European Environment Agency

Unlocking the circular economy: investment needs, barriers and enabling conditions

EEA report

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Luxembourg: Publications Office of the European Union, 2026

ISBN 978-92-9480-767-0
ISSN 1977-8449
doi:10.2800/5422329

Cover design: EEA
Cover photo: © EEA
Layout: Eworx/EEA

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Acknowledgements

The European Environment Agency (EEA) would like to thank the European Commission and the European Investment Bank for their valuable contributions and input to the drafting of this report and during the targeted consultation. The EEA would also like to acknowledge the contributions from the European Topic Centres on Sustainability Transitions (ETC ST) and Circular Economy and Resource Use (ETC CE) in the form of the underpinning assessments on which this report relies — available within the Eionet report *Financing circular economy ambitions in Europe: trends and gaps* — and their valuable feedback for this publication.

Key messages

- The circular economy represents a strategic business opportunity to expand Europe's market, unlock significant economic returns and decrease resource dependence at the same time as reducing pressure on the climate and the environment.
- It is necessary to accelerate investment in the circular economy in order to meet European Union (EU) policy targets.
- According to the most recent estimates, an increase in annual investment of approximately 68% is required to meet the EU's circular economy objectives; this equates to an additional EUR 82 billion annually.
- The largest investment gaps have been identified in the product design and end-of-life stages, with the greatest sectoral gaps in construction, textiles, batteries and vehicles.
- According also to the latest estimates, private finance currently dominates investment; however, public funding plays a catalytic role in de-risking projects and enabling blended and long-term financing.
- Circular business models face structural economic and financial barriers; these include unpriced externalities, split incentives along value chains, information asymmetries and institutional lock-ins that favour linear economic models.
- Policy action is required to improve the access to finance and marketability of circular projects and to align finance with circularity goals. This includes the development of clear definitions and classifications, targeted incentives, improved risk assessments, and stronger circular and financial literacy.
- Better monitoring is crucial, not only of financial flows but also of the contribution of finance to advance a circular economy that delivers the highest socio-economic and environmental benefits.

Executive summary

The circular economy is expected to play a key role in strengthening Europe's competitiveness while also helping to ensure that its environmental objectives are achieved. By reducing dependence on imported raw materials, cutting exposure to volatile global commodity markets and strengthening industrial resilience, circularity is central to Europe's long-term competitiveness. It also represents a strategic economic opportunity.

Applying circular economy principles could boost EU gross domestic product (GDP) by 0.5% by 2030. At the same time, the European remanufacturing market alone could grow from EUR 31 billion to EUR 100 billion by 2030. The transition is also projected to generate around 700,000 new green jobs, particularly in the repair, remanufacturing and recycling sectors; the Clean Industrial Deal estimates 500,000 new jobs in the remanufacturing sector.

However, the progress of the circular economy remains critically insufficient. Linear economic models prevail in the EU, which involve very high material demand, a dominance of short-lived products and increasing waste generation. The EU's circular material use rate ([1]) increased by just 1.5 percentage points between 2010 and 2024. This is far short of the required rate of change set out in the Clean Industrial Deal to double circular material use to 24% by 2030. This signals the structural mismatch between policy ambition and increasing financial needs on the one hand, and financial mobilisation on the other.

Significant improvements in efficiency will be required to achieve the EU's circular economy objectives. These are not only necessary in production processes but across the entire lifecycle of products. However, ensuring an effective transition to a circular economy is dependent on clear definitions, robust frameworks for implementation and, critically, adequate and well-targeted financing. The latter will be needed for the implementation of adopted and upcoming policies, to ensure that companies can create and adapt to market changes and to scale up technologies.

According to the latest estimates of the European Commission and the European Investment Bank, private investment in circular activities has plateaued at around 0.8% of GDP since 2019. However, a 68% increase in circular investment — an additional EUR 82 billion annually until 2040 — is required to fully implement the EU circular economy policies that have been adopted.

The largest investment gaps are currently at the upstream product design stage and in the end-of-life phases, with construction, textiles, batteries and vehicles identified as priority sectors. Crucially, the foregone economic benefits of inaction (estimated at EUR 84.5 billion annually) significantly outweigh the cost of closing these gaps.

([1]) The share of the materials to meet EU consumption that come from recycled products.

Structural economic and financial barriers impede the necessary acceleration. These include unpriced environmental externalities that disadvantage circular over linear models, split incentives along value chains, information asymmetries limiting investor confidence, and financial tools — such as the EU Taxonomy — that incompletely capture circular activities. Innovative business models also face high perceived risk and fragmented markets that constrain access to capital.

Unlocking this investment opportunity requires coordinated action. Public finance plays a catalytic role in de-risking projects and attracting private investment. Targeted economic instruments can reshape market incentives across the product lifecycle. Improved sustainability disclosures and better monitoring of circular investment flows are also necessary enabling conditions. Acting now — with clear definitions, targeted incentives and fit-for-purpose financing instruments — is a cost-effective path to securing Europe's resource sovereignty, industrial competitiveness and environmental goals.

This report gives authoritative information on the scale of financing needed for this transition and the necessary conditions for efficient implementation and effective change. It relies on assessments available in the report from the European Topic Centres on Sustainability Transitions (ETC ST) and Circular Economy and Resource Use (ETC CE) report *Financing circular economy ambitions in Europe: trends and gaps*.

1 No time to waste: the need to advance circularity to secure Europe's competitiveness and the environment

Accelerating the transition to a circular economy is a prerequisite for strengthening Europe's long-term competitiveness and resilience as set out in the Clean Industrial Deal. By reducing material demand and keeping resources in use for longer, circular strategies help to reduce dependence on imported raw materials and shield European industry from volatile global markets and geopolitical risks, particularly in terms of the supply of critical raw materials.

Beyond economic resilience, circularity is a key lever for addressing the systemic pressures driving environmental degradation and climate change. A more circular economy lowers resource extraction, reduces emissions and helps safeguard Europe's natural capital (EEA, 2026a). For instance, circular economy measures can deliver great reductions in greenhouse gas emissions, especially in the waste management, construction and industrial sectors (EEA, 2026b). Taking decisive action now can ensure that Europe remains at the forefront of sustainable global markets and deliver benefits for both citizens and businesses.

Applying circular economy principles could boost EU GDP by 0.5% by 2030 (EC, 2020). The Clean Industrial Deal focuses on the economic benefits, highlighting the strong growth potential of circular business models. It estimates that the European remanufacturing market alone could expand from EUR 31 billion to EUR 100 billion by 2030. This underscores the economic returns of scaling up circular investment.

