 25 million SMEs, which employ around 100 million people (providing two-thirds of private-sector jobs), and represent around 56% of the European Union's gross domestic product. While SMEs represent the vast majority of companies in Europe, or 99% to be exact, they are underrepresented in public procurement procedures.

An analysis by the European Commission of SMEs' participation in public procurement procedures showed that SMEs are increasing their participation in above-threshold public procurement procedures. The share of SMEs winning above-threshold contracts increased from 58% in 2011 to 65% in 2017, after a decline between 2004 and 2010. However, the aggregate value of contracts won by SMEs remains limited. They account for only 33% of the total value of contracts between 2011 and 2017, suggesting that SMEs mainly participate in lower-value contracts.¹³⁴

Cities in Europe can support SME participation in circular public procurement procedures by leveraging the key provisions in EU Procurement Directive 2014/24/EU designed to lower barriers and enhance access to procurement opportunities. The directive includes specific mechanisms that cities can use to encourage sustainable and circular business practices among SMEs while ensuring fair competition.¹³⁵

- Leverage preliminary market dialogues: Pre-procurement activities and engagement processes are often underused by contracting authorities. Cities can use these procedures to target and engage SMEs specifically and encourage smaller companies to bid. The Municipality of Kavala, Greece, actively engaged SMEs in its procurement process for sustainable cleaning products by conducting extensive pre-market consultations and forming working groups that included suppliers, trade associations, and municipal stakeholders. These consultations informed the development of technical specifications that mandated stringent environmental criteria, including zero plastic packaging and the use of recyclable and biodegradable materials. The tender which covered seven categories of cleaning materials was issued in November 2020. SMEs received training on tendering procedures, ensuring transparency and fair competition. Despite initial compliance challenges, the contracts were awarded to four local SMEs over two years, promoting local economic and environmentally-friendly cleaning products. The initiative has since gained national recognition and offers a model for integrating SMEs into green and circular procurement strategies.

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- Use simplified and efficient procurement procedures: To encourage SME participation, cities should ensure that procurement processes are not excessively complex or time-consuming. By streamlining application and evaluation procedures and using prequalification mechanisms to create a pool of SMEs specialised in circular economy services, local authorities can reduce unnecessary bureaucratic burden for small enterprises. For instance, the <u>City of Lisbon</u> is implementing circular economy principles in a structured way across the municipality and product categories. They developed a Procurement Planning Platform (PPP) and are implementing the ISO 20400 standard. The PPP allows departments to register their annual needs for goods, works and services, and identifies social, environmental and economic measures to consider in future tenders.¹³⁷
- Divide contracts into lots: A major barrier for SMEs in public procurement is the large size and complexity of contracts. The directive encourages contracting authorities to divide tenders into smaller lots, making it easier for SMEs and social enterprises to bid. If public authorities decide not to divide contracts into lots, they must provide justification. This division can be done on a quantitative or qualitative basis or as a geographical division. For instance, Consip Spa, an Italian public company working with Italian municipalities launched a €1.5bn framework contract for the supply of certified green energy with the goal of achieving a 32.65% in energy savings, the tender was divided into 12 regional lots. The tender included technical requirements for the provision of streetlamps, as well as the availability of spare parts and that packaging materials used for delivering should be easily distinguishable for separation by type. Eight bids were submitted from five temporary joint ventures, one consortium, and two standalone companies, bringing together 32 companies. These ranged from large national and international industrial groups to smaller regional firms, all representing the Energy Service Company (ESCO) sector.¹³⁸
- **Direct payments to subcontractors:** SMEs often participate in public contracts as subcontractors, facing delays in payment that impact their financial stability. The directive allows cities to implement direct payment mechanisms, ensuring that SMEs engaged in circular procurement contracts receive timely compensation. This measure supports SMEs in cash flow management, helping them scale their circular solutions.
- Use proportionate financial requirements: Strict financial and economic capacity requirements often disqualify SMEs from
 competing for tenders. The procurement directives require that such criteria be proportionate to the size and nature of the
 contract. Cities can tailor financial criteria to better reflect SME capabilities, ensuring that circular economy initiatives are not
 restricted to large corporations with higher capital reserves.

- Use the European Single Procurement Document (ESPD): The ESPD simplifies administrative processes by allowing companies to submit a self-declaration of compliance rather than full documentation up-front. Cities can promote its use to lower administrative burdens for SMEs engaged in circular procurement procedures, and to foster a more accessible tendering environment for sustainability-focused SMEs.
- Use platforms and social media for market engagement: Many microenterprises, startups and social enterprises do not have the capacity to navigate tendering platforms and are therefore often not aware of public procurement opportunities. Social media and other communication campaigns focusing on circular SMEs and startups can help them become aware of upcoming procurement opportunities. This strategy was used in Ireland to make SMEs aware of the mini-tender procedure for the mattress recycling initiative. This approach has been used in Haarlem and in the Irish Prison Service's mattress recycling initiative previously mentioned in this guidance.
- Set up a programme to engage startups and SMEs: Cities can leverage existing business support programmes and schemes or create new ones to engage startups and innovative companies and encourage circular economy activities. These programmes can help to support the development or the scale-up of circular solutions and products that a municipality can choose to procure. The Startup in Residence Programme by the City of Amsterdam invites startups to develop solutions for specific urban and social challenges. Over a five-month period, selected startups collaborate with the municipality, receive training and mentorship, and work on pilot projects. The programme aims to explore the best ways for startups and Amsterdam to support one another. At the end of the programme, the city may choose to purchase and implement the solution, helping to launch the startup. This initiative supports Amsterdam's goal of becoming a leading startup hub in Europe. 140

By actively implementing these provisions, cities can reduce barriers for SMEs and engage them in the circular economy transition.



