

# LEVERAGING EUROPE'S SINGLE MARKET TO ACCELERATE THE CIRCULAR TRANSITION

Recommendations for the upcoming Circular Economy Act

November 2025

The Buy Better to Build Better Coalition brings together forward-thinking stakeholders from industry, public authorities and civil society, under a shared commitment to mainstream public procurement as a core lever in driving decarbonisation, circularity and competitiveness of the EU construction sector.

We welcome the opportunity to provide feedback and targeted evidence on the importance of effectively designing the upcoming Circular Economy Act (CEA).

For more details, please contact us at tudor.cherhat@ecostandard.org.

A full list of members is available here.

#### **Executive summary**

Building on its leadership in the circular economy, the EU has an opportunity to lessen reliance on external energy and raw materials, reinforcing its resilience and strategic autonomy. The upcoming Circular Economy Act should address current regulatory gaps and strengthen circular value chains, while confirming its environmental commitment. With construction among the sectors best positioned to benefit from robust circular practices, **our recommendations build on proven approaches to support a prosperous Single Market.** 

#### Key recommendations

Introduce circular procurement requirements in public construction projects

Set EU-wide minimum requirements for high-volume materials with increased circularity potential. A harmonised baseline provides legal clarity to procurers and market predictability for bidders.

Prioritise value-based awarding over the lowest-price approach

Truly innovative and circular solutions can become the norm only if lowest-price awarding stops being the default practice. The Public Procurement Directives should be revised to require best-value-for-money, with the Circular Economy Act supporting its practical implementation.

Enhance construction and demolition waste management through stronger prevention and recovery Prevent unnecessary waste and retain material value through pre-demolition audits and separate targets for reuse and recycling. Establish harmonised end-of-waste criteria to clarify the transition from waste to product and its subsequent use.

Implement existing legislation to strengthen the Single Market for circular materials

Existing legislation should prioritise the development of ecodesign requirements, supported by standards and labels that promote fair competition and market access for innovative technologies. Financial measures should help balance market conditions between extractive models and circular, low-carbon alternatives.

# CEA - a major opportunity to strengthen the business case for circularity in the built environment

The EU's new industrial strategy acknowledges circularity as a competitive advantage in supporting the bloc's single market and consolidating its strategic autonomy. The construction ecosystem is one of the sectors with the highest potential for circularity. In the EU alone, it accounts for about 50% of all extracted material, 33% of water consumption, and for over 35% of the EU's total waste generation<sup>1</sup>.

At the same time, it is central to the EU economy. It supports 25 million jobs, drives growth, and contributes to social, climate, and energy goals. If done right, it can drive economic incentives for the increased use of circular materials and create a business case for investments, with revenue opportunities of 1 trillion in Europe alone foreseen by 2050<sup>2</sup>.

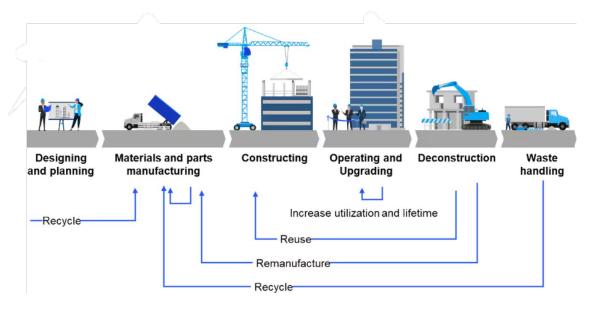


Fig. 1 Circular construction value chain

(Source: How economic circularity in the built environment drives value | World Economic Forum)

Yet, despite the EU's commitment to support circularity in construction – as set out in the original 2020 Circular Economy Action Plan<sup>3</sup> – the sector continues to struggle with an

<sup>&</sup>lt;sup>1</sup> Buildings and construction - Internal Market, Industry, Entrepreneurship and SMEs

<sup>&</sup>lt;sup>2</sup> Takeaways from the World Economic Forum 2024 panel at Davos | McKinsey

<sup>&</sup>lt;sup>3</sup> Among the set of actions outlined, the Commission has proposed minimum mandatory minimum mandatory GPP criteria and targets in sectoral legislation as well as compulsory reporting to monitor the uptake of GPP

underdeveloped market for secondary raw materials and the absence of effective measures to stimulate lead markets for circular solutions.