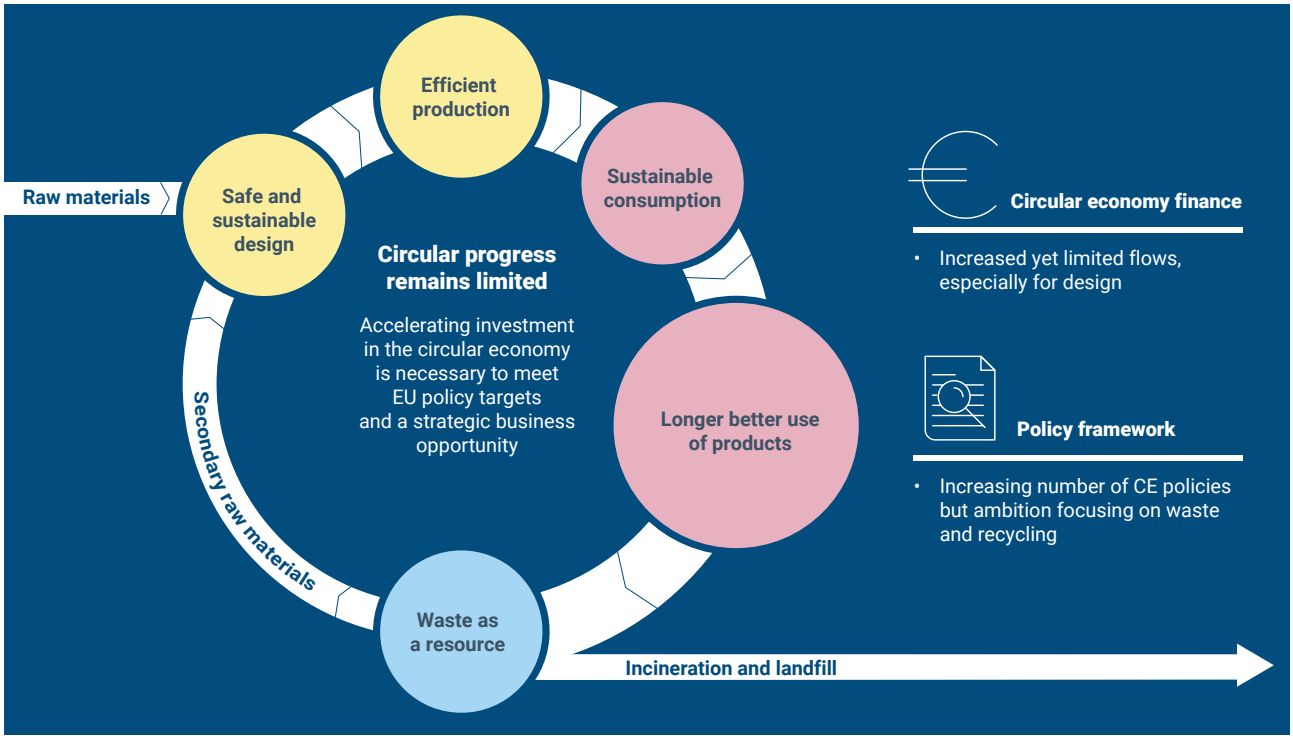
Currently manufacturing firms spend around 40% of their costs on materials, so circular models would help to stabilise profitability by reducing exposure to resource price volatility. For instance, according to the Draghi report on EU competitiveness up to 75% of the EU's metal demand for clean technologies could be met through domestic recycling by 2050. This would reduce the EU's strategic dependencies.

The transition is also expected to generate around 700,000 new jobs (EC, 2020), particularly in labour-intensive sectors such as repair, remanufacturing and recycling; the Clean Industrial Deal estimates 500,000 new jobs in the remanufacturing sector. This illustrates a clear double dividend of improved resource use alongside increased employment.

The Clean Industrial Deal aims to support a more circular economy, with an ambition to double the EU's circular material use rate to 24% by 2030. However, circular progress remains limited (Figure 1.1). Despite the fact that most Member States have national strategies in place (EEA, 2024a), policy implementation is weak, uneven and rather focused on waste and recycling. The EU remains a long way off its circularity target, with the circular material use rate increasing by just 1.5 percentage points between 2010 and 2024 (EEA, 2025a).

Without a systemic shift in consumption and use patterns that reduces absolute material use, efficiency gains risk being offset by rebound effects ([2]), undermining systemic progress towards circularity (EEA, 2023). Achieving the EU circular economy objectives comes with increasing investments needs.

Figure 1.1 **Limited circular progress towards the EEA vision for a circular economy in Europe**



Examples of limited circular progress along the value chain

Design and production

- High material demand
- Design not suitable for long-lasting products
- Unclear progress on circular strategies such as remanufacturing

Use and life-time extension

- Sharing businesses grow but scaling up is challenged
- Reuse markets grow but do not always reduce consumption
- Doubtful claims of circularity in the market

Waste management

- Increasing waste generation
- Limited, stagnated circularity
- Limited investment in innovation for recycling technologies

Sources: EEA elaboration based on EEA, 2024b, 2024c, 2026c.

([2]) Rebound effects take place when efficiency improvements are outweighed by increasing consumption. For instance, installing solar panels at home can lead to increase electricity use since incentives for energy saving decrease.

2 Circular economy financing gaps point to untapped economic potential

Estimating investment needs for the circular economy remains challenging due to inconsistent definitions and varying scopes across studies. Methodological barriers — including challenges in linking circular activities to standard economic classifications and a lack of detailed financial data — further complicate the establishment of reliable baselines.

Recognising these methodological challenges, three comprehensive studies offer complementary approaches to assessing circular economy financing gaps; they are based on different scopes and methodologies (Table 2.1).

The study from the European Investment Bank (EIB) and the European Commission (EIB-EC, 2026, see Box 2.1) offers the broadest perspective, analysing the investment needed to fully implement the circular policies and regulations adopted so far. The study points to the fact that most investment is required in the areas of circular design — in particular for the implementation of the Ecodesign for Sustainable Products Regulation (ESPR) — and the end-of-life phases. The study sets out estimated investment needs based on impact assessments and key EU studies linked to the sectors covered by the 2020 Circular Economy Action Plan (CEAP).

The investment needs referred to in the European Implementation Review (EIR) (EC, 2025a) are narrower in scope and cover a shorter time frame. The review sets out what is required to close the implementation gap by estimating the shortfall in investment needed to implement EU environmental law, with a section focusing on the circular economy and waste. The study also provides estimates at the Member State level, reflecting great variability across the EU due to differing economic structures and circular ambition levels.

The Platform on Sustainable Finance (PSF) study (EC, 2025d) assesses progress towards the goals set out in the European Green Deal that relate to the circular economy. It tracks private capital flows using EU sustainable finance data, focusing on investments aligned with the EU Taxonomy and corporate sustainability disclosures.

Table 2.1 Comparison of studies on financing needs for the circular economy in the EU

Study and time period	Study methodology	Study limitations	Study objective
EIB-EC (2026) 2025-2040 (see Box 2.1)	The report includes: top-down mapping of Nomenclature of Economic Activities (NACE) codes that are considered circular (132 sectors), applying circular coefficients (5-100%); analysis of implementation needs from EC policy impact assessments (for investment needs).	There is subjectivity in assigning circular economy coefficients and inconsistent data sourced from banks and Member States.	The study assesses investment needs and gaps for implementing the 2020 CEAP and 2040 ESPR ambitions.
EIR (EC, 2025a) 2021-2027	Investment needs are derived from the costs required to meet legally binding targets and obligations set out in EU circular economy and waste law, such as the Waste Framework Directive and the Landfill Directive. Estimates are based on EC internal analysis.	The study focuses on legal compliance with adopted regulations and only partially captures circular economy needs.	The study assesses the investment needs to close the implementation gap for compliance with EU environmental law.
PSF (EC, 2025d) 2025-2030	The study tracks EU Taxonomy-aligned capital expenditure and green loans.	The study relies on voluntarily reported data; regulatory data are missing and the study excludes most of the data on public spending, with coverage focusing only on activities targeted by the EU Taxonomy Regulation (EU, 2021).	The study monitors financial flows used to meet the objectives of the EU Green Deal.

A comparison of the investment needs estimated by these three studies is given in Figure 2.1. It shows that the foregone benefits from not meeting circular economy targets are estimated at around EUR 84.5 billion according to the European Implementation Review (EC, 2025a). These costs significantly outweigh the estimates for the additional investment needed to implement the adopted circular economy policies in the EIB-EC (2026) study, which is the one with the most comprehensive sector and needs coverage.