5 Levers and tools supporting circular procurement

Cities across Europe can leverage circular economy policies and tools to support the use of circular procurement. These include communication strategies, incentive mechanisms, the legislative framework, circular economy policies and other regulatory measures.

5.1 Circular economy policies supporting circular procurement

The European Union has a strong legislative and policy framework that supports the transition to a circular economy. Cities can leverage existing circular economy policies at both the national and EU level to support the use of circular public procurement. This section analyses existing circular economy policies that contracting authorities can leverage to support circular public procurement.

- Circular Economy Action Plan: Adopted in 2020, the <u>Circular Economy Action Plan</u> established a comprehensive sustainable product policy framework that prioritises durability, reparability and recyclability. It proposes minimum mandatory green public procurement (GPP) criteria and targets sectoral legislation on either a mandatory or voluntary basis. ¹⁴¹ By integrating circularity into product design and procurement processes, cities are empowered to lead the demand for sustainable goods and services, driving market transformation. The key objectives of the action plan are to decouple economic growth from resource use, reduce the European Union's consumption footprint, and create a cleaner, more competitive economy. It emphasises the role of cities and regions in achieving climate neutrality and resource efficiency, while also fostering innovation, jobs, and resident well-being through circular solutions.
- Circular economy monitoring framework: The EU Circular Economy Monitoring Framework is designed to assess and track progress towards a circular economy. The framework covers the following five thematic areas: production and consumption, waste management, secondary raw materials, competitiveness and innovation, and global sustainability and resilience. The monitoring framework includes an indicator which measures the share of public procurement procedures above the EU thresholds (in number and value) that incorporates circularity requirements (reparability, durability, recyclability, etc.). The framework's indicators can be used to establish targets for incorporating circular economy principles into procurement. Public contracts can require suppliers to adhere to standards that contribute to the indicators outlined in the framework, such as the circular material use rate. Cities can also develop their own monitoring system to track progress towards their circular economy targets and assess how public procurement can support these targets.
- Environmental Footprint (EF) methods: These standardised tools assess and communicate the environmental performance of products and organisations throughout their entire life cycle. These methods encompass Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF). Both PEF and OEF are grounded in Life Cycle Assessment (LCA) methodologies, ensuring a comprehensive analysis of environmental impacts across various stages, including raw material extraction, production, distribution, use, and end-of-life disposal. By integrating PEF and OEF criteria into procurement tenders, cities can assess and compare the environmental and circular performance of products and services, ensuring that selected offerings align with sustainability goals. Public procurement can also stimulate demand for environmentally-friendly goods, encouraging suppliers to adopt sustainable practices and innovate in product design.
- Eco-design for Sustainable Products Regulation (ESPR): This regulation aims at making sustainable products the norm within the EU market, by setting minimum environmental performance standards for products. These standards help to increase the durability, repairability, recyclability, energy and resource efficiency of products and reduce the use of hazardous substances in products. The regulation also establishes a digital product passport, provides for the setting of mandatory green public procurement requirements and creates a framework to prevent unsold consumer products from being destroyed. City governments can refer to the ESPR standards and integrate minimum environmental requirements when procuring goods, services, or infrastructure projects covered by the regulation.
- Right to Repair: The Right to Repair Directive aims to promote the repair and reuse of consumer goods to extend their lifespan and reduce waste. This regulation empowers public buyers to demand repairable products and spare parts availability as part of procurement criteria. Municipal contracting authorities can leverage the Right to Repair Directive to procure repair services or include competence clauses in public contracts to stimulate demand for repair skills in the labour market.