While certain provisions in the EU law provide the basis for circular construction<sup>4</sup>, they remain limited in scope or poorly implemented. To properly deliver on its potential, the new Circular Economy Act (CEA) should (a) fill the gaps in construction and waste legislation by enhancing green public procurement, waste prevention and recovery measures, and (b)

"Moving forward, we should make the circular economy the backbone of EU industrial strategy, enabling circularity in new areas and sectors, empowering consumers to make informed choices and enhancing efforts by the public sector through sustainable public procurement"

European Commission – Reflection paper: Towards a Sustainable Europe by 2030

ensure measures already foreseen in existing legislation (e.g. ecodesign requirements, technology neutral standards) are rolled out, in line with the waste hierarchy.

To achieve this, the CEA should be guided by two key principles:

- 1) Create strong demand for circular materials through the development of lead markets:
  - Public procurement measures aimed at supporting circularity should be implemented and enforced. This has the potential to provide investment certainty for construction players and legal clarity for procurers.
  - Energy-intensive materials like concrete and steel represent a small share of total construction costs, while their volumes are substantial to create economies of scale (31% of construction investments are publicly funded)<sup>5</sup>.
- 2) **Develop enabling measures** for a well-functioning single market that supports circularity throughout the full life cycle (from waste prevention to recycling targets)
  - Besides public procurement, construction should represent a priority sector for other policy interventions and incentives that better link supply and demand mechanisms. These actions should target the whole value chain to promote waste reduction and the uptake of circular materials.
  - With SMEs accounting for 99% of the construction companies and 90% of the employment in the sector, increasing circularity would retain more high value materials in the economy, increasing the resilience of companies to external shocks, while supporting innovation and local labor markets.

# Construction at the core of a competitive European circular economy framework

Leveraging Europe's competitive advantage in the circular economy requires a long-term strategy to scale up the market for circular materials and reduce overreliance on (imported)

<sup>&</sup>lt;sup>4</sup> For example, the Waste Framework Directive, the Ecodesign for Sustainable Product Regulation or the Construction Products Regulation. Additionally, the Industrial Accelerator Act aims to drive the uptake of low-carbon products in energy intensive industries (cement, steel), so the forthcoming Circular Economy Act should complement it by addressing the circularity dimension.

<sup>&</sup>lt;sup>5</sup> Public procurement construction steel and cement EU FINAL

raw materials. Central and local authorities have started to adopt such circular procurement or circular construction strategies.

For example, Finland has implemented a plan to address construction and demolition waste by prioritising material recovery, introducing circular procurement criteria and improving data collection. The cities of Amsterdam and Rotterdam plan to introduce circular procurement in all public tenders by 2030<sup>6</sup>. **Scaling up these measures requires a coordinated approach that addresses both supply- and demand-side dynamics**.

### 1. Ambitious public procurement measures should reward best performers and support the transitioners

A core deliverable of the CEA should be the creation of lead markets through circular procurement. Clear and robust non-price requirements are important because (1) they provide both suppliers and procurers with an operational framework that can stimulate competition and cross-border cooperation and (2) they provide long-term predictability for scaling circular business models, de-risking investments.

Public authorities can use their purchasing power to stimulate demand for circular solutions. Across the EU, over 250,000 public authorities spend annually around 16% of GDP (€2.5 trillion) on services, works and supplies. Even a 1% efficiency gain in public procurement could save up to €20 billion each year. The construction sector accounts for a significant share of this spending, generating the largest number of procurement procedures in the EU<sup>7</sup>.

Legislation such as the recently revised Construction Products Regulation and the new Ecodesign for Sustainable Products Regulation empower the Commission to develop EU-wide sustainability criteria for public procurement, including measures to support circularity. However, this process is expected to take several years, and there is currently limited political will to accelerate it.

In the absence of an EU-wide framework, circular construction in the public sector remains insufficient to create predictable market demand and encourage investments. The Commission's recent evaluation report notes that "the lack of a harmonised approach creates a fragmentation of the legal framework and undermines the achievement of strategic objectives". While a certain flexibility allows authorities to adjust tenders to their own needs and the local availability of supplies, there is an overall uncoordinated approach in how Member States are implementing requirements.