While the differences in scope and methodology in the three studies result in a wide range of estimates for investment needs, the message they all provide is consistent: there is a significant shortfall in current investment levels.

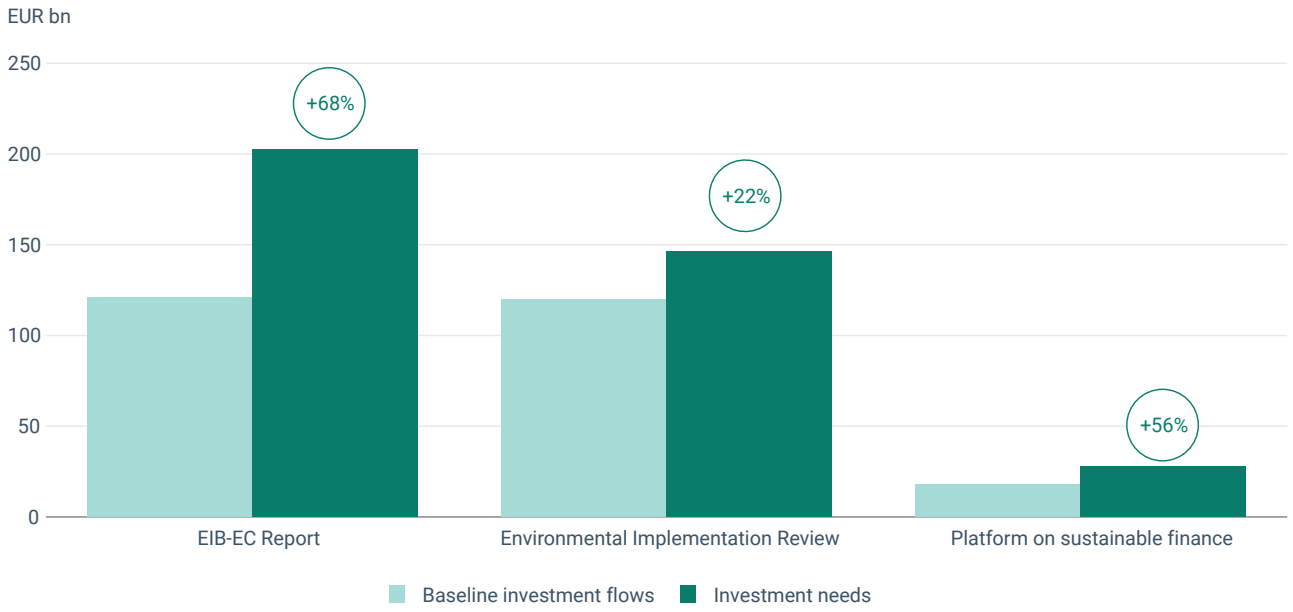
The EIB-EC (2026) study (see Box 2.1) presents the highest estimate; it calls for a 68% increase in circular investment until 2040. This represents an EUR 82 billion increase in circular economy-related investment, equivalent to 2% of all annual investment across the EU economy. The estimate uses Eurostat 2026 gross fixed capital formation ([3]), as a proxy measure. The EIR offers a lower estimate of 21%; this reflects the scope of the study as it focuses on the measures needed to meet the current targets on circular economy and waste, with limited consideration of the investment needs for eco-design.

The PSF study identifies a financing gap of 56% in order to meet the 2030 EU Green Deal objectives related to the circular economy.

([3]) Gross capital formation refers to total investment in fixed assets and inventories, indicating how much an economy is adding to the resources used for future production. At the EU level, in 2025 amounted to EUR 4tn.

Overall, the majority of investment needs are concentrated at the upstream design stage — mostly relating to the implementation of the ESPR — but are also related to the waste sector. Addressing this investment gap, in particular the elements related to design, is critical since a product's design determines up to 80% of its environmental impact (EC, 2025b).

Figure 2.1 **Estimates for additional investment needed annually to meet circular economy objectives**



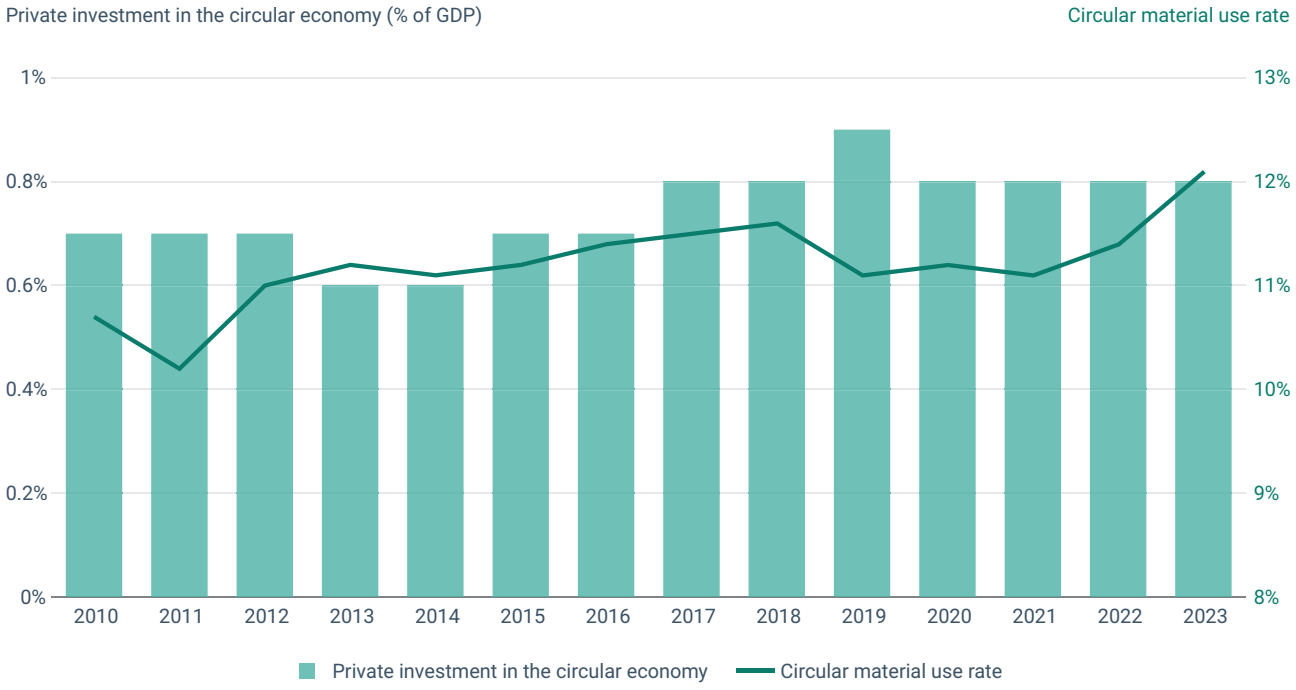
Sources: EEA compilation based on estimates from EIB-EC, 2026; EC, 2025a and PSF, 2025.

Figure 2.2 compares progress in the circular material use rate over the past decade with trends in private investment, which currently accounts for the majority of financing in the sector. Reporting limitations continue to constrain the capacity to monitor public investment and while public funding at the EU level has been increasing, the totals for public resources allocated at the country level remain uncertain (EIB-EC, 2026).

The figure illustrates that — despite strengthened policy frameworks and strategic commitments — neither material use circularity nor financial mobilisation has accelerated at the pace required. Private investment has plateaued at around 0.8% of GDP since 2019.