- Strategy for Sustainable and Circular Textiles: Adopted in March 2022, the EU Strategy for Sustainable and Circular Textiles aims to reduce the textile industry's reliance on fossil-based resources by promoting bio-based innovations. The strategy outlines a progressive action plan, including the establishment of eco-design requirements for textiles under the Regulation on Ecodesign for Sustainable Products, the development of Green Public Procurement criteria, and the revision of EU Ecolabel standards for textiles. Additionally, the European Commission has proposed the introduction of mandatory and harmonised Extended Producer Responsibility (EPR) schemes for textiles across all EU Member States. Procuring bio-based textiles, made of natural fibres (cotton, wool, flax and hemp) and semi-synthetic fibres (such as those derived from wood cellulose or agricultural residues), can help reduce reliance on fossil-based materials, supporting the transition to a circular economy and lowering carbon emissions. 149
- EPR schemes: These policies require producers to take responsibility for the end-of-life management of their products, which can be reinforced through procurement specifications. The European Union has mandatory EPR schemes on end-of-life vehicles, packaging and packaging waste, batteries and accumulators, and electrical and electronic equipment. Some national laws have introduced additional EPR schemes. For instance, France has 26 EPR schemes covering building materials, textiles and furniture, among others. For products covered by an EPR scheme, local authorities can include requirements for suppliers to take back old products at the end of the contract. Furthermore, city governments can on behalf of the EPR organisations procure the infrastructure and services to manage the waste from products covered by an EPR scheme.
- EU reuse and recycling targets: The European Union has established ambitious reuse and recycling targets under the European Green Deal¹⁵¹ and the Circular Economy Action Plan (CEAP),¹⁵² as well as the Waste Framework and Packing and Packaging Waste Regulation¹⁵³ and other policies. The European Union has set material-specific recycling targets for packaging waste to be achieved by 2030 (55% for plastics, 75% for paper and cardboard, 70% for glass).¹⁵⁴ Furthermore, the European Union's WEEE Directive sets specific recovery and recycling targets for different categories of electronic waste (80% recovery, 70% recycling for IT equipment, an 80% recycling rate for lighting equipment).¹⁵⁵ France's Anti-Waste and Circular Economy Law (2020) promotes eco-design, repairs, reuse and EPR to extend product lifespans and reduce waste. The law also recognises the role that public procurement can play in supporting reuse and recycling targets.¹⁵⁶ Since 2021, a French decree mandates public buyers at the national and local level to require minimum percentages of reused, upcycled or recycled materials across several product categories. Percentages vary between 5-40% for textile products, paper, vehicles and modular prefabricated buildings, among others.¹⁵⁷ French cities can leverage this national law to require the use of recycled materials in the products they procure in contracts that cover materials and products.
- Farm to Fork: This comprehensive <u>strategy</u> aims at creating a fair, healthy and environmentally-friendly food system. It is a central component of the European Green Deal, addressing every step of the food chain, from production and processing to distribution and consumption. The strategy seeks to improve lifestyles, health and the environment by promoting sustainable food practices. European cities can leverage the Farm to Fork Strategy to enhance circular public procurement. Cities can procure sustainably produced food, aligning with the strategy's goals to reduce environmental impacts and promote health. ¹⁵⁸ Cities can also implement measures to minimise food waste in public contracts, supporting the strategy's objective to reduce waste throughout the food system.
- Vision for Agriculture and Food: The <u>vision</u> adopted by the European Commission in February 2025 promotes sustainable, local agri-food systems and supports ambitious environmental and social standards.¹⁵⁹ By encouraging public procurement practices that prioritise "best value" over lowest cost, this strategy rewards quality and sustainability efforts made by European farmers, food industry and services. This approach not only supports local farmers and SMEs but also strengthens urban/rural linkages, helping cities to lead the transition towards more circular and resilient food systems. Unlike the Farm to Fork strategy, which sets specific targets as part of the European Green Deal, this new vision takes a broader, longer-term perspective to 2040, aiming to make the EU agri-food system more attractive, competitive, sustainable and fair. It places a stronger emphasis on generational renewal, food sovereignty and economic viability, seeking to balance environmental ambition with economic resilience and social inclusion.
- The EU Legislative Framework on Construction and Buildings: The Energy Performance of Buildings Directive (EPBD), 160 the Construction Products Regulation (CPR), 161 and the Waste Framework Directive 162 promote resource efficiency, reuse of materials, and sustainable design principles in the construction sector. The EPBD encourages renovation and energy efficiency improvements that align with circular renovation strategies, while the revised CPR proposes requirements for durability, reparability and recyclability of construction products. The Waste Framework Directive sets targets for construction and demolition waste recovery and fosters material reuse. Together, these instruments aim to decarbonise the building stock, reduce embodied carbon, and establish a more circular construction sector. Their implementation also has important implications for public procurement, enabling cities to use lifecycle costing and sustainability criteria to prioritise circular building solutions in new developments and renovations, thus leading by example in Europe's transition to a more circular built environment.

- The Competitiveness Compass: The Competitiveness Compass communication unveiled in January 2025 positions innovation, decarbonisation, and reduced strategic dependencies at the heart of the European Union's new competitiveness agenda.

 It promotes lead markets for clean and circular products. Through public procurement criteria that prioritise sustainability, resilience and EU-based production, the Compass encourages public authorities, including local governments, to leverage their purchasing power to stimulate demand for circular solutions. It calls for simplified rules for startups and innovative companies to develop novel solutions. The overarching objectives of this communication are to close the European Union's innovation gap, align decarbonisation with competitiveness, and strengthen economic resilience through reduced dependencies. With initiatives such as the foreseen Circular Economy Act and stronger alignment between EU and national investment strategies, the Competitiveness Compass provides a clear roadmap for cities to adopt circular public procurement as a driver of both economic and environmental progress.
- Clean Industrial Deal: The Clean Industrial Deal communication integrates circularity as a key business driver in the European Union's broader decarbonisation and competitiveness strategy. 164 By promoting the use of non-price criteria such as sustainability, resilience and EU content in public procurement, it encourages cities and other contracting authorities to prioritise circular and low-carbon products and services. It aims to create lead markets for clean technologies and incentivises industry to invest in sustainable EU-based production. The overarching objectives of the Clean Industrial Deal are to accelerate industrial decarbonisation, enhance the European Union's competitiveness, and boost resilience across the value chain, with a clear emphasis on innovation, circular economy leadership, and strategic autonomy. The Clean Industrial Deal thus positions public buyers as critical actors in fostering demand for circular solutions through their purchasing power, while reinforcing Europe's path towards climate neutrality.
- Net Zero Industry Act: The Net Zero Industry Act aims to scale up manufacturing capacity for key net-zero technologies in Europe, support innovation, and enhance competitiveness through simplified permitting and stronger market incentives. 165 A key objective is to create a more resilient and sustainable industrial base by promoting clean technology and advancing circular business models. This regulation supports circular economy principles by fostering demand for low-carbon, circular products and encouraging their integration into public procurement processes. By enabling non-price criteria and sustainability requirements in procurement, the Act supports the uptake of circular public procurement. This approach aligns public spending with decarbonisation, resource efficiency and long-term competitiveness, anchoring the circular economy within the broader objectives of the European Green Deal and industrial policy framework.
- **Critical Raw Materials (CRMs):** The European Union identifies <u>Critical Raw Materials (CRMs)</u> as essential components vital for its economic sectors, particularly in terms of advancing green and digital transitions. ¹⁶⁶ These materials are characterised by their significant economic importance and the high risk associated with their supply. Cities can procure products containing recycled CRMs to reduce dependence on virgin materials and mitigate supply risks. Furthermore, contracting authorities can require suppliers to disclose the CRM content in their products and demonstrate responsible sourcing practices, promoting transparency and ethical supply chains.
- Raw Materials Initiative (RMI): This strategic framework ensures the secure and sustainable supply of raw materials critical to
 the European Union's economic and industrial sectors.¹⁶⁷ Launched in 2008, the raw materials initiative addresses challenges
 related to access and supply of non-energy and non-agricultural raw materials through a comprehensive approach. By
 integrating resource efficiency, recycled or secondary raw materials criteria in public tenders, European public procurers can
 support this initiative.
- European Skills Agenda: The European Skills Agenda supports the uptake of the circular economy in cities across Europe by equipping workers and businesses with the necessary skills to drive the green transition. ¹⁶⁸ Central to this strategy is the Pact for Skills, which fosters large-scale partnerships to upskill and reskill people across key sectors, including construction, transport and tourism, all of which are vital to urban systems. ¹⁶⁹ It aims to strengthen sustainable competitiveness, ensure social fairness, and build resilience through lifelong learning. It directly supports the circular economy by developing sector-specific training, boosting green and transversal skills, and fostering innovation and entrepreneurship aligned with circular principles. By promoting skills in areas such as design, resource efficiency and services, the agenda empowers cities to embed circular economy principles into their planning, services and procurement practices. Local authorities can embed in public contracts training clauses or competency requirements to ensure workers hired through public contracts have the skills and know-how to execute the contract. Training clauses can help to close the skills gap and support the circular transition.