Six Member States have defined minimum re-use, recycling and recovery rates (in terms of weight) for waste generated during demolition as part of their public procurement requirements. The rates vary between 55% (Malta, Latvia, Ireland) and 70% (Italy), with the

<sup>&</sup>lt;sup>6</sup> In Rotterdam, construction materials and buildings account for 25% of the city's €1.3 billion annual spending.

<sup>&</sup>lt;sup>7</sup> Construction and related architectural and engineering services together account for one-third of all EU procurement procedures (around 450,000 procedures).

<sup>&</sup>lt;sup>8</sup> Register of Commission Documents - SWD(2025)332

former being equal to the minimum requirement set in the EU voluntary GPP criteria for office buildings. Nine other countries recommend recycling practices by requiring different documentation such as demolition plans. At the material level, only three Member States require clear, quantified recycled aggregates in their products. Italy and Malta have specific requirements on recycled content for structural materials such as concrete and steel. A championing example comes from the Netherlands, where the Dutch Ministry of Infrastructure integrates circularity into a monetised indicator used for life-cycle costing<sup>9</sup>.

This lack of coordination creates, according to the European Court of Auditors, uncertainty for suppliers who are often discouraged from participating in cross-border procurement. Likewise, public authorities that are only beginning to implement circular procurement measures are reluctant to act without clearly defined, ready-to-use requirements, fearing potential legal challenges 10.

However, this doesn't mean that a new process needs to start from scratch. The existing EU GPP criteria for the product groups 'office building design, construction, and management' and 'road design, construction and maintenance' contain **ready-to-use use criteria for circular procurement**. These model clauses can be applied at all stages of a project (design, construction, maintenance, end-of-life)<sup>11</sup>, yet, in practice, they are modestly used.

Product category	Lifecycle	Selection	Technical	Award	Contract
	stage	Criteria	Specifications	Criteria	Performance
					Clauses
Office Building,	Design	Yes	Yes	Yes	No
Design,	Construction				
Construction and	including End	Yes	Yes	Yes	Yes
Management	of life				
	Management	Yes	Yes	No	Yes
Road Design, Construction and Maintenance	Design	Yes	Yes	Yes	No
	Construction	Yes	No	No	Yes
	Usage and	No	Yes	No	Yes
	Maintenance				
	End of life	No	Yes	No	No

**Figure 2**: Summary of circularity criteria currently available in the EU GPP criteria for product groups relevant to construction sector (see Annex 2 and 3 for the detailed list)

A minimum level playing field is therefore needed to ensure uniform conditions for procurers and suppliers across the EU, encouraging greater participation, particularly from innovative SMEs. At the same time, flexibility should be maintained for contracting authorities that already

<sup>10</sup> According to the Evaluation of the 2014 Public Procurement Directives, only around 25% of public contracts in 14 Member States included green procurement criteria.

<sup>&</sup>lt;sup>9</sup> Driving-GPP-in-construction-Ramboll-November-2024.pdf

<sup>&</sup>lt;sup>11</sup> The EU GPP criteria cover energy use and GHG emissions, material circularity, water efficiency, user comfort, climate resilience and life cycle costing.

apply more ambitious criteria<sup>12</sup>. Especially in construction, buildings can be designed in innovative and resource-efficient ways, minimising waste and facilitating the reuse and high-quality recycling of building elements and materials<sup>13</sup>.

#### BBBB recommendations:

- ▶ Develop EU-wide minimum requirements (e.g. recycled content obligations) for construction materials with high circularity potential (such as concrete, steel, glass, plastics). This is key in construction, where SME concentration is particularly high and innovative solutions are readily available to the European market. Annex 1 compiles a list of GPP criteria that have been used in different public tenders across Europe and that can serve as inspiration for the development of minimum requirements, at different tendering stages¹⁴.
- > Empower public authorities to move beyond these minimum requirements by:
  - Mainstreaming value-based awarding over the lowest-price approach, to reward innovative and circular solutions 15. This should come through a general obligation from the Public Procurement Directives. Contracting authorities need legally sound mechanisms to assess the circularity of a project as part of their award procedure, while business need market predictability for their upfront investments.
    - Lifecycle costing (LCC) is a cost-effective way to award tenders based on the best value for money. Addressing lifecycle impact is particularly relevant for construction, where 80% of the costs (maintenance, renovation, energy supply) happen after a building is constructed.
  - Encouraging the use of the existing EU GPP criteria, by ensuring that the CEA reinforces their role as practical tools to advance circularity in construction.
     Annexes 2 and 3 summarise the circular model clauses developed by the Commission for office buildings and road infrastructures that can serve as templates for authorities.