This persistent gap between policy ambition and investment indicates that incremental progress is insufficient and that more systemic shifts in investment flows are needed to achieve Europe's circular economy objectives.

Figure 2.2 **Trends in private investment in the circular economy and material circularity**



Sources: EEA elaboration based on data from Eurostat, 2025 and Eurostat, 2025.

Box 2.1

***Financing the transition to a circular economy in Europe: gaps and opportunities* - 2026 report by the European Investment Bank and the European Commission**

The 2026 study published by the European Investment Bank (EIB) and the European Commission, *Financing the transition to a circular economy in Europe: gaps and opportunities* (EIB-EC-2026), assesses circular economy investments that make a 'substantial contribution' to the circular economy; it also estimates the investment gap.

The study finds that investment has grown substantially since 2015, reaching EUR 120 billion in recent years. Most of the funding has targeted the battery and vehicle sectors as well as waste activities (Figure 2.3).

These results rely on a methodology that combines investment from EU public funding (estimated to be around 7% of the total) from seven EU programmes, matching funds from Member States and financial resources from the EIB ([4]). The study finds that despite the increases, funding dedicated to the circular economy at the EU level remains limited (about 1% of the total EU budget). The study also focuses on private investment (around 93% of the total).

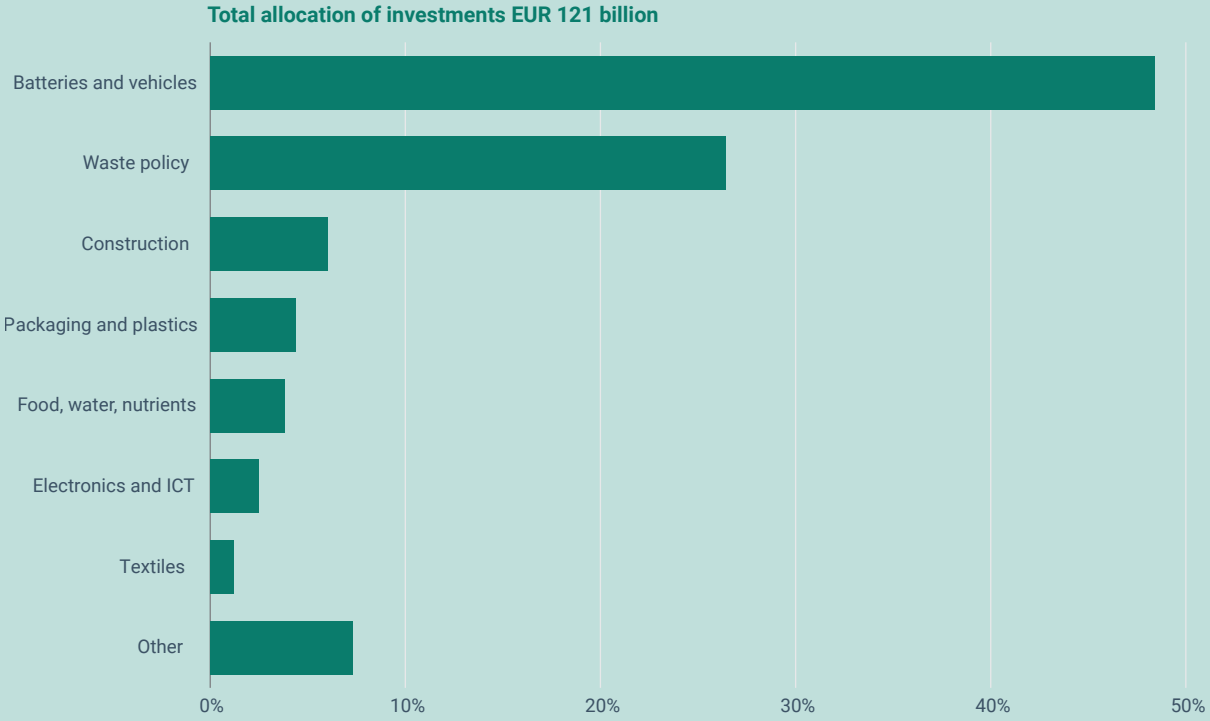
When analysing private investment, the study derives its estimates from data based on the set of circular activities covered by the Eurostat indicator providing data on private investments within the circular economy monitoring framework (CEMF), with some additions. For instance, it also includes sectors deemed by the ESPR to be related to the

([4]) The figures should be interpreted with caution as combining numbers may have resulted in some double counting.

circular economy and sectors (based on the NACE codes) that fit the criteria for being deemed to make a substantial contribution to the circular economy within the Taxonomy for Sustainable Activities.

Current private investment includes investment in machinery and equipment, a subset of the investment that is covered by the CEMF indicator (which covers all tangible assets); this approach is considered to be more representative of the operationalisation of circular activities such as recycling, repair services, remanufacturing and sustainable product design and manufacturing.

Figure 2.3 Circular economy investment in the EU by sector



Notes: Data relate to 2021. ICT: information and communication technology.

Source: EEA elaboration based on data from EIB-EC, 2026.

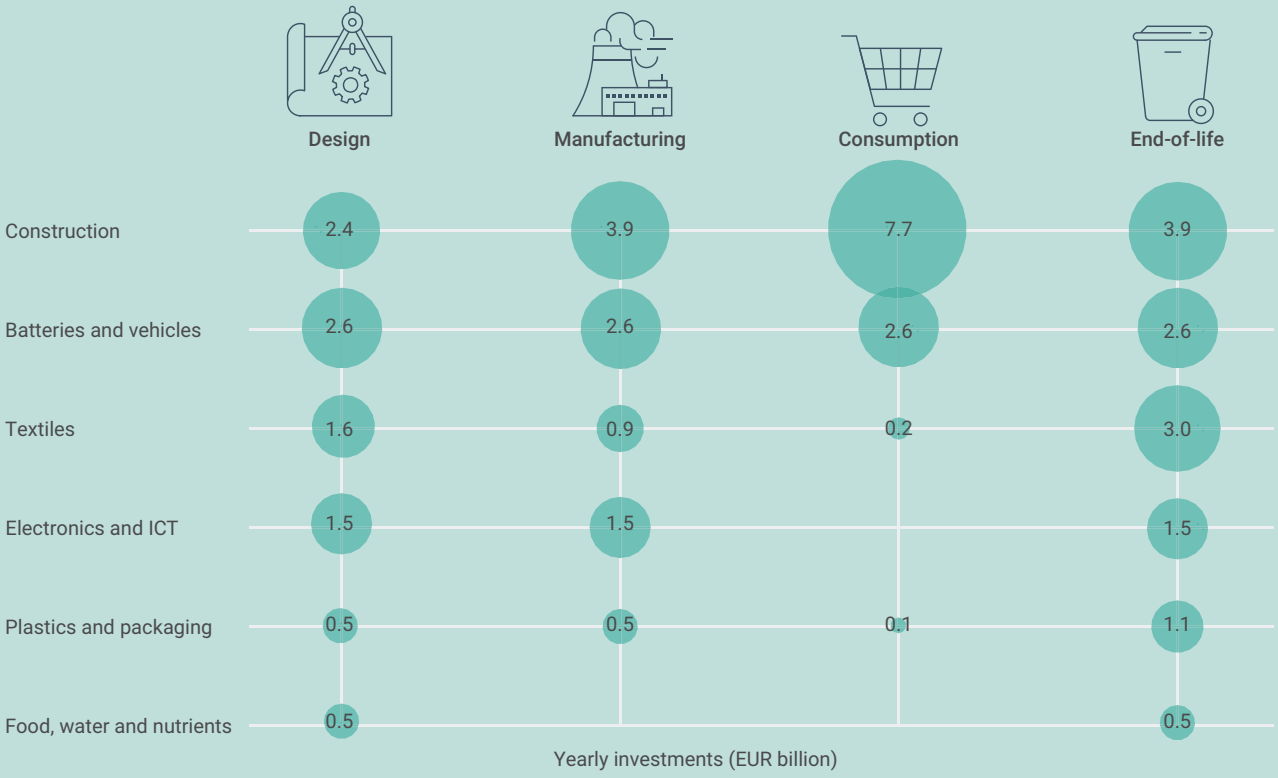
The study also estimates an investment gap of EUR 1,229 billion between 2025 and 2040 for the full implementation of policies and regulations linked to the circular economy that have already been adopted. This equates to a gap of 68% between current levels and the required investment (an additional EUR 82 billion per year). The largest investment gaps are upstream, specifically for circular design, but also for the end-of-life phases (Figure 2.4). Overall, 51% of the gap (EUR 42 billion per year) relates to key value chains according to the 2020 CEAP. Among these, the priority sectors for investment are: construction; textiles; batteries and vehicles (Figure 2.4).