5.2 Circular procurement awareness-raising within the municipality, and among contractors

Circularity requires interdisciplinary work and collaboration. Awareness-raising campaigns and engaging procurement officers, sectoral experts, companies and civil society are essential for successful implementation. Multi-stakeholder collaboration through campaigns, workshops, and capacity-building sessions can help bridge knowledge gaps, ensuring that all relevant departments understand the environmental, social and economic benefits of circular procurement.

- Cross-departmental collaboration: Within local governments, procurement officers, sustainability teams and policymakers must be equipped with knowledge about the circular economy, its principles and relevant criteria that can be integrated into procurement processes. During the EU-funded CityLoops project, circular procurement workshops were organised in the demonstration cities to engage various municipal departments and communicate the benefits of circular public procurement. The City of Lisbon has initiated its Procurement Network Knowledge Portal to raise awareness, educate, disseminate knowledge and provide space for collaboration among employees from different departments involved in procurement, including for circular projects. More examples of cross-departmental and multidisciplinary collaboration have been presented in Section 2.5 on public procurement capacity building of this guide.
- Engaging the private sector: Early market engagement through market research, market dialogues and other events helps to raise awareness among the private sector of circular public procurement and municipalities' ambitions. In Apeldoorn, a collaborative "construction team" approach involved contractors early in the procurement process, optimising circular solutions in construction. This engagement improved resource management, risk mitigation, coordination and decision-making, demonstrating the effectiveness of stakeholder collaboration in advancing sustainable procurement practices. Cities can also use conferences and other events focused on sustainability to promote circularity among market actors. For instance, the City of Aalborg used the Aalborg Sustainability Festival 2018 as an opportunity to announce two future circular tenders on playgrounds and lifetime extension of ICT. This announcement gave companies several years notice before the launch of the calls, so they could prepare and align their operations or offering with the city's circular economy ambitions. Moreover, social media and other communication campaigns geared at the private sector can help to raise awareness about procurement opportunities. This is the strategy that the Irish Prison Service used to encourage SMEs and social enterprises to bid for the mattress recycling initiative.



Engaging civil society: To achieve a circular economy at scale, it is also important to not only consider the environmental impacts, but also the needs of residents and different groups in society. Local governments can engage different groups of people in the city to understand their different needs and how these may evolve over time, to ensure that public goods, services and infrastructure meet the necessities of residents. In this way, circular public procurement can also support social policy goals. Cities can organise conferences, festivals or fairs to engage residents and civil society and raise awareness of the principles of a circular economy. The City of Valladolid, Spain, organises an annual Circular Weekend at which residents can present their circular ideas. The municipal authorities choose certain projects presented during the event and provide mentoring and advisory support to develop the ideas further.¹⁷² Stakeholder engagement processes can also be formalised and underline some of the local government's strategy and policies. For instance, the City of Mechelen, Belgium, developed an action plan under the Interreg Europe CECI project to involve residents in its transition to a circular economy. The Circular Economy and Citizen Involvement Action Plan has been developed based on stakeholder dialogue at the local level, as well as via an interregional exchange with the project partners and their stakeholders within the CECI project.¹⁷³ Contracting authorities can go one step further by engaging local community members in the pre-procurement phase. Using community-inclusive public procurement processes can help to ensure that the solution procured by the city will meet the needs of residents. For example, the City of Tartu, Estonia, engaged the local community from the very beginning of the procurement process for public facilities such as playgrounds and outdoor gyms. Residents contributed ideas about the function and appearance of planned facilities, which were integrated into the technical specifications. During the procurement phase, bidders had to propose their solution within a set budget, and the community selected the winning bid through a public vote. This inclusive approach ensured that the final facilities met residents' actual needs, improved satisfaction and usage, and fostered a sense of ownership. Collaboration across municipal departments and the use of digital tools supported transparency and efficiency, while also stimulating local business participation and innovation.174

5.3 Incentives supporting circular procurement

Incentive mechanisms, such as grants, subsidies and tax reductions, play a crucial role in encouraging suppliers to adopt circular practices. Economic incentives help businesses scale and expand their circular operations, making them more capable of providing high-quality circular goods and services on a larger scale. As a result, these businesses can become better positioned to meet circular procurement criteria and standards in public contracts, contributing to a more sustainable supply chain. A number of European cities have successfully implemented these mechanisms to promote circular public procurement, as presented below.