<sup>&</sup>lt;sup>12</sup> For example, the City of Amsterdam has developed and implemented a detailed roadmap for introducing circular requirements in public procurement.

<sup>&</sup>lt;sup>13</sup> Detailed guidance on circular design principles, developed in accordance with the EU Level(s) framework, is available here.

<sup>&</sup>lt;sup>14</sup> While minimum requirements are typically set as technical specifications (a pass-or-fail mechanism), they can also be integrated into other stages of the procurement process. For example, the ESPR suggests that minimum requirements may take the form of award criteria (e.g. assigning products with recycled content a minimum weighting of 30%).

<sup>&</sup>lt;sup>15</sup> The <u>City of Lisbon</u> allocated 45% of the tender evaluation to technical merits (including sustainability performance) for its €132.9 million Lisbon Drainage Master Plan contract - showing that large and complex infrastructure projects can be designed and procured to deliver best value for money.

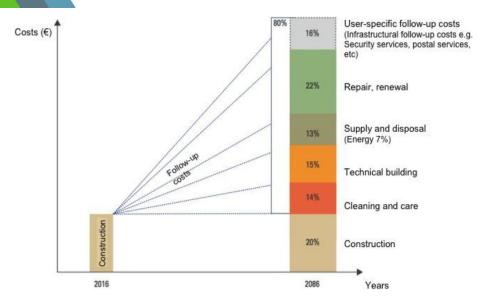


Figure 3: Lifecycle cost accounting for a building over a 70-year-lifespan (Source: ICLEI Europe • Publications & tools)

# 2. Strengthen circular value chains by closing the lop on construction and demolition waste and improving circular material markets

Bridging circularity and operational feasibility in the EU construction and demolition sector requires both sides of the market to move in sync. Creating demand for circular materials requires a matching supply of high-quality recycled and reused inputs, underpinned by adequate infrastructure, clear standards and investor confidence. Some of these measures are already foreseen in existing EU legislation, while the rest needs to be clearly spelled out in the upcoming CEA.

### 2.1 Delivering through the CEA: improve construction and demolition waste management through enhanced prevention and recycling measures

Saving materials, energy and emissions starts with proper mapping of existing, abandoned or underused building sites<sup>16</sup>. This helps authorities and businesses alike anticipate renovation and construction needs, identify secondary material sources and plan circular interventions more efficiently.

In this context, **pre-demolition audits play a key enabling role** by identifying which materials can be efficiently reused and recycled before a building reaches end of life. Aligned with downstream markets and valorisation infrastructure, they allow for proper deconstruction and decontamination. This enables the efficient identification of materials for reuse and separation

<sup>&</sup>lt;sup>16</sup> <u>City of Brussels</u> developed a web-based GIS database to map abandoned buildings, while the <u>Czech City of Brno</u> has mapped its brownfield sites.

in clean recycling flows, reducing unnecessary waste generation, and maintaining the value of high-quality materials.

This is not about starting from scratch – the EU has already worked on detailing the importance of pre-demolition audits and what they should look like under the recently updated EU Construction and Demolition Waste Management Protocol.

Certain Member States, cities and regions have already made these practices mandatory. In France, all buildings with a floor area greater than 1,000 m² must undergo a diagnosis of how the construction products, materials and waste will be managed following the works<sup>17</sup>. Some cities have also used pre-demolition inventories and material audits to identify building components and materials with recycling potential<sup>18</sup>. A similar approach for large-scale renovation and demolition should become the norm in Europe.

With the increasing use of proven digital tools such as Building Information Modelling (BIM), traceability and material recovery can be enhanced by linking demolition permits to material databases and digital passports. In Amsterdam, pre-demolition audits are increasingly digitalised and connected to platforms that record material quantities and quality <sup>19</sup>. As a result, material data are available ahead of demolition, enabling reuse and recycling planning.

Improving preparation for reuse and recycling rates of construction demolition waste (CDW), and of its mineral stream, should also be addressed. A recent report by the JRC clearly indicates that the existing catch-all recovery targets (under the Waste Framework Directive, art. 11) are not conducive to a true circular economy in the sector. This is because they aggregate several processes (preparation for reuse, recycling and other recovery processes, including backfilling), without favouring processes higher up the waste hierarchy and without considering the reuse and recycling potential of the different waste streams.