According to the study, actions that could be taken to overcome the main regulatory, market and financial barriers to financing the circular economy are:

- introducing minimum recycled content requirements for specific product groups or materials and mandatory green or circular public procurement criteria;

- supporting circular economy infrastructure financing;
- de-risking circular economy investment;
- increasing intermediate financing to small and medium-sized enterprises (SMEs);
- extending advisory- and capacity-building support;
- advancing green finance criteria;
- monitoring circular investment;
- facilitating access to public funding.

Figure 2.4 Sectoral investment gaps in key sectors per lifecycle stage



Notes: The green circles give totals in billions of euros per year. The total amounts to EUR 42 billion per year.

Source: EIB-EC, 2026.

The methodology of the study refers to the *design* of products and materials for durability, reuse, repairability and recycling from the outset; to *manufacturing* as production processes and technologies that increase the use of recycled inputs, reduce waste and keep materials looping back into production; to *consumption* as business models and services (repair, refurbishment, reuse, sharing) that keep products in circulation for longer; and to *end-of-life* as collection, sorting, recovery infrastructure and technologies that return materials to new value chains.

3 Barriers to meeting the financing needs of the circular economy

Economic and financial barriers remain some of the most critical obstacles to progress towards the circular economy. These barriers are faced by circular businesses — in particular those that are novel or innovative — but also by public institutions at the country, regional and local levels, since they need resources to enable and manage the transition.

The barriers stem from a financial and economic framework that does not create the right signals and incentives, with markets and financial instruments not yet suited to some circular business propositions. Limited data on financing the circular economy and its multiple benefits also challenge the effective and cost-efficient allocation of finance. The barriers are described in the following section and illustrated by examples in the dedicated tables.

3.1 Financial barriers

3.1.1 Inadequacy of financial definitions for the circular economy

Limitations of the definitions and tools used by financial institutions can lead to cases in which even sustainability-focused investors may overlook circular business (see examples in Table 3.1).

An example is the EU Taxonomy for Sustainable Activities, which determines the criteria for determining which economic activities are regarded as environmentally sustainable, and which also includes criteria for determining whether economic activities contribute significantly to the circular economy.

These criteria are the basis for the screening criteria used by the EIB for circular economy financing. They are also used by the European Green Bond Standard (EEA, 2025b). However, the criteria still only partially cover circular activities and make little reference to performance aspects — in particular, those designed to improve resource efficiency and to prevent waste.

Most European ecolabels for financial instruments (see Table 3.1), which allow financial products to be certified as sustainable or green, include references to the circular economy and links to the criteria set out in the EU Taxonomy for Sustainable Activities. However, they are not currently designed in a way that allows investments linked to circular economy strategies to be mapped.

Current disclosure standards, such as those within the Sustainable Finance Disclosure Regulation (SFDR), do not fully allow the benefits of circular businesses to be quantified. Consequently, the benefits cannot be factored into financing decisions.

New approaches, such as reporting related to the circular economy and resource use under the Corporate Sustainability Reporting Directive (CSRD) — are still immature. It is also hard to disaggregate circular businesses in bonds and funds and in banking data.

These gaps in financial definitions, disclosure standards and classification tools are not merely technical shortcomings — they translate into real financing constraints for circular businesses operating on the ground. The case of the project 'Resource-Efficient Circular Product-Service Systems', presented in Box 3.1, illustrates how even economically viable circular business models can be held back when fiscal and regulatory frameworks fail to recognise or reward their value.

Box 3.1

Case study: Resource-Efficient Circular Product-Service Systems (ReCiPSS)

ReCiPSS was an EU-funded Horizon 2020 innovation action running from 2018 to 2022 (with EUR 6.8 million in funding). The project involved 13 partners from eight countries and aimed to demonstrate how product-service systems ([5]) can enable circular manufacturing and also remain economically viable.

What was piloted?

Two large-scale demonstrator projects were undertaken:

- White goods: over 330 connected online washing machines and dryers were deployed under pay-per-use and subscription models in four EU countries; the white goods were designed for durability, refurbishment and multiple lifecycles.
- Automotive parts: a digital 'management-as-a-service' model was implemented for used automotive parts, simplifying reverse logistics and remanufacturing through a single service platform.

Financial constraints from fiscal rules and limited definitions for waste

The project demonstrated that product service-systems can extend product lifetimes, reduce material use and lower lifecycle GHG emissions compared to linear models. Circular business models can be economically viable but depend on efficient reverse logistics, customer retention and access to usage data. However, current regulatory and fiscal frameworks (e.g. value added tax (VAT) rules, definitions of waste) often disadvantage circular activities relative to linear production.

The need for regulatory enablers

ReCiPSS underlines the need for EU policies that:

- remove fiscal and regulatory barriers to circular models;
- clarify definitions of waste versus products;
- incentivise repair and remanufacturing;
- prioritise reuse over recycling to retain product value;
- support climate and resource objectives.

([5]) They provide access to products without the user having ownership, such as leasing, sharing, pay-per-use, and performance-based contracting.

3.1.2 High risk perception and unsuited risk assessment tools that limits access to credit

Risk perception favours short-term, lower-risk (traditional) investments and discourages experimentation and the expansion of projects aligned with circularity principles (see Table 3.1). Investment in some circular ventures is challenging due to high upfront costs, long payback periods, non-linear returns and intangible assets (e.g. in the case of innovation-specific products), as traditional credit assessments remain anchored in solvency metrics and physical collateral.

This particularly affects small and medium-sized enterprises (SMEs) and early-stage ventures that do not have proven track records. There is also a high risk perception due to the immaturity of markets for some circular products, with proposals sometimes based on innovations with a low technology readiness level. Alternative ownership models for some business types, such as sharing economy approaches, can also increase the risk perception.

Additionally, finance teams can be unfamiliar with circular economy models and risk drivers. They also often rely on tools unsuited to integrating circular business models into credit assessment, investment analysis and risk management. For instance, they lack tools to integrate into risk assessment the contribution of circular businesses to decrease resource scarcity and reliance on imports, as well as to mitigate climate change.

3.1.3 Financing needs for operational costs and fragmentation of the market

Currently, the primary focus of public finances is financing capital expenditure (CAPEX); however, circular projects often have high operational costs due to the greater complexity of their inventory, for example managing reverse flows (Naumov et al., 2025). This gives rise to higher transaction costs (Naumov et al., 2025), which can result in funding gaps that hinder the scalability of circular businesses.