- **Grants and subsidies:** City governments can provide financial support to businesses to help them transition towards circular business models and operations, offsetting the initial costs and investments of implementing circular practices. These incentives can be targeted at industries such as textiles, packaging and construction. For instance, the City of Ghent is providing direct funding for circular entrepreneurs via <u>Circuit Circulair</u>¹⁷⁵ and <u>Circular Kickstart</u>¹⁷⁶ two programmes focused on startups with a circular business concept. And Valladolid launched <u>four calls for grants for 'ecoinnovation & ecodesign projects'</u> aimed at companies, business associations, non-profit entities, or research centres located in Valladolid.¹⁷⁷ The city is also promoting circular entrepreneurship through the <u>CIRCULAR LABS</u> Project, ¹⁷⁸ focusing on integrating circular economy principles into new business models, enabling spaces for creativity, generation of ideas and adaptation to change.¹⁷⁹
- Tax incentives: Tax incentives, such as deductions or reduced VAT rates, make circular business investments more attractive by lowering the financial burden of sustainable practices. The Swedish government reduced its VAT rate from 25% to 12% for small repairs of bicycles, clothing and shoes. This measure helps to incentivise repair services. Furthermore, the cities of Graz and Salzburg have piloted a repair bonus on electrical appliances. Figure 181
- **Profit-sharing models:** Contracting authorities can promote resale and reuse through a profit-sharing model in public procurement procedure. In <u>Norway</u>, this approach has been applied for a contract for collection, transport, data deletion and reuse or recycling of old ICT products from public entities. When no longer needed, devices are given to a supplier, who deletes data, repairs and refurbishes them for resale to the general public.¹⁸² With this model, the supplier has a financial incentive to resale rather than recycle the devices. Profits are shared between the state enterprises and the supplier. This ensures public entities receive financial returns when items are resold while avoiding losses if resale is not possible.

6 Conclusions and recommendations

Public procurement is a useful tool to help cities across Europe accelerate the transition to a circular economy. By leveraging their purchasing power and embedding circular principles into procurement strategies, cities can drive systemic change, stimulate market demand for sustainable and circular solutions and skills, and contribute to achieving climate and resource efficiency goals.

This guide has outlined the challenges and opportunities, and it has showcased best practices of how cities can move beyond lowest-cost procurement models to consider long-term environmental, social and economic benefits. Common challenges such as high upfront costs, limited supplier readiness, and resistance to change can be mitigated through early market engagement, collaborative procurement models and capacity-building initiatives. There is a variety of tools such as life-cycle costing, performance-based contracts, and standards that public authorities can leverage for circular outcomes. Local authorities should align procurement policies with broader circular economy strategies at local, national and EU level, to ensure that circularity criteria are systematically integrated into tenders across different sectors, including construction, ICT, textiles, food and services.

Municipalities can support suppliers in adopting circular practices by outlining their circular procurement ambitions, offering incentives for circular innovation, and using tender procedures that can facilitate the participation of SMEs and social enterprises in procurement procedures. Strengthening supply chain traceability through due diligence requirements, material passports and takeback schemes can help ensure that circularity principles are upheld throughout product life cycles. Investing in professionalisation of public procurers, training and knowledge-sharing platforms will equip procurement teams and sectoral experts with the skills and expertise necessary to implement circular procurement effectively. Collaboration is key, and by using joint procurement procedures, regional partnerships and fostering cross-departmental coordination, cities can amplify impact and drive economies of scale for circular solutions.

Action plan for local governments to support circular procurement in cities

To fully harness the potential of circular public procurement, European cities should take the actions listed below.

- Enhance policy coherence by aligning procurement strategies with EU frameworks, such as the Circular Economy Action Plan, Public Procurement Directives, the Net-Zero Industrial Act, and the Sustainable Products Regulation.
- Develop and implement a circular procurement strategy, setting clear targets and timelines for integrating circular economy requirements into procurement processes.
- Invest in procurement training programmes, ensuring procurement officers have the expertise to design and manage circular procurement processes effectively.
- Use life cycle costing and total cost-of-ownership methodologies in procurement evaluations, shifting away from lowest-price selection models.
- Strengthen market engagement efforts by conducting pre-market consultations, fostering dialogue with suppliers and co-developing innovative solutions.
- Encourage supplier innovation by including circularity requirements in tenders and rewarding companies that demonstrate leadership in circularity.
- Leverage joint procurement initiatives to pool resources, share knowledge, and create economies of scale for circular products and services.
- Monitor and evaluate circular procurement performance, tracking progress and sharing data to refine strategies and scale and replicate best practices.
- Share best circular public procurement practices with and learn from other local governments through relevant platforms and networks.

By adopting these measures, cities can transform public procurement from a compliance-driven function into a strategic tool for advancing circularity, fostering innovation and creating resilient, resource-efficient urban economies.

Annex 1 – Circular procurement criteria

Below are listed examples of circular criteria that contracting authorities can use in procurement documents. This list of criteria, which is not exhaustive, covers requirements for construction works, furniture, ICT equipment (including computers, laptops, tablets, monitors, mobile phones), textiles and the delivery of circular services. It was compiled based on existing examples of procurement procedures that incorporated circular economy considerations across a variety of contracting authorities in Europe, as well as the European Commission's relevant GPP criteria, the MVI criteria tool, case studies, and other relevant documents.

Each list categorises the criteria under selection criteria, technical specifications, award criteria and contract performance clause. These have been further subdivided to highlight types of circular economy considerations that can be used in tenders. While this categorisation follows how these requirements have been commonly used in tender documentation, these criteria can be included in different manners in tender documentation. The aim of these lists is to provide inspiration to contracting authorities for how they can incorporate circular considerations in public procurement. These requirements need to be adapted and relevant to the subject matter of the contract.

Circular procurement criteria for construction works

Selection criteria:

Competencies and past experiences:

• Demand proof of **past experience** with **delivering a circular construction project** (such as examples of contracts delivered within a given period of time, references, and the CVs of the relevant personnel).