As a result, large share of CDW is currently declared by Member States as recovered, even though much of it is actually backfilled (used as low-value fill material rather than reintroduced into new construction). This practice artificially inflates recovery statistics and undermines the circular economy objective, as materials are not kept in productive use. Stronger differentiation

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 $<sup>^{17}</sup>$  LOI n° 2020-105 du 10 février 2020 relative à la lutte contre le gaspillage et à l'économie circulaire (1) - Légifrance

<sup>&</sup>lt;sup>18</sup> Including Mikkeli (Finland), Roskilde and Høje-Taastrup (Denmark), Bratislava (Slovakia), and Strasbourg (France). In the case of the Rázsochy Faculty Hospital in Bratislava, the winning bidder offered to recover 100% of the CDW.

<sup>&</sup>lt;sup>19</sup> Amsterdam Metropolitan Area – Material Passports for Circular Economy

between backfilling, recycling and reuse is therefore needed to ensure that recovery targets translate into high-value circular outcomes<sup>20</sup>.

Improving and expanding end-of-waste (EoW) criteria for construction products would allow materials to circulate more easily across borders and be safely reused in high-value applications. Only a few EU-wide criteria currently exist, and fragmented national approaches create uncertainty for recyclers and discourage investment in high-quality recovery. Setting clear and harmonised EoW rules (starting with high-volume materials<sup>21</sup>) would ensure legal clarity over the transition from waste to product and their subsequent usage. It would also boost investor and procurer confidence in secondary materials, helping them compete on quality with virgin resources.

#### BBBB recommendations:

- ➤ Require mandatory pre-demolition audits to allow for proper separation and identification of materials for reuse or recycling before renovation or demolition, preventing waste generation, while ensuring targeted separation at source.
- ➤ **Develop separate targets for non-hazardous CDW** according to the waste hierarchy (reuse, recycling, backfilling) alongside a common methodology for calculation.
- Streamline the development and upgrade the EU EoW criteria for construction products. This is needed to facilitate the transport and use of recovered waste products across the Single Market, alongside increasing acceptance of recycled materials in private and public projects.

# 2.2 Accelerating the implementation of existing legislation to scale up the circular construction market: product requirements, technology neutral standards and financial support

To promote the shift towards greater circularity in the European construction industry, the EU should use all the tools existing in complementary legislation, ensuring products are better designed and are able to access the EU market easily.

One such measure is the development of product requirements within existing product-specific legislation. Product design plays an instrumental role in bringing together the various steps of a product's lifecycle, facilitating their disassembly and recycling at the end of their life. The CPR and ESPR give the possibility to integrate ecodesign requirements (such as recycled content), with the latter addressing steel as a priority sector. Setting sustainability requirements from the outset would provide predictability for the uptake of secondary raw

<sup>21</sup> The European Commission's Joint Research Centre identified mineral fractions from construction and demolition waste as suitable for prioritisation in developing EU-wide EoW criteria.

<sup>&</sup>lt;sup>20</sup> CDW should be prioritised according to the waste hierarchy, and within those processes, the ones providing the highest environmental benefits should be favoured (e.g. recovery of cementitious material from concrete over recovery of recycled concrete fines)

materials in new products – both in the public and private markets - and ensure that imported goods are subject to the same rules<sup>22</sup>.

These requirements must be underpinned by proper standards, to remove bottlenecks that currently prevent circular value chains from properly developing. Despite many relevant technologies and production processes being well established (e.g. clinker substitutes and recycled aggregates in concretes, scrap-based steel production),<sup>23</sup> circularity in construction is not the default option. To address this gap, ongoing work on both the regulatory (e.g. CPR Aquis) and standardisation (e.g. CEN TC 350<sup>24</sup>) levels needs to evolve to systematically integrate circularity aspects into construction standards. The upcoming CEA should steer current work towards integrating circularity parameters that could be further incorporated into the national building regulations<sup>25</sup>.