The fragmentation of the single market across 27 divergent national regimes (e.g. with varying definitions for 'recyclability', 'repairability' and 'end-of-waste') creates additional complexity for financing instruments, which need to comply with varying regulations and circular economy market standards. This prevents businesses and public entities from making full use of the financing and funding options available.

Table 3.1 Examples of financial barriers to financing the circular economy

Financial barriers	Examples
Inadequacy of financial definitions for the circular economy	The screening criteria for the **EU Taxonomy for Sustainable Activities** — which are used to determine whether economic activities contribute significantly to the circular economy — have a strong focus on waste and service activities. For instance, for manufacturing, the criteria only relate to the plastic packaging sector and electrical and electronic equipment. In addition, the criteria do not cover textiles, one of the key value chains under the circular economy action plan (CEAP). There is also limited reference to the circular economy within the criteria for assessing an activity's contribution to the other environmental domains ([6]). Most **financial ecolabels** that currently exist in the EU include references to the circular economy and link to the criteria of the EU Taxonomy for Sustainable Activities. This applies to FNG Label, LuxFLAG labels such as ESG, Towards Sustainability, Umweltzeichen and Nordic Swan Ecolabel, while SRI Label and Greenfin Label do not provide references to circular economy and the Taxonomy. However, explicit reference to specific circular strategies is somewhat limited. The **disclosure** of sustainable financial products under the Sustainable Finance Disclosure Regulation (SFDR), adopted in 2019, obliges the financial services sector to make sustainability-related disclosures, both at the company level and for financial products. However, the share of investments directed specifically towards the circular economy cannot be identified or quantified from the level of disclosure required and the classification and criteria used are limited in their coverage of circular actions.
High risk perception and unsuited risk assessment tools that limits access to credit	Leasing models in shared mobility services often require upfront investment in durable assets; this can only be recovered gradually over a longer period. Without financial backing tailored to such timelines, these propositions may never reach market maturity. In the repair and refurbishment sector, upfront investment in facilities, skilled labour and logistics must precede returns from resale or service contracts. This means that operations must be sustained for months or years before income stabilises.
Finance needs for operational costs and fragmentation of the market	A secondary material may be classified as 'waste' in one Member State but a 'product' in another. This kind of discrepancy prevents companies from achieving the economies of scale needed for cross-border circular markets.

Source: EEA compilation based on ETC ST and ETC CE, 2026.

3.2 Economic barriers

Some elements of the single market, as it currently functions, fail to promote circular economy businesses. This highlights the need to revise some of the rules and also for further enforcement (Table 3.2).

3.2.1 Market failures holding back circular economy propositions

Unpriced externalities fail to reflect the environmental and social costs of linear production (see examples in Table 3.2). This creates a persistent price gap between linear and circular products and materials. In turn, this decreases how attractive circular business propositions are to investors.

Additionally, there is currently a lack of transparency around circular claims, for instance the secondary material content of products. This means that products that are truly aligned with circular principles are at an economic disadvantage compared to those relying on doubtful claims.

([6]) Climate change and climate adaptation; protection of water and marine resources; pollution prevention; and protection and restoration of biodiversity and ecosystems.

This can also create a lack of trust in circular business propositions among consumers — households, private companies and public institutions — and can challenge the creation of stable demand for secondary materials and circular products and a well-functioning market. The existence of complex value chains, where claims are even more difficult to track, can challenge this further, hampering the creation of a level playing field for EU and non-EU manufacturers and recyclers.

Additional barriers to the expansion of circular products and services exist, including:

- a lack of trust in and acceptance of the reliability or hygiene of repaired and second-hand items;
- a significant shortage of skills in technical areas like repair and refurbishment;
- cultural preferences for product ownership rather than sharing approaches.

3.2.2 Need for investment and dispersed benefits

Many circular businesses require collective investment in targeted infrastructure. The high costs of this infrastructure and the fact that benefits are then dispersed among a number of actors across the supply chain reduce the incentives for investors.

This is particularly the case for investment in research and development (R&D) and upstream developments, but also in infrastructure for recycling, preparation for reuse or repair and refurbishment centres (e.g. for electronics or construction materials). Moreover, the knowledge generated by pioneering circular economy firms often spills over to competitors, reducing first-mover incentives.

3.2.3 Untapped potential of economic incentives

Taxation frameworks (income taxes, VAT, labour taxes and even local and regional taxes) fail to incentivise circular activities such as repair, reuse or remanufacturing; this decreases the likelihood that they will attract finance. Harmful subsidies — for instance those paid out for fossil fuels — can work in the opposite direction, artificially lowering the cost of virgin materials.

Existing economic instruments, such as Extended Producer Responsibility (EPR) schemes (which apply to packaging, batteries, electronics and textiles), do not currently incentivise upstream circular strategies such as eco-design and resource efficiency (Lifset et al., 2023). Additionally, circular criteria (e.g. durability, repairability or take-back) are not fully integrated into Green Public Procurement (GPP), especially for sectors such as plastics, vehicles and textiles.

Table 3.2 Examples of economic barriers to financing the circular economy

Economic barriers	Examples
Market failures holding back circular economy propositions	**Unpriced externalities** (i.e. negative environmental and social impacts that are not reflected in the price of a product) have been increasing for the textile sector (for example, the impacts of textile production, low rates of separate collection, waste exports to destinations with low environmental and social standards (EEA, 2025c)). Fast fashion models further aggravate these trends. This points to the limitations of the current pricing mechanisms to incentivise textile production aligned with circular goals. In recent years, the market has experienced a boom in products that include **claims** around recycled content, especially plastic packaging such as polyethylene terephthalate (PET) bottles. Since the availability of high-quality recycled plastic within the EU is limited, there has been an ongoing increase in importing recycled plastic (Eurostat, 2025b). However, these imports are often virgin plastics that wrongly claim to be recycled (EC, 2025d). This means that EU plastic recyclers are at a disadvantage in the market and this is reflected by the crisis they are currently facing. To reach **economies of scale**, circular business models based on sharing, such as car-sharing or second-hand platforms, need large networks and must reach a critical mass of users in order to expand and achieve stability in demand for the service. However, it takes time to build such networks, especially when trust and behavioural change are needed (ETC ST and ETC CE, 2026). It can also be difficult to displace dominant platforms.
Need for collective investment and dispersed benefits	Without adequate **facilities** to refurbish electronic devices, the potential to extend product lifecycles and reduce waste is significantly constrained; this results in unfulfilled circularity goals. It is also difficult to capture value in post-consumer recycling of textiles and this highlights the need for investment in eco-design, technological developments and improved waste management. **Circular infrastructure**, such as recycling, displays characteristics of public goods. These developments require collective investment but generate **dispersed benefits**, diluting private incentives to invest. Moreover, it generates a split incentive problem — a misalignment between value-chain actors who incur the costs of circular investment and those who benefit from them in the long term (ETC ST and ETC CE, 2026).
Untapped potential of economic incentives	The **VAT** system as it is applied today can unintentionally discourage the market for second hand products. This is partly due to the fact that VAT is applied twice to the same product, meaning that it is relatively more expensive to buy a second-hand product than a new one. This is well illustrated by the fact that activity levels in the repair sector have been declining since 2017, being the high cost of undertaking repair one of the barriers to the expansion of the sector (EEA, 2025d). Although the EU's 2022 VAT Directive allows Member States to apply reduced rates to repair services and 'green' products, this is very limited in scope; it does not extend to second hand consumer goods and refers mostly to energy-related green products. **EPR** schemes are intended to cover the cost of waste management and to improve recycling, recovery and eco-design as set out in the EU Waste Framework Directive. However, the system has created rather limited incentives to promote the circular design of plastic packaging and to deliver recyclable products — as shown by the steady increase in plastic packaging waste in the EU and the fact that the recycling rate for plastic packaging has plateaued at around 40%, as data from Eurostat show. Eco-modulation of EPR schemes — i.e. fees adapted according to environmental criteria with the aim of promoting eco-design — needs to be further developed. Additionally, it is necessary to tackle the challenges currently linked to it (Lifset et al., 2023). While cities and regions increasingly integrate circular criteria into **GPP**, this tool has not yet been fully exploited, especially for sectors such as textiles, plastics and vehicles (EEA, 2025e). Additionally, less than half the bodies that have adopted GPP follow a lifecycle approach or have systems to quantify the actual benefits of circular procurement.