Technical specifications:

Material inventories and passports:

- Develop an **inventory of reusable materials** prior to selective demolition.
- Require a pre-demolition audit to be conducted.
- Require a material passport to be used.

Circular materials requirements:

- Incorporate a minimum amount (as a percentage or by weight) of:
 - recycled materials;
 - secondary raw materials;
 - bio-degradable materials;
 - o materials to be recovered for recycling.
- Install (and verify) **low-environmental impact construction materials**. Use supply chain management to ensure compliance with building assessment and certification systems and to support modelled resource efficiency strategies.

Circular building certifications:

- Requirement to use Level(s), cradle-to-cradle, EPD, LEED, or BREEAM or equivalent certifications.
- Requirement to meet ISO standards relevant for circular construction.
- Construction designs and techniques supporting the incorporation of circular concepts for design for **adaptability** and **deconstruction** as outlined in Level(s) indicators 2.3 and 2.4 respectively.

Use of life cycle assessment considerations:

- Requirements to **reduce the embodied impacts and resource use** associated with construction materials. Use Life Cycle Assessment (LCA) and similar tools to quantify the impact.
- Requirements to evaluate the life cycle impacts of the main building elements.

End-of-use requirements:

- Separate material collection for reuse, recycling and recovery in line with the waste hierarchy in Directive 2008/98/EC.
- **Segregate recyclable materials and end-of-life products by material type.** The contractors shall provide plans of the building showing the space(s) that have been designated for waste segregation and collection.
- Require a minimum percentage by weight of the non-hazardous waste generated during demolition and strip-out works, and excluding excavations and backfilling, to be prepared for reuse and recycling.
- Comply with existing **EPR schemes** on construction materials.
- Requirements that construction and demolition waste be treated in accordance with EU waste legislation and with the full checklist of the EU Construction and Demolition Waste Management Protocol.
- Requirements that at least 90% for new construction and at least 70% for renovations (by mass in kilogrammes), excluding backfilling, of the non-hazardous construction and demolition waste generated on construction sites is prepared for reuse or recycling.¹⁸³

Award criteria:

- Volume, weight or percentage of recovered, reused or recycled materials.
- Award points to tenderers that achieve more than a certain percentage by value of recycled content and/or by-products
 for the main building elements. The recycled content is calculated as an average mass balance of recycled materials.
- Cost effectiveness of the proposed circular solution(s).
- Requirements that technologies used meet a certain technology readiness level or TRL to encourage the use of new technologies in buildings.
- **Quality** of the submission, assessing the extent to which bidders meet the circular requirements, based on a predefined scoring system.
- Award points based on the improvement in life cycle performance of the main building elements in comparison with a
 reference building or other competing designs. Performance shall be evaluated using Environmental Product Declarations
 (EPDs) in compliance with ISO 14025 or EN 15804 or by carrying out a Life Cycle Assessment (LCA) of the building in
 accordance with ISO 14040/14044, or EN 15978.

Contract performance clause:

- Use of mass balance calculations supported by batch testing to verify the incorporation of recycled content.
- Use of systems to monitor and quantify waste and material segregation for recycling and reuse, as well as the tracking and verification of the destination of consignments of waste.
- Training clauses and penalties for not complying with training requirements.
- Compliance with environmental management systems (ISO 14000, EMAS, EcoCompass or equivalent)
- Development of a system to monitor and account for waste management. The destination of consignments of waste and end-of-waste materials shall be tracked using consignment notes and invoices. Monitoring data shall be provided to the contracting authority.

Circular criteria for the procurement of furniture

Technical specifications:

Design requirements:

• Design and provide easy-to-disassemble, repairable, reusable or recyclable furniture.

Use of warranties:

- Requirement for tenderers to provide a **warranty** (for a certain period depending on the products) effective from the date of delivery of the product. This **warranty should cover repair or replacement** and include a service agreement with options for pick-up and return or **on-site repairs**.
- Provide a warranty on the materials and parts of the furniture.

Circular materials requirements:

- Incorporate a minimum amount of **second-hand**, **reused**, **refurbished**, **recycled or upcycled materials**, or elements to be incorporated into the furniture (for example, percentage of recycled materials compared to the total weight of the furniture).
- Request information regarding the organisation's supply chain management system, which tracks at least the amount of
 circular textile material used in the furniture. This system could meet the requirements of NEN-ISO 22095, or an equivalent
 system.

Life-cycle considerations:

- Provide a detailed calculation of the **carbon footprint of the furniture** in compliance with **standard ISO 14067:2018**, which specifies principles, requirements and guidelines for the quantification and reporting of the carbon footprint of a product, in a manner consistent with international standards on life-cycle assessment (ISO 14040 and ISO 14044).
- The fabrics used in furniture must meet the Ökotex 100, the EU Ecolabel, or other equivalent standards.
- Incorporate a **minimum percentage by weight of recycled metal** in the furniture, and have the manufacturer or foundry provide a declaration of the use of recycled metal.
- A minimum percentage of the **wood material in the furniture must be sourced from sustainably managed forests** (PEFC or equivalent certified wood content).

Maintenance:

• Requirement for tenderers to **refurbish the furniture items** provided by the contracting authority according to the specified requirements. The tenderer to provide details of the refurbishing operation(s) to be carried out.

End-of-use requirements:

- Requirement for tenderers to **collect the furniture** from a specified site and **provide a reuse and recycling service for furniture** that has reached the end of its service life. Tenders to include the **details of all parties involved** in the reuse and recycling of the furniture.
- Comply with existing EPR schemes for the collection, waste management, disposal or recycling of the product and materials.
- Use a take-back scheme for the end-of-use or end-of-contract stage.
- Require that furniture items/parts that are considered unsuitable for reuse be disassembled into different material streams.
- Require the materials of the furniture such as plastics, metals, textiles and wood to be **separated before being sent to different recycling facilities** at the end-of-use phase.