This also starts by properly rewarding products designed with circularity in mind in the calculation of materials' environmental impacts – either through Environmental Products Declarations (EPDs) or technology-neutral labels. BBBB reiterates the importance of avoiding labels that penalise recycling efforts, particularly in sectors where Europe already has well-established markets for secondary materials (e.g. recycled steel in construction<sup>26</sup>). Any label proposed should strive to phase out over time the most polluting technology, one after the other. Furthermore, we recommend a classification system based on classes of performance to ensure continuity with sectoral work, allowing the CPR and ESPR to address additional lifecycle stages and environmental impacts, without unnecessary legal burden. Properly assigning benefits related to circularity has the potential to increase the competitive advantage of those products and incentivise its practice.

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<sup>&</sup>lt;sup>22</sup> Ecodesign measures have already been proven effective in promoting resource efficiency and ensuring fair competition within the Single Market. Continuing this work would support the EU's circular economy ambitions, ensuring that all products, included those that are imported, are subject to the same environmental rules.

<sup>&</sup>lt;sup>23</sup> Circularity: A key enabler to reach net-zero in cement | World Economic Forum; JRC Publications Repository - Environmental and Socio-Economic Impacts of the Circular Economy Transition in the EU Cement and Concrete Sector; Circular economy policies for steel decarbonisation (EN)

<sup>&</sup>lt;sup>24</sup> For example, standardisation efforts are coming together in the context of SC1/ WG 8 of CEN TC 350 to define standardised templates and procedures for audits tailored at streamlining circularity before demolition occur. Work is undergoing also on the standards for reuse of structural steel or the valorisation of steel by-products.

<sup>&</sup>lt;sup>25</sup> The Danish standard for concrete (DS/EN 206) allows for up to 100% recycled concrete aggregate to be safely integrated into new concrete structures, provided that material quality and performance requirements are met.

<sup>&</sup>lt;sup>26</sup> The construction sector accounts for nearly 40% of all steel used in Europe, making it the largest end-use sector for steel. Most of this steel (rebars, beams, wire rods, structural sections) is produced via recycled-based routes in Electric Arc Furnaces.

Building on these efforts, including circularity indicators in EPDs could, in turn, feed data directly into digital tools such as material databases or demolition permits (see above Amsterdam example). Authorities need reliable product-level data on what materials can be recycled. If EPDs become the data backbone, they can link product-level performance with building-level circularity planning.

Circular materials should not be more expensive than their virgin counterparts. The Draghi Report notes that financial obstacles hamper the Single Market's readiness for circular economy. The integration of recovered materials into the market often entails high energy costs and labour-intensive treatment, while negative externalities such as material extraction or end-of-life impacts are not reflected in market prices. As a result, circular businesses face a competitive disadvantage compared to linear models<sup>27</sup>. Access to affordable and sustainable electricity is a key enabler for scaling up material recycling and reuse in energy-intensive sectors. This can reduce exposure to unfair international competition from markets where energy is heavily subsidised or remains cheap due to reliance on fossil-fuels.

Additionally, efforts should focus on enabling the European recycling infrastructure, so that domestic feedstock can be used in high-quality applications (e.g. steel in automotive). A well-functioning recycling market is a prerequisite for effective predemolition audits, as it ensures the existence of valorisation pathways for recovered materials. Circular economy should be considered a strategic priority across EU funding instruments (including

"Enhancing circularity is an important pathway for the decarbonisation of metal industries. For example, recycling can save up to 95% and 80% of the energy required for primary aluminium and steel production, respectively. Recycling scrap generated in the EU also allows to reduce dependencies of the EU industry on imported primary raw materials."

European Commission – A European Steel and Metals Action Plan

cohesion, innovation and industrial transition programmes) to ensure that grants and loans support the scale-up of circular business models.

#### BBBB recommendations:

- ➤ **Prioritise the development of product requirements** for construction materials to phase out the worst-performing products from the EU market.
- ➤ Ensure legal requirements are properly supported by standards, enabling the consistent and transparent allocation of benefits from the circular economy, and common measurements and guidelines.
- ▶ Develop fiscal measures such as higher taxes for virgin materials or reductions for circular materials (e.g. reduced VAT rates or tax credits). Consider conditionality provisions to ensure that publicly funded EU projects align with circular economy principles. New financial incentives (e.g. foreseen under the Competitiveness Compass) should prioritise circularity as a strategic sector for R&D, to reduce external dependencies and support EU jobs.