Source: EEA compilation based on ETC ST and ETC CE, 2026.

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4 Accelerating the circular economy: economic and financial levers for enabling change

4.1 Economic and financial enablers along the value chain

Enablers are required to match investment levels to the accelerating needs of the circular economy across all circular strategies — from extraction, to design, production, use and end-of-life — and across all value chains.

Economic enablers can help overcome some of the systemic barriers by internalising environmental externalities and reducing cost disadvantages faced by circular business models (Table 4.1). At the upstream stage (design and production), better modulation of EPR fees and differentiated taxation can incentivise durable design, reuse of products and recycling of materials. Tax credits, like those proposed under the Net Zero Industry Act, can improve the investment case for clean technologies.

Economic instruments can be deployed to create more stable demand for circular products and materials. For instance, repair vouchers or repair funds can help in the implementation of the Right to Repair Directive; meanwhile, reduced VAT on repair services alongside subsidies can make repairable and durable products more affordable for consumers.

As green public procurement (GPP) represents approximately 14% of EU GDP (EC, 2025c), introducing circularity criteria (e.g. relating to resource use, durability and repairability) that prioritise circular strategies with the highest benefits could also make a meaningful contribution to more stable demand. Enforcement mechanisms will be essential for verifying market claims.

At the end-of-life (downstream) phase, implementing the Waste Framework Directive and Landfill Directive encourages Member States to use landfill and incineration taxes to deter disposal. Meanwhile, the Packaging and Packaging Waste Regulation mandates Deposit Return Systems (DRSs) for single-use plastic bottles and cans to increase the capture of high-quality materials. This kind of approach could be applied to other products, for instance by introducing systems of reuse and refill for other types of packaging.

A well-functioning single market for secondary raw materials, as intended by the upcoming Circular Economy Act, would reduce the paucity of high-quality secondary materials available to EU circular businesses. Waste export fees could potentially be applied to finance domestic recycling capacity and achieve the recycling targets both for waste, as set out in the regulatory framework for waste, and for critical raw materials, as set out in the Critical Raw Materials Act.

Table 4.1 **Examples of enablers to overcome the economic barriers to investment in the circular economy across the product lifecycle**

Upstream (Design and production)	Midstream (Use and lifetime extension)	Downstream (Collection, recovery and recycling)
- EPR fees to reward durable design. - Differentiated taxation penalising virgin material use while incentivising reused and recycled inputs. - Tax credits and shorter depreciation for clean-tech assets.	- Repair vouchers and repair funds to lower service costs. - Reduced VAT rates on repair services. - Circularity premiums (consumer subsidies) for durable goods. - Circular considerations within GPP.	- Well-functioning EU market for secondary materials. - Landfill and incineration taxes to deter disposal and promote recycling. DRSs providing rebates for returns. - Recycling rewards and export fees on waste to fund local capacity.

Sources: EEA compilation based on ETC ST and ETC CE, 2026; EIB-EC, 2026.

Financing enablers are necessary to overcome key barriers to circular investment (Table 4.2). Upstream, blended finance, such as InvestEU, uses public capital to de-risk early-stage research, innovation and sustainable production. Blended finance strategically combines public or development finance with private capital, often through grants, guarantees or subordinated finance; this improves project bankability and lowers the cost of capital.

Subordinated finance refers to capital that absorbs losses first and is repaid after senior lenders, thereby reducing the risks for commercial investors and helping to crowd in private finance. This approach is particularly important for early-stage circular business models with high upfront costs and long payback periods.

Venture capital, such as from the European Investment Fund, can provide complementary risk-tolerant equity for disruptive circular propositions. Finance tools for leveraging private finance — especially from sustainability-focused investors, such as sustainability disclosures, the EU Taxonomy and financial ecolabels — could embrace further circular business models. For example, they could support the design and manufacturing realm and relate more explicitly to strategies for reducing resource use and preventing waste.

The European Investment Bank (EIB) provides a leading example of this approach in practice. It combines investment screening aligned with the EU Taxonomy and targeted de-risking instruments to mobilise private capital for circular projects (Box 4.1).

Box 4.1

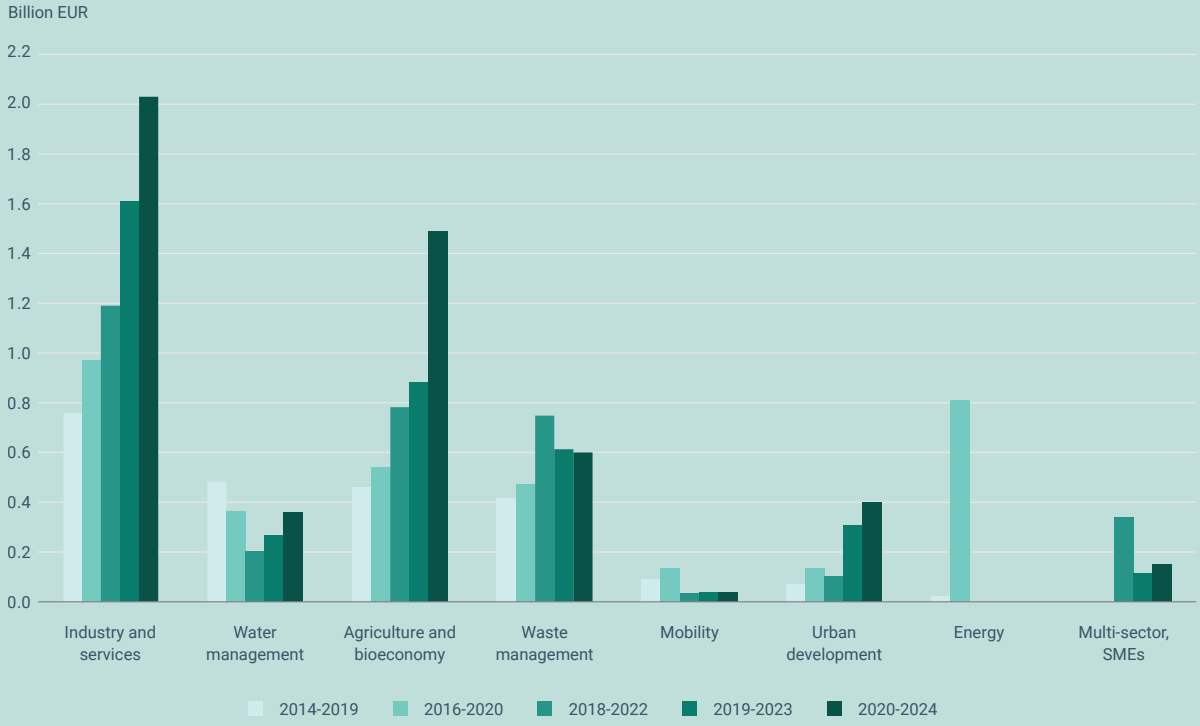
From policy to practice: how the EIB supports circular transformation in Europe

The EIB plays a strategic role in advancing the circular economy across Europe by aligning investment with EU policy objectives. Between 2020 and 2024, the EIB increased its investments in 153 circular economy projects to EUR 5.1 billion (Figure 4.1), using screening criteria based on the EU Taxonomy.