Award criteria:

- Requirement for tenderers to explain how they will manage the waste, or secondary raw materials and reuse the materials.
- Award points based on the percentage of synthetic materials compared to the total weight of the furniture, with lower percentages receiving more points.
- Award points if the manufacturing facility for the furniture has one or more programmes aimed at maximising the efficiency of process **water usage** to reduce the burden on water provision systems and on local wastewater treatment systems.

Contract performance clause:

- Collection of the old furniture from a specified site.
- Provide refurbishment, repair, and other maintenance services.
- Provide a take-back scheme and/or reuse or recycling undertaking when the furniture has reached the end-of-use phase
 or end of contract.

Circular criteria for the procurement of textile products and services

Selection criteria:

Provision of information regarding the supplier's supply chain management system, which tracks at least the amount
of circular textile material, and allows for the traceability of the source, content and production systems of natural and manmade fibres. This system could meet the requirements of NEN-ISO 22095, or an equivalent system.

Technical specifications:

Durability requirements:

 The textile products must meet the relevant durability requirements. The tenderer will, for each distinct product design or item of workwear to be supplied, provide upon delivery of the goods reports from tests carried out in accordance with the standards specified. The reports will verify that each product type or model meets the specified durability requirements.

Circular fibres requirements:

- Products using polyester fibres must be manufactured using a minimum percentage of recycled content.
- The tenderer must demonstrate that the production line(s) for the fibre product is dedicated to production with the
 minimum recycled content. Third-party certification of the recycled content and its traceability will be provided for the
 production lines of the products to be delivered and the recyclate feedstock. ISO 14021, ISO 9001 or equivalent may be used.
 The verification will provide information in accordance with parts 4.4 of EN 15343.¹⁸⁵
- The textiles must contain a minimum share of recycled materials and fibres.

Award criteria:

- Points to be awarded for polyester and/or nylon fibre product(s) to be used in fulfilment of the contract for each additional increment of a certain percentage greater than a minimum percentage of recycled, pre-consumer and/or post-consumer waste. The tenderer will demonstrate that the production line(s) for the fibre product are dedicated to production with the minimum recycled content. Third-party certification of the recycled content and its traceability must be provided for the production lines of the products to be delivered and the recyclate feedstock. ISO 14021, ISO 9001 or equivalent may be used. The verification must provide information in accordance with parts 4.4 and 6 of EN 15343.
- Garments must be designed so that **any logos or distinctive identification features can be easily removed** or overprinted without damaging the item. The tenderer must upon delivery of the goods **provide clear, easy to understand instructions for reuse contractors** on how to remove or overprint logos or branding.

Contract performance clause:

• The supplier must report on the performance of their take-back system in accordance with the following requirements: (a) surveys to determine how easy it has been to use the collection/segregation systems; (b) the proportion by weight of the collected textiles that have been reused or recycled and the associated value/kg of textiles obtained from the destination end markets to which they are sent will be determined and recorded on an annual basis. The tenderer to provide a short summary of the survey findings and the potential improvement measures identified. An annual report providing a breakdown of the destination of the textiles and the value obtained from each end market will be provided.

Circular procurement criteria for the delivery of services

Please note: one of the primary circular procurement strategies is the decision to purchase a service rather than a product. The specific tender criteria applied, while obviously important, are less significant than the decision to procure a service in the first place.

Services are a very broad category of procurement, and the following criteria therefore are of a general nature.

Selection criteria:

- One or several members of the bidder's team have a **certification**, **training or degree** in a field relevant for the service.
- One or several members of the bidder's team have knowledge or experience in circular economy, or sustainable design.
 The bidders can present examples of past relevant projects that incorporate circular economy principles within a given period.
- One or several members of the bidder's team have **experience with providing repair, refurbishment, remanufacturing, renovation, upcycling or recycling services**. The bidder to show examples of past projects within a given period.
- One or several members of the bidder's team have experience with incorporating secondary or recycled materials or products in a relevant project.

Award criteria:

- The tenderer must explain how the work will be done to extend the life of the products provided under the contract.
- The bidders to explain how they will manage the waste, or secondary raw materials and reuse the materials or the products provided under the contract.
- The tenderer is asked to describe how they comply with the **Sustainable Development Goals (SDGs) relevant to the subject** matter of the contract.
- The tender is asked to **employ vulnerable people** (for example, people with disabilities, long-term unemployed, minority groups, etc.) during the contracting period.

Contract performance clause:

- The winning bidder to provide repair, maintenance, renovation or refurbishment services upon request.
- Tenderers to collect products, materials or waste from a site specified by the contracting authority and provide reuse, refurbishment, repair, remanufacturing or recycling services when these products or materials are no longer used.
- The winning bidder commits to taking back products provided to the contracting authority at the end of the contract period.
- The bidders must **commit to sourcing reused, upcycled, second-hand, refurbished, remanufactured or recycled** products or materials as part of the service.



Annex 2: Additional resources

Further circular public procurement guidance

Source	Description
Guidance Interreg NSR ProCirc Project	This guidance is written for procurers and affiliated functions. It offers a general introduction to the topic of circular procurement. It guides the reader to the many resources that are available and helps them decide which are relevant for their specific situation. Throughout this guidance, excerpts of the Interreg NSR ProCirc pilots are used as illustrations. Furthermore, it offers a relevant selection of the circular procurement tools that were collected during the Interreg NSR ProCirc project.
2023	conected during the interreg NSK Flocinc project.
How to procure circular: Lessons from 30 pilot procurements	This report contains lessons learned from more than 30 circular procurement pilot projects and other activities performed within the Interreg NSR project ProCirc (2018-2023). The report was produced by Bax & Company based on an analysis of pilot case studies and interviews with piloting organisations
ProCirc Project: Bax and Company, DFØ, and OVAM	conducted during 2021-2022. The material is enriched and contrasted with
2023	other project outputs such as communities of practice webinars and reports, guidance documents and tools, as well as external reference material on circular procurement.
Circular public procurement: a framework for cities (GitBook)	This is a guide to help practitioners in city governments adopt a more circular approach to public procurement. Public procurement processes differ from one city to another and therefore this guide is not a one-size-fits-
Ellen MacArthur Foundation	all solution. Instead, it provides an overarching framework that should be adapted to your local context and the realities of your city. For each step, the framework offers: Questions to consider helping reflect
2022	on the different actions that a city or organisation might need to take throughout the procurement process. Not all questions will be relevant to every city and these questions are not exhaustive. Examples illustrating how other city governments from around the world have implemented certain elements of circular economy procurement activities and links to explore further. While some examples are not specifically on circular public procurement, they showcase relevant best practices. Resources, such as reports and guides produced by the Ellen MacArthur Foundation and by many other organisations, to further explore the topic.
REBus – Guide for circular procurement	The REBus project's tool provides different resource-efficient business models, including service systems, hire and leasing, incentivised returns and reuse, and long life. It also provides a five-stage methodology for
Rebus Project	implementing a circular procurement resource-efficient business model.
2022	
Lessons learnt from the procurement pilots in the Circular PP project	This report outlines the main results and lessons learnt from six public procurement pilot schemes in Aalborg, Malmö, Smiltene, and Pļaviņas.
Circular PP project	
2020	

Description Source Circular Procurement Guide The Circular Procurement Guide outlines how businesses can redesign their procurement processes for greater 'circularity'. The six steps suggested in the guide are as follows: Business in the Community (BITC) as part of the Interreg North Sea Region funded ProCirc project. Define your circular ambitions. Determine your functional needs. 2020 Formulate your questions and communicate with the market. Choose your supplier(s) and award the contract. Implement circular usage policies. Evaluate success. The toolkit was produced by Business in the Community (BITC) as part of the Interreg North Sea Region funded ProCirc project. Circular Procurement in 8 steps This book provides a practical 8-step approach to integrate circular economy principles into procurement processes, including internal collaboration, procurement procedures, and management. Copper8 2018 Building Circularity into Economies Through Sustainable This report highlights the potential of procurement as a tool to scale circularity in products and services, with examples from around the world. **Procurement** UNEP 2018 Public Procurement for a Circular Economy: Good This guidance provides an introduction to the European policy framework and practical guidance on circular procurement, with good practice practice and guidance examples from across Europe. **ICLEI for the European Commission** 2017 This report provides an overview of the concept of circular procurement <u>Circular Procurement Best Practice Report</u> and explores ideas related to the topic, including examples. The report includes references to three priority focuses for circular SPP regions: ICLEI, Sustainable Global Resources Ltd, procurement: a focus on procuring services instead of products, a focus Danish EPA on the product's design, use phase and end-of-use stage and a focus on market dialogue. It includes a section on the benefits of applying circular 2017 procurement and some examples of circular procurement criteria for tendering. Lastly, the report provides some examples of circular procurement models, presenting circular solutions and dealing with different products, from construction and furniture to textiles and technologies. Circular Procurement Case Study Collection The "Circular Procurement Case Study Collection" by ICLEI - Local Governments for Sustainability – compiles a diverse set of case studies that showcase the implementation of circular procurement practices in cities SPP regions: ICLEI, Sustainable Global Resources Ltd, across Europe. Danish EPA 2017

Description Source

Circular Public Procurement in the Nordic Countries

Nordic Council of Ministers

2017

This report provides a framework for circular procurement and discusses its possibilities to promote circular economy. Several best practice examples in Denmark, Finland, Sweden and Norway illustrate how and in which sectors and product groups circular procurement could be applicable. Different approaches to circular procurement and tendering criteria supporting circular aspects are also illustrated. The study was carried out in Nordic co-operation by the Finnish Environment Institute, the IVL Swedish Environmental Research Institute and the Copenhagen Resource Institute. The project was financed by the Nordic Council of Ministers (NCM), administrated by the NCM Sustainable Consumption and Production Working Group and guided by a steering group consisting of representatives from Denmark, Finland, Iceland, Norway and Sweden.

Other relevant guides

Description Source

sustainable urban future

World Economic Forum

2018

Best Practice Report: Market engagement

SPP regions: ICLEI, Sustainable Global Resources Ltd, reports, including on market engagement. Danish EPA

Circular Economy in Cities: Evolving the model for a This whitepaper traces the conceptual underpinnings of the circular economy and explains why cities are key to accelerating the transition away from the traditional 'take-make-dispose' model. It draws on examples from cities around the world in areas including channelling used building materials to new building sites, water harvesting and reuse, reducing energy use, electronic waste, healthcare and procurement. It explains the opportunities in the circular economy for all stakeholders and the ways in which they can work together at city level.

> The SPP Regions project promoted the creation of regional networks of municipalities collaborating on the implementation of sustainable procurement. The project also produced a series of best practice guides and

2017

How to Tackle Suppliers' Emissions: a guide for procurers

Business in the Community (BITC), CDP (Carbon Disclosure Project)

2021

This guide, produced by Business in the Community (BITC) in collaboration with CDP (Carbon Disclosure Project), seeks to inform sustainability and procurement professionals on the best approach for managing Scope 3 emissions in their corporate supply chains. This toolkit is designed to show how procurement teams, supported by sustainability colleagues, can unlock faster progress on tackling supply chain emissions, thereby demystifying many of the concepts some businesses find hard to interpret.

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The Circular City Centre – C3

CIRCULAR PUBLIC PROCUREMENT IN CITIES