<sup>&</sup>lt;sup>27</sup> https://circulareconomy.europa.eu/platform/sites/default/files/2024-01/JRC135470\_01\_1.pdf

## Annex 1. Suggested minimum circular procurement requirements for construction projects

Overview of the most common circularity criteria use in public construction works, that can serve as minimum requirements. The list has been compiled based on the EU GPP criteria, national criteria (e.g. Dutch MVI criteria tool) and case studies from national and local authorities from across Europe.

Source: Compiled from circular-public-procurement-in-cities.pdf

#### Model clauses

#### 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:
- 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:

• Construction designs and techniques supporting the incorporation of circular solutions as outlined in Level(s) framework

#### 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:

- 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.
- 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 nonhazardous construction and demolition waste generated on construction sites is prepared for reuse or recycling.

#### 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) including by introducing a proximity principle to reduce transportation emissions.
- 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 EN 15804 or by carrying out a Life Cycle Assessment (LCA) of the building in accordance with EN 15978.

#### **Contract performance clause:**

- 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** (e.g. minimum hours of training to support upskilling and reskilling of construction workers) 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.

# Annex 2. Circular criteria embedded in the EU GPP criteria for Road design, construction and maintenance

The list is organised according to the waste hierarchy.

Source: Compiled from Green-public-procurement-and-the-circular-economy.pdf

Category	Clause	Subcategory	Туре
R1: Rethink	C1. Commissioning of the road construction	Construction	CPC
R2: Reduce	B11. Performance requirements for durability of pavement	Design	TS
R3: Reuse	A1. Competencies of the project manager and design team	Design	SC
	A2. Competencies of the main construction contractor	Design	SC
	B2. Excavated Materials and Soil Management Plan	Design	TS
	B15. Incorporation of recycled content	Design	AC
	C5. Commissioning of the Excavated Materials and Soil Management Plan	Construction	CPC
	E2. Demolition Waste Audit and Management Plan	Maintenance and operation	TS
	F1. Demolition waste audit and management plan	End of life	TS
R4: Repair	B11. Performance requirements for durability of pavement	Design	TS
	B12. Maintenance and Rehabilitation (M&R) Plan	Design	TS
	D3. Commissioning of the Maintenance and Rehabilitation (M&R) Plan	Use of the road	CPC
	E4. Commissioning of the road maintenance	Maintenance and operation	CPC
R8: Recycle	A1. Competencies of the project manager and design team	Design	SC

A2. Competencies of the main construction contractor	Design	SC
B2. Excavated Materials and Soil Management Plan	Design	TS
B15. Incorporation of recycled content	Design	AC
C3. Incorporation of recycled content	Construction	CPC
C5. Commissioning of the Excavated Materials and Soil Management Plan	Construction	CPC
E2. Demolition Waste Audit and Management Plan	Maintenance and operation	TS
E5. Incorporation of recycled content	Maintenance and operation	CPC
F1. Demolition waste audit and management plan	End of life	TS

# Annex 3. Circular criteria embedded in the EU GPP criteria for Office building design, construction and management

The list is organised according to the waste hierarchy.

Source: Compiled from Green-public-procurement-and-the-circular-economy.pdf

Category	Clause	Subcategory	Туре
R1: Rethink	A1. Competencies of the project manager	Design	SC
	B10.1 Performance of the main building elements: Carrying out of a Life Cycle Assessment (LCA)	Design	AC
R3: Reuse	B10.2 Incorporation of recycled content in concrete and masonry	Design	AC
	C1. Demolition waste audit and management plan	Construction	TS
	D3. Site waste management	Construction	TS
	D8. Site waste management	Construction	CPC
	G3. Waste management system	Management	TS
	G5. Waste management system	Management	CPC
R8: Recycle	A3. Competencies of the main construction contractor and specialist contractors.	Design	SC
	B5. Recyclable waste storage	Design	TS
	B10.2 Incorporation of recycled content in concrete and masonry	Design	AC
	C1. Demolition waste audit and management plan	Construction	TS
	D3. Site waste management	Construction	TS
	D6. Incorporation of recycled content	Construction	CPC
	D8. Site waste management	Construction	CPC
	F7. Recyclable waste storage	Construction	CPC

	G3. Waste management system	Management	TS
	G5. Waste management system	Management	CPC
R9: Recover	C1. Demolition waste audit and management plan	Construction	TS
	D3. Site waste management	Construction	TS



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