Its focus spans both upstream activities — such as circular product design, resource-efficient manufacturing and secondary material value chains — and downstream initiatives including recycling infrastructure, waste prevention and circular construction.

Although EIB investments are a small share of the current level of investment and many EIB-funded projects remain waste-related, its financial and advisory instruments help de-risk investment that private actors often avoid due to market uncertainties or long payback periods. By making early-stage or high-risk projects bankable, the EIB catalyses private capital and enables systemic transformation in the value chain.

Figure 4.1 EIB circular economy financing



Notes: CE: circular economy; SMEs: small and medium-sized enterprises.

Agriculture and bioeconomy until EIB, 2023, from then on, the EIB refers to agri-forestry and bioeconomy. Energy is not considered as circular economy finance since 2022.

Sources: EEA compilation based on EIB, 2020, 2021, 2023, 2024 and 2025.

In the use phase, product-as-a-service models are recognised as eligible activities by the EU Taxonomy. Special purpose vehicles ([7]) can help manage lending constraints, supported by insurance products that reduce operational risks and protect against uncertainty in the sharing economy or in second-hand markets.

([7]) Special purpose vehicles (SPVs) are legal entities for which the assets and liabilities are separated from the parent company.

Downstream investment could be enabled through:

- project finance for capital-intensive recycling infrastructure to enable high-quality recycling;
- results-based loans tied to verified waste reduction;
- green municipal bonds that channel place-based funding into local recovery systems.

The circular economy offers high potential for industrial decarbonisation (EEA, 2026b) and could therefore also be supported by mechanisms such as the industrial decarbonisation bank, announced under the Clean Industrial Deal, which aims to mobilise EUR 100 billion in funding. This reinforces policy frameworks such as the Industrial Accelerator Act that promote circularity by creating lead markets for low-carbon, recycled materials and strengthening domestic supply chain resilience.

Table 4.2 Examples of enablers to overcome the financial barriers to investment in the circular economy across the product lifecycle

Upstream (Design and production)	Midstream (Use and lifetime extension)	Downstream (Recovery and recycling)
- Blended finance (grants and equity) for early-stage R&D.	- Product-as-a-service and subscription financing.	- Project finance for large-scale recycling infrastructure.
- Venture capital for innovative circular design.	- Special Purpose Vehicles to manage leased asset ownership.	- Results-based loans linked to verified waste reduction.
- Public guarantees to de-risk sustainable production.	- Tailored insurance for shared or rented products.	- Green municipal bonds for local recovery projects.

Sources: EEA compilation based on ETC ST and ETC CE, 2026; EIB-EC, 2026.

4.2 Cross-cutting enablers

A sound **regulatory framework** with strong mechanisms to support implementation is needed to overcome the economic and financial barriers to the circular economy. This includes ambitious, stable and clear regulatory goals, including upstream strategies such as circular eco-design.

Steps are being taken to introduce this kind of mechanism at the EU level in the form of the Ecodesign for Sustainable Products Regulation (ESPR) and the upcoming Circular Economy Act, expected this year. The latter aims to create a well-functioning Single Market for secondary raw materials, boost the supply of and demand for high quality recycled materials and improve the collection, recovery and recycling of electronic waste and critical materials.

The existence of **dedicated financing instruments** would help to de-risk investment and finance. One example is the Right to Repair Directive, which refers to possible sources of financing such as 'repair vouchers, repair funds, supporting or creating local or regional online platforms for repair, organising or financing training programs to acquire special skills in repair, taxation measures'. Other policies, such as the Critical Raw Materials Act, go beyond this by including explicit references to instruments for leveraging private finance and offering dedicated funding and co-financing for projects.

Finance tools used for leveraging private finance — such as sustainability disclosures, the EU Taxonomy and financial ecolabels — could also overcome their current limitations by expanding the coverage of circular business models, for example in the design and manufacturing realm. The Corporate Sustainability Reporting Directive (CSRD), which includes technical standards on resource use and circular economy, and which is currently under review, could reduce information asymmetry for investors by standardising the financial statements that companies are required to produce so that they are relevant and comparable.

Upskilling in the area of circular strategies — both for corporations and financial actors — would enable finance to be allocated more effectively and its benefits to be monitored more successfully. This would have a particularly positive impact on financing for upstream activities such as circular design as well as the sharing economy and repair activities.

Metrics that enhance capacity to monitor financing for the circular economy and its impact will be a critical support tool to ensure the cost-effective allocation of financial resources. The EEA has just expanded the Circularity Metrics Lab with new indicators on the financing of the circular economy.

Conclusions

Closing the circular economy financing gap requires more than incremental investment — it demands a systemic shift in the economic and financial conditions that currently favour linear models. The barriers identified in this report — from unpriced externalities and split incentives to incomplete financial definitions and limited circular literacy — are structural in nature and will not be resolved by market forces alone.

Economic and financial enablers, deployed across the full product lifecycle, are therefore essential levers for change. Targeted instruments such as modulated EPR fees, reduced VAT on repair services, blended finance facilities and results-based lending can reshape investment incentives and improve the bankability of circular business models.

Cross-cutting enablers — including a stable regulatory framework, expanded EU Taxonomy coverage, robust sustainability disclosures and improved monitoring of circular finance flows — provide the systemic conditions needed to scale up the mobilisation of private capital.

Public finance, used strategically to de-risk early-stage and innovative circular propositions, can unlock the significant economic returns that the transition promises: stronger industrial competitiveness, reduced resource dependency and up to 700,000 new jobs.

The cost of inaction — estimated at EUR 84.5 billion in foregone annual benefits — far exceeds the investment required. With the right enablers in place, the circular economy represents one of Europe's most compelling and tangible economic opportunities.

List of abbreviations

CEAP	circular economy action plan
CEMF	circular economy monitoring framework
CSRD	Corporate Sustainability Reporting Directive
DRS	deposit return scheme
EC	European Commission
EEA	European Environment Agency
EIB	European Investment Bank
EIB-EC	European Investment Bank and European Commission
EIR	European Implementation Review
EPR	extended producer responsibility
ESPR	Ecodesign for Sustainable Products Regulation
ETC	European Topic Centre
EU	European Union
GDP	gross domestic product
GPP	green public procurement
ICT	information and communication technology
NACE	Nomenclature of Economic Activities
PSF	Platform on Sustainable Finance
R&D	research and development
ReCiPSS	Resource-efficient Circular Product-Service Systems
SFDR	Sustainable Finance Disclosure Regulation
SME	small and medium-sized enterprise
SPV	special purpose vehicle
VAT	value added tax

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European Environment Agency

Unlocking the circular economy: investment needs, barriers and enabling conditions
2026 — 32 pp. — 21 x 29.7 cm

ISBN: 978-92-9480-767-0
doi: 10.2800/5422329

EEA report 02/2026

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Publications Office
of the European Union

TH-01-26-015-EN-N
doi:10.2800/5422